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The Importance of Ideology varies across Sociocultural Contexts

DISSERTATION

submitted in partial satisfaction of the requirements
for the degree of

DOCTOR OF PHILOSOPHY

in Psychology and Social Behavior

by

Eric Evan Chen

Dissertation Committee:
Professor Peter H. Ditto, Chair
Professor Chuansheng Chen
Associate Professor Michael Tesler

2017

DEDICATION

To everyone who helped me see the best in humanity and in myself

TABLE OF CONTENTS

LIST OF FIGURES	v
LIST OF TABLES	vii
ACKNOWLEDGEMENTS	xi
CURRICULUM VITAE	xii
ABSTRACT OF THE DISSERTATION	xiii
Ideology in Context	1
Defining Ideology	1
Ideology's Core	3
Ideology as an "Organizing Structure"	4
The Substrates of Ideology	5
The Contexts of Ideology	9
Variation across Sociocultural Contexts	10
Methodological Approach	12
Study 1: Does the structure of ideology differ across sociocultural contexts?	15
Study 1 Method	15
Study 1 Results	19
Study 1 Discussion	90
Study 2: Collective Associations with Ideology	95
Study 2 Method	98
Study 2 Results	99
Study 2 Discussion	103
Study 3: Are group differences consistent in other years?	106
Study 3 Method	106
Study 3 Results	108
Study 3 Discussion	136
Study 4: Does the same pattern of variability in ideology hold with a larger sample size?	138
Study 4 Method	138
Study 4 Results	139
Study 4 Discussion	197
Study 5: How else might political attitudes be prioritized?	199
Study 5 Method	199

Study 5 Results	206
Study 5 Discussion	230
General Discussion	234
Exploratory Does Not Mean Tentative	236
Methodological Considerations	237
Ideology as a Cultural Phenomenon	238
Skepticism of Generalizability Should be the Default Position	239
Culture and the “Foundations” of Ideology	240
Is Ideology Meaningless in Non-Ideological Cultures?	242
A Contextual Political Psychology	243
The Need to Be Recognized	245
Comparative Political Psychology	246
Ideology and Identity	248
Intersectionality	249
Researchers’ Viewpoints	251
Broadening the Scope	252
The Malleability of Political Psychological Structures	253
Conclusion	254
References	255
Appendix A. Study 1 Variables	262
Appendix B. Study 2 & 5 Variables	274
Appendix C. Study 3 Variables	277
Appendix D. Study 4 Variables	282

LIST OF FIGURES

Figure 1. Interactions between Age and Ideology: Behavioral and personal attributes measures.	31
Figure 2. Interactions between Age and Ideology: Attitude measures.	31
Figure 3. Interactions between Church attendance and Ideology: Behavior and personal attributes measures.	33
Figure 4. Interactions between Church attendance and Ideology: Attitude measures.	34
Figure 5. Interactions between Income and Ideology: Behavior and personal attributes measures.	37
Figure 6. Interactions between Income and Ideology: Attitude measures.	38
Figure 7. Interactions between Education and Ideology: Behavior and personal attributes measures.	44
Figure 8. Interactions between Education and Ideology: Attitude measures.	45
Figure 9. Interaction between Gender and Ideology.	59
Figure 10. Interactions between Race and Ideology: Behavior and personal attributes measures.	60
Figure 11. Interactions between Race and Ideology: Attitude measures.	61
Figure 12. Decision tree predicting car seat sales.	96
Figure 13. Interactions between race and ideology.	112
Figure 14. Interactions between education and ideology.	119
Figure 15. Interactions between Race and Ideology.	125
Figure 16. Interaction between Age and Ideology for attitudes about preferential hiring for women.	130
Figure 17. Interactions between Church attendance and Ideology.	131
Figure 18. Interaction between Income and Ideology for Political party affiliation.	132
Figure 19. Interactions between Education and Ideology.	133
Figure 20. Interactions between Race and Ideology: Behavior and personal attributes measures.	147
Figure 21. Interactions between Race and Ideology: Attitude measures.	147

Figure 22. Interactions between Age and Ideology: Behavior and personal attributes measures.	168
Figure 23. Interactions between Age and Ideology: Attitude measures.	169
Figure 24. Interactions between Church attendance and Ideology: Behavior and personal attributes measures.	171
Figure 25. Interactions between Church attendance and Ideology: Attitude measures.	172
Figure 26. Interactions between Education and Ideology: Behavior and personal attributes measures.	174
Figure 27. Interactions between Education and Ideology: Attitude measures.	175
Figure 28. Interactions between Gender and Ideology: Behavior and personal attributes measures.	188
Figure 29. Interactions between Gender and Ideology: Attitude measures.	189
Figure 30. Interactions between Income and Ideology: Behavior and personal attributes measures.	192
Figure 31. Interactions between Income and Ideology: Attitude measures.	193
Figure 32. SVM classification of iris flowers.	201
Figure 33. Decision tree predicting 2008 presidential voting.	203
Figure 34. Baseline decision tree for classifying participants by race.	208
Figure 35. Baseline decision tree for age.	212
Figure 36. Baseline decision tree for church attendance.	216
Figure 37. Baseline decision tree for classifying participants by college education.	219
Figure 38. Baseline decision tree for classifying participants by gender.	223
Figure 39. Baseline decision tree for income.	227

LIST OF TABLES

Table 1. Significant associations ordered by adjusted p-value, for all participants.	20
Table 2. Significant Age × Ideology interactions.	32
Table 3. Significant Church attendance × Ideology interactions.	35
Table 4. Significant Income × Ideology interactions.	39
Table 5. Descriptive statistics for each subgroup.	43
Table 6. Significant Education × Ideology interactions.	47
Table 7. Comparison of separate analyses for each significant interaction for No college vs. College participants.	52
Table 8. Significant Race × Ideology interactions.	64
Table 9. Comparison of separate analyses for each significant interaction for White vs. Black participants.	69
Table 10. Significant linear regressions ordered by absolute value of ideology standardized coefficient. White participants: behavior and personal attributes measures.	79
Table 11. Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: behavior and personal attributes measures.	81
Table 12. Significant linear regressions ordered by absolute value of ideology standardized coefficient. White participants: attitude measures.	83
Table 13. Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: attitude measures.	88
Table 14. White participants with at least some college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.	100
Table 15. White participants with no college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.	101
Table 16. Black participants with at least some college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.	101
Table 17. Black participants with no college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.	102
Table 18. Year 2000: Significant associations ordered by adjusted p-value for all participants.	108
Table 19. Year 2000: Significant Race × Ideology interactions.	113

Table 20. Year 2000: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: behavior and personal attributes measures.	114
Table 21. Year 2000: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: behavior and personal attributes measures.	114
Table 22. Year 2000: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: attitude measures.	115
Table 23. Year 2000: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: attitude measures.	117
Table 24. Year 2000: Significant Education \times Ideology interactions.	119
Table 25. Year 2000: Comparison of separate analyses for each significant interaction for Non-college-educated vs. College-educated participants.	120
Table 26. Year 2014: Significant associations ordered by adjusted p-value for all participants.	121
Table 27. Year 2014: Significant Race \times Ideology interactions.	125
Table 28. Year 2014: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: behavior and personal attributes measures.	126
Table 29. Year 2014: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: behavior and personal attributes measures.	126
Table 30. Year 2014: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: attitude measures.	127
Table 31. Year 2014: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: attitude measures.	129
Table 32. Year 2014: Significant Age \times Ideology interactions.	131
Table 33. Year 2014: Significant Church attendance \times Ideology interactions.	132
Table 34. Year 2014: Significant Income \times Ideology interactions.	132
Table 35. Year 2014: Significant Education \times Ideology interactions.	134
Table 36. Year 2014: Comparison of separate analyses for each significant interaction for Non-college-educated vs. College-educated participants.	135
Table 37. Significant associations ordered by adjusted p-value for all participants.	139
Table 38. Significant Race \times Ideology interactions.	150
Table 39. Comparison of separate analyses for each significant interaction for White vs. Black participants.	154

Table 40. Significant associations ordered by adjusted p-value for Black participants.	159
Table 41. Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: behavior and personal attributes measures.	160
Table 42. Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: behavior and personal attributes measures.	161
Table 43. Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: Attitude measures.	162
Table 44. Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: behavior and personal attributes measures.	165
Table 45. Significant Age \times Ideology interactions.	169
Table 46. Significant Church attendance \times Ideology interactions.	172
Table 47. Significant Education \times Ideology interactions.	178
Table 48. Comparison of separate analyses for each significant interaction for Non-college-educated vs. College-educated participants.	182
Table 49. Significant Gender \times Ideology interactions.	189
Table 50. Comparison of separate analyses for each significant interaction for Female vs. Male participants.	190
Table 51. Significant Income \times Ideology interactions.	195
Table 52. Race random forest classification. Variable importance ranked by percent decrease in classification accuracy of race when the variable is removed. Top 20 variables shown.	209
Table 53. Race SVM polynomial kernel classification. Variable importance ranked by relative importance on a 100 point scale. Top 20 variables shown.	210
Table 54. Race lasso regression. Variables ranked by relative importance.	211
Table 55. Age random forest regression. Variable importance ranked by percent increase in MSE when the variable is removed. Top 20 variables shown.	213
Table 56. Age lasso regression. Variables ranked by relative importance.	214
Table 57. Church attendance random forest regression. Variable importance ranked by percent increase in MSE when the variable is removed. Top 20 variables shown.	217
Table 58. Church attendance lasso regression. Variables ranked by relative importance.	218

Table 59. Education random forest classification. Variable importance ranked by percent decrease in classification accuracy of education when the variable is removed. Top 20 variables shown.	220
Table 60. Education SVM polynomial kernel classification. Variable importance ranked by relative importance on a 100 point scale. Top 20 variables shown.	221
Table 61. Education lasso regression. Variables ranked by relative importance.	222
Table 62. Gender random forest classification. Variable importance ranked by percent decrease in classification accuracy of gender when the variable is removed. Top 20 variables shown.	224
Table 63. Gender SVM radial kernel classification. Variable importance ranked by relative importance on a 100 point scale. Top 20 variables shown.	225
Table 64. Gender lasso regression. Variables ranked by relative importance.	226
Table 65. Income random forest regression. Variable importance ranked by percent increase in MSE when the variable is removed. Top 20 variables shown.	228
Table 66. Income lasso regression. Variables ranked by relative importance.	229

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CURRICULUM VITAE

Eric Evan Chen

- 1999 A.B. in Computer Science, Harvard College
- 1999-2000 Software Engineer, Fore Systems
- 2000-03 Senior Software Engineer, Atoga Systems
- 2003-08 Producer, Director, Lead Writer, DLR Productions
- 2011 M.A. in Psychology, University of
California, Riverside
- 2017 Ph.D. in Psychology and Social Behavior,
University of California, Irvine

FIELD OF STUDY

Social Psychology

PUBLICATIONS

- Chen, E. E. & Wojcik, S. P. (2016). A practical guide to big data research in psychology. *Psychological Methods* 21, 458-474.
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ABSTRACT OF THE DISSERTATION

The Importance of Ideology varies across Sociocultural Contexts

By

Eric Evan Chen

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Professor Peter H. Ditto, Chair

Although ideology is widely studied, less is known about how it varies across sociocultural contexts. Ideology is an organizing structure for political attitudes in that positions on a core set of political attitudes have been found to be aligned along a liberal-conservative ideological dimension. Some personality-based approaches to political psychology suggest that, because ideology arises from low-level psychological features, the political attitudinal structure of ideology is likely to be consistent across sociocultural contexts. However, the cultural psychology perspective suggests that both low-level psychological features and their higher-level political attitudinal manifestations may differ across cultures. The five studies in this dissertation examined this tension using eight datasets from the General Social Survey, applying linear and logistic regression and lasso regression, and the machine learning techniques of random forest classification and regression and support vector machine classification. Across these studies, the importance of ideology as an organizing structure varied across sociocultural contexts, especially across race, education, and income lines. The associations between ideological self-placement and measures of political attitudes were weaker for those with lower incomes and with no college education, and the associations were almost entirely absent for Black Americans. In

addition, this dissertation examined other ways that political concerns are prioritized, beyond ideology.

The Importance of Ideology varies across Sociocultural Contexts

Although political ideology is one of the most widely studied topics in political psychology, its full contours are still unclear. In particular, less is known about how it might vary across different sociocultural contexts.

At the base of both the popular idea of an American “culture war” (Hunter, 1991) between liberals and conservatives as well as psychological research on political ideology is the view that liberals and conservatives are different in fundamental ways. Psychological research has identified a number of low-level psychological features that co-vary with ideology (e.g., Graham et al., 2012; Hibbing, Smith, and Alford, 2014; Jost, Federico, & Napier, 2009). On this bottom-up view, the relationship between ideology and the political attitudes that form its core should be consistent across human sociocultural contexts.

But variability across sociocultural contexts is the norm for many fundamental aspects of human psychology (Heine 2010; Henrich, Heine, & Norenzayan, 2010b; Markus, Kitayama, Heiman, 1996). Psychological features that seem universal in fact vary across cultures. To date, the investigation of political psychology in the field of psychology has primarily taken a personality-based approach that has focused on identifying patterns that are taken to be universal. However, very little research has specifically addressed this claim of universality.

This dissertation addresses this claim. Because of the dearth of prior research, this dissertation takes no position on whether and/or how ideology might vary across sociocultural contexts. It only makes the assumption that ideology is associated with important aspects of human life—political attitudes in particular—and examines potential variation across contexts.

Defining Ideology

There is widespread interest in political ideology as a central psychological aspect of human life (Jost, 2006). Ideology concerns fundamental beliefs about how society should be properly ordered (Erikson & Tedin, 2007). However, it is important to note that these beliefs often lack coherence (Converse, 1964). Nevertheless, our general political orientations have been shown to be linked to a variety of fundamental needs and motivations (e.g., Jost et al., 2009) and broader cultural systems.

Political ideology has been examined in many different ways (Knight, 1999). However, over the years, much of the research has converged on a single, spatial measure of ideology in which liberalism and conservatism are conceptualized as lying on opposite ends of a single, bipolar continuum (Knight, 2006; Jost, 2006). This measure often takes the form of a self-report measure asking participants to place themselves on a scale ranging from very liberal to very conservative.

It also bears noting that there can be significant heterogeneity within ideologies, and they can often be decomposed into further dimensions (Feldman, 2013). In particular, views on social and economic issues can often be separated from each other. Nevertheless, for Americans especially, social and economic views are correlated with each other (Jost et al., 2009), and the single dimension of liberal-conservative captures critical information.

Another crucial aspect of ideology is that it is commonly defined to be, at its core, a collection of attitude positions. By this definition, an individual's ideology is his or her position on a set of political attitudes. Thus, studies following this approach define ideological differences to be differences in attitude positions on such issues as welfare policy, abortion, and the death penalty (Knight, 1999). Certain attitude positions are considered liberal, and the opposite attitude positions are considered conservative.

Ideology's Core

A crucial difference between the unidimensional view of ideology and the attitude collection view of ideology is that the unidimensional view generally implies that there is a separate construct known as “ideology.” Such a construct can take a noun form and an adjective form. In its noun form, ideology can refer to things such as groups of people (“liberals” and “conservatives”). In its adjective form, ideology refers to a description of an individual: Person A is more conservative than Person B, for example. This form often posits ideology to be a personality factor of some kind (Knight, 1999). These two forms are deeply intertwined, and the differing implications are often glossed over, with theories often picking one form and ignoring the implications of the other. Nevertheless, overall, this view generally implies that ideology exists as a distinct, measureable construct.

In contrast, the attitude collection view does not necessarily imply that there is such a separate construct. At its most basic, it merely posits that some people hold one set of attitudes and other people hold a different set of attitudes.

Linking the two views, a critical, common definitional assumption of the unidimensional view is that differences as measured in the construct of ideology map onto particular attitude differences (Conover & Feldman, 1981; Levitin & Miller, 1979). That is to say, liberals hold particular attitudes; and, similarly, the more liberal someone is, the more strongly he or she holds to particular attitudes.

However, evidence suggests that this mapping may not be robust enough to support this assumption. For example, Converse (1964) argued that only elites actually demonstrate coherence across the set of attitudes typically associated with ideology. Along the same lines, another line of research suggests that ideological labels also serve as symbols (e.g., Conover &

Feldman, 1981; Ellis & Stimson, 2009; Levitin & Miller, 1979). The label may be relatively devoid of informational meaning (e.g., what particular attitude positions are associated with “liberal” or “conservative”), but may instead be associated with strong positive or negative emotions. Nevertheless, the unidimensional view with the core definition of ideology as a set of attitudes has come to dominate recent research (Knight, 2006).

This dissertation examines whether this core definition holds across sociocultural contexts. The central issue is whether and/or how there is sociocultural variation in the association between an individual’s placement on the liberal-conservative dimension and his or her political attitude positions.

Ideology as an “Organizing Structure”

Another way to talk about this core definition is to think about the association between ideology as a concept and its attendant collection of political attitudes is to view ideology as an “organizing structure” for those political attitudes. A particular dimensional concept can be thought of as an organizing structure when several other concepts (e.g., attitudes) align along that dimension. So, ideology can be thought of as an organizing structure because many attitudes are aligned along the liberal-conservative ideological dimension.

Note that “organizing structure” is a term that I use for clarity because it conveys, linguistically, the nature of the relation between the concept “ideology” and certain political attitudes. Importantly, because ideology is conceptualized in different ways across different theories, referring to it as an “organizing structure” is not meant to imply that it is a separate psychological construct, much less one that exerts a causal force on attitudes. Indeed, one could even say that it is the researchers of politics that use the concept of ideology to organize particular positions on certain attitudes.

As noted above, one conception of ideology defines it as particular positions on certain attitudes, and does not require that ideology exist as a separate entity (e.g., a distinct personality factor). For example, on this conception, abortion attitudes are aligned along the liberal-conservative dimension: People who are more conservative tend to oppose abortion. People who are more liberal tend to support abortion. In addition, attitudes about same-sex marriage and adoption by same-sex couples are also aligned along a liberal-conservative dimension. People who are more conservative tend to oppose same-sex marriage and adoption by same-sex couples. People who are more liberal tend to support same-sex marriage and adoption by same-sex couples. Thus, ideology is an organizing structure for abortion attitudes and same-sex family attitudes (as well as the other attitudes that are aligned along that dimension). The term “organizing structure” is useful because it refers, conceptually, to the way that different theories connect ideology with political attitudes, while staying neutral about ideology’s status as a separate entity.

The Substrates of Ideology

A long tradition of analysis, going back almost two centuries, has held that the nature of political attitudes arises from core beliefs and values (Feldman, 1988). Consistent with this tradition, personality-oriented research in psychology has characterized political ideology as one among many psychological constructs that emerge from deep-seated, foundational needs, motives, and orientations. This general view considers these lower-level features to be largely universal, and, thus, this view suggests that the ideological structuring of political attitudes should be relatively stable across time and place.

Research has connected political ideology with a host of general psychological tendencies (Graham et al., 2012; Inbar, Pizarro, Iyer, & Haidt, 2012; Jost, 2006). According to

this view, ideology is a broadly encompassing way of understanding and acting in the world and is driven by powerful psychological motivations. For example, greater disgust sensitivity has been associated with greater conservatism (Inbar et al., 2012), and a predisposition to feeling disgust has been associated with unfavorable attitudes about abortion and gay marriage. There are three major theories of political ideology in the field of psychology. Importantly, these three theories complement each other.

First, Jost and colleagues (2009) argue that ideologies arise from deep-seated relational, epistemic, and existential motives. Some of these motives include self-reliance, inhibition, the need to evaluate attitude objects, certainty, clarity, openness to experience, and need for closure. These coalesce into the core differences of: openness versus resistance to change and acceptance versus rejection of inequality.

These two core differences combine into a single liberal-conservative ideological spectrum. Then, based on this liberal-conservative ideological orientation, the different patterns of political attitudes associated with liberals and conservatives emerge.

The lower level psychological constructs and higher level political attitudes are thought to have patterns of affinity toward each other (Jost, 2017; Jost et al., 2009). For people with particular patterns of needs and motives, certain ideologies resonate more. However, it is not entirely clear what those patterns and affinities are. Jost (2017), citing Russell (1950, p. 15), maintains that ““The essence of the liberal outlook lies not in *what* opinions are held, but in *how* they are held: instead of being held dogmatically, they are held tentatively, and with a consciousness that new evidence may at any moment lead to their abandonment”” (p. 169). Thus, there is some ambiguity about how, for example, a person’s need for closure is associated with his or her specific attitude position on abortion.

Crucially, this theory's definition of political ideology is fundamentally different from other widely-used definitions because it considers political attitudes to be "peripheral" to ideology (Jost, 2006). It belongs to the tradition of research seeking to uncover some unifying trait or set of traits that underlies ideology (Knight, 1999). Jost's theory defines ideology to be differences in attitudes toward change and toward inequality. It specifically places attitudes at the periphery because they "vary in their ideological relevance across time and place" (Jost, 2006, p. 654). In light of other widely-used definitions of ideology which place real-world political attitudes at the core of ideology, this theory is, in a sense, peripherally political.

In any case, the general argument of this view is that conservatives are characterized in part by greater dogmatism; cognitive and perceptual rigidity; personal needs for order, structure, and closure; self-deception; and subjective perceptions of threat; and by lower integrative complexity, tolerance of ambiguity and uncertainty, need for cognition, and cognitive reflection (Jost, 2017).

Regarding the second political psychological theory, Hibbing, Smith, and Alford (2014) argue that those who have a negativity bias—those who are more sensitive to threat—are particularly attracted to conservative ideology. They argue that attitudes about issues such as same-sex marriage, welfare programs, and government involvement in healthcare arise, in part, as a response to various threats. They draw on studies such as those that showed that conservatives exhibited a greater increase in electrodermal activity (a measure of sympathetic nervous system activation) in response to negative visual stimuli, compared to liberals (e.g., Dodd et al., 2012). Hibbing and colleagues draw on these and other studies to argue that greater conservatism, as measured both by specific attitude positions and by general orientation, was associated with greater sensitivity to negative stimuli.

Similar to Jost and colleagues (2009), they also view the influence of this threat sensitivity as propagating upwards into a pattern of political attitudes largely via a liberal-conservative political orientation. Although they admit that political orientation is “too messy” to explain everything, they nevertheless claim that a liberal-conservative orientation is evident “across cultures and centuries” (Hibbing et al., 2014, p. 305). Notably, Charney (2008) strongly disagrees with this claim, noting that the liberal-conservative (or left-right) distinction originated in eighteenth century France and that the particular “package of attitudes” associated with an ideology varies widely across time and place.

Regarding the third political psychological theory, Graham and colleagues’ (2012) Moral Foundations Theory posits that political ideology is characterized by differences in moral concern for care/harm, fairness, ingroup loyalty, authority, and sanctity/purity. These “moral foundations” are topics for which humans are thought to have a degree of innate, intuitive concern. Care/harm refers to concern about harm to vulnerable others. Fairness refers to concern for a fair distribution of resources. Ingroup loyalty refers to loyalty to ingroup members. Authority refers to concern for respect for authority. Sanctity/purity refers to concern for religion as well as physical disgust. Care/harm and fairness are sometimes grouped together and referred to as “individuating foundations.” Ingroup loyalty, authority, and sanctity/purity are sometimes grouped together and referred to as “binding foundations.”

Conservatives have been found to place greater value on these binding foundations than do liberals. To a lesser extent, liberals place greater value on concerns about the harming of others and about fairness (the individuating foundations) than do conservatives. This theory maintains that differences in political attitudes arise from differences in the patterns of moral foundations across liberals and conservatives. For example, the greater liberal support for

welfare programs may have arisen in part from a greater liberal concern for the moral foundation concerning harm to vulnerable others.

Ideological differences in nonpolitical behaviors and attitudes. One interesting implication of theories that posit that ideology arises from low level nonpolitical features is that there may also be ideological differences in nonpolitical behaviors and attitudes. For example, given that greater moral prioritization of harm to others has been associated with liberalism, it is possible that liberals are also less likely to hunt (to the extent that liberals associate hunting with harm to another). In support of this general possibility, one study (Carney et al., 2008) examined the personal living spaces of 76 undergraduate students and the office spaces of 94 office workers. They coded cues in these environments such as whether it was well-lit and well-organized, and whether it contained particular objects, e.g., ironing boards, music CDs. They found that conservatism was associated with various features such as sports-related décor, alcohol bottles/containers in living spaces, and less variety in books; and less comfortable and less distinctive office spaces.

To capture the potential links between the political and the nonpolitical, this dissertation takes an expansive view of ideology and includes measures of nonpolitical behaviors and attitudes. This expansive view has the possibility of both uncovering interesting links within a particular sociocultural context as well as providing a fuller picture of how the structure of ideology might differ across sociocultural contexts.

The Contexts of Ideology

In contrast to these bottom-up approaches to political ideology is the view that ideology is part of the broader culture in which people live. On this view, individuals' ideologies are also caused, in part, by the context that lies outside people (Charney, 2008; see also Jost et al., 2009).

From a developmental psychology perspective, essentially every aspect of human psychology is shaped by sociocultural influences. But across the various definitions of ideology, at the core lies political attitudes, and these can be acquired in a variety of conscious and non-conscious ways (Banaji & Heiphetz, 2010). This contextual view acknowledges that ideologies also exist outside people, in the form of cultural norms and practices and social structures.

Unfortunately, very little political psychology research in psychology speaks to this aspect of human development. The social ecological model, widely-used in developmental psychology, offers a useful view. In this model, broader systems subsume the systems more proximal to individuals (Bronfenbrenner & Morris, 2006). Cultural elements of attitudes and ideologies make up the macrosystem level of the model. The influence of these elements propagates through the inner systems to reach the individual, at the center of the model. Importantly, these ideologies are tied to the culture in which the individual develops. Although this theory is not focused on the development of ideology and political attitudes, it is consistent with other views in positing that historical events can exert a profound effect on ideology and political attitudes (e.g., Jost, 2017).

Variation across Sociocultural Contexts

There are several studies that suggest that ideology varies across contexts. Regarding race, one study (Davis et al., 2016) focused on Moral Foundations Theory. As noted earlier, Moral Foundations Theory suggests that differences in political ideology are linked to differences in concerns about the individuating and the binding foundations. However, Davis and colleagues (2016) found that, for Black people compared to White people, conservatism was less related to the binding foundations.

Regarding ideology itself, there are cultural variations in how people understand the terms “liberal” and “conservative.” For example, Piurko and colleagues (2011) examined the associations between political ideology (using a unidimensional scale ranging from “left” to “right”) and Schwartz’s (1992) basic values, in 20 countries. They found that, between different countries, there were differences in the associations between the values and ideological self-placement. This suggests that “left” and “right” have different meanings in different countries. It is likely that this is the case for the terms “liberal” and “conservative” as well.

Finally, Converse (1964) found that only a small minority of Americans exhibited coherence among the general attitudes that are considered to constitute ideology. In other words, most Americans are not ideological. The general attitudes he examined included postures toward education aid, federal housing policy, military aid, and isolationism. He argued ideological thinking is primarily a phenomenon of the elite. However, Jost (2006) has argued against this view, claiming that ideological thinking is now a widespread phenomenon. Importantly, as noted above, he defines ideology differently from Converse and many others, and classifies political attitudes as peripheral features of ideology because they vary in their relation to ideology across time and place.

Taken together, there are several lines of research that suggest that there may be important, fundamental differences in the nature of ideology across sociocultural contexts. Investigating the tension between the personality-oriented vs. the social-oriented perspectives requires a systematically, broad approach.

Key sociocultural contexts. Previous research has identified several important correlates of group differences in political attitudes (e.g., Erikson & Tedin, 2007): age, church attendance, education, gender, income, and race. These attributes also capture key differences in human life.

Accordingly, this dissertation examines differences across these contexts, because they are particularly important both to the human experience in general and to politics in particular.

Methodological Approach

Accordingly, this dissertation takes a wide-ranging, data-driven approach. The relevant theories make different predictions that are all justifiable. More importantly, there is inadequate data to ground a prediction, making it inappropriate to attempt any specific predictions. Thus, this dissertation remains neutral toward the two positions.

Importantly, given the multitude of conceptions of ideology, this dissertation focuses on the core element consistent across the various theories of ideology as a political concept: the mapping between an individual's political attitude positions and his or her placement on the liberal to conservative ideological dimension. Rather than select one or a few theories to test, this dissertation examines what is common across theories. In addition, this dissertation takes an expansive approach, as noted above, and evaluates as many political attitudes as possible.

Given the goal of examining differences across sociocultural contexts, this dissertation relies on large datasets that used rigorous data collection techniques to provide active control over the characteristics of the participants. Collecting a convenience sample typically provides almost no control over the characteristics of the participants. In addition, these datasets are relatively large and include a broad range of measures, including extensive political attitude measures, and some nonpolitical attitude, behavior, and personal attribute measures. This allows for a comprehensive investigation of the structure of ideology across contexts.

One benefit of a large cross-sectional dataset focused on obtaining a representative sample from a single country (i.e., the U.S.) is that it holds constant both time and place. In other words, the participants of the study were all assessed at approximately the same historical time.

Also, the participants are all of the same country, within the same political structure. Thus, for a question about, for example, federal government spending, all participants would have in mind the same federal government. At the same time, there are important differences across sociocultural contexts within the U.S. that allows for the testing of the structure of ideology across contexts.

There are many robust approaches that take a neutral, broad approach. The first of these approaches is used by genome-wide association studies (GWAS) from molecular genetics and computational biology. A GWAS typically involves a series of statistical association tests between an outcome (e.g., a disorder, disease, or attribute) and the nucleotide variations at positions all along the genome (Bush & Moore, 2012). This series of tests—often on the order of hundreds of thousands or more in a study—aims to identify the genes associated with the outcome of interest. Identifying such variations serves both to uncover specific targets of future research and to provide a big picture understanding of the phenomenon of interest.

The second approach applies machine learning algorithms, used in data science. These machine learning algorithms are capable of analyzing very large datasets to detect and/or confirm patterns and associations that would escape conventional methods.

This dissertation combines these two approaches to analyze large datasets to investigate the nature of the links between ideology and a large number of measures of political and non-political attitudes and behaviors, across several social contexts. These different approaches are used both to provide different angles on the same phenomenon and to provide a degree of cross-validation of the results across approaches.

Overall, this dissertation tests sociocultural variability in the core aspect of ideology common across various theories of ideology using an expansive approach, encompassing as

many political attitudes as possible. In addition, it includes as many nonpolitical behaviors and attitudes as possible, to capture every possible aspect of life linked to ideology. Accordingly, this dissertation examines the very nature of ideology.

Study 1: Does the structure of ideology differ across sociocultural contexts?

The goal of Study 1 is to investigate how the alignment of behaviors and attitudes along ideological lines might vary across social contexts. The key aim is to examine whether the ideological structure of core political attitudes vary. In addition, because ideology may also be associated with nonpolitical behaviors and attitudes, Study 1 covers both political and nonpolitical behaviors and attitudes. Study 1 systematically analyzes a large, wide-ranging dataset to systematically identify and quantify associations between ideology and this full range of behaviors and attitudes.

Study 1 Method

General social survey. The General Social Survey (GSS: Smith, Marsden, Hout, & Kim, 2012) is an ongoing survey of the American public conducted by NORC at the University of Chicago. The survey is designed to study American social trends and constants, and assesses a broad range of attitudes, behaviors, and attributes (NORC, 2016).

The GSS uses an area probability sampling method in its data collection (Smith et al., 2012). This approach is based on geographical areas and population sizes within those areas. Large metropolitan areas (e.g., New York City, Los Angeles) are always included in the data collection. Less populous areas are probabilistically included. Areas are further subdivided until individual households are selected for inclusion in the studies. Finally, one adult in each household is randomly selected to be interviewed. For the 2012 study, 84.1% of participants were interviewed in person, and the remaining 15.9% were interviewed by phone.

This method ensures demographic representativeness of race, gender, etc. without solely relying on the use of statistical weighting. The weighting it does use accounts for the fact that only one adult per household is interviewed for this study and for non-response. To account for

the fact that adults living in larger households are less likely to be included in the study, the survey weights balance for the number of adults in the household of each participant.

The 2012 dataset used in Study 1 is an expanded dataset which includes follow-up participants from previous waves. It also includes additional modules on art and science that assess a wider variety of behaviors and attitudes than the core GSS measures. This dataset has 4,820 participants, is 55.8% female, and is approximately 77% White, 15% Black, and 8% other races. The average age is approximately 50 years old.

Political ideology: Liberal or conservative placement. Ideology is assessed by a seven-point liberal to conservative self-report item that ranges from *1 – Extremely liberal* to *7 – Extremely conservative*.

Sociocultural variables. The seven key correlates of group differences in political attitudes (Erikson & Tedin, 2007) are: age, church attendance, education, gender, income, race, and region. These variables, except region, serve as both covariates as well as variables along which differences in ideological structure are examined. Because region is a categorical variable with many levels (nine), it can only be usefully used as a covariate.

Age. Age is a continuous variable, ranging from 18 to 89+ (the maximum value is 89, with all ages 89 or older set to 89). The average age was 49.60.

Church attendance. The religiosity variable asked participants: “How often do you attend religious services?” The responses options range from “Never,” “Less than once a year,”... to “More than once a week.” The average amount of church attendance was 3.45, about midway between “Several times a year” and “Once a month.”

Education. Education is a dichotomous variable: No college education or At least some college education. For brevity, in some instances these groups will be referred to as College and

No college. No college is the reference group. Overall, 42.0% of participants had no college education, and 58.0% of participants had at least some college education.

Gender. Gender is Male or Female. Female is the reference group. Overall, 55.8% of participants were female.

Income. Household income is inflation-adjusted to year 2000 dollars. The average income was \$49,893.88.

Race. The race variable is White or Black. White is the reference group. Unfortunately, there were not sufficient numbers of participants who were neither White nor Black. Thus, all the analyses only used White and Black participants. Of these, 83.7% of participants were White.

Region. The region of interview variable options were: New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific. Because this study does not investigate differences across regions, any of the groups would make a suitable reference group. The reference group was the Pacific region.

Group differences: Interactions. Each of the covariates except region were also analyzed to determine if there was an interaction between ideology and each covariate. Specifically, for each outcome variable, each analysis was also conducted with an ideology by covariate interaction term. For each significant interaction found for categorical covariates (education, gender, and race), separate analyses were run for each level of the covariate, but otherwise using the same outcome and predictor variables. Doing so aids in the interpretation of the analyses. Interactions between ideology and region were not analyzed because there was not adequate power to test differences across nine regions.

Test variables. The GSS assesses a wide range of attitudes and behaviors. Most of the attitudinal measures assess political attitudes or attitudes that have been closely linked to

political ideology, such as religiosity (Knight, 1999) or attitudes about traditional gender roles (Jost et al., 2009; Graham et al., 2012). The measures of behavior assess a range of social, sexual, and family-related behaviors.

All 643 numeric variables in the dataset were used. These are continuous variables (e.g., number of hours per day watching TV), Likert-type scales, and True-False or Yes-No questions (e.g., if the participant has ever been arrested). The full list of 643 variables is shown in Appendix A.

False Discovery Rate. Given the large number of comparisons in large scale association studies, such as genome-wide association studies, the risk of spurious correlations must be managed. One approach is the calculation of the false discovery rate (Benjamini & Hochberg, 1995; Hochberg & Benjamini, 1990; Thissen, Steinberg, & Kuang, 2002). This rate sets the proportion of false positives out of the discovered associations. I used a 5% false discovery rate, as is standard. This is conceptually equivalent to the use of an alpha value of .05 in traditional studies using the null hypothesis significance testing framework.

The procedure is as follows (Chen, Roberson, & Schell, 2010). Rank p-values for each statistical comparison. Starting at the lowest p-value (rank $r = 1$), for each ranked p-value, adjust p-value by the equation: $m \times p_{(r)}/r$, where m is the number of statistical comparisons, $p_{(r)}$ is the p-value for that rank, and r is the rank. (Note that for rank = 1, this is equivalent to a Bonferroni correction for the p-value.) If the adjusted p-value is less than or equal to the false discovery rate, q^* , then reject the null hypothesis for this comparison. Continue until the adjusted p-values are greater than q^* . q^* for these analyses is .05, equivalent to a traditional alpha level of .05. Conceptually, overall, this means that 5% of the statistically significant results may be false positives.

Multiple comparison adjustments. For the standalone 2012 weighted analyses, 643 variables were analyzed. Each variable was analyzed in seven ways. Thus, the number of statistical comparisons was $643 \times 7 = 4501$. For reference, a Bonferroni correction of an alpha of .05 for this number of comparisons yields a threshold of 1.111×10^{-5} . The weighted sample $N = 4820$.

Study 1 Procedure

Step 1. Regressions without interactions. A regression was run for each attitude or behavior measure as the outcome variable, with ideology as the key predictor variable and including the seven covariates described above.

Step 2. Regressions with interactions. For each of the six interaction terms, a regression was run for each attitude or behavior measure as the outcome variable, with ideology as the key predictor variable, including the seven covariates described above, and the interaction term for that test. For example, for the outcome measure Number of hours spent watching TV per day, and the Ideology \times Education term, the outcome measure is predicted by: Ideology, Age, Church Attendance, Education, Ideology \times Education, Gender, Income, Race, and Region. For interactions with categorical variables, also separate regressions were also run only for those participants at each level of the categorical variable.

Step 3. Evaluate false discovery rate. The Benjamini-Hochberg procedure for controlling the false discovery rate was then implemented, using the adjustments described above.

Study 1 Results

Analyses without interactions. These results, shown in Table 1, do not account for interactions. The eight regression coefficients for geographic region are not shown (they are

available upon request) because of space constraints and because they are not the measures of specific interest. Because further analyses found that there were significant interactions with every one of the covariates tested, this particular set of results should be viewed tentatively and cannot be fully interpreted without taking the interactions into account. There were 188 measures significantly associated with ideology.

Overall, the findings were in line with previous research on political ideology. For example, more conservative participants were more opposed to abortion across all abortion measures, compared to more liberal participants. More conservative participants were more opposed to government spending on all issues except defense, for which they were more supportive. They also tended to be more religious and more likely to own guns.

The linear regression coefficients are reported as standardized coefficients. Positive coefficients indicate that the more conservative the participant, the more the participant endorses the measure. Negative coefficients indicate that the more conservative the participant, the less the participant endorses the measure. The logistic regression coefficients are reported as odds ratios. Odds ratios greater than one indicate that the more conservative the participant, the more the participant endorses the measure. Odds ratios less than one indicate that the more conservative the participant, the less the participant endorses the measure.

Table 1. Significant associations ordered by adjusted p-value, for all participants.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Race
Political party affiliation (Dem to Rep)	0.502*	-0.05*	0.053*	0.015	0.033	0.06*	-0.32*
Should government reduce income differences	-0.417*	-0.024	-0.011	-0.107*	-0.036	-0.091*	0.142*

Vote McCain (0) or Obama (1)	0.307	1.010	0.918*	1.255	0.820	1.000	210.531*
Should government help pay for medical care?	-0.359*	-0.057	-0.055	-0.047	-0.061*	-0.069*	0.184*
Homosexuals should have right to marry	-0.332*	-0.16*	-0.243*	0.109*	-0.139*	0.052	-0.027
Spending on the environment	-0.297*	-0.077*	-0.069*	0.015	-0.05*	-0.006	0.046
Should government do more?	-0.314*	-0.041	-0.017	-0.071*	-0.030	-0.084*	0.203*
Spending on the poor	-0.257*	0.035	0.020	-0.064*	-0.034	-0.091*	0.139*
Should government improve standard of living?	-0.29*	-0.013	-0.030	-0.051	-0.053	-0.109*	0.198*
Spending on defense	0.247*	0.079*	0.029	-0.101*	-0.063*	0.001	-0.026
Should government aid Blacks?	-0.278*	0.001	-0.003	0.005	-0.016	-0.071*	0.315*
Spending on helping Black people	-0.225*	-0.032	0.044	0.024	-0.042	-0.035	0.34*
Homosexual sex relations	-0.244*	-0.128*	-0.303*	0.147*	-0.131*	0.086*	-0.104*
Confidence in organized labor	-0.27*	-0.135*	0.008	-0.036	-0.052	-0.061	0.07*
Confidence in exec branch of fed government	-0.26*	-0.074*	0.029	0.039	-0.037	0.033	0.115*
Birth control to teenagers 14-16	-0.247*	-0.141*	-0.217*	-0.022	-0.114*	0.044	0.031
Spending on health	-0.211*	-0.038	-0.056*	-0.085*	-0.086*	-0.086*	0.108*
P's confidence in the existence of God	0.18*	0.028	0.402*	-0.107*	-0.122*	-0.030	0.074*
Spending on education	-0.206*	-0.116*	-0.009	0.007	-0.042	0.013	0.058*
Favor death penalty for murder	1.409	1.001	0.947*	0.705*	1.281	1.000	0.368*
Feelings about the bible	0.173*	0.003	0.375*	-0.173*	-0.092*	-0.06*	0.103*
Inequality exists for benefit of rich	-0.362*	0.055	0.028	-0.030	-0.062	-0.143*	0.051
Spending on assistance for childcare	-0.194*	-0.075*	-0.022	-0.056*	-0.059*	-0.074*	0.131*

Strength of religious affiliation	0.157*	0.085*	0.509*	-0.031	-0.08*	-0.006	0.027
Abortion if not married	0.672	1.009	0.803*	1.494*	0.925	1.0*	1.358
Abortion if married--wants no more children	0.675	1.009	0.814*	1.454*	0.988	1.0*	1.688*
Abortion if low income--can't afford more children	0.678	1.005	0.82*	1.609*	0.867	1.0*	1.687*
Interested in environmental issues	-0.269*	0.069	-0.002	0.018	0.018	0.003	0.064
Courts dealing with criminals	0.189*	0.063*	0.051	-0.066*	-0.09*	0.040	-0.124*
Racial differences due to discrimination	0.686	1.007	1.024	0.917	0.882	1.000	2.487*
Willing to pay higher taxes to improve health care for all	0.31*	-0.093*	0.034	-0.071	-0.037	0.053	-0.139*
Spending on big cities	-0.187*	0.026	0.004	0.013	-0.040	-0.002	0.16*
Approve of president handling job	0.498	1.003	1.002	1.111	1.026	1.000	22.608*
How fundamentalist is P currently	0.162*	-0.012	0.318*	-0.108*	-0.032	-0.101*	0.129*
Abortion if woman wants for any reason	0.691	1.001	0.802*	1.628*	0.878	1.0*	1.714*
P consider self a religious person	0.143*	0.092*	0.496*	-0.040	-0.053*	-0.047*	0.076*
Favor public funding of treatment HIV/AIDS	-0.289*	-0.006	-0.036	-0.022	-0.027	-0.089*	0.168*
Favor public funding to prevent obesity	-0.284*	-0.116*	0.026	0.018	-0.003	-0.103*	0.137*
Sex education in public schools	0.505	0.991	0.849*	1.536	0.735	1.000	1.118
Number of immigrants to America nowadays should be	-0.203*	-0.044	0.057	0.07*	0.038	0.045	0.125*
Income differentials in U.S. too big	-0.3*	0.077	0.037	0.033	-0.069	-0.094	-0.054
Blacks overcome prejudice without favors	0.193*	-0.006	0.046	-0.154*	0.029	-0.083*	-0.203*
Favor public funding of organ transplants	-0.28*	-0.015	-0.037	-0.108*	-0.073	-0.097*	0.087
Favor preference in hiring Blacks	-0.196*	-0.009	-0.015	-0.067*	-0.015	-0.022	0.239*

Abortion if pregnant as result of rape	0.643	1.018*	0.725*	1.648*	1.070	1.000	1.668
Spending on mass transportation	-0.166*	0.059*	-0.010	0.055	0.057*	0.042	0.019
Government should provide only limited health care	0.269*	0.017	0.062	0.039	0.105*	0.095*	-0.152*
Belief about climate change happening and cause	-0.298*	-0.013	0.052	0.036	-0.078	0.045	-0.032
Access to public funded health care if not citizen	-0.27*	-0.017	0.023	0.020	-0.020	-0.007	0.247*
Access to public funded health care if damage own health	-0.269*	0.084	-0.022	0.013	0.022	-0.033	0.157*
How often does P pray	0.123*	0.111*	0.475*	-0.020	-0.156*	-0.057*	0.093*
Better for man to work woman tend home	0.181*	0.114*	0.138*	-0.144*	0.121*	-0.088*	-0.031
Bible prayer in public schools	0.734	0.985*	0.906*	1.925*	1.129	1.000	0.626*
Attitude about sex before marriage	-0.164*	-0.056*	-0.398*	0.063*	-0.010	0.093*	0.002
Abortion if strong chance of serious defect	0.689	1.023*	0.754*	1.665*	1.021	1.000	1.109
Spending on foreign aid	-0.151*	-0.149*	0.072*	-0.007	-0.059*	0.014	0.129*
Confidence in major companies	0.178*	-0.044	0.081*	0.033	0.007	0.107*	-0.015
Sex before marriage -- teens 14-16	-0.17*	-0.158*	-0.227*	0.061	0.060	0.023	0.007
Abortion if woman's health seriously endangered	0.632	1.018*	0.721*	1.754*	0.875	1.000	1.813
Same sex female couple raise child as well as male-female couple	-0.252*	-0.185*	-0.247*	0.089	-0.188*	-0.004	-0.049
Confidence in military	0.164*	-0.025	0.007	-0.051	0.061	0.093*	-0.003
Spending on alternative energy sources	-0.222*	0.018	-0.060	0.035	0.050	0.010	-0.061
Assist incurable patients to die	0.74	1.002	0.774*	1.196	1.225	1.000	0.506*

Same sex male couple raise child as well as male-female couple	-0.246*	-0.189*	-0.257*	0.111*	-0.208*	0.012	-0.059
Favor public funding of preventative medical checkups	-0.236*	0.026	-0.045	0.012	-0.079	-0.076	0.115*
How many don't have access to health care needed in U.S.	-0.23*	-0.056	-0.042	-0.008	-0.060	-0.009	0.039
Racial differences due to lack of education	0.776	1.009*	1.014	1.901*	0.853	1.000	1.327
Tried to convince others to accept Jesus	1.255	0.993	1.398*	0.69*	0.829	1.0*	1.767*
Confidence in organized religion	0.15*	-0.002	0.283*	-0.062	-0.035	0.029	0.028
Importance of teaching children to obey	0.144*	-0.005	0.154*	-0.194*	0.000	-0.063*	0.099*
Should marijuana be made legal	0.775	0.993	0.818*	0.985	1.6*	1.000	1.024
Divorce laws made more difficult?	0.155*	0.051	0.14*	0.038	0.017	0.017	-0.154*
Science research should be supported by federal government	-0.184*	-0.016	-0.027	0.075	-0.020	0.036	-0.016
Attitude about sex with person other than spouse	-0.141*	0.057	-0.143*	0.079*	0.060	0.031	-0.006
Favor gun restriction law	0.767	1.012*	1.002	1.294	0.479*	1.000	1.577
Favor spanking to discipline child	0.147*	-0.055	0.068*	-0.044	0.129*	-0.058	0.108*
Confidence in press	-0.148*	0.012	-0.029	-0.046	-0.054	0.009	0.034
How fundamentalist is spouse currently	0.162*	-0.035	0.204*	-0.076*	0.055	-0.133*	0.16*
Suicide if incurable disease	0.783	1.004	0.793*	1.736*	1.049	1.0*	0.638*
Has P ever had a 'born again' experience	1.224	0.992	1.328*	0.647*	0.833	1.0*	2.529*
Spending on social security	-0.118*	0.002	0.008	-0.102*	-0.108*	-0.083*	0.105*
Living together as an acceptable option	0.184*	0.201*	0.425*	-0.052	0.007	-0.059	0.036
Spending on scientific research	-0.114*	0.057*	-0.048	0.062*	0.058*	0.055*	-0.052

Did P go to an art exhibit in last 12 months	0.795	1.002	1.057	3.012*	0.997	1.0*	0.6*
Suicide if tired of living	0.777	1.005	0.901*	1.69*	1.009	1.000	0.709
Higher incomes afford better health care	0.189*	0.016	0.032	0.021	0.122*	0.082	0.016
Women not suited for politics	1.294	0.993	1.036	0.720	1.106	1.000	1.121
Pay differences -> American prosperity	0.194*	-0.022	-0.061	-0.073	-0.041	-0.001	0.058
Strict pornography laws?	0.114*	0.18*	0.259*	-0.010	-0.147*	-0.029	-0.094*
Was one of P's sex partners spouse or regular	1.779	1.055*	1.067	2.579*	0.307*	1.000	0.560
Against housing discrimination?	0.8	0.993	1.015	1.287	0.553*	1.000	3.868*
Rifle in home	1.271	1.013*	1.002	0.886	1.772*	1.000	0.156*
Racial differences due to lack of will	1.219	1.006	0.983	0.424*	1.157	1.000	0.969
Belief in life after death	1.226	0.991	1.226*	0.944	0.676*	1.000	0.865
Health care system improve in next few years	-0.176*	0.091	0.039	-0.030	0.014	-0.003	0.154*
Importance of teaching children to be well liked or popular	-0.12*	0.084*	-0.084*	-0.029	0.09*	0.023	-0.014
Have gun in home	1.214	1.014*	0.993	0.981	1.482*	1.0*	0.438*
How often P visited art museum last year	-0.159*	0.012	0.001	0.183*	-0.007	0.045	-0.060
Spending on fighting drugs	-0.099*	0.055*	0.007	-0.057*	-0.097*	-0.015	0.126*
Get ahead by hard work (vs. luck)?	0.121*	-0.062	0.002	-0.036	-0.056	0.013	-0.012
Spending on parks and recreation	-0.097*	-0.017	-0.048	0.002	0.017	-0.054*	0.056*
Confidence in banks & financial institutions	0.118*	-0.102*	0.067	-0.042	-0.103*	-0.025	0.034
Sexual orientation	0.673	0.992	0.911	1.591	0.843	1.000	1.153
Does P or spouse hunt	1.255	0.977*	1.042	0.774	1.714*	1.000	0.269*

Preschool kids suffer if mother works	0.111*	0.138*	0.098*	-0.094*	0.206*	-0.072*	-0.057
Higher incomes afford better education for kids	0.165*	-0.002	0.021	0.021	0.088	0.116*	-0.013
Happy with federal income tax?	-0.116*	0.008	0.029	0.045	0.073*	-0.046	-0.034
Did P go to a performance in last 12 months?	0.832	0.994	1.107*	2.396*	1.012	1.000*	0.756
Divorce as best solution to marital problems	-0.179*	0.27*	-0.197*	-0.126*	0.015	0.047	-0.010
Spend evening with friends	-0.105*	-0.301*	0.101*	0.067*	0.026	0.027	0.030
Science knowledge: human beings developed from animals	0.705	0.997	0.715*	2.278*	1.469	1.000	0.461
Importance of teaching children to think for ones self	-0.104*	0.069*	-0.113*	0.207*	-0.073*	0.041	0.022
Shotgun in home	1.224	1.009	1.001	0.870	1.511*	1.0*	0.219*
Should hire and promote women	-0.151*	0.095*	-0.012	-0.151*	-0.075	-0.064	0.151*
Paid leave for childcare	0.672	0.958*	1.147*	0.823	0.723	1.000	2.066
Reside in largest metro area to rural	0.083*	0.009	0.004	-0.098*	0.005	-0.085*	-0.225*
How hard working are Blacks?	-0.107*	-0.026	0.006	0.081*	-0.031	-0.010	0.127*
Number of children	0.077*	0.388*	0.11*	-0.139*	-0.036	0.027	0.121*
Rules are important to me	0.15*	-0.039	0.135*	-0.070	-0.069	-0.045	0.103*
Who pays for leave	0.195*	0.085	-0.062	0.089	-0.118	-0.011	-0.063
P's highest degree	-0.06*	0.073*	0.059*	0.558*	-0.004	0.208*	-0.044*
Women hurt by affirmative action	-0.143*	0.14*	-0.007	-0.085	-0.095*	-0.021	-0.021
Men should earn money women keep house	0.155*	0.142*	0.126*	-0.15*	0.15*	-0.068	0.003
P favor close relative marrying White person	0.099*	0.096*	-0.032	-0.042	-0.055	0.005	-0.061

Pope is infallible on matters of faith or morals	0.165*	-0.058	0.315*	-0.205*	0.008	-0.051	0.002
Single parents can raise kids as well as two	-0.148*	-0.139*	-0.121*	0.008	-0.264*	-0.015	0.065
People use health care services more than necessary	0.136*	-0.003	-0.009	-0.015	0.102*	0.026	-0.217*
Suicide if bankrupt	0.805	0.992	0.874*	2.287*	1.249	1.000	0.928
Number words correct in vocabulary test	-0.083*	0.126*	-0.041	0.325*	-0.015	0.113*	-0.178*
Importance of teaching children to work hard	0.093*	-0.136*	-0.077*	-0.014	0.024	0.065*	-0.012
Whites hurt by affirmative action	0.094*	0.094*	0.025	-0.13*	-0.027	-0.071*	-0.106*
Ideal number of children	0.097*	-0.001	0.129*	-0.039	0.012	-0.042	0.14*
Allow homosexual to teach	0.800	0.981*	0.907*	3.647*	0.548*	1.000	0.668
What is ideal number of kids for family	0.151*	0.025	0.113	-0.034	0.043	-0.063	0.15*
How fundamentalist was P at age 16	0.071*	-0.041	0.113*	-0.057*	0.019	-0.102*	0.202*
Mother working doesn't hurt children	-0.089*	-0.026	-0.045	0.083*	-0.233*	0.059	0.007
Allow anti-American muslim clergymen teaching in college	0.843	0.998	0.956	2.395*	1.160	1.0*	0.583*
Mother work full-time with under school age child best?	-0.166*	-0.149*	-0.067	0.046	-0.099	-0.029	0.007
Importance of experiencing high quality art	-0.165*	0.079	0.126*	0.056	0.074	-0.067	-0.097
Doing things properly is important to me	0.128*	0.015	0.181*	-0.047	-0.037	0.011	0.138*
Suicide if dishonored family	0.813	0.987*	0.878*	2.082*	1.153	1.000	0.778
How satisfied P with health care system in U.S.	0.122*	0.193*	0.063	-0.058	0.010	0.113*	0.050
Those in need have to take care of themselves	0.139*	-0.119*	-0.069	-0.068	0.104*	0.050	0.052
Ecology or environment is important to me	-0.13*	0.127*	0.046	0.029	-0.045	-0.098	-0.105*
Were P's parents born in this country	1.147	1.001	0.925*	1.038	1.028	1.000	1.332

Read scripture outside of services	1.241	1.006	1.502*	1.221	0.702	1.000	2.454*
Father's highest degree	-0.072*	-0.245*	-0.024	0.289*	0.013	0.132*	-0.062*
Allow homosexual's book in library	0.834	0.983*	0.855*	2.86*	0.789	1.0*	0.651
Science knowledge: the universe began with a huge explosion	0.747	1.001	0.79*	2.127*	2.329*	1.000	0.353*
People should help less fortunate others	-0.135*	0.123*	0.065	-0.016	-0.103*	0.031	0.051
For preferential hiring of women	-0.114*	0.072	-0.016	-0.185*	-0.053	-0.082	0.177*
Pistol or revolver in home	1.156	1.015*	0.976	0.970	1.541*	1.0*	0.673
Allow muslim clergymen preaching hatred of the U.S.	0.858	0.999	0.938	3.005*	1.323	1.0*	0.802
Allow homosexual to speak	0.809	0.986	0.898*	4.807*	0.716	1.000	0.513*
Racial differences due to upbringing	1.272	1.011	0.969	1.245	1.333	1.000	0.576
Satisfaction with job or housework	0.072*	0.045	0.045	0.017	-0.018	0.108*	-0.044
Children are financial burden on parents	0.125*	-0.001	0.126*	-0.062	-0.104*	-0.082	-0.045
Reside in large city to open country	0.057*	0.047	0.003	-0.146*	0.008	-0.05*	-0.18*
People need not overly worry about others	0.122*	-0.174*	-0.066	-0.183*	0.143*	-0.050	0.009
Kids are life's greatest joy	0.119*	0.069	0.098	-0.060	-0.047	-0.048	0.121*
Should communist teacher be fired	1.132	1.009	1.056	0.407*	1.097	1.0*	1.213
Spend evening at bar	-0.07*	-0.318*	-0.071*	0.131*	0.12*	0.085*	-0.028
In relationship w/last sex partner?	1.291	1.022*	1.046	1.223	0.409*	1.000	1.269
Spending on fighting crime	0.061*	0.047	0.032	-0.059*	-0.113*	-0.029	0.068*
Days of poor mental health past 30 days	-0.13*	0.007	0.075	0.000	-0.023	-0.045	-0.078
Police violence OK if citizen attempting to escape custody?	1.133	1.007	0.986	1.217	1.224	1.0*	0.508*

Mother's highest degree	-0.057*	-0.279*	-0.012	0.274*	0.004	0.129*	-0.021
Taking risk is important to me	-0.104*	-0.284*	-0.039	-0.003	0.089	0.053	0.114*
Allow militarist's book in library	0.875	0.983*	0.928*	2.3*	0.890	1.0*	0.758
P's health in general	-0.074*	0.16*	-0.09*	-0.131*	-0.001	-0.164*	-0.006
Confidence in education	-0.071*	-0.017	0.028	-0.046	-0.021	-0.023	0.119*
Interested in new scientific discoveries	-0.084*	0.037	-0.080	0.138*	0.085*	0.060	-0.026
Equal opportunity is important to me	-0.107*	-0.097	0.002	0.018	-0.025	0.001	0.073
Confidence in schools and education system	0.102*	-0.031	-0.105*	0.137*	-0.029	-0.080	-0.062
Science knowledge: the continents have been moving	0.776	0.991	0.782*	2.102*	1.597	1.000	0.592
*Heart operation first for 30 or 70 yr old	0.850	1.005	0.967	1.299	1.257	1.000	0.675
Can P speak language other than english	0.866	0.988	1.086*	1.969*	1.127	1.000	0.991
Those wanting kids should get married	0.102	0.199*	0.203*	0.032	0.103*	0.022	-0.154*
Allow anti-American muslim clergymen's books in library	0.884	1.004	0.944	3.062	1.132	1.0*	0.819
Importance of teaching children to help others	0.066	0.003	-0.075*	-0.013	-0.015	0.050	0.133*
How much say about what government does	-0.105	-0.027	0.119*	0.128*	-0.033	0.066	0.114*
Expect U.S. in war within 10 years	1.173	0.993	0.943	1.111	1.613	1.000	0.738
Ever approve of police striking citizen	1.117	1.000	0.980	1.671	1.64*	1.0*	0.428*
Does P or spouse supervise anyone	1.101	1.000	1.030	1.437	1.206	1.0*	1.142
Being modest is important to me	0.096	-0.093	0.029	-0.068	-0.034	0.009	0.137*
Job satisfaction in general	-0.141	-0.118	-0.010	-0.060	0.063	-0.038	0.114
Doctors can be trusted	0.093	-0.057	-0.078	-0.138*	-0.099*	-0.078	0.083
Type of place lived in when 16 years old	-0.052	-0.049	-0.035	0.116*	-0.017	0.088*	0.18*

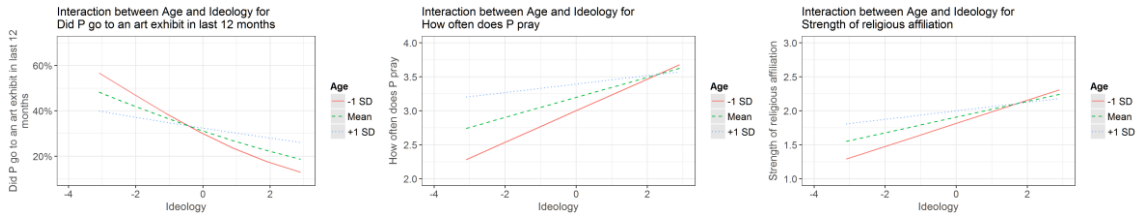
Note. * p < .001. Logistic regressions denoted with an * before variable description.

Interaction analyses. The following interaction results are divided into interactions between continuous covariates (age, church attendance, and income) and between categorical covariates (education, gender, and race). Within each subdivision, the interactions are presented in alphabetical order by covariate tested. The measures for which there were significant interactions are grouped into behavior and personal attributes measures and attitude measures. Most of the attitude measures are either explicitly political (e.g., attitude about government spending on the poor) or have been associated in previous research with ideological differences (e.g., attitude about the Bible).

Age interactions. As shown in Figure 1, Figure 2, and Table 2, there were 11 significant interactions between age and ideology. Each graph illustrates the interaction for a single measure. Each one shows plots for the association between ideology and that measure when age is at the mean (49.60 years old), at one standard deviation below the mean, and at one standard deviation above the mean.

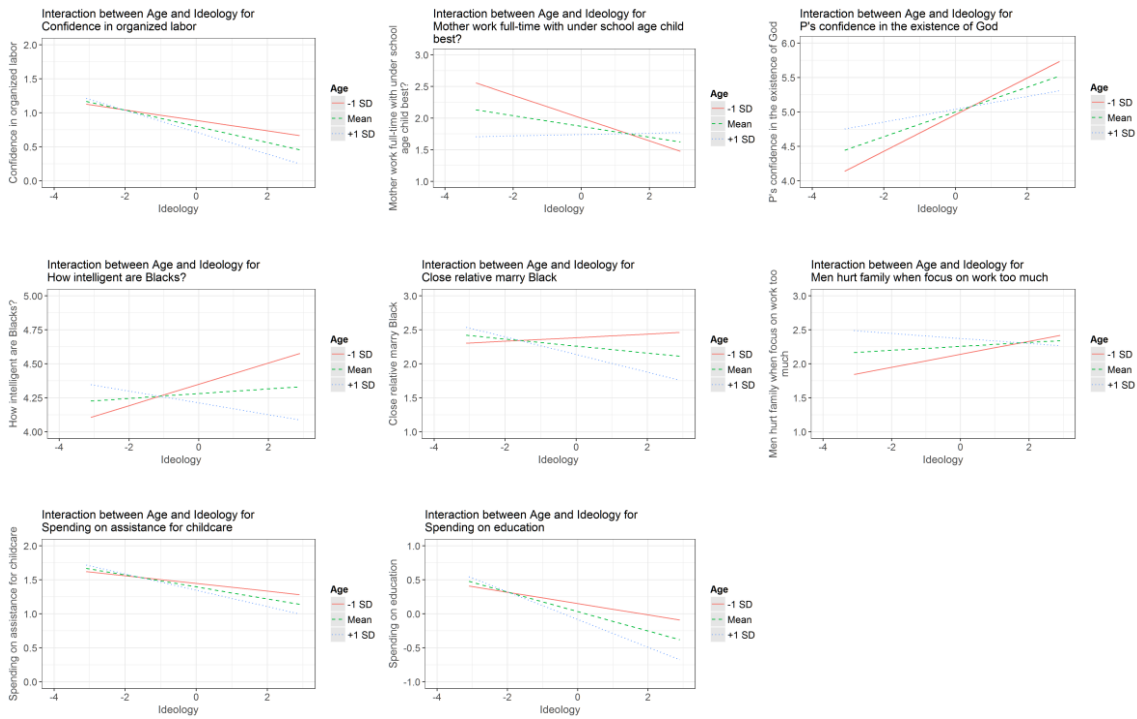
There is no apparent overall pattern to the situations in which the association between ideology and a particular measure is steeper or shallower based on the age of the participants. Nevertheless, for the behavior and personal attributes measures only, there is a consistent smaller pattern. The association between ideology and each measure is stronger for younger participants. However, for the attitudes measures, there is no such pattern. For example, for the government spending measures (spending on children and on education), the slopes are shallower for the younger participants. However, for their attitude about what family structure works best (which one or both of the parents works), the slope is steeper for the younger participants.

Figure 1. Interactions between Age and Ideology: Behavioral and personal attributes measures.



The mean age is 49.60.

Figure 2. Interactions between Age and Ideology: Attitude measures.



The mean age is 49.60.

Table 2. Significant Age \times Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
P's confidence in the existence of God	0.177*	-0.084*	0.026	0.399*	-0.107*	-0.125*	-0.035	0.071*
Spending on education	-0.209*	-0.087*	-0.119*	-0.012	0.007	-0.044	0.007	0.055*
Strength of religious affiliation	0.154*	-0.07*	0.084*	0.507*	-0.031	-0.082*	-0.011	0.024
How often does P pray	0.121*	-0.069*	0.11*	0.473*	-0.020	-0.158*	-0.061*	0.09*
Close relative marry Black	-0.065*	-0.098*	-0.108*	-0.041	0.061	-0.075*	0.000	0.29*
Confidence in organized labor	-0.275*	-0.096*	-0.138*	0.004	-0.036	-0.054	-0.067*	0.066*
How intelligent are Blacks?	0.026*	-0.09*	-0.07*	-0.007	-0.034	-0.056	-0.059	0.138*
Men hurt family when focus on work too much	0.04*	-0.09*	0.108*	0.071*	0.032	0.145*	-0.067*	-0.063
Spending on assistance for childcare	-0.197*	-0.07*	-0.077*	-0.024	-0.056*	-0.06*	-0.079*	0.129*
Mother work full-time with under school age child best?	-0.115*	0.148*	-0.144*	-0.067	0.052	-0.098	-0.027	0.004
Did P go to an art exhibit in last 12 months	0.784	1.008*	1.004	1.061	3.045*	1.010	1.0*	0.607*

Note. Total variables = 11. * $p < .001$. Logistic regressions denoted with an * before variable description.

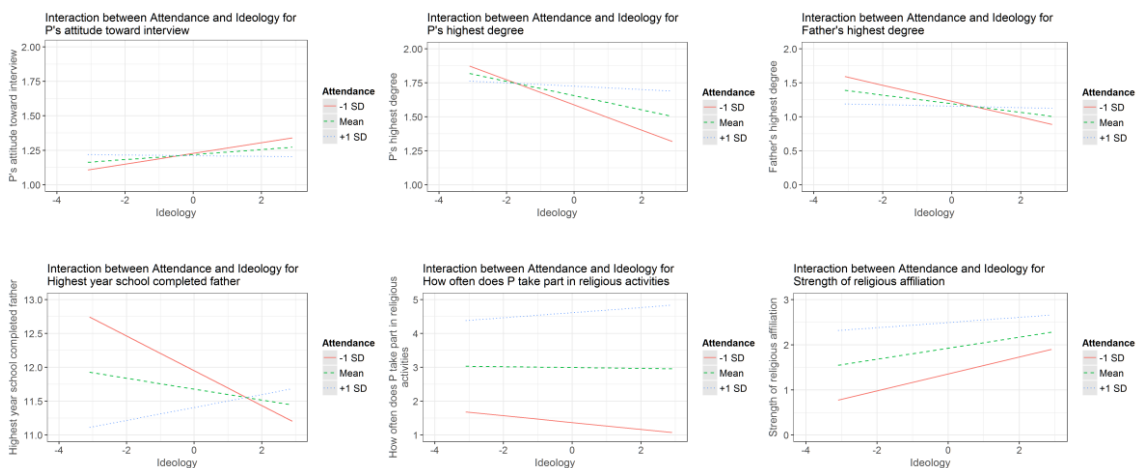
Church attendance. As shown in Figure 3, Figure 4, and Table 3, there were 20 significant interactions between church attendance and ideology. Each graph shows plots for the association between ideology and that measure when church attendance is at the mean (3.45), at one standard deviation below the mean, and at one standard deviation above the mean.

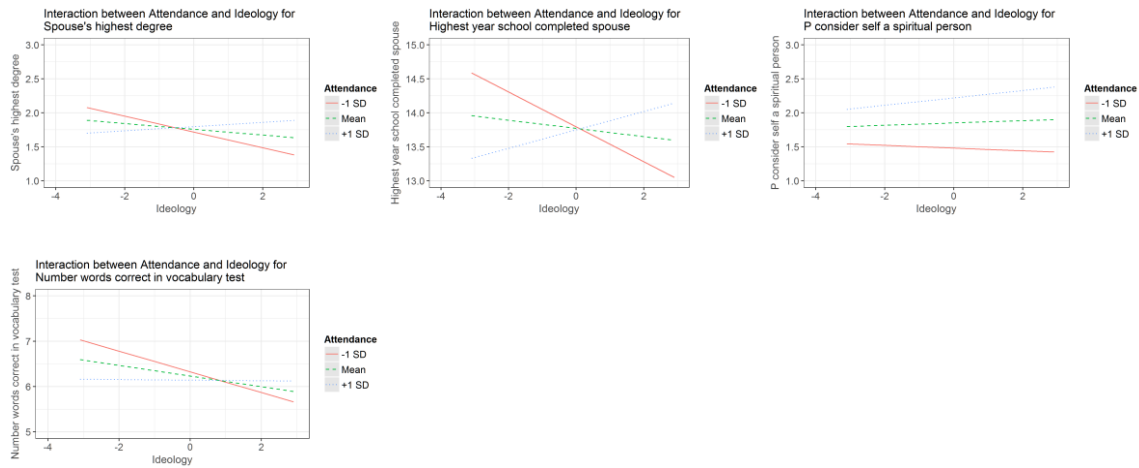
There is no apparent overall pattern to the situations in which the association between ideology and a particular measure is steeper or shallower for those who attend church more often. Among the behavior and personal attributes measures, one smaller pattern appears across the education measures (e.g., participant's highest degree, father's years of education,

participant's spouse's years of education). For participants who attended church one standard deviation below the mean, more conservative participants, their fathers, and their spouses had less education than more liberal participants. However, for participants who attended church one standard deviation above the mean, the association was weaker for participants' highest degree, and reversed for father's years of education and spouse's years of education (more conservative participants had fathers and spouses than did more liberal participants).

Among the attitude measures, it appears that there is a stronger association between ideology and the social issues measures. For attitudes about cohabitation before marriage, premarital sex, single parenting, and child-rearing by same-sex couples, more conservative participants more strongly disapproved of these, compared to more liberal participants. However, this association was stronger the more often the participant attended church. For those who did not attend church often, there was much less difference between more conservative and more liberal participants.

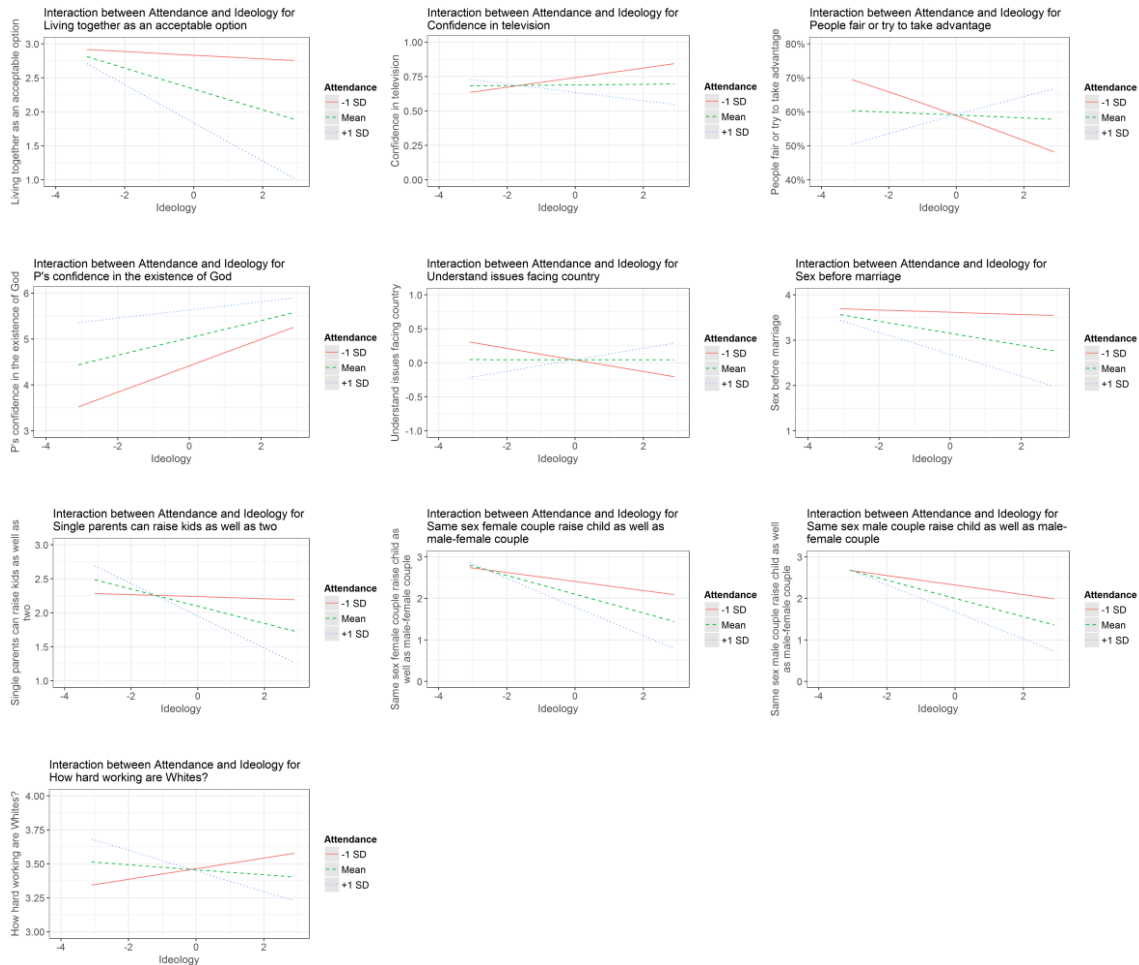
Figure 3. Interactions between Church attendance and Ideology: Behavior and personal attributes measures.





The mean was 3.45.

Figure 4. Interactions between Church attendance and Ideology: Attitude measures.



The mean was 3.45.

Table 3. Significant Church attendance × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Attitude about sex before marriage	-0.163*	-0.134*	-0.057*	-0.388*	0.071*	-0.010	0.095*	-0.015
P's confidence in the existence of God	0.183*	-0.099*	0.027	0.408*	-0.1*	-0.123*	-0.030	0.066*
Strength of religious affiliation	0.16*	-0.088*	0.084*	0.515*	-0.025	-0.08*	-0.007	0.020
Living together as an acceptable option	0.188*	0.156*	0.201*	0.422*	-0.064	0.005	-0.071	0.045
Highest year school completed spouse	-0.042*	0.098*	-0.039	-0.008	0.333*	0.031	0.328*	0.018
Number words correct in vocabulary test	-0.086*	0.084*	0.128*	-0.047	0.32*	-0.014	0.112*	-0.169*
How often does P take part in religious activities	-0.007*	0.055*	0.030	0.677*	0.041*	-0.016	0.008	0.053*
Same sex female couple raise child as well as male-female couple	-0.257*	-0.136*	-0.184*	-0.243*	0.1*	-0.186*	0.006	-0.057
Spouse's highest degree	-0.061*	0.089*	-0.046	0.033	0.296*	0.034	0.354*	-0.013
Single parents can raise kids as well as two	-0.153*	-0.135*	-0.138*	-0.119*	0.018	-0.262*	-0.004	0.058
Same sex male couple raise child as well as male-female couple	-0.25*	-0.121*	-0.188*	-0.255*	0.12*	-0.206*	0.020	-0.066
People fair?	0.984	1.047*	1.028*	1.002	2.11*	0.855	1.0*	0.538*
P's highest degree	-0.062*	0.049*	0.074*	0.056*	0.555*	-0.004	0.208*	-0.04*
How hard working are Whites?	-0.026*	-0.08*	0.040	-0.007	-0.061	-0.034	-0.075*	-0.043
Understand issues facing country	-0.001*	0.126*	0.109*	0.002	0.295*	0.138*	0.083	0.002
P consider self a spiritual person	-0.027*	-0.058*	-0.1*	-0.387*	-0.064*	0.099*	0.05*	-0.068*
P's attitude toward interview	0.054*	-0.064*	-0.036	-0.018	-0.09*	0.028	0.011	0.058*
Highest year school completed father	-0.03*	0.063*	-0.265*	-0.066*	0.314*	0.002	0.134*	-0.047
Confidence in television	0.004*	-0.076*	0.002	-0.086*	-0.082*	-0.005	-0.051	0.074*
Father's highest degree	-0.074*	0.062*	-0.244*	-0.029	0.285*	0.014	0.133*	-0.056*

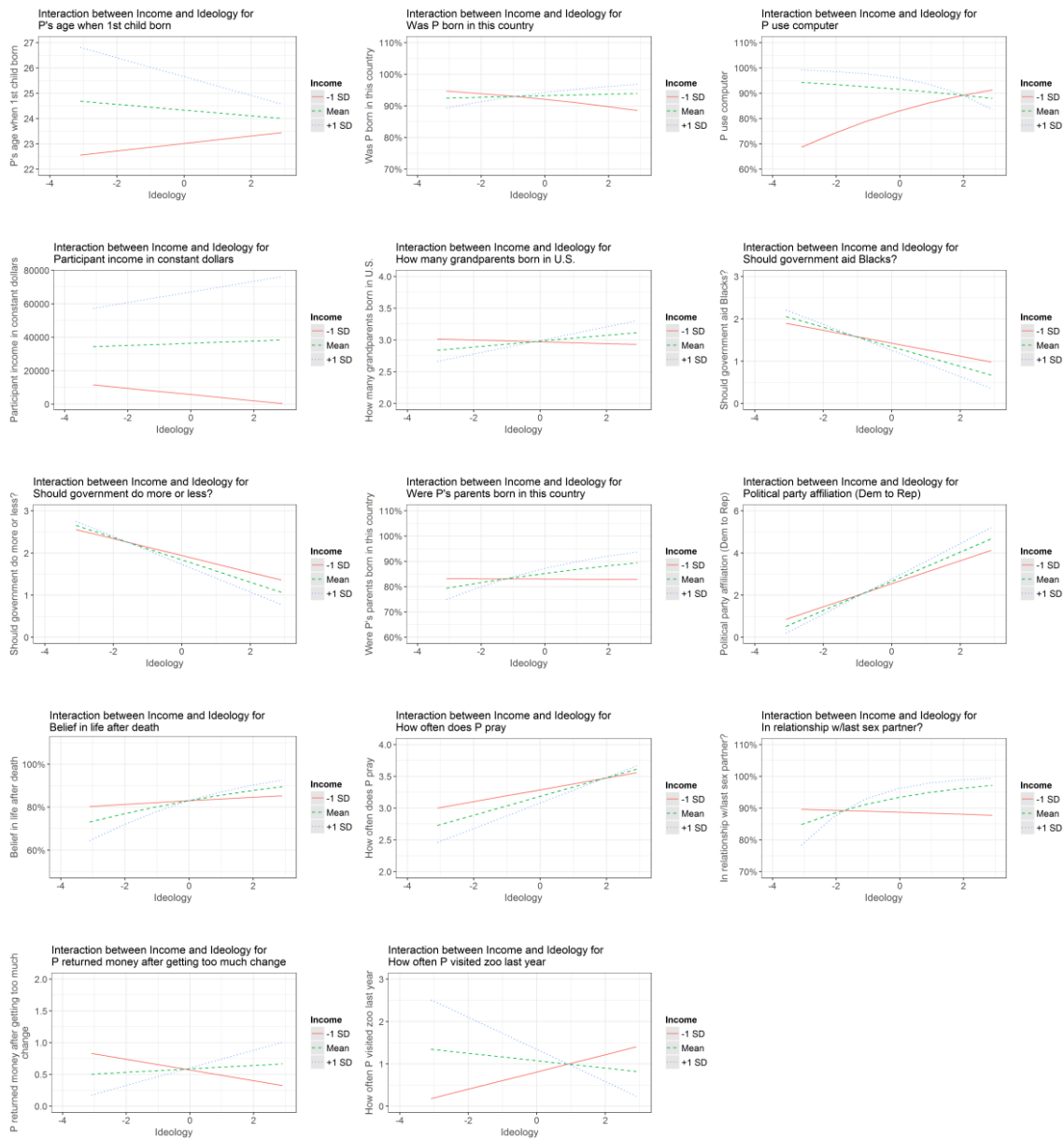
Note. Total variables = 20. * $p < .001$. Logistic regressions denoted with an * before variable description.

Income. As shown in Figure 5, Figure 6, and Table 4, there were 47 significant interactions between income and ideology. Each graph shows plots for the association between ideology and that measure when income is at the mean (\$49,893.88), at one standard deviation below the mean, and at one standard deviation above the mean.

Notably, regarding overall patterns, for almost every one of the attitude measures, the association between ideology and each attitude is weaker the lower the income of the participant. However, there was not an apparent overall pattern for the behavior and personal attributes measures. For example, regarding the age of the participant at which his or her first child was born, for participants with lower income, more conservative participants had their first child at an older age compared to more liberal participants. However, for participants with higher income, more conservative participants had their first child at a younger age compared to more liberal participants. Regarding computer use, for participants with lower income, more conservative participants used the computer more compared to more liberal participants. However, for participants with higher income, more conservative participants used the computer slightly less compared to more liberal participants.

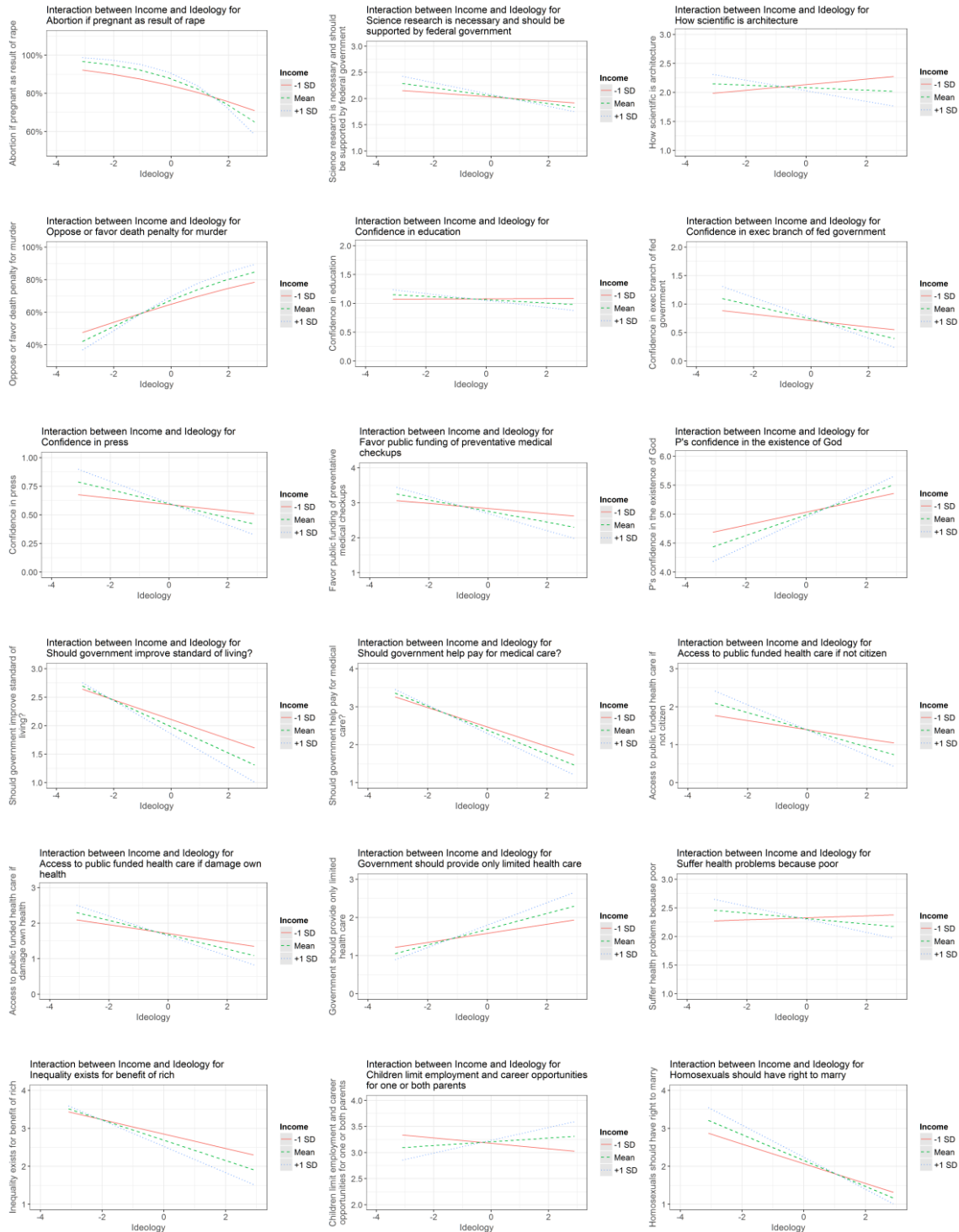
As noted, for almost all attitude measures, the association between ideology and each measure was weaker the lower the income of the participant. Across income levels, all of the associations are generally in the expected directions, based on previous research. For example, the more conservative the participant, the less approving he or she is of government spending, except for military spending for which conservatives are more approving of government spending. The more conservative the participant, the less approving he or she is of abortion.

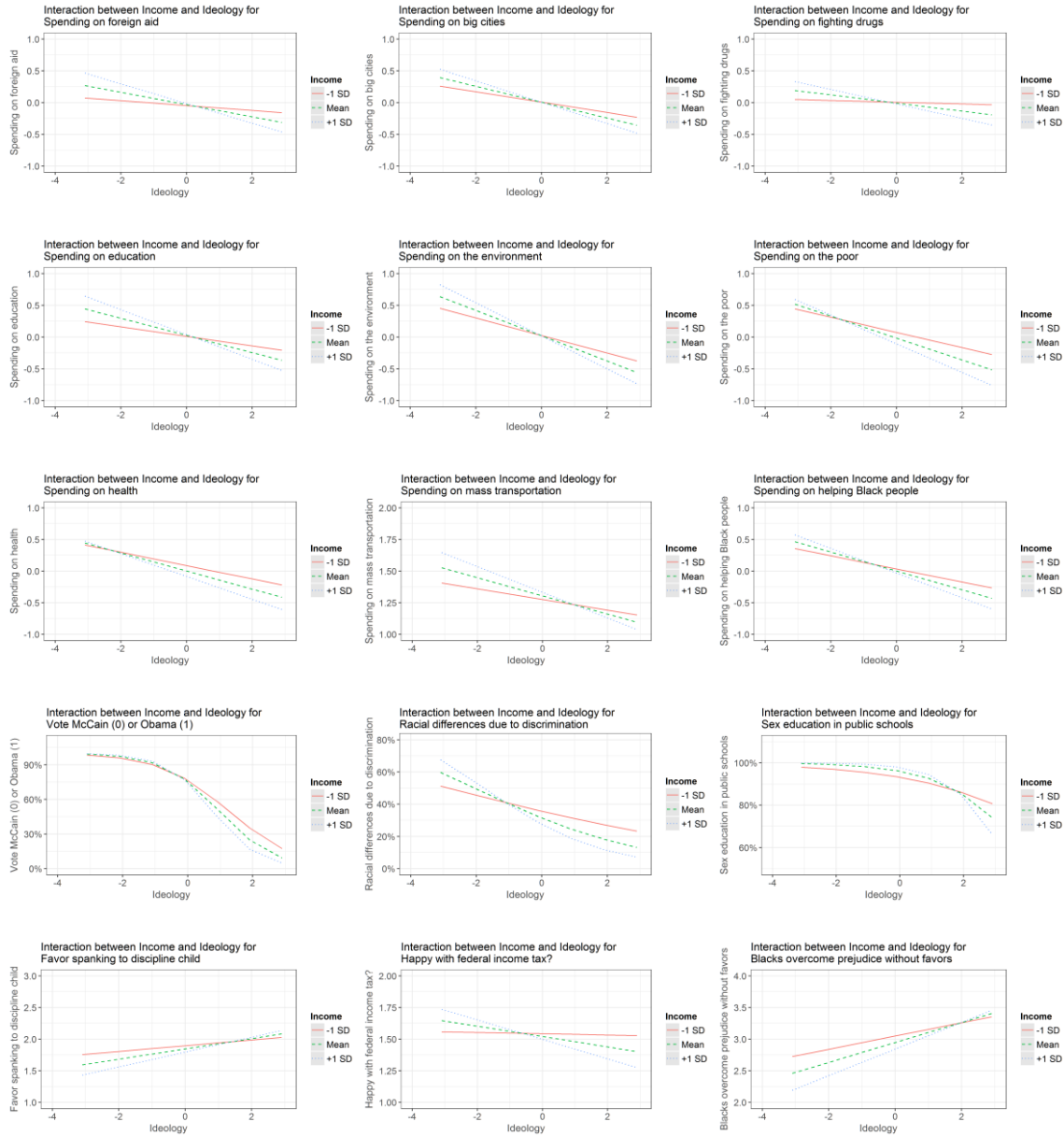
Figure 5. Interactions between Income and Ideology: Behavior and personal attributes measures.



The mean was \$49,893.88.

Figure 6. Interactions between Income and Ideology: Attitude measures.





The mean was \$49,893.88.

Table 4. Significant Income × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem or Rep)	0.491*	0.104*	-0.043*	0.048*	0.016	0.029	0.057*	-0.317*

Confidence in executive branch of federal government	-0.248*	-0.13*	-0.084*	0.031	0.039	-0.033	0.034	0.109*
Spending on the environment	-0.287*	-0.09*	-0.083*	-0.065*	0.014	-0.048	-0.003	0.043
Spending on education	-0.196*	-0.089*	-0.122*	-0.005	0.006	-0.040	0.015	0.055*
P returned money after getting too much change	-0.042*	-0.171*	0.037	-0.026	-0.080	-0.029	-0.018	0.050
Spending on foreign aid	-0.141*	-0.087*	-0.155*	0.076*	-0.008	-0.056*	0.017	0.126*
Should government aid Blacks?	-0.271*	-0.091*	-0.006	-0.001	0.004	-0.014	-0.07*	0.31*
Spending on the poor	-0.248*	-0.077*	0.030	0.023	-0.065*	-0.032	-0.089*	0.137*
P's confidence in the existence of God	0.173*	0.066*	0.033	0.399*	-0.106*	-0.124*	-0.032	0.076*
Happy with federal income tax?	-0.105*	-0.096*	0.004	0.033	0.044	0.076*	-0.041	-0.037
Homosexuals should have right to marry	-0.323*	-0.078*	-0.164*	-0.24*	0.109*	-0.137*	0.056	-0.029
Access to public funded health care if not citizen	-0.252*	-0.125*	-0.030	0.022	0.024	-0.017	-0.002	0.239*
Favor public funding of preventative medical checkups	-0.219*	-0.126*	0.014	-0.046	0.015	-0.076	-0.071	0.108*
Spending on fighting drugs	-0.091*	-0.074*	0.050	0.010	-0.057*	-0.095*	-0.013	0.123*
Racial differences due to discrimination	0.686	1.0*	1.006	1.028	0.919	0.900	1.0*	2.425*
Spending on helping Black people	-0.217*	-0.068*	-0.036	0.047	0.023	-0.039	-0.033	0.338*
How often P visited zoo last year	-0.032*	-0.113*	-0.112*	-0.005	0.061	0.020	0.070	-0.036
Government should provide only limited health care	0.252*	0.114*	0.029	0.063	0.035	0.102*	0.091*	-0.146*
Should government do more?	-0.307*	-0.075*	-0.047	-0.016	-0.071*	-0.028	-0.083*	0.199*
Should government improve standard of living?	-0.284*	-0.073*	-0.020	-0.029	-0.051	-0.051	-0.107*	0.195*
Spending on mass transportation	-0.158*	-0.067*	0.054*	-0.007	0.054	0.059*	0.044	0.017
Were P's parents born in this country	1.137	1.0*	1.002	0.922*	1.041	1.016	1.0*	1.351
Participant income in constant dollars	0.006*	0.067*	0.052	-0.005	0.06*	0.125*	0.55*	0.014
Confidence in press	-0.141*	-0.078*	0.006	-0.028	-0.046	-0.052	0.009	0.030
Was P born in this country	1.034	1.0*	0.994	0.932	1.413	1.182	1.000	0.952

Belief in life after death	1.206	1.0*	0.992	1.225*	0.946	0.67*	1.000	0.884
P's age when 1st child born	-0.025*	-0.066*	0.020	0.012	0.208*	0.16*	0.229*	-0.11*
Spending on big cities	-0.181*	-0.064*	0.022	0.007	0.012	-0.038	0.000	0.157*
Should government help pay for medical care?	-0.353*	-0.067*	-0.063*	-0.054	-0.047	-0.059*	-0.067*	0.181*
Access to public funded health care if damage own health	-0.254*	-0.105*	0.074	-0.022	0.016	0.026	-0.030	0.152*
Sex education in public schools	0.478	1.0*	0.990	0.852*	1.489	0.716	1.0*	1.101
How many grandparents born in U.S.	0.044*	0.06*	-0.104*	-0.067*	0.007	-0.029	0.007	0.118*
Favor death penalty for murder	1.398	1.0*	1.002	0.945*	0.704*	1.269	1.000	0.375*
Science research should be supported by federal government	-0.172*	-0.085*	-0.028	-0.027	0.074	-0.018	0.035	-0.019
Inequality exists for benefit of rich	-0.353*	-0.103*	0.047	0.030	-0.030	-0.061	-0.149*	0.050
Children limit employment and career for one or both parents	0.048*	0.116*	0.043	-0.028	-0.038	-0.052	0.028	0.063
Confidence in education	-0.065*	-0.071*	-0.022	0.029	-0.046	-0.019	-0.022	0.116*
Abortion if pregnant as result of rape	0.636	1.0*	1.017*	0.728*	1.624*	1.088	1.0*	1.634
How scientific is architecture	0.03*	0.116*	-0.074	-0.049	-0.054	-0.086	0.058	0.069
In relationship w/last sex partner?	1.349	1.0*	1.022*	1.033	1.252	0.389*	1.0*	1.308
Vote McCain (0) or Obama (1)	0.32	1.0*	1.009	0.919*	1.256	0.837	1.000	175.608*
Suffer health problems because poor	-0.064*	-0.098*	0.045	-0.060	0.101*	-0.022	-0.014	0.069
Spending on health	-0.205*	-0.054*	-0.042	-0.053	-0.085*	-0.084*	-0.085*	0.107*
P use computer	0.87	1.0*	0.946*	1.036	4.811*	0.502	1.0*	0.491
How often does P pray	0.119*	0.044*	0.115*	0.473*	-0.020	-0.157*	-0.058*	0.094*
Blacks overcome prejudice without favors	0.186*	0.064*	-0.001	0.043	-0.153*	0.027	-0.084*	-0.201*
Favor spanking to discipline child	0.139*	0.064*	-0.049	0.064	-0.043	0.127*	-0.060	0.11*

Note. Total variables = 47. * p < .001. Logistic regressions denoted with an * before variable description.

Interactions with categorical variables. Categorical subgroup differences were analyzed first with interaction terms in the regression analyses. For subgroups for which these interaction tests indicated significant differences and for which there are discrete groups, further analyses were conducted separately for each group. This approach is beneficial in two ways. First, testing interaction terms is known to be a conservative test for subgroup differences because of the reduction in power (Brookes et al., 2004), though it better protects against false positive results. Second, interpreting multiplicative interaction terms is difficult. Eliminating the interaction terms by conducting separate analyses allows the ideology coefficient to be readily interpretable. Note that these additional separate analyses were conducted using the same multiple comparisons adjustments as were used in the overall analyses, given that the separate analyses were conducted because the interaction tests were significant. Using the same adjustments has the benefit of reducing false negatives, but has the drawback of being more susceptible to false positives.

The descriptive statistics¹ for each subgroup are shown in Table 5. Participants with at least some college education were significantly more liberal than those with no college education, $t(4638) = 6.386, p < .0001$. Female participants were significantly more liberal than male participants $t(4638) = 3.223, p = .0006$. Black participants were significantly more liberal than White participants, $t(4259) = 4.677, p < .0001$.

¹ These statistics are unweighted, for ease of interpretation. Weighted analyses were also run and the results were not different.

Table 5. Descriptive statistics for each subgroup.

Subgroup	Total N	Ideology Mean	Ideology SD
College	2,797	3.982	1.488
No college	2,023	4.259	1.381
Female	2,688	4.034	1.461
Male	2,132	4.172	1.437
Black	722	3.869	1.425
White	3,700	4.154	1.453

College education interactions. There were 66 significant interactions between college education and ideology, as shown in Figure 7, Figure 8, and Table 6. In general, across all measures the association between ideology and each measure is weaker for participants with no college education. This includes behavior measures, non-political attitudes, and political attitudes. For example, regarding abortion attitudes, across four measures, for both participants with no college education and participants with at least some college education, more conservative participants were more disapproving of abortion compared to more liberal participants. However, the association between abortion attitudes and ideology was weaker for participants with no college education compared to the association for those with at least some college education. The exceptions to this are: participant's weight and understanding of global warming issues, shown in Figure 7.

Figure 7. Interactions between Education and Ideology: Behavior and personal attributes measures.

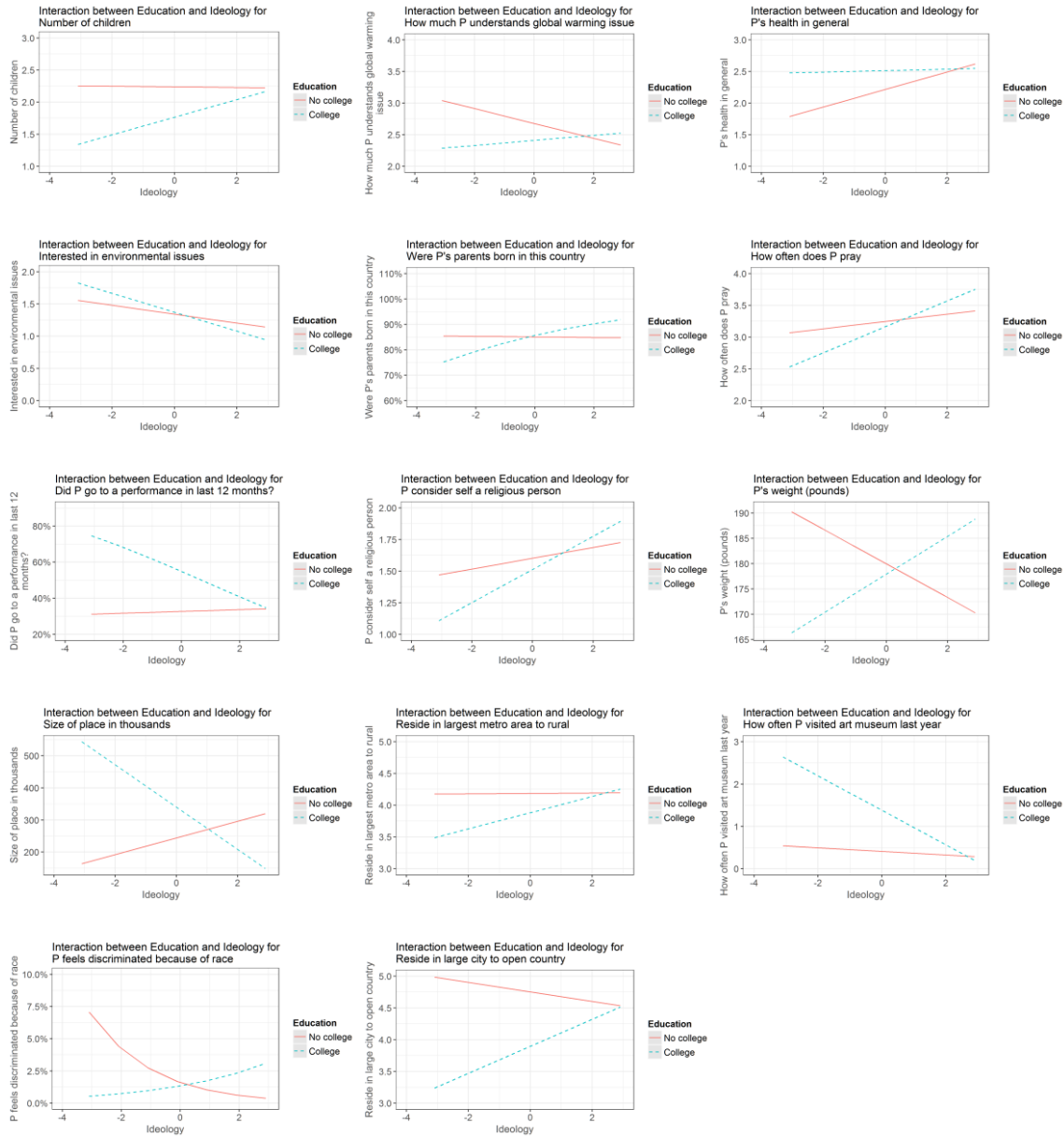
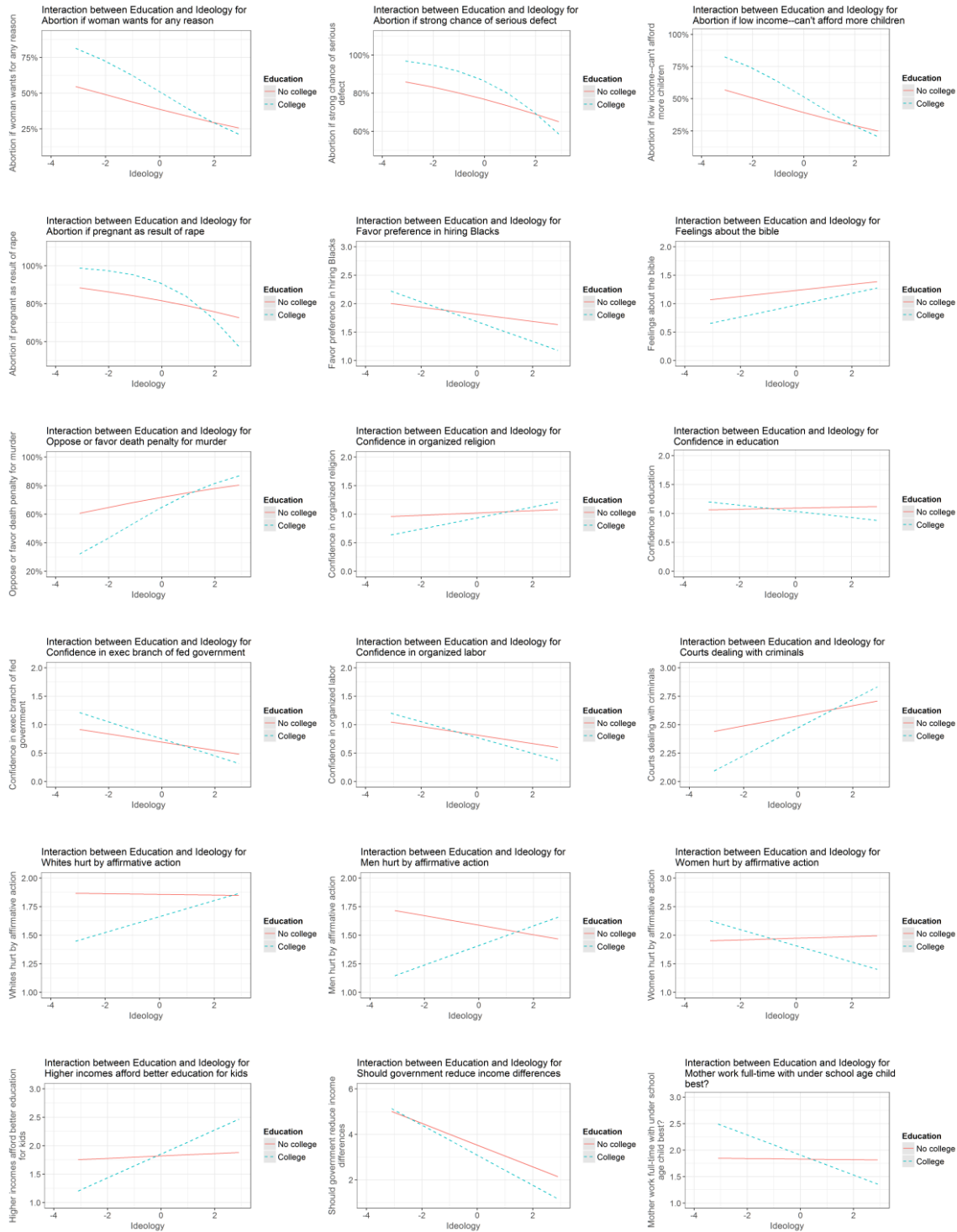
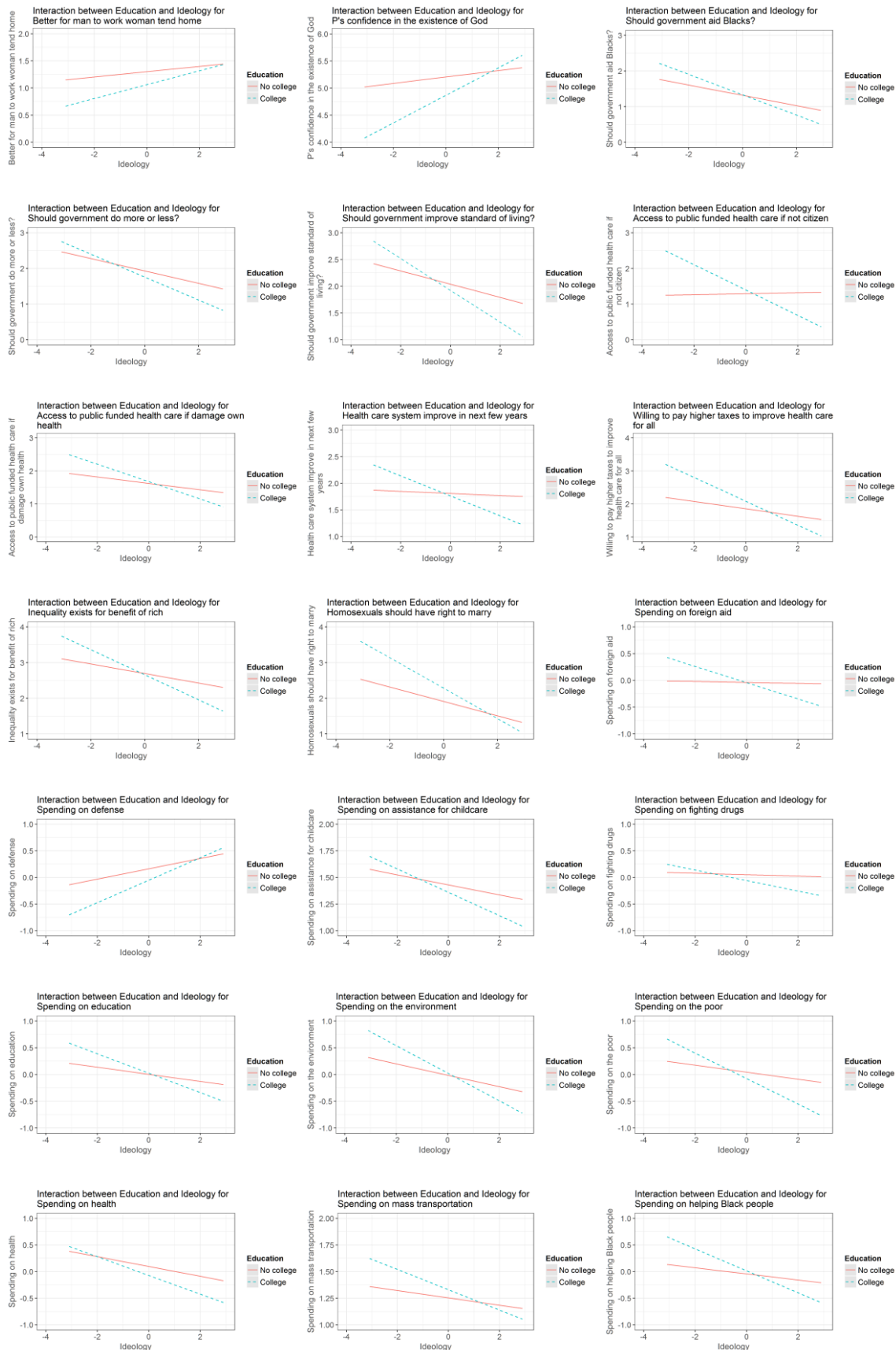


Figure 8. Interactions between Education and Ideology: Attitude measures.





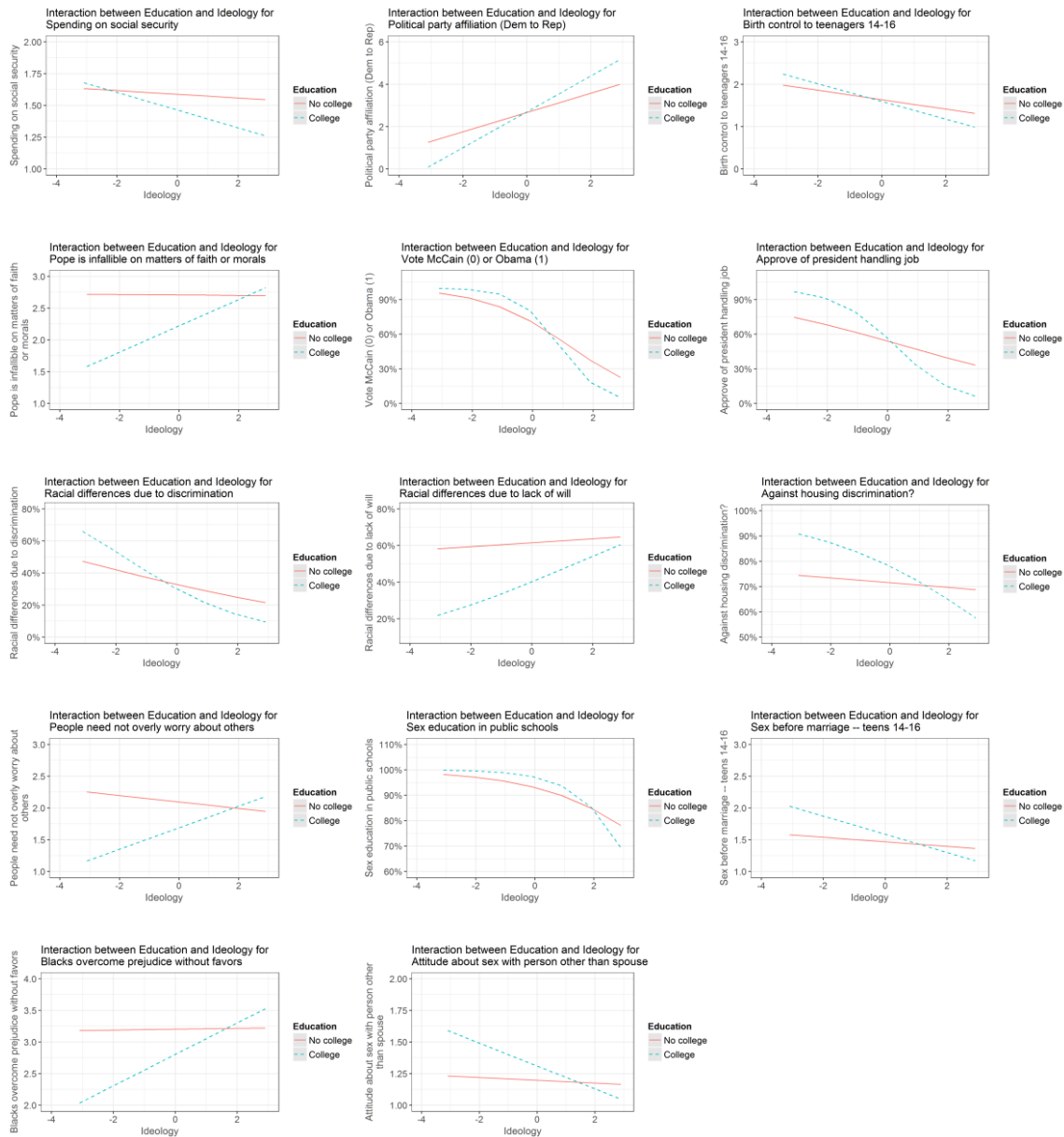


Table 6. Significant Education \times Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.325*	0.221*	-0.045*	0.044	0.008	0.025	0.062*	-0.321*
Spending on the poor	-0.095*	-0.2*	0.029	0.027	-0.058*	-0.028	-0.092*	0.139*

Access to public funded health care if not citizen	0.015*	-0.346*	-0.021	0.029	0.039	-0.009	-0.005	0.245*
Blacks overcome prejudice without favors	0.008*	0.229*	0.002	0.038	-0.16*	0.021	-0.081*	-0.206*
Spending on the environment	-0.155*	-0.176*	-0.081*	-0.061*	0.020	-0.045	-0.006	0.046
Spending on helping Black people	-0.084*	-0.174*	-0.036	0.049	0.029	-0.036	-0.036	0.34*
P's confidence in the existence of God	0.058*	0.152*	0.032	0.396*	-0.112*	-0.128*	-0.029	0.074*
Vote McCain (0) or Obama (1)	0.488	0.479*	1.009	0.921*	1.532	0.853	1.000	195.054*
Spending on foreign aid	-0.013*	-0.17*	-0.153*	0.079*	-0.002	-0.054*	0.013	0.13*
Homosexuals should have right to marry	-0.192*	-0.173*	-0.162*	-0.238*	0.119*	-0.134*	0.052	-0.026
Should government improve standard of living?	-0.152*	-0.171*	-0.018	-0.023	-0.048	-0.048	-0.109*	0.196*
Approve of president handling job	0.743	0.486*	1.003	1.012	1.095	1.039	1.000	22.471*
Abortion if pregnant as result of rape	0.84	0.603*	1.017*	0.728*	2.184*	1.113	1.000	1.651
Spending on education	-0.097*	-0.134*	-0.119*	-0.004	0.011	-0.037	0.012	0.058*
Spending on defense	0.14*	0.132*	0.082*	0.023	-0.104*	-0.067*	0.002	-0.027
Inequality exists for benefit of rich	-0.179*	-0.23*	0.043	0.037	-0.016	-0.054	-0.149*	0.049
Favor death penalty for murder	1.178	1.319*	1.002	0.942*	0.724*	1.257	1.000	0.364*
Willing to pay higher taxes to improve health care for all	0.123*	0.228*	-0.09*	0.029	-0.084	-0.045	0.052	-0.14*
Reside in large city to open country	-0.039*	0.118*	0.05*	-0.002	-0.15*	0.004	-0.049*	-0.18*
How much P understands global warming issue	-0.214*	0.227*	-0.015	-0.019	-0.166*	-0.169*	-0.010	0.127*
P consider self a religious person	0.061*	0.101*	0.094*	0.492*	-0.043	-0.057*	-0.046*	0.076*
Attitude about sex with person other than spouse	-0.025*	-0.145*	0.056	-0.139*	0.087*	0.065*	0.030	-0.006
Courts dealing with criminals	0.089*	0.125*	0.066*	0.046	-0.071*	-0.094*	0.041	-0.124*

Women hurt by affirmative action	0.025*	-0.208*	0.129*	-0.003	-0.076	-0.084	-0.024	-0.020
Should government do more?	-0.203*	-0.137*	-0.045	-0.011	-0.068*	-0.027	-0.084*	0.202*
Should government aid Blacks?	-0.171*	-0.133*	-0.002	0.003	0.007	-0.012	-0.071*	0.313*
People need not overly worry about others	-0.07*	0.241*	-0.178*	-0.075	-0.189*	0.134*	-0.048	0.012
Did P go to a performance in last 12 months?	1.022	0.736*	0.993	1.113*	2.498*	1.038	1.0*	0.753
How often does P pray	0.047*	0.095*	0.114*	0.471*	-0.023	-0.159*	-0.056*	0.093*
Sex before marriage - teens 14-16	-0.058*	-0.139*	-0.162*	-0.222*	0.065	0.065*	0.022	0.009
Confidence in organized religion	0.043*	0.132*	0.001	0.276*	-0.065*	-0.039	0.029	0.030
Racial differences due to discrimination	0.821	0.747*	1.006	1.029	0.879	0.903	1.000	2.535*
Number of children	-0.005*	0.101*	0.39*	0.106*	-0.142*	-0.039	0.028	0.121*
Confidence in exec branch of fed government	-0.154*	-0.131*	-0.078*	0.035	0.042	-0.033	0.033	0.114*
P's weight (pounds)	-0.111*	0.194*	0.006	-0.028	-0.022	0.406*	0.003	0.061
Spending on assistance for childcare	-0.105*	-0.111*	-0.078*	-0.018	-0.053	-0.054*	-0.075*	0.132*
Favor preference in hiring Blacks	-0.09*	-0.13*	-0.014	-0.010	-0.063	-0.010	-0.023	0.241*
P's health in general	-0.183*	0.135*	0.163*	-0.096*	-0.133*	-0.006	-0.166*	-0.008
Against housing discrimination?	0.954	0.753*	0.993	1.017	1.412	0.566*	1.000	3.85*
Spending on mass transportation	-0.077*	-0.109*	0.056*	-0.006	0.057*	0.061*	0.041	0.019
Reside in largest metro area to rural	0.004*	0.098*	0.011	0.000	-0.101*	0.002	-0.084*	-0.225*
Mother work full-time with under school age child best?	-0.008*	-0.209*	-0.155*	-0.053	0.043	-0.092	-0.023	0.015
How often P visited art museum last year	-0.025*	-0.167*	0.009	0.006	0.189*	-0.001	0.042	-0.063
Abortion if strong chance of serious defect	0.82	0.727*	1.022*	0.757*	1.924*	1.047	1.000	1.103

Size of place in thousands	0.035*	-0.1*	0.001	0.021	0.044	-0.011	-0.012	0.118*
Health care system improve in next few years	-0.026*	-0.183*	0.090	0.043	-0.020	0.020	-0.001	0.153*
Spending on social security	-0.034*	-0.104*	-0.001	0.012	-0.099*	-0.105*	-0.083*	0.105*
Confidence in organized labor	-0.173*	-0.119*	-0.138*	0.014	-0.034	-0.048	-0.061	0.068*
Pope is infallible on matters of faith or morals	-0.005*	0.209*	-0.062	0.314*	-0.216*	-0.004	-0.044	-0.004
Racial differences due to lack of will	1.046	1.268*	1.006	0.979	0.419*	1.135	1.000	0.957
Better for man to work woman tend home	0.088*	0.115*	0.117*	0.133*	-0.146*	0.116*	-0.087*	-0.032
Access to public funded health care if damage own health	-0.124*	-0.176*	0.082	-0.018	0.023	0.028	-0.032	0.157*
Interested in environmental issues	-0.156*	-0.141*	0.066	0.002	0.023	0.023	0.001	0.062
Whites hurt by affirmative action	-0.006*	0.124*	0.096*	0.021	-0.137*	-0.031	-0.071*	-0.107*
Birth control to teenagers 14-16	-0.158*	-0.11*	-0.144*	-0.212*	-0.020	-0.11*	0.043	0.032
Spending on health	-0.133*	-0.096*	-0.040	-0.052	-0.082*	-0.082*	-0.087*	0.108*
Spending on fighting drugs	-0.019*	-0.099*	0.053	0.011	-0.054	-0.093*	-0.016	0.126*
Abortion if low income--can't afford more children	0.795	0.775*	1.005	0.822*	1.629*	0.879	1.0*	1.695*
Abortion if woman wants for any reason	0.811	0.775*	1.001	0.804*	1.643*	0.891	1.0*	1.718*
Feelings about the bible	0.107*	0.081*	0.005	0.371*	-0.176*	-0.095*	-0.059*	0.103*
Should government reduce income differences	-0.335*	-0.102*	-0.027	-0.006	-0.105*	-0.033	-0.091*	0.14*
Men hurt by affirmative action	-0.068*	0.168*	0.020	0.066	-0.097*	0.066	-0.066	-0.012
Confidence in education	0.022*	-0.116*	-0.019	0.034	-0.044	-0.017	-0.024	0.118*
Sex education in public schools	0.634	0.615*	0.991	0.852*	2.606*	0.769	1.000	1.077
Higher incomes afford better education for kids	0.023*	0.172*	0.000	0.016	0.013	0.082	0.115*	-0.013

*Were P's parents
 born in this country 0.991* 1.256* 1.002 0.921* 1.049 1.007 1.000 1.329

Note. Total variables = 66. * $p < .001$. Logistic regressions denoted with an * before variable description.

Paired comparisons. For each of the 66 significant interactions, the regression coefficients from the separate regressions were compared. These are shown in Table 7. The first row of each pair of rows shows the regression coefficients for participants with no college education. The second row of each pair of rows shows the regression coefficients for participants with at least some college education. Logistic regression coefficients are denoted with an *asterisk.

Note that the regression coefficients shown are those that were significant at an alpha level of .05. However, not all of the individual regressions were significant after adjusting for multiple comparisons. Thus, these results should be interpreted with that caveat in mind. In addition, regressions that were not significant even at a .05 alpha level are denoted by “NS.”

Notably, every one of the associations except two was stronger for participants with at least some college education. Regarding participants’ understanding of the global warming issue, for participants with no college education, more conservative participants reported lesser understanding compared to more liberal participants, $\beta = -0.199$, *adjusted-p* = .01. For participants with at least some college education, more conservative participants reported greater understanding compared to more liberal participants, $\beta = 0.101$, *adjusted-p* = .257, though this was not significant after adjusting for multiple comparisons. Regarding participants’ weight, for participants with no college education, more conservative participants reported weighing less than more liberal participants, $\beta = -0.094$, *adjusted-p* = 1.052, though this was not significant after adjusting for multiple comparisons. For participants with at least some college education,

more conservative participants reported weighing more than more liberal participants, $\beta = 0.129$, *adjusted-p* = .006. In addition, all of the regressions that were not significant at an unadjusted .05 alpha level are for participants with no college education. Also, after adjusting for multiple comparisons, all of the regressions that were not significant are for participants with no college education, with the exception of understanding of global warming, as noted above.

Table 7. Comparison of separate analyses for each significant interaction for No college vs. College participants.

Variable	Ideology	Age	Church attendance	Gender	Income	Race	Adjusted p-value	R ²
Political party affiliation (Dem to Rep)	0.32*	-0.1*	0.06	0.03	0.07*	-0.36*	.00	.28
Political party affiliation (Dem to Rep)	0.6*	0	0.04	0.02	0.05	-0.3*	.00	.50
Spending on the poor	-0.07	0	0	-0.02	-0.18*	0.14*	.30	.08
Spending on the poor	-0.36*	0.04	0.04	-0.03	-0.05	0.13*	.00	.16
Access to public funded health care if not citizen	NS							
Access to public funded health care if not citizen	-0.42*	0.06	0.02	-0.02	0.04	0.25*	.00	.26
Blacks overcome prejudice without favors	NS							
Blacks overcome prejudice without favors	0.28*	-0.03	0.06	0.02	-0.1*	-0.2*	.00	.14
Spending on the environment	-0.14*	-0.09*	-0.1*	-0.02	0.02	0.01	.00	.05
Spending on the environment	-0.39*	-0.07*	-0.03	-0.07*	-0.02	0.07*	.00	.19
Spending on helping Black people	-0.07	-0.04	0.05	0	-0.05	0.39*	.39	.18
Spending on helping Black people	-0.32*	-0.02	0.05	-0.06	-0.03	0.31*	.00	.23

P's confidence in the existence of God	0.07	0.07	0.34*	-0.1*	-0.01	0.02	.16	.18
P's confidence in the existence of God	0.23*	0.02	0.43*	-0.15*	-0.03	0.11*	.00	.38
Vote McCain (0) or Obama (1)	0.45	1.02	1	0.74	1	1409.21*	.00	NA
Vote McCain (0) or Obama (1)	0.24	1	0.88*	0.94	1	137.59*	.00	NA
Spending on foreign aid	NS							
Spending on foreign aid	-0.24*	-0.12*	0.07*	-0.04	0.04	0.08*	.00	.08
Homosexuals should have right to marry	-0.18*	-0.16*	-0.25*	-0.17*	0.01	0.01	.00	.19
Homosexuals should have right to marry	-0.43*	-0.17*	-0.24*	-0.11*	0.07	-0.05	.00	.39
Should government improve standard of living?	-0.13*	-0.02	-0.04	-0.12*	-0.13*	0.18*	.00	.11
Should government improve standard of living?	-0.4*	-0.03	-0.02	0	-0.09*	0.2*	.00	.25
Approve of president handling job	0.76	1	0.97	0.8	1	25.76	.20	NA
Approve of president handling job	0.33	1	1.07	1.3	1	21.97*	.00	NA
Abortion if pregnant as result of rape	0.82	1.02	0.76*	1.21	1	1.63	.18	NA
Abortion if pregnant as result of rape	0.52	1.01	0.69*	1.08	1	1.67	.00	NA
Spending on education	-0.1*	-0.08	0	-0.01	0.06	0.08	.01	.03
Spending on education	-0.27*	-0.14*	0	-0.05	-0.01	0.05	.00	.11
Spending on defense	0.13*	0.11*	-0.01	-0.09*	0.05	-0.03	.00	.07
Spending on defense	0.31*	0.07*	0.05	-0.06	-0.02	-0.02	.00	.13
Inequality exists for benefit of rich	-0.19*	0.05	0.01	-0.11	-0.15*	0.06	.01	.09
Inequality exists for benefit of rich	-0.46*	0.03	0.06	-0.02	-0.14*	0.04	.00	.24
Favor death penalty for murder	1.18	1.01	0.91*	0.98	1.0*	0.38*	.05	NA

Favor death penalty for murder	1.53	1	0.96	1.43*	1	0.37*	.00	NA
Willing to pay higher taxes to improve health care for all	0.11	-0.06	0	-0.05	0.18*	-0.16	.80	.07
Willing to pay higher taxes to improve health care for all	0.42*	-0.09	0.04	-0.04	-0.01	-0.12*	.00	.20
Reside in large city to open country	NS							
Reside in large city to open country	0.13*	0.05	0.02	-0.01	-0.06	-0.15*	.00	.10
How much P understands global warming issue	-0.2*	0.03	-0.01	-0.06	-0.04	0.09	.01	.07
How much P understands global warming issue	0.1	-0.03	-0.03	-0.25*	0	0.17*	.26	.10
P consider self a religious person	0.07	0.15*	0.42*	-0.05	-0.05	0.07	.10	.29
P consider self a religious person	0.17*	0.06*	0.54*	-0.06*	-0.03	0.08*	.00	.42
Attitude about sex with person other than spouse	NS							
Attitude about sex with person other than spouse	-0.21*	0.08*	-0.14*	0.08*	0.05	-0.02	.00	.11
Courts dealing with criminals	0.07	0.17*	0.03	-0.06	0.12*	-0.17*	.41	.10
Courts dealing with criminals	0.26*	0	0.05	-0.11*	0.01	-0.08*	.00	.10
Women hurt by affirmative action	NS							
Women hurt by affirmative action	-0.25*	0.14*	0.01	-0.1	-0.04	-0.02	.00	.09
Should government do more?	-0.18*	-0.05	-0.05	-0.04	-0.09*	0.2*	.00	.10
Should government do more?	-0.4*	-0.04	0.01	-0.02	-0.07*	0.2*	.00	.24
Should government aid Blacks?	-0.15*	-0.06	0.02	0	-0.12*	0.33*	.00	.21
Should government aid Blacks?	-0.35*	0.02	-0.01	-0.01	-0.05	0.29*	.00	.23

People need not overly worry about others	NS								
People need not overly worry about others		0.24*	-0.23*	-0.06	0.17*	-0.07	0.02	.00	.12
*Did P go to a performance in last 12 months?	NS								
Did P go to a performance in last 12 months?		0.75	0.99	1.09*	1.15	1.0*	0.59	.00	NA
How often does P pray		0.05	0.13*	0.43*	-0.19*	-0.05	0.05	.63	.34
How often does P pray		0.15*	0.1*	0.5*	-0.14*	-0.05*	0.12*	.00	.43
Sex before marriage - - teens 14-16		-0.07	-0.17*	-0.17*	0.04	0.03	0.06	.96	.10
Sex before marriage - - teens 14-16		-0.22*	-0.16*	-0.25*	0.08	0.02	-0.03	.00	.20
Confidence in organized religion	NS								
Confidence in organized religion		0.21*	-0.01	0.31*	-0.03	0	0.04	.00	.19
Racial differences due to discrimination		0.81	1.01	1.02	1.2	1.0*	2.05*	.02	NA
Racial differences due to discrimination		0.62	1	1.03	0.76	1	3.01*	.00	NA
Number of children	NS								
Number of children		0.13*	0.39*	0.12*	-0.02	0.06*	0.11*	.00	.22
Confidence in exec branch of fed government		-0.15*	-0.04	0.03	-0.08	-0.05	0.11*	.00	.06
Confidence in exec branch of fed government		-0.32*	-0.1*	0.03	0	0.08*	0.11*	.00	.13
P's weight (pounds)		-0.09	-0.02	-0.02	0.31*	0.05	-0.01	1.06	.10
P's weight (pounds)		0.13*	0.03	-0.03	0.48*	-0.03	0.11*	.01	.26
Spending on assistance for childcare		-0.1*	-0.06	-0.03	0.01	-0.11*	0.1*	.02	.05
Spending on assistance for childcare		-0.24*	-0.09*	-0.01	-0.1*	-0.05	0.15*	.00	.13
Favor preference in hiring Blacks		-0.07	-0.03	0.03	0.03	-0.1*	0.24*	.75	.12

Favor preference in hiring Blacks	-0.27*	0	-0.04	-0.04	0.01	0.24*	.00	.15
P's health in general	-0.17*	0.19*	-0.13*	-0.03	-0.14*	-0.1	.00	.10
P's health in general	NS							
*Against housing discrimination?	NS							
Against housing discrimination?	0.71	0.99	1.05	0.52*	1	4.16*	.00	NA
Spending on mass transportation	-0.06	0.02	-0.02	-0.05	0.04	0.11*	.75	.02
Spending on mass transportation	-0.23*	0.07*	0.01	0.13*	0.03	-0.05	.00	.07
Reside in largest metro area to rural	NS							
Reside in largest metro area to rural	0.13*	0.02	0.03	-0.02	-0.09*	-0.19*	.00	.12
Mother work full-time with under school age child best?	NS							
Mother work full-time with under school age child best?	-0.31*	-0.16	-0.02	-0.1	-0.09	0.01	.00	.15
How often P visited art museum last year	NS							
How often P visited art museum last year	-0.2*	0.05	-0.02	0.01	0.02	-0.1	.00	.04
Abortion if strong chance of serious defect	0.8	1.02*	0.81*	1.54	1	1.32	.04	NA
Abortion if strong chance of serious defect	0.61	1.02	0.7*	0.76	1	0.93	.00	NA
Size of place in thousands	NS							
Size of place in thousands	-0.08*	-0.02	0	0	-0.01	0.12*	.01	.11
Health care system improve in next few years	NS							
Health care system improve in next few years	-0.26*	0.1	0.01	0.01	0.01	0.14*	.00	.10
Spending on social security	NS							
Spending on social security	-0.16*	-0.03	0.01	-0.12*	-0.08*	0.15*	.00	.09

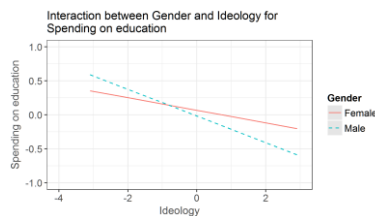
Confidence in organized labor	-0.19*	-0.09	0.03	-0.08	0.02	0.03	.00	.05
Confidence in organized labor	-0.32*	-0.17*	-0.01	-0.03	-0.08*	0.1*	.00	.17
Pope is infallible on matters of faith or morals	NS							
Pope is infallible on matters of faith or morals	0.25*	-0.05	0.36*	-0.07	-0.07	0.02	.00	.20
*Racial differences due to lack of will	NS							
Racial differences due to lack of will	1.33	1	0.98	1.2	1	1.2	.00	NA
Better for man to work woman tend home	0.08	0.16*	0.08	0.09	-0.1*	-0.07	.39	.08
Better for man to work woman tend home	0.24*	0.09*	0.17*	0.15*	-0.08	-0.01	.00	.15
Access to public funded health care if damage own health	-0.12	-0.04	0.05	0.06	-0.18*	0.09	.54	.07
Access to public funded health care if damage own health	-0.35*	0.15*	-0.05	0.01	0.03	0.18*	.00	.18
Interested in environmental issues	-0.15*	0.07	0.03	-0.02	0.05	0.05	.01	.03
Interested in environmental issues	-0.35*	0.07	-0.02	0.04	-0.03	0.08	.00	.12
Whites hurt by affirmative action	NS							
Whites hurt by affirmative action	0.15*	0.08	0.03	-0.03	-0.13*	-0.11*	.00	.07
Birth control to teenagers 14-16	-0.14*	-0.15*	-0.24*	-0.09	0	0.06	.00	.16
Birth control to teenagers 14-16	-0.31*	-0.14*	-0.18*	-0.12*	0.06	0	.00	.22
Spending on health	-0.14*	-0.01	-0.08	-0.04	-0.07	0.1*	.00	.05
Spending on health	-0.25*	-0.06	-0.03	-0.1*	-0.09*	0.12*	.00	.13
Spending on fighting drugs	NS							
Spending on fighting drugs	-0.14*	0.08*	0	-0.11*	0.01	0.16*	.00	.06

Abortion if low income--can't afford more children	0.79	1	0.86*	1.35	1	2.69*	.01	NA
Abortion if low income--can't afford more children	0.61	1.01	0.8*	0.63*	1.0*	1.04	.00	NA
Abortion if woman wants for any reason	0.81	1	0.81*	1.21	1.0*	3.32*	.03	NA
Abortion if woman wants for any reason	0.62	1	0.8*	0.71	1.0*	0.94	.00	NA
Feelings about the bible	0.1*	0.04	0.35*	-0.07	-0.05	0.05	.01	.20
Feelings about the bible	0.23*	-0.03	0.4*	-0.11*	-0.06	0.15*	.00	.35
Should government reduce income differences	-0.31*	-0.07	-0.02	-0.03	-0.11*	0.12*	.00	.15
Should government reduce income differences	-0.48*	-0.01	0.01	-0.03	-0.08*	0.14*	.00	.29
Men hurt by affirmative action	NS							
Men hurt by affirmative action	0.14*	0.04	0.07	0.06	-0.1	-0.05	.01	.05
Confidence in education	NS							
Confidence in education	-0.12*	-0.04	0.03	-0.04	0	0.1*	.00	.03
Sex education in public schools	0.63	0.99	0.89	0.77	1	1.12	.00	NA
Sex education in public schools	0.4	0.99	0.82*	0.78	1	1.29	.00	NA
Higher incomes afford better education for kids	NS							
Higher incomes afford better education for kids	0.25*	-0.03	-0.02	0.12*	0.12*	-0.07	.00	.12
*Were P's parents born in this country	NS							
Were P's parents born in this country	1.22	1	0.94	1.06	1	1.13	.00	NA

Note. The first row of each pair of rows is for No college participants. The second row is for College educated participants. All linear regression coefficients are standardized. All logistic regression coefficients (denoted by asterisks before the description) are odds ratios. * $p < .001$.

Gender interactions. There was one significant interaction between gender and ideology, shown in Figure 9: attitudes about government spending on education. In the separated analyses, female participants who were more conservative were less approving of government spending on education, $\beta = -0.143$, *adjusted p* = .042, though to a lesser degree than male participants, $\beta = -0.265$, *adjusted p* = 5.25×10^{-5} .

Figure 9. Interaction between Gender and Ideology.



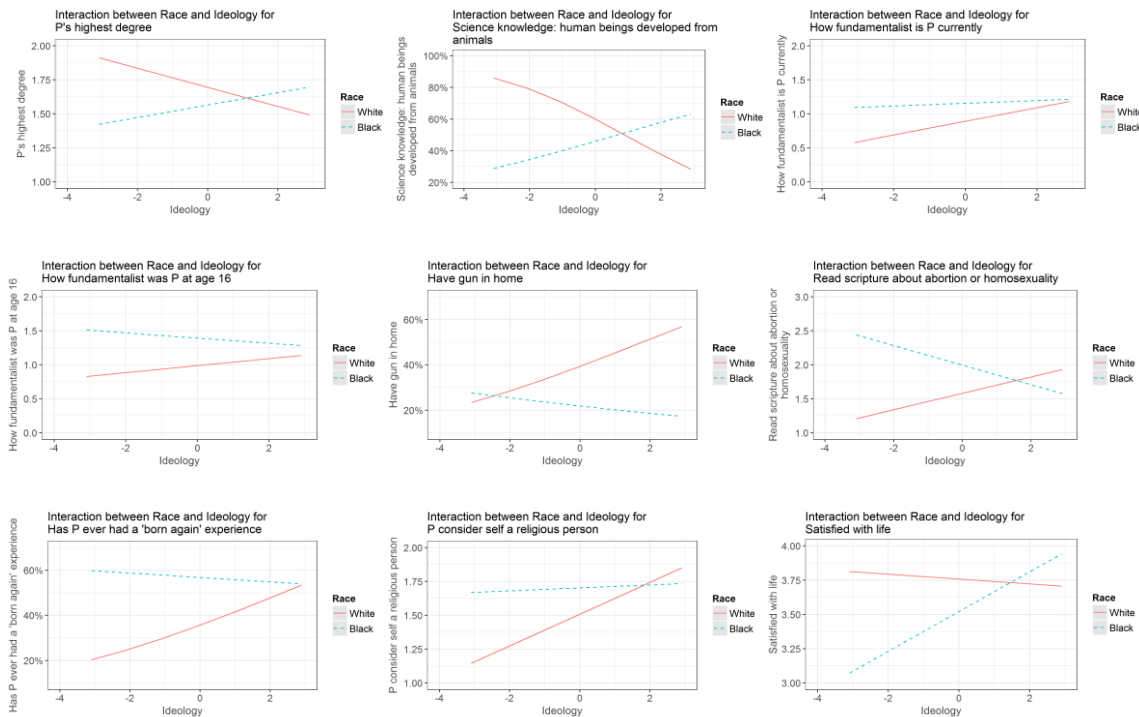
Race interactions. The most notable set of interactions was between race and ideology. There were 75 significant interactions, as shown in Figure 10, Figure 11, and Table 8. Each graph shows plots for the association between ideology and that measure for White participants and for Black participants. Across almost all measures, the associations between ideology and each measure were as expected for White participants based on previous research, but the associations were not significant for Black participants.

When adjusting for multiple comparisons, for Black participants, only the association between ideology and political party affiliation was significant. The more conservative the participant, the more closely affiliated he or she was with the Republican Party, $\beta = 0.189$, *adjusted p* = .013. There were 722 Black participants, which is adequately powered to detect a small effect, based on the power analyses. Moreover, when not adjusting for multiple

comparisons, most measures were still not significantly associated with ideology. Among the measures for which there was a significant interaction between race and ideology, there were as many associations (for nine measures each) that were in the opposite directions for Black and White participants as there were associations in the same direction.

This pattern is most striking for the political attitude measures. For example, regarding capital punishment, more conservative White participants were more supportive of it compared to more liberal White participants. However, there was no significant difference between more conservative Black participants and more liberal Black participants.

Figure 10. Interactions between Race and Ideology: Behavior and personal attributes measures.



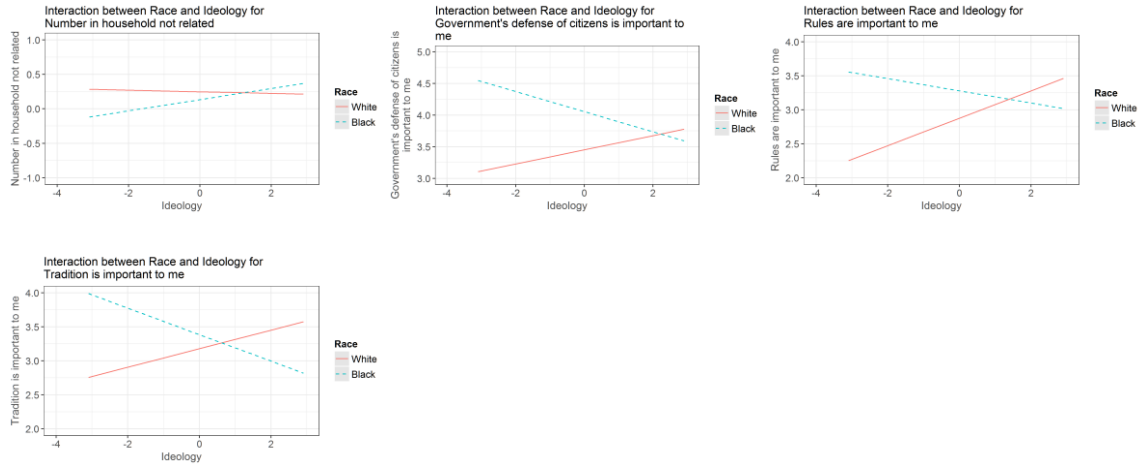
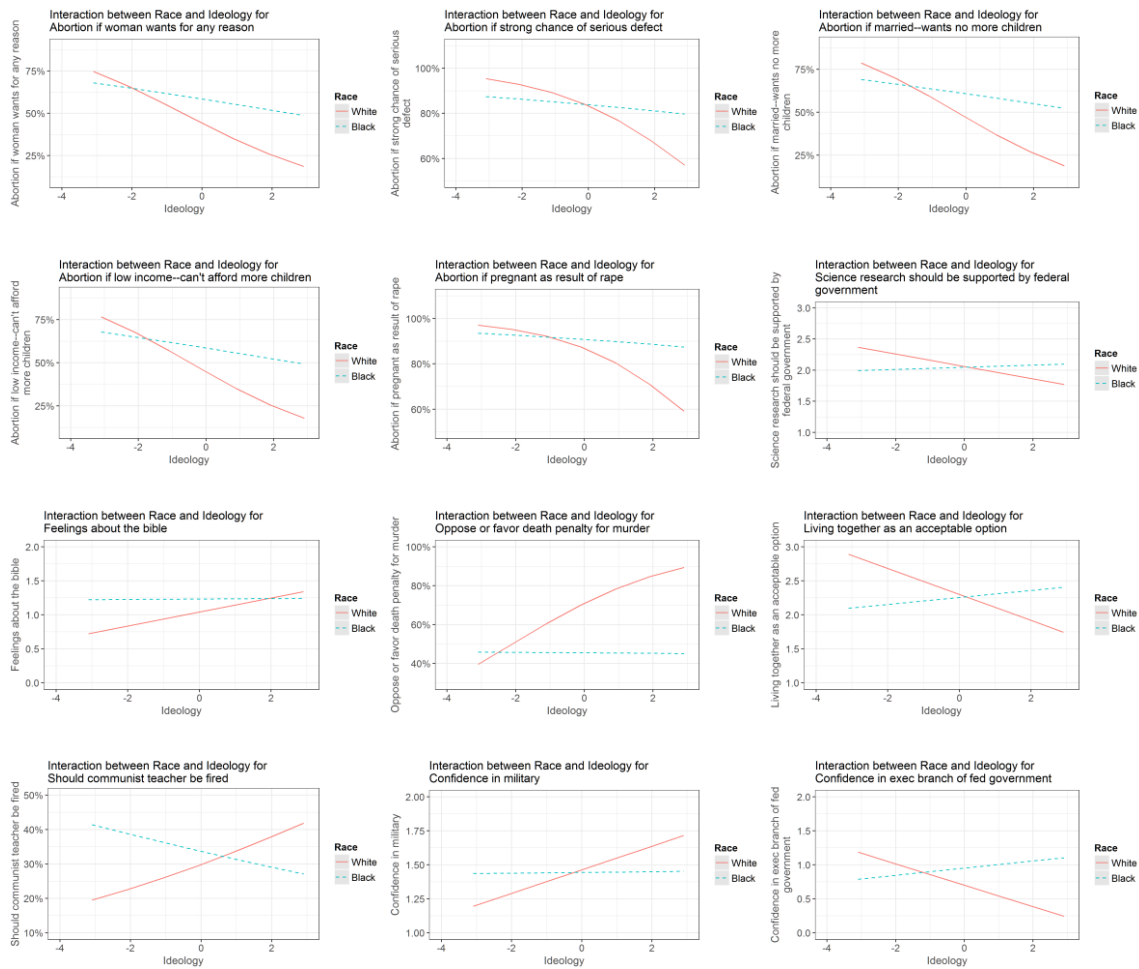
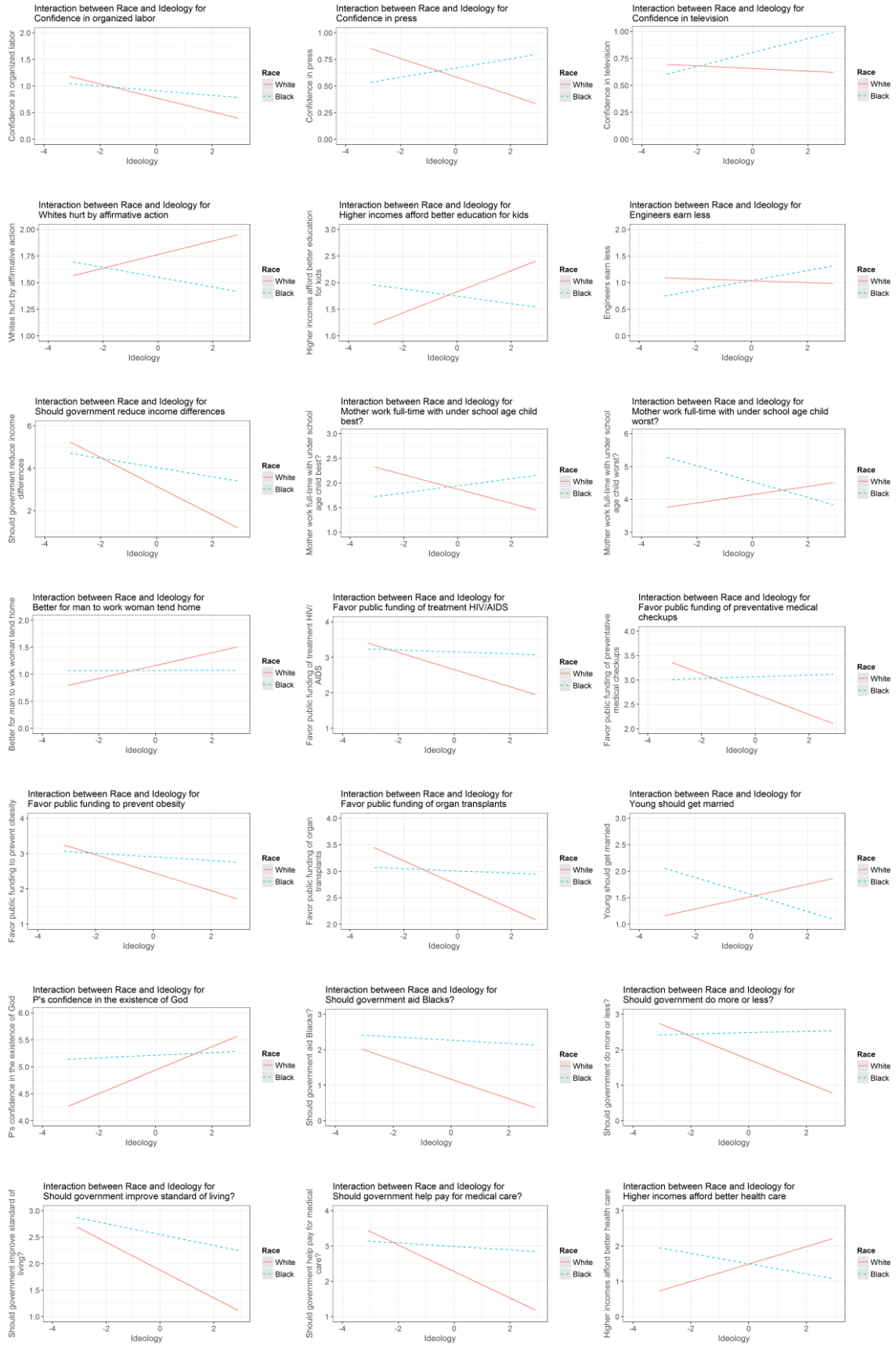
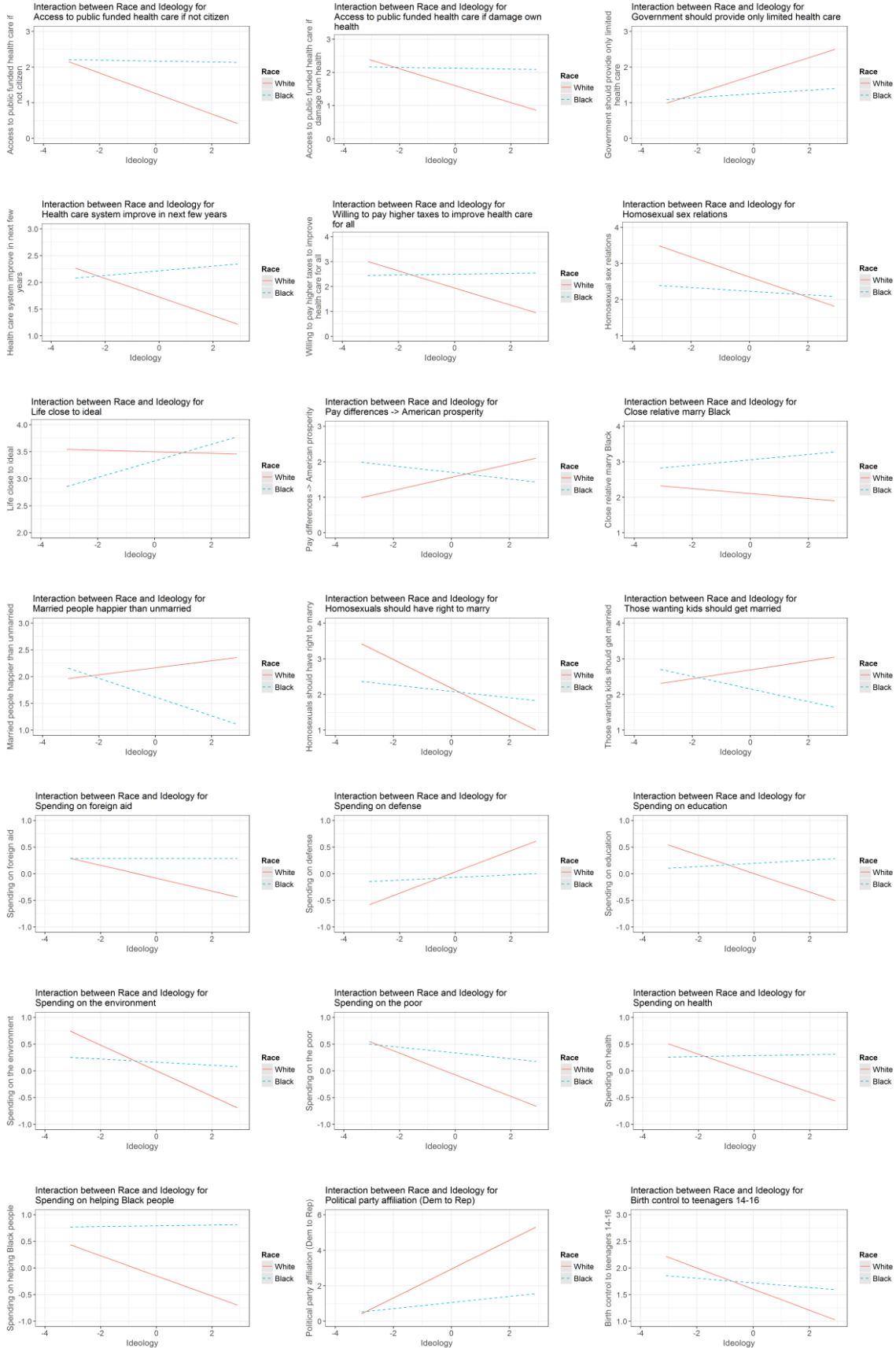


Figure 11. Interactions between Race and Ideology: Attitude measures.







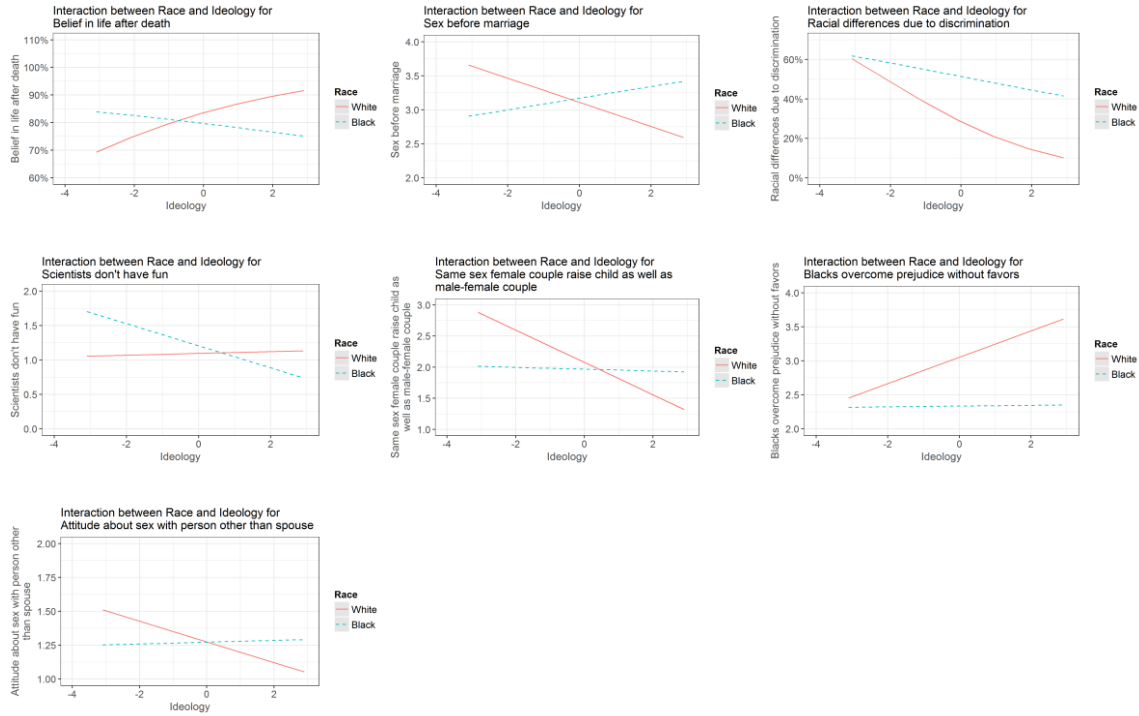


Table 8. Significant Race \times Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.58*	-0.18*	-0.05*	0.04	0.02	0.03	0.05*	-0.34*
Confidence in exec branch of fed government	-0.34*	0.18*	-0.07*	0.04	0.04	-0.03	0.04	0.14*
Should government do more?	-0.38*	0.16*	-0.04	-0.01	-0.07*	-0.03	-0.08*	0.22*
Should government help pay for medical care?	-0.42*	0.15*	-0.05	-0.05	-0.05	-0.06*	-0.06*	0.2*
Spending on the environment	-0.35*	0.12*	-0.07*	-0.06*	0.01	-0.05*	0	0.06*
Spending on helping Black people	-0.28*	0.12*	-0.03	0.05	0.02	-0.04	-0.03	0.35*
Spending on education	-0.25*	0.12*	-0.11*	0	0.01	-0.04	0.02	0.07*
Should government reduce income differences	-0.47*	0.13*	-0.02	0	-0.1*	-0.03	-0.09*	0.16*
Homosexuals should have right to marry	-0.38*	0.12*	-0.15*	-0.24*	0.11*	-0.14*	0.06*	-0.02

Attitude about sex before marriage	-0.22*	0.12*	-0.06*	-0.38*	0.06*	-0.01	0.1*	0.02
Spending on health	-0.26*	0.11*	-0.04	-0.05	-0.09*	-0.09*	-0.08*	0.12*
Favor death penalty for murder	1.53	0.65*	1	0.94*	0.71*	1.28	1	0.34*
Spending on defense	0.29*	-0.1*	0.08*	0.02	-0.1*	-0.06*	0	-0.04
Higher incomes afford better health care	0.27*	-0.17*	0.01	0.01	0.02	0.12*	0.07	0
Should government aid Blacks?	-0.32*	0.11*	0	0	0.01	-0.01	-0.07*	0.33*
Confidence in press	-0.2*	0.12*	0.02	-0.02	-0.04	-0.05	0.01	0.05
Feelings about the bible	0.21*	-0.08*	0	0.37*	-0.17*	-0.09*	-0.06*	0.1*
Willing to pay higher taxes to improve health care for all	0.38*	-0.15*	-0.1*	0.02	-0.07	-0.04	0.04	-0.15*
Homosexual sex relations	-0.29*	0.1*	-0.12*	-0.3*	0.15*	-0.13*	0.09*	-0.1*
P's confidence in the existence of God	0.21*	-0.07*	0.03	0.4*	-0.11*	-0.12*	-0.03	0.07*
Spending on the poor	-0.29*	0.09*	0.04	0.03	-0.07*	-0.03	-0.09*	0.15*
Those wanting kids should get married	0.17*	-0.15*	0.2*	0.19*	0.04	0.11*	0.01	-0.18*
Favor public funding of treatment HIV/AIDS	-0.35*	0.12*	0	-0.02	-0.02	-0.03	-0.08	0.18*
Favor public funding of preventative medical checkups	-0.3*	0.13*	0.03	-0.03	0.01	-0.08	-0.07	0.12*
Access to public funded health care if not citizen	-0.33*	0.13*	-0.01	0.04	0.02	-0.02	0	0.26*
Whites hurt by affirmative action	0.14*	-0.09*	0.09*	0.02	-0.13*	-0.03	-0.08*	-0.11*
Pay differences -> American prosperity	0.25*	-0.14*	-0.02	-0.07	-0.08	-0.04	0	0.05
P consider self a religious person	0.17*	-0.06*	0.09*	0.49*	-0.04	-0.05*	-0.05*	0.07*
Access to public funded health care if damage own health	-0.33*	0.12*	0.09	-0.01	0.01	0.02	-0.03	0.17*
P's highest degree	-0.08*	0.05*	0.07*	0.06*	0.56*	0	0.21*	-0.04

Birth control to teenagers 14-16	-0.28*	0.08*	-0.14*	-0.21*	-0.02	-0.12*	0.05	0.04
Young should get married	0.13*	-0.12*	0.07	0.15*	-0.08	0.04	-0.01	0.01
Favor public funding of organ transplants	-0.34*	0.12*	-0.01	-0.02	-0.11*	-0.07	-0.09	0.1*
Blacks overcome prejudice without favors	0.23*	-0.08*	-0.01	0.04	-0.15*	0.03	-0.09*	-0.21*
Living together as an acceptable option	0.23*	-0.11*	0.2*	0.42*	-0.05	0.02	-0.07	0.01
How fundamentalist was P at age 16	0.1*	-0.07*	-0.04	0.11*	-0.06*	0.02	-0.1*	0.19*
Scientists don't have fun	0.03*	-0.16*	0.19*	-0.06	-0.07	-0.01	-0.13*	0.07
Should government improve standard of living?	-0.32*	0.08*	-0.01	-0.03	-0.05	-0.05	-0.11*	0.21*
Tradition is important to me	0.14*	-0.13*	0.01	0.2*	0	-0.11*	0.01	0.05
Science research should be supported by federal government	-0.23*	0.1*	-0.01	-0.02	0.08	-0.02	0.04	-0.01
Better for man to work woman tend home	0.21*	-0.08*	0.11*	0.13*	-0.14*	0.12*	-0.09*	-0.04
Belief in life after death	1.3	0.7*	0.99*	1.22*	0.95	0.68*	1	0.77
Abortion if married--wants no more children	0.63	1.41*	1.01*	0.82*	1.44*	0.98	1.0*	1.75*
Spending on foreign aid	-0.18*	0.07*	-0.15*	0.08*	-0.01	-0.06*	0.02	0.14*
Health care system improve in next few years	-0.23*	0.12*	0.09*	0.05	-0.03	0.01	0.01	0.16*
Higher incomes afford better education for kids	0.22*	-0.12*	0	0.01	0.02	0.09	0.11*	-0.02
Confidence in organized labor	-0.3*	0.08*	-0.13*	0.01	-0.03	-0.05	-0.06	0.08*
Read scripture about abortion or homosexuality	0.16*	-0.16*	0.02	0.26*	-0.11	0.08	-0.06	0.15*
Attitude about sex with person other than spouse	-0.17*	0.08*	0.06	-0.14*	0.08*	0.06	0.03	0
How fundamentalist is P currently	0.19*	-0.06*	-0.01	0.31*	-0.11*	-0.03	-0.1*	0.12*
Married people happier than unmarried	0.09*	-0.12*	0.18*	0.13*	0.01	0.16*	0.06	-0.2*

Abortion if low income- -can't afford more children	0.64	1.38*	1.01	0.82*	1.6*	0.86	1.0*	1.75*
Science knowledge: human beings developed from animals	0.63	2.01*	1	0.72*	2.42*	1.51	1	0.57
Favor public funding to prevent obesity	-0.33*	0.11*	-0.11*	0.04	0.02	0	-0.1*	0.14*
Has P ever had a 'born again' experience	1.28	0.75*	0.99*	1.32*	0.65*	0.83	1.0*	2.38*
Have gun in home	1.28	0.71*	1.01*	0.99	0.98	1.49*	1.0*	0.43*
Abortion if strong chance of serious defect	0.63	1.43*	1.02*	0.76*	1.67*	1.01	1	1.04
Confidence in military	0.2*	-0.07*	-0.03	0	-0.05	0.06	0.09*	-0.01
Abortion if pregnant as result of rape	0.59	1.5*	1.02*	0.73*	1.65*	1.07	1	1.49
Satisfied with life	-0.03*	0.1*	-0.03	0.18*	0.04	-0.01	0.17*	-0.09*
Life close to ideal	-0.02*	0.1*	-0.01	0.16*	0.03	-0.01	0.17*	-0.06
Number in household not related	-0.03*	0.07*	-0.17*	-0.11*	0.02	0.08*	-0.19*	-0.06
Racial differences due to discrimination	0.65	1.35*	1.01	1.03	0.9	0.88	1	2.67*
Government should provide only limited health care	0.31*	-0.1*	0.01	0.05	0.04	0.1*	0.09	-0.16*
Government's defense of citizens is important to me	0.12*	-0.11*	-0.03	-0.03	-0.05	-0.12*	0	0.16*
Close relative marry Black	-0.09*	0.07*	-0.1*	-0.03	0.06	-0.07*	0.01	0.3*
Mother work full-time with under school age child worst?	0.12*	-0.13*	0.08	-0.02	-0.04	0.02	-0.06	0.1
Abortion if woman wants for any reason	0.65	1.34*	1	0.8*	1.62*	0.88	1.0*	1.77*
Same sex female couple raise child as well as male-female couple	-0.29*	0.1*	-0.19*	-0.24*	0.08	-0.2*	0	-0.03
Mother work full-time with under school age child best?	-0.22*	0.13*	-0.15*	-0.06	0.04	-0.11	-0.02	0.03
Should communist teacher be fired	1.2	0.75*	1.01	1.05	0.41*	1.1	1.0*	1.19
Engineers earn less	-0.05*	0.14*	0.03	0.01	-0.05	0.07	-0.04	0

Confidence in television	-0.03*	0.07*	0.01	-0.09*	-0.09*	0	-0.05	0.09*
Rules are important to me	0.19*	-0.1*	-0.04	0.13*	-0.07	-0.07	-0.04	0.09

Note. Total variables = 74. * $p < .001$. Logistic regressions denoted with an * before variable description.

Race interaction comparisons. Additional analyses were conducted for each of the 75 measures for which there were significant interactions. These results are shown in Table 9. The first row in each pair of rows shows the regression coefficients for White participants. The second row in each pair of rows shows the regression coefficients for Black participants. Only the regressions for which the ideology coefficient was significant at an unadjusted alpha of .05 are shown. For those that are not significant at an alpha of .05, the coefficient is given as “NS.” Note that after adjusting for multiple comparisons, for Black participants, only political party affiliation remained significantly associated with ideology.

For 52 of the 75 measures, the association with ideology for Black participants was not statistically significant even at an unadjusted alpha level of .05. For nine measures, the association with ideology for Black participants was in the opposite direction as that for White participants. For five measures, the association with ideology for Black participants was statistically significant at a .05 alpha level, though it was not for White participants. For the remaining nine measures, the association with ideology for Black participants was in the same direction as that for White participants, but of weaker effect size.

Table 9. Comparison of separate analyses for each significant interaction for White vs. Black participants.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value	R ²
Political party affiliation (Dem to Rep)	0.58*	-0.03	0.06*	0.03	0.04	0.06*	.00	.38
Political party affiliation (Dem to Rep)	0.19*	-0.27*	-0.08	-0.04	0	0	.01	.12
Confidence in exec branch of fed government	-0.33*	-0.11*	0.04	0.03	-0.04	0.04	.00	.13
Confidence in exec branch of fed government	0.11	0.11	0.05	0.12	-0.03	0.01	2.45	.05
Should government do more?	-0.38*	-0.07*	-0.01	-0.08*	-0.03	-0.08*	.00	.18
Should government do more?	NS							
Should government help pay for medical care?	-0.42*	-0.06*	-0.04	-0.05	-0.06*	-0.07*	.00	.23
Should government help pay for medical care?	NS							
Spending on the environment	-0.34*	-0.07*	-0.07*	-0.01	-0.06*	0	.00	.15
Spending on the environment	NS							
Spending on helping Black people	-0.29*	-0.04	0.06*	0.02	-0.04	-0.02	.00	.10
Spending on helping Black people	NS							
Spending on education	-0.24*	-0.14*	0	0	-0.04	0.01	.00	.09
Spending on education	NS							
Should government reduce income differences	-0.47*	-0.03	0	-0.12*	-0.05	-0.09*	.00	.26
Should government reduce income differences	-0.16	0	-0.03	-0.05	0.03	-0.02	1.34	.02

Homosexuals should have right to marry	-0.38*	-0.15*	-0.25*	0.11*	-0.16*	0.06*	.00	.37
Homosexuals should have right to marry	-0.11	-0.16	-0.17*	0.1	-0.08	0	2.36	.11
Attitude about sex before marriage	-0.22*	-0.07*	-0.4*	0.06*	-0.01	0.1*	.00	.31
Attitude about sex before marriage	NS							
Spending on health	-0.25*	-0.05	-0.06*	-0.1*	-0.09*	-0.08*	.00	.11
Spending on health	NS							
Favor death penalty for murder	1.54	1	0.93*	0.72*	1.36*	1	.00	NA
*Favor death penalty for murder	NS							
Spending on defense	0.29*	0.07*	0	-0.1*	-0.06*	-0.01	.00	.14
Spending on defense	NS							
Higher incomes afford better health care	0.27*	0	0.02	0.03	0.1	0.09	.00	.10
Higher incomes afford better health care	-0.19	0.11	-0.02	0.01	0.19	-0.08	1.55	.08
Should government aid Blacks?	-0.35*	0	0.02	0.01	-0.01	-0.08*	.00	.15
Should government aid Blacks?	NS							
Confidence in press	-0.2*	0.01	-0.04	-0.05	-0.05	0.01	.00	.05
Confidence in press	NS							
Feelings about the bible	0.21*	-0.02	0.39*	-0.2*	-0.08*	-0.06*	.00	.33
Feelings about the bible	NS							
Willing to pay higher taxes to improve health care for all	0.37*	-0.09	0.04	-0.08	-0.02	0.05	.00	.15
Willing to pay higher taxes to improve health care for all	NS							
Homosexual sex relations	-0.29*	-0.13*	-0.29*	0.16*	-0.13*	0.1*	.00	.35
Homosexual sex relations	NS							
P's confidence in the existence of God	0.19*	0.03	0.42*	-0.13*	-0.12*	-0.03	.00	.33

P's confidence in the existence of God	NS							
Spending on the poor	-0.3*	0.03	0.05	-0.07*	-0.04	-0.08*	.00	.10
Spending on the poor	NS							
Those wanting kids should get married	0.19*	0.22*	0.16*	0.08	0.12*	-0.01	.00	.16
Those wanting kids should get married	-0.2	0.07	0.46*	-0.17	0.1	0.2	1.56	.22
Favor public funding of treatment HIV/AIDS	-0.35*	0.01	-0.02	-0.03	-0.03	-0.08	.00	.16
Favor public funding of treatment HIV/AIDS	NS							
Favor public funding of preventative medical checkups	-0.29*	0.01	-0.04	0.01	-0.09	-0.08	.00	.12
Favor public funding of preventative medical checkups	NS							
Access to public funded health care if not citizen	-0.34*	-0.01	0.05	0	-0.03	0	.00	.13
Access to public funded health care if not citizen	NS							
Whites hurt by affirmative action	0.14*	0.09*	-0.01	-0.13*	-0.01	-0.06	.00	.07
Whites hurt by affirmative action	-0.11	0.07	0.15	-0.14	-0.08	-0.16*	2.21	.09
Pay differences -> American prosperity	0.26*	-0.02	-0.11	-0.11	-0.02	0.02	.00	.10
Pay differences -> American prosperity	NS							
P consider self a religious person	0.16*	0.09*	0.52*	-0.05*	-0.05*	-0.04	.00	.40
P consider self a religious person	NS							
Access to public funded health care if damage own health	-0.32*	0.06	0	-0.01	0.02	-0.03	.00	.12
Access to public funded health care if damage own health	NS							
P's highest degree	-0.08*	0.08*	0.07*	0.57*	0	0.2*	.00	.47
P's highest degree	NS							

Birth control to teenagers 14-16	-0.28*	-0.13*	-0.21*	-0.02	-0.11*	0.06	.00	.21
Birth control to teenagers 14-16	NS							
Young should get married	0.12*	0.06	0.19*	-0.08	0.06	-0.03	.00	.10
Young should get married	-0.16	0.11	-0.04	-0.19	-0.04	0.13	2.14	.08
Favor public funding of organ transplants	-0.34*	-0.01	-0.02	-0.13*	-0.07	-0.1*	.00	.16
Favor public funding of organ transplants	NS							
Blacks overcome prejudice without favors	0.26*	0.01	-0.01	-0.15*	0.04	-0.08*	.00	.13
Blacks overcome prejudice without favors	NS							
Living together as an acceptable option	0.22*	0.2*	0.45*	-0.06	0.01	-0.07	.00	.42
Living together as an acceptable option	NS							
How fundamentalist was P at age 16	0.1*	-0.07*	0.09*	-0.08*	0.03	-0.11*	.00	.09
How fundamentalist was P at age 16	NS							
Scientists don't have fun	NS							
Scientists don't have fun	-0.33*	0.22	-0.04	-0.01	-0.12	-0.37*	.62	.20
Should government improve standard of living?	-0.33*	-0.02	-0.01	-0.06	-0.06	-0.1*	.00	.15
Should government improve standard of living?	-0.12	0.02	-0.09	-0.01	-0.05	-0.12	1.94	.02
Tradition is important to me	0.14*	-0.01	0.2*	-0.04	-0.1	0.02	.00	.11
Tradition is important to me	-0.17	0.12	0.19	0.2	-0.12	0.01	2.74	.08
Science research should be supported by federal government	-0.22*	-0.06	-0.04	0.05	-0.02	0.05	.00	.08
Science research should be supported	NS							

by federal
government

Better for man to
work woman tend
home

0.21* 0.1* 0.14* -0.15* 0.13* -0.09* .00 .17

Better for man to
work woman tend
home

NS

*Belief in life after
death

1.28* 0.99 1.26* 0.93 0.62* 1 .00 NA

*Belief in life after
death

NS

*Abortion if married-
-wants no more
children

0.63* 1.01* 0.81* 1.66* 1.01 1.0* .00 NA

*Abortion if married-
-wants no more
children

NS

Spending on foreign
aid

-0.19* -0.15* 0.08* 0.01 -0.05 0.03 .00 .07

Spending on foreign
aid

NS

Health care system
improve in next few
years

-0.24* 0.09 0.05 -0.04 0.01 0.01 .00 .05

Health care system
improve in next few
years

NS

Higher incomes
afford better
education for kids

0.22* 0 0.03 0.06 0.08 0.11* .00 .09

Higher incomes
afford better
education for kids

NS

Confidence in
organized labor

-0.3* -0.15* 0 -0.06 -0.07* -0.06 .00 .13

Confidence in
organized labor

-0.1 -0.09 0.1 0.12 0.07 -0.06 2.44 .05

Read scripture about
abortion or
homosexuality

0.17* 0 0.25* -0.12 0.12 -0.08 .00 .15

Read scripture about
abortion or
homosexuality

NS

Attitude about sex
with person other
than spouse

-0.17* 0.06 -0.12* 0.09* 0.06 0.02 .00 .09

Attitude about sex with person other than spouse	NS								
How fundamentalist is P currently	0.2*	-0.05	0.31*	-0.14*	-0.02	-0.11*	.00	.23	
How fundamentalist is P currently	NS								
Married people happier than unmarried	0.1	0.22*	0.14*	0.02	0.15*	0.04	.17	.12	
Married people happier than unmarried	-0.24	0	0.2	-0.07	0.21	0.08	1.30	.05	
Abortion if low income--can't afford more children	0.64	1.01	0.82*	1.91*	0.88	1.0*	.00	NA	
Abortion if low income--can't afford more children	0.85	1	0.86	0.79	0.84	1	2.29	NA	
Science knowledge: human beings developed from animals	0.63	0.99	0.7*	2.87*	1.54	1	.00	NA	
*Science knowledge: human beings developed from animals	NS								
Favor public funding to prevent obesity	-0.33*	-0.12*	0.04	0.01	0.01	-0.11*	.00	.15	
Favor public funding to prevent obesity	NS								
Has P ever had a 'born again' experience	1.3	0.99*	1.31*	0.56*	0.84	1.0*	.00	NA	
*Has P ever had a 'born again' experience	NS								
Have gun in home	1.28	1.01*	0.99	1	1.44*	1	.00	NA	
*Have gun in home	NS								
Abortion if strong chance of serious defect	0.63	1.02*	0.74*	1.75*	0.9	1	.00	NA	
*Abortion if strong chance of serious defect	NS								
Confidence in military	0.2*	-0.03	0	-0.06	0.04	0.1*	.00	.07	

Confidence in military	NS								
Abortion if pregnant as result of rape	0.58	1.03*	0.71*	1.62*	1.16	1	.00	NA	
*Abortion if pregnant as result of rape	NS								
Satisfied with life	NS								
Satisfied with life	0.22	-0.05	0.02	-0.02	-0.09	0.11	1.47	.02	
Life close to ideal	NS								
Life close to ideal	0.2	0	-0.01	-0.09	0.01	0.07	1.51	.01	
Number in household not related	NS								
Number in household not related	0.19*	-0.11	-0.07	-0.04	0.18	-0.13	.90	.10	
Racial differences due to discrimination	0.65	1	1.03	0.84	0.75	1	.00	NA	
*Racial differences due to discrimination	0.84	1.02	1.02	1.14	1.93	1	2.15	NA	
Government should provide only limited health care	0.31*	0	0.06	0.05	0.1	0.11*	.00	.14	
Government should provide only limited health care	NS								
Government's defense of citizens is important to me	0.12*	-0.02	-0.04	-0.07	-0.14*	0.01	.01	.04	
Government's defense of citizens is important to me	NS								
Close relative marry Black	-0.08*	-0.13*	-0.04	0.09*	-0.1*	0.02	.01	.07	
Close relative marry Black	NS								
Mother work full-time with under school age child worst?	0.12	0.09	-0.03	-0.09	0.02	-0.07	.08	.04	
Mother work full-time with under school age child worst?	-0.23	-0.02	-0.06	0.18	0.06	0.02	1.59	.03	
Abortion if woman wants for any reason	0.65	1	0.8*	2.02*	0.9	1.0*	.00	NA	
Abortion if woman wants for any reason	0.84	1	0.83	0.63	0.82	1	2.13	NA	

Same sex female couple raise child as well as male-female couple		-0.3*	-0.19*	-0.24*	0.1	-0.19*	-0.01	.00	.30
Same sex female couple raise child as well as male-female couple	NS								
Mother work full-time with under school age child best?		-0.22*	-0.14*	-0.06	0.03	-0.13*	-0.01	.00	.10
Mother work full-time with under school age child best?	NS								
Should communist teacher be fired		1.2	1.01	1.06	0.38*	1.06	1.0*	.00	NA
*Should communist teacher be fired	NS								
Engineers earn less	NS								
Engineers earn less		0.19	0.12	0	-0.09	-0.08	-0.06	2.38	.05
Confidence in television	NS								
Confidence in television		0.12	0.07	-0.01	-0.05	0.04	-0.09	1.68	.03
Rules are important to me		0.2*	-0.03	0.1	-0.12*	-0.09	-0.02	.00	.12
Rules are important to me	NS								

Note. The first row of each pair of rows is for White participants. The second row is for Black participants. All linear regression coefficients are standardized. All logistic regression coefficients (those with R^2 of NA and an asterisk in the description) are odds ratios. * $p < .001$.

Regarding confidence in the executive branch of the federal government, more conservative White participants had less confidence, $\beta = -0.332$, *adjusted-p* < .001, compared to more liberal White participants; whereas more conservative Black participants had greater confidence, $\beta = 0.107$, *adjusted-p* = 2.455, compared to more liberal Black participants.

Regarding the fairness of whether higher incomes afford better healthcare, more conservative White participants thought it more fair, $\beta = 0.272$, *adjusted-p* < .001, whereas more conservative

Black participants thought it less fair, $\beta = -0.186$, $adjusted-p = 1.548$. Regarding whether those wanting children should get married, more conservative White participants were more in favor, $\beta = 0.190$, $adjusted-p < .001$, whereas more conservative Black participants were less in favor, $\beta = -0.199$, $adjusted-p = 1.557$. Regarding whether White people are hurt by affirmative action, more conservative White participants thought it more likely, $\beta = 0.142$, $adjusted-p < .001$, whereas more conservative Black participants thought it less likely, $\beta = -0.114$, $adjusted-p = 2.213$. Regarding whether young people should get married, more conservative White participants were more in favor, $\beta = 0.121$, $adjusted-p < .001$, whereas more conservative Black participants were less in favor, $\beta = -0.163$, $adjusted-p = 2.141$. Regarding whether scientists get fun out of life, this was not significantly associated with ideology for White participants, whereas more conservative Black participants were more likely to think scientists have fun, $\beta = -0.331$, $adjusted-p = .200$.

Regarding whether they are a person who follows traditions and customs, more conservative White participants were more in agreement, $\beta = 0.136$, $adjusted-p = .001$, whereas more conservative Black participants were less in agreement, $\beta = -0.169$, $adjusted-p = 2.744$. Regarding whether married people are happier than unmarried people, more conservative White participants were more in agreement, $\beta = 0.096$, $adjusted-p = .171$, whereas more conservative Black participants were less in agreement, $\beta = -0.237$, $adjusted-p = 1.298$. Regarding whether the worst family arrangement is when the mother of school-aged children works full-time, more conservative White participants were more in agreement, $\beta = 0.121$, $adjusted-p = .080$, whereas more conservative Black participants were less in agreement, $\beta = -0.235$, $adjusted-p = 1.590$.

Regarding whether they are satisfied with life, this was not significantly associated with ideology for White participants, whereas more conservative Black participants were more satisfied with their lives, $\beta = 0.216$, $adjusted-p = 1.471$. Regarding whether their lives are close

to their ideal, this was not significantly associated with ideology for White participants, whereas more conservative Black participants were believed their lives to be closer to ideal, $\beta = 0.204$, *adjusted-p* = 1.513. Regarding the number of people in the household who were unrelated to the participant, this was not significantly associated with ideology for White participants, whereas more conservative Black participants had more unrelated people in their households, $\beta = 0.190$, *adjusted-p* = .901.

Regarding believing if engineers earn less, this was not significantly associated with ideology for White participants, whereas more conservative Black participants believed engineers earned less than others, $\beta = 0.187$, *adjusted-p* = 2.385. Regarding confidence in television, this was not significantly associated with ideology for White participants, whereas more conservative Black participants had more confidence in television, $\beta = 0.122$, *adjusted-p* = 1.679.

Black participants. Moreover, in the separate analyses for Black participants, political party identification was the sole measure significantly associated with ideology after adjusting for multiple comparisons. The more conservative the participant, the more closely affiliated he or she was with the Republican Party, $\beta = 0.189$, *adjusted p* = .013.

White participants. For White participants, there were 194 significant associations with ideology. As before, the results are grouped into attitude measures and behavior and personal attributes measures. The attitude measures are mostly political attitudes on topics such as government spending and abortion. The behavior measures are questions such as frequency of visiting art museums and the personal attributes measures include questions such as how religious a person rates him or herself as.

The tables are further subdivided into linear regressions and logistic regressions, so that the coefficients can be ordered and compared. For each group, one table shows the linear regressions and the other shows the logistic regressions. This allows the regressions to be ordered by size of the coefficient. The linear regression coefficients are reported as standardized coefficients. As before, positive coefficients indicate that the more conservative the participant, the more the participant endorses the measure. Negative coefficients indicate that the more conservative the participant, the less the participant endorses the measure. The logistic regression coefficients are reported as odds ratios. Odds ratios greater than one indicate that the more conservative the participant, the more the participant endorses the measure. Odds ratios less than one indicate that the more conservative the participant, the less the participant endorses the measure.

Behavior and personal attributes measures. As shown in Table 10 and Table 11, there were 48 total significant associations. Several measures assess various traits that are important to the participant. These are described as "... is/are important to me." These are considered personal attribute measures rather than attitude measures because the full item asks the participant whether he or she behaves in a manner consistent with that trait. Thus, these measures were considered self-report measures of overall behavioral tendencies.

Table 10. Significant linear regressions ordered by absolute value of ideology standardized coefficient. White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Gender	Income	Education	Adjusted p-value	R ²
Rules are important to me	0.2*	-0.03	0.1	-0.12*	-0.09	-0.02	.00	.12

P's confidence in the existence of God	0.19*	0.03	0.42*	-0.13*	-0.12*	-0.03	.00	.33
How fundamentalist is spouse currently	0.17*	-0.05	0.2*	-0.08*	0.08*	-0.14*	.00	.16
How often P visited art museum last year	-0.17*	0.02	0.01	0.19*	-0.01	0.04	.00	.06
Doing things properly is important to me	0.17*	0.04	0.16*	-0.08	-0.05	0.04	.00	.08
Read scripture about abortion or homosexuality	0.17*	0	0.25*	-0.12	0.12	-0.08	.00	.15
Strength of religious affiliation	0.16*	0.07*	0.5*	-0.04	-0.08*	0	.00	.37
P consider self a religious person	0.16*	0.09*	0.52*	-0.05*	-0.05*	-0.04	.00	.40
Importance of experiencing high quality art	-0.16*	0.11	0.12	0.11	0.06	-0.06	.00	.04
Tradition is important to me	0.14*	-0.01	0.2*	-0.04	-0.1	0.02	.00	.11
How often does P pray	0.13*	0.1*	0.48*	-0.04	-0.16*	-0.07*	.00	.40
Equal opportunity is important to me	-0.12*	-0.08	0.01	0.02	-0.05	-0.02	.01	.02
Number of female sex partners since 18	-0.12	0.02	-0.04	0.02	0.2*	0.01	.03	.04
Spend evening with friends	-0.12*	-0.29*	0.1*	0.08*	0.02	0.03	.00	.12
Being modest is important to me	0.12*	-0.09	0.03	-0.09	-0.04	0.01	.01	.03
Government's defense of citizens is important to me	0.12*	-0.02	-0.04	-0.07	-0.14*	0.01	.01	.04
Ecology or environment is important to me	-0.12*	0.14*	-0.01	0.02	-0.06	-0.11	.02	.05
Taking risk is important to me	-0.11*	-0.27*	-0.06	-0.01	0.12*	0.05	.02	.12
Safety is important to me	0.11	0	-0.07	-0.06	-0.29*	0.01	.04	.09
How fundamentalist was P at age 16	0.1*	-0.07*	0.09*	-0.08*	0.03	-0.11*	.00	.09
Reside in largest metro area to rural	0.09*	0.02	0	-0.11*	0	-0.09*	.00	.12
Number words correct in vocabulary test	-0.09*	0.15*	-0.02	0.35*	-0.04	0.11*	.00	.20

Spend evening at bar	-0.09*	-0.31*	-0.08*	0.14*	0.11*	0.1*	.00	.21
P's highest degree	-0.08*	0.08*	0.07*	0.57*	0	0.2*	.00	.47
Number of children	0.08*	0.38*	0.11*	-0.14*	-0.05*	0.04	.00	.23
Size of place in thousands	-0.08*	-0.02	0.05	0.03	0	0	.00	.07
Mother's highest degree	-0.07*	-0.28*	-0.01	0.28*	0	0.11*	.00	.23
Reside in large city to open country	0.07*	0.06*	-0.01	-0.16*	0	-0.05	.00	.13
Satisfaction with job or housework	0.07	0.03	0.05	0.03	-0.02	0.12*	.04	.04
How many grandparents born in U.S.	0.06*	-0.14*	-0.06*	0.01	-0.03	0.01	.02	.10
Type of place lived in when 16 years old	-0.06*	-0.04	-0.03	0.12*	0	0.1*	.02	.06
Father's highest degree	-0.06	-0.25*	-0.03	0.3*	0.01	0.12*	.02	.24

Note. Total variables = 32. All coefficients are standardized. * $p < .001$.

Table 11. Significant logistic regressions ordered by distance from one of ideology odds ratio.

White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Was one of P's sex partners spouse or regular	1.82	1.06*	1.07	2.86*	0.26*	1	0
In relationship w/last sex partner?	1.39	1.02	1.03	1.14	0.33*	1	0
Science knowledge: human beings developed from animals	0.63	0.99	0.7*	2.87*	1.54	1	0
Sexual orientation	0.64	0.99	0.92	1.37	0.96	1	0
Tried to convince others to accept Jesus	1.3	0.99*	1.37*	0.68*	0.83	1.0*	0
Has P ever had a 'born again' experience	1.3	0.99*	1.31*	0.56*	0.84	1.0*	0

Science knowledge: the universe began with a huge explosion	0.7	1	0.79*	2.51*	2.25*	1	0
Rifle in home	1.29	1.01	1	0.9	1.73*	1	0
Have gun in home	1.28	1.01*	0.99	1	1.44*	1	0
Does P or spouse hunt	1.27	0.97*	1.04	0.7	1.63*	1	0
Science knowledge: the continents have been moving	0.73	0.99	0.75*	2.6*	1.6	1	0.01
Read scripture outside of services	1.25	1.01	1.52*	0.99	0.82	1	0
Shotgun in home	1.24	1.01	1.01	0.9	1.44*	1	0
Pistol or revolver in home	1.21	1.01*	0.98	1.02	1.5*	1	0
Did P go to an art exhibit in last 12 months	0.79	1.01	1.07	3.34*	0.93	1.0*	0
Did P go to a performance in last 12 months?	0.82	1	1.12*	2.56*	0.9	1.0*	0
Does P or spouse supervise anyone	1.12	1	1.02	1.23	1.21	1.0*	0.02

Note. Total variables: 17. All coefficients are odds ratios. * $p < .001$.

Attitude measures. As shown in Table 12 and Table 13, there were 145 total significant associations for the attitude measures. These are in the expected directions as found in previous research. In particular, more conservative White participants were more opposed to abortion and government assistance and funding for programs, except for military spending. In addition, they were more accepting of income differences. They were more religious and more restrictive of sexual behaviors.

Table 12. Significant linear regressions ordered by absolute value of ideology standardized coefficient. White participants: attitude measures.

Variable	Ideology	Age	Church attendance	Gender	Income	Education	Adjusted p-value	R ²
Political party affiliation (Dem to Rep)	0.58*	-0.03	0.06*	0.03	0.04	0.06*	.00	.38
Should government reduce income differences	-0.47*	-0.03	0	-0.12*	-0.05	-0.09*	.00	.26
Should government help pay for medical care?	-0.42*	-0.06*	-0.04	-0.05	-0.06*	-0.07*	.00	.23
Inequality exists for benefit of rich	-0.4*	0.04	0.05	-0.03	-0.06	-0.16*	.00	.20
Homosexuals should have right to marry	-0.38*	-0.15*	-0.25*	0.11*	-0.16*	0.06*	.00	.37
Should government do more?	-0.38*	-0.07*	-0.01	-0.08*	-0.03	-0.08*	.00	.18
Willing to pay higher taxes to improve health care for all	0.37*	-0.09	0.04	-0.08	-0.02	0.05	.00	.15
Should government aid Blacks?	-0.35*	0	0.02	0.01	-0.01	-0.08*	.00	.15
Favor public funding of treatment HIV/AIDS	-0.35*	0.01	-0.02	-0.03	-0.03	-0.08	.00	.16
Income differentials in U.S. too big	-0.35*	0.07	0.05	0.01	-0.05	-0.1	.00	.14
Spending on the environment	-0.34*	-0.07*	-0.07*	-0.01	-0.06*	0	.00	.15
Favor public funding of organ transplants	-0.34*	-0.01	-0.02	-0.13*	-0.07	-0.1*	.00	.16
Access to public funded health care if not citizen	-0.34*	-0.01	0.05	0	-0.03	0	.00	.13
Belief about climate change happening and cause	-0.34*	-0.01	0.06	-0.02	-0.09	0.05	.00	.12
Should government improve standard of living?	-0.33*	-0.02	-0.01	-0.06	-0.06	-0.1*	.00	.15
Confidence in exec branch of fed government	-0.33*	-0.11*	0.04	0.03	-0.04	0.04	.00	.13
Favor public funding to prevent obesity	-0.33*	-0.12*	0.04	0.01	0.01	-0.11*	.00	.15

Access to public funded health care if damage own health	-0.32*	0.06	0	-0.01	0.02	-0.03	.00	.12
Government should provide only limited health care	0.31*	0	0.06	0.05	0.1	0.11*	.00	.14
Spending on the poor	-0.3*	0.03	0.05	-0.07*	-0.04	-0.08*	.00	.10
Confidence in organized labor	-0.3*	-0.15*	0	-0.06	-0.07*	-0.06	.00	.13
Same sex female couple raise child as well as male-female couple	-0.3*	-0.19*	-0.24*	0.1	-0.19*	-0.01	.00	.30
Spending on defense	0.29*	0.07*	0	-0.1*	-0.06*	-0.01	.00	.14
Spending on helping Black people	-0.29*	-0.04	0.06*	0.02	-0.04	-0.02	.00	.10
Homosexual sex relations	-0.29*	-0.13*	-0.29*	0.16*	-0.13*	0.1*	.00	.35
Interested in environmental issues	-0.29*	0.07	-0.01	0	0.02	0.01	.00	.08
Favor public funding of preventative medical checkups	-0.29*	0.01	-0.04	0.01	-0.09	-0.08	.00	.12
Birth control to teenagers 14-16	-0.28*	-0.13*	-0.21*	-0.02	-0.11*	0.06	.00	.21
Same sex male couple raise child as well as male-female couple	-0.28*	-0.2*	-0.25*	0.11*	-0.22*	0.01	.00	.32
Higher incomes afford better health care	0.27*	0	0.02	0.03	0.1	0.09	.00	.10
Blacks overcome prejudice without favors	0.26*	0.01	-0.01	-0.15*	0.04	-0.08*	.00	.13
Pay differences -> American prosperity	0.26*	-0.02	-0.11	-0.11	-0.02	0.02	.00	.10
Spending on health	-0.25*	-0.05	-0.06*	-0.1*	-0.09*	-0.08*	.00	.11
How many don't have access to health care needed in U.S.	-0.25*	-0.05	-0.06	-0.04	-0.06	0	.00	.09
Spending on education	-0.24*	-0.14*	0	0	-0.04	0.01	.00	.09
Health care system improve in next few years	-0.24*	0.09	0.05	-0.04	0.01	0.01	.00	.05

Spending on alternative energy sources	-0.23*	0.01	-0.05	0	0.05	0.01	.00	.07
Courts dealing with criminals	0.22*	0.04	0.03	-0.09*	-0.08*	0.03	.00	.08
Attitude about sex before marriage	-0.22*	-0.07*	-0.4*	0.06*	-0.01	0.1*	.00	.31
Number of immigrants to America nowadays should be	-0.22*	-0.03	0.07	0.07	0.02	0.06	.00	.07
Favor preference in hiring Blacks	-0.22*	-0.04	-0.01	-0.08*	-0.03	-0.01	.00	.06
Science research should be supported by federal government	-0.22*	-0.06	-0.04	0.05	-0.02	0.05	.00	.08
Living together as an acceptable option	0.22*	0.2*	0.45*	-0.06	0.01	-0.07	.00	.42
Higher incomes afford better education for kids	0.22*	0	0.03	0.06	0.08	0.11*	.00	.09
Mother work full-time with under school age child best?	-0.22*	-0.14*	-0.06	0.03	-0.13*	-0.01	.00	.10
Feelings about the bible	0.21*	-0.02	0.39*	-0.2*	-0.08*	-0.06*	.00	.33
Spending on assistance for childcare	-0.21*	-0.09*	-0.02	-0.08*	-0.07*	-0.07*	.00	.08
Better for man to work woman tend home	0.21*	0.1*	0.14*	-0.15*	0.13*	-0.09*	.00	.17
How fundamentalist is P currently	0.2*	-0.05	0.31*	-0.14*	-0.02	-0.11*	.00	.23
Spending on big cities	-0.2*	0.03	0	0	-0.05	0	.00	.05
Confidence in major companies	0.2*	-0.04	0.07	0.03	0.01	0.11*	.00	.07
Confidence in military	0.2*	-0.03	0	-0.06	0.04	0.1*	.00	.07
Confidence in press	-0.2*	0.01	-0.04	-0.05	-0.05	0.01	.00	.05
Spending on foreign aid	-0.19*	-0.15*	0.08*	0.01	-0.05	0.03	.00	.07
Sex before marriage - teens 14-16	-0.19*	-0.15*	-0.21*	0.08*	0.06	0.03	.00	.19
Those wanting kids should get married	0.19*	0.22*	0.16*	0.08	0.12*	-0.01	.00	.16

Divorce as best solution to marital problems	-0.19*	0.28*	-0.2*	-0.13*	0.02	0.05	.00	.17
Who pays for leave	0.19*	0.04	-0.04	0.09	-0.13	0.01	.00	.10
Spending on mass transportation	-0.18*	0.06*	0	0.08*	0.07*	0.03	.00	.05
Divorce laws made more difficult?	0.18*	0.06	0.13*	0.01	0.04	0.01	.00	.08
Women hurt by affirmative action	-0.18*	0.15*	0.01	-0.09	-0.12*	-0.02	.00	.08
Men should earn money women keep house	0.18*	0.14*	0.11	-0.14*	0.16*	-0.06	.00	.14
Importance of teaching children to obey	0.17*	-0.01	0.16*	-0.22*	0	-0.06	.00	.15
Attitude about sex with person other than spouse	-0.17*	0.06	-0.12*	0.09*	0.06	0.02	.00	.09
Favor spanking to discipline child	0.17*	-0.09*	0.05	-0.07	0.13*	-0.06	.00	.11
Pope is infallible on matters of faith or morals	0.17*	-0.06	0.32*	-0.21*	0	-0.05	.00	.16
Confidence in organized religion	0.16*	-0.01	0.28*	-0.07*	-0.04	0.04	.00	.14
Should hire and promote women	-0.16*	0.09	0	-0.18*	-0.06	-0.07	.00	.08
Single parents can raise kids as well as two	-0.16*	-0.16*	-0.14*	0.02	-0.26*	-0.01	.00	.16
Those in need have to take care of themselves	0.16*	-0.14*	-0.06	-0.03	0.15*	0.04	.00	.06
Happy with federal income tax?	-0.15*	0.03	0.04	0.09*	0.09*	-0.06	.00	.04
Whites hurt by affirmative action	0.14*	0.09*	-0.01	-0.13*	-0.01	-0.06	.00	.07
For preferential hiring of women	-0.14*	0.04	-0.04	-0.23*	-0.07	-0.06	.00	.08
Should woman work after youngest in school?	-0.14	-0.12	-0.04	0.06	-0.14*	0.07	.03	.08
How scientific: economics	-0.14	-0.07	-0.02	0.13	-0.01	0.05	.04	.07
Spending on social security	-0.13*	-0.02	0	-0.13*	-0.11*	-0.08*	.00	.06

Spending on scientific research	-0.13*	0.05	-0.07*	0.06*	0.05	0.05	.00	.04
Spending on fighting drugs	-0.13*	0.06	0.01	-0.08*	-0.11*	-0.01	.00	.04
Preschool kids suffer if mother works	0.13*	0.14*	0.09*	-0.1*	0.21*	-0.07*	.00	.12
Get ahead by hard work (vs. luck)?	0.13*	-0.06	-0.01	-0.04	-0.07	0.02	.00	.03
People use health care services more than necessary	0.13*	0.05	0	-0.04	0.12*	0.07	.00	.05
People need not overly worry about others	0.13*	-0.22*	-0.07	-0.19*	0.18*	-0.05	.01	.13
Scientists only interested in work	0.13*	0.12*	-0.03	-0.17*	0.03	-0.08	.02	.10
How scientific: history	-0.13	0.06	0.01	-0.12*	0	-0.04	.03	.05
Spending on parks and recreation	-0.12*	-0.02	-0.04	0	0.02	-0.06*	.00	.03
Strict pornography laws?	0.12*	0.19*	0.26*	-0.02	-0.14*	-0.03	.00	.19
Importance of teaching children to think for ones self	-0.12*	0.09*	-0.12*	0.23*	-0.08*	0.04	.00	.10
Importance of teaching children to be well liked or popular	-0.12*	0.09*	-0.07	0	0.1*	0.02	.00	.05
How hard working are Blacks?	-0.12*	-0.01	0.02	0.12*	-0.05	-0.01	.00	.03
P favor close relative marrying White person	0.12*	0.11*	-0.04	-0.03	-0.08*	0	.00	.06
Young should get married	0.12*	0.06	0.19*	-0.08	0.06	-0.03	.00	.10
How satisfied P with health care system in U.S.	0.12*	0.2*	0.06	-0.06	0	0.14*	.01	.10
Suffer health problems because poor	-0.12*	0.04	-0.03	0.09	-0.05	-0.02	.01	.03
Know what scientists do	-0.12*	0.02	0.03	0.2*	0.09	0.06	.02	.06
Kids are life's greatest joy	0.12	0.08	0.1	-0.07	-0.07	-0.04	.03	.06
What is ideal number of kids for family	0.12	0.01	0.16*	-0.02	0.02	-0.05	.04	.04

Confidence in banks & financial institutions	0.11*	-0.1*	0.06	-0.04	-0.1*	-0.01	.00	.04
Mother working doesn't hurt children	-0.11*	-0.02	-0.05	0.09*	-0.25*	0.06	.00	.10
Ideal number of children	0.1*	-0.03	0.14*	-0.02	-0.01	-0.04	.00	.05
Interested in military policy	0.1*	0.14*	0.01	0.02	0.2*	0.04	.01	.08
Confidence in education	-0.09*	-0.02	0.02	-0.04	-0.04	-0.01	.00	.01
Importance of teaching children to work hard	0.08*	-0.14*	-0.09*	-0.03	0.04	0.08*	.00	.04
Close relative marry Black	-0.08*	-0.13*	-0.04	0.09*	-0.1*	0.02	.01	.07
Spending on fighting crime	0.07*	0.04	0.02	-0.07*	-0.11*	-0.04	.00	.03
P favors living in half Black neighborhood	-0.07	-0.06	0	0.07	-0.02	-0.03	.05	.02

Note. Total variables = 105. All coefficients are standardized. * $p < .001$.

Table 13. Significant logistic regressions ordered by distance from one of ideology odds ratio.

White participants: attitude measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Vote McCain (0) or Obama (1)	0.3	1.01	0.93*	1.29	0.85	1	.00
Favor death penalty for murder	1.54	1	0.93*	0.72*	1.36*	1	.00
Approve of president handling job	0.47	1	1.01	1.11	0.99	1	.00
Sex education in public schools	0.48	0.99	0.86*	1.39	0.7	1	.00
Abortion if pregnant as result of rape	0.58	1.03*	0.71*	1.62*	1.16	1	.00
Abortion if woman's health seriously endangered	0.6	1.02*	0.69*	1.83*	1.05	1	.00
Abortion if married-wants no more children	0.63	1.01*	0.81*	1.66*	1.01	1.0*	.00

Abortion if strong chance of serious defect	0.63	1.02*	0.74*	1.75*	0.9	1	.00
Abortion if low income--can't afford more children	0.64	1.01	0.82*	1.91*	0.88	1.0*	.00
Abortion if not married	0.64	1.01	0.8*	1.84*	0.94	1.0*	.00
Racial differences due to discrimination	0.65	1	1.03	0.84	0.75	1	.00
Abortion if woman wants for any reason	0.65	1	0.8*	2.02*	0.9	1.0*	.00
Paid leave for childcare	0.68	0.96*	1.14*	0.75	0.77	1	.00
Assist incurable patients to die	0.71	1	0.77*	1.23	1.13	1	.00
Belief in life after death	1.28	0.99	1.26*	0.93	0.62*	1	.00
*Racial differences due to upbringing	1.28	1.01	0.99	1.32	1.36	1	.03
Bible prayer in public schools	0.72	0.99*	0.92*	2.19*	1.1	1	.00
Women not suited for politics	1.27	0.99	1.05	0.68	1.06	1	.00
Favor gun restriction law	0.73	1.01*	1	1.15	0.48*	1	.00
Should marijuana be made legal	0.74	0.99	0.82*	0.94	1.48*	1	.00
Allow homosexual to teach	0.74	0.98*	0.9*	3.97*	0.52*	1	.00
Racial differences due to lack of will	1.25	1.01	0.98	0.4*	1.16	1	.00
Expect U.S. in war within 10 years	1.25	1	0.93	1.19	1.38	1.0*	.00
Suicide if tired of living	0.75	1.01	0.92*	1.95*	1.01	1	.00
Racial differences due to lack of education	0.76	1.01*	1.03	1.89*	0.8	1	.00
Suicide if incurable disease	0.76	1.01	0.8*	1.83*	1.08	1.0*	.00
Against housing discrimination?	0.78	0.99	1.01	1.27	0.55*	1	.00
Suicide if bankrupt	0.79	0.99	0.9*	2.86*	1.24	1	.00
Allow homosexual to speak	0.79	0.98	0.9	5.71*	0.78	1	.02
Should communist teacher be fired	1.2	1.01	1.06	0.38*	1.06	1.0*	.00
Suicide if dishonored family	0.8	0.99	0.9*	2.5*	1.17	1	.00
Allow homosexual's book in library	0.81	0.98*	0.84*	3.41*	0.94	1.0*	.00
Heart operation first for 30 or 70 yr old	0.82	1.01	0.95	1.23	1.22	1	.01

Were P's parents born in this country	1.18	1	0.93*	1.09	1.04	1	.00
Allow anti-American muslim clergymen teaching in college	0.84	1	0.96	2.4*	1.26	1.0*	.00
Ever approve of police striking citizen	1.16	1	0.98	1.91*	1.72*	1.0*	.01
Allow muslim clergymen preaching hatred of the U.S.	0.85	1	0.94	3.22*	1.52*	1	.01
Allow anti-American muslim clergymen's books in library	0.85	1.01	0.95	3.18*	1.26	1.0*	.01
Police violence OK if citizen attempting to escape custody?	1.15	1.01	0.98	1.19	1.29	1.0*	.02
Allow militarist's book in library	0.86	0.99*	0.91*	2.73*	0.91	1.0*	.02
Vote McCain (0) or Obama (1)	0.3	1.01	0.93*	1.29	0.85	1	.00

Note. Total variables: 40. All coefficients are odds ratios. * $p < .001$.

Study 1 Discussion

Study 1 found that the associations between ideology and measures of behavior, personal attribute, and attitude vary across context. Interactions were found between ideology and all covariates: age, church attendance, education, gender, income, and race. For the interactions with age, church attendance, and gender, no patterns are readily apparent. However, for education, income, and race, behaviors, attributes, and attitudes are clearly less organized along ideological lines for those with no college education, those with lower income, and for Black people. Differences between those who have one ideological orientation and those who have another ideological orientation are much less apparent for these groups. Put another way, ideology as an organizing structure is most apparent in wealthy, college-educated White Americans.

For Black participants, Study 1 found an almost complete lack of association between ideology and political attitude measures. This finding was completely unexpected and suggests that the nature of ideology may be qualitatively different for Black Americans.

Analogy to honor. One possibility is that ideology is similar to cultural phenomena such as honor. In many cultures, honor is a central cultural component that is an organizing structure for a wide range of behaviors and attitudes (Heine, 2010). Honor has been linked to profound differences between cultures, including differences in murder rates (Nisbett & Cohen, 1996). However, honor is not an organizing structure in all cultures. Similarly, perhaps ideology plays a central role in some cultures (e.g., White American culture), but not in others (e.g., Black American culture).

In support of this possibility, Study 1 found, for White Americans, significant associations between ideology and a number of non-political measures. This suggests that ideology may be so central to their culture that it structures aspects of life beyond political attitudes.

Sexual practices, gun ownership, socializing, and art experiences are notable areas in which there appear to be differences between liberal and conservative White Americans. (These are topics for which multiple measures showed a significant association with ideology.) White conservative participants tended to have fewer female sex partners and to have sex only within a relationship, compared to White liberal participants. They were also more likely to own a gun of some kind and to hunt. They were less likely to spend an evening socializing with friends or at a bar. They were less likely to visit an art museum or go to a performance.

Lack of resources and status. Importantly, at least some of the variation in ideological thinking is systematic. It varies in intensity along income and educational lines, and appears to

be largely absent for Black Americans. Consistently, across almost every political and non-political measure, the lower the resources and status—as marked by his or her income, education, or race—the smaller the effect size for the measure’s association with ideology. In other words, the less ideology appears to be an organizing structure for attitudes and behavior.

However, it is unclear what this link means. First, it may be that this relationship is specific to the U.S. (and perhaps also similar cultures) and arises from a particular history. Perhaps in other cultures this link is absent or in the opposite direction.

Second, there may be a general relationship between ideology and resources and status (though this would still be influenced by U.S. culture and history). Resources and status are correlated with each other, but they are separate and may have separate relationships with ideology. The patterns found in Study 1 may be indicative of a tendency for people to meet more basic survival needs before more abstract needs (e.g., Maslow, 1943). Converse (1964) argued that most people lack a coherent ideological set of political attitudes in part because many are less concerned with political issues. Thus, one possibility is that people with fewer resources may be more concerned with survival needs and less concerned with political issues. An alternative, though not mutually exclusive, possibility is that being of lower social status may make people inclined to view those of higher social status as the leaders of their society. Accordingly, they may leave political engagement, polarization, and conflict to those of higher status.

On a different note, it may also be that these patterns are not specific to differences in the *levels* of resources or status. They may reflect different general priorities among people with different life circumstances. Converse (1964) also argued that a lack of coherence across a broad set of attitudes may be because a person has specific political issue priorities. Along these lines,

the differences in ideological structuring found in Study 1 may reflect different political structures in those who are not wealthy, those who do not have a college education, and Black Americans. This political structure may be centered on a smaller, more focused set of concerns. For example, given the history of slavery, segregation, prejudice, and the Civil Rights era response to these, it may be that Black Americans are focused on issues of racial justice. All of the above possibilities require testing with targeted research.

The malleability of ideology. For political and cultural wars grounded in liberal versus conservative conflict, the view that ideology primarily arises from deep, fundamental differences may promote deeper entrenchment in the combatants on the two sides. A person on one side may view those on the other side as being fundamentally different in a fixed way, which can exacerbate conflict (Dweck & Ehrlinger, 2006). However, the contrasting view that human differences are malleable and can develop over time can ameliorate conflict (Carr, Rattan, & Dweck, 2012). Evidence that ideological differences are contingent on particular historical and social circumstances, as suggested by Study 1, may promote a malleability-oriented view.

The strongest evidence that ideology is culture-specific would come from demonstrating that ideology is largely absent in at least one cultural group. Central to this is therefore finding further evidence either for or against qualitative differences in ideological structuring between Black and White Americans.

A limitation of Study 1 is that it did not examine these differences in light of the definition of ideology as a *collection* of attitudes. Study 1 only analyzed how measures are associated with ideology individually. For the groups that demonstrated weaker associations between ideology and those individual measures—Black Americans and those with no college education—perhaps when the measures are examined collectively, they combine to create an

important, cohesive ideological structure. Study 2 examines how ideology is associated with these measures collectively.

Study 2: Collective Associations with Ideology

Whereas Study 1 examined behaviors and attitudes one-by-one, Study 2 examines behaviors and attitudes collectively. It furthers and focuses the subgroup analyses by investigating potential differences in political ideology along race and education lines. Study 2 aims to answer two questions. First, for participants for whom ideology is not a coherent, organizing structure—specifically, for Black and, to a lesser extent, for non-college educated participants—does the same lack of coherence between political attitudes and ideology hold with a different methodology? Second, for participants for whom ideology is a coherent, organizing structure—specifically, for White and for college educated participants—are the associations between ideology and non-political measures still significant compared to those between ideology and political measures?

To answer these questions, Study 2 splits participants apart by both race and education. This is to pull apart these intersecting attributes: comparing all the Black participants with all the White participants obscures differences across educational lines, and, similarly, comparing all participants with no college education with all participants with at least some college education obscures differences across racial lines. Thus, participants were divided into four subgroups: Black participants with no college education, Black participants with at least some college education, White participants with no college education, and White participants with at least some college education.

Machine Learning

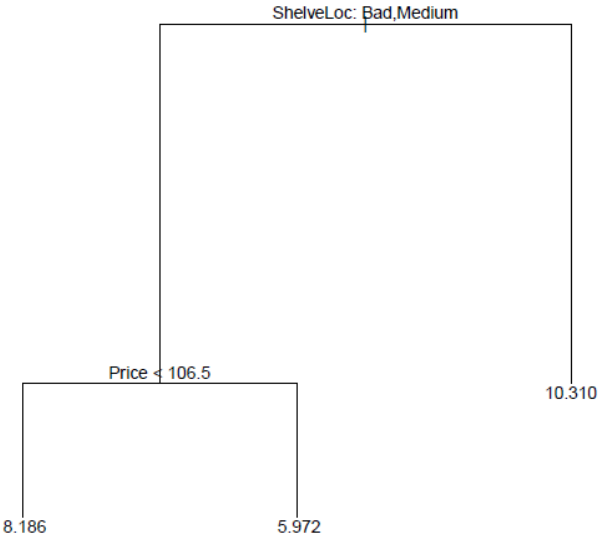
Typical analyses cannot handle hundreds of predictor variables in a single analysis. However, using machine learning algorithms allows for a multi-dimensional analysis that accounts for collective influences (Flach, 2012). Machine learning algorithms used in big data

applications are designed to incorporate large numbers of variables into an analysis to uncover the complex structure and interactions between these variables (Mayer-Schönberger & Cukier, 2013). Given the multifactorial nature of human mental and behavioral experiences, these techniques are an important approach in psychology.

Random forest regression. Random forests are statistical models made up of decision trees (Breiman, 2001; James, Witten, Hastie, & Tibshirani, 2013). Decision trees in turn are models in which the data are divided into a hierarchy of the key variables that are most important in explaining the data.

An example tree is given in Figure 12 for predicting car seat sales, based on a widely-used sample dataset. Reading from the top to the bottom and taking all the left branches gives the following result. Given a bad or medium shelf location and a price less than \$106.50, the average car seat sales is \$8,186. Reading from the top to the bottom and taking all the right branches gives the following result. Given a good shelf location, the average car seat sales is \$10,310.

Figure 12. Decision tree predicting car seat sales.



Regression decision trees are built beginning with the most important variable and proceeding to successively less important variables. In the example tree, this is shelf location (good, medium, or bad). The algorithm determines the importance of a variable by examining the dataset to identify the variable which, when split, accounts for the most change in the outcome. For a regression, this involves identifying the variable which, when split, explains the most variance.

One weakness of decision trees is that they are sensitive to the order in which the algorithm selects variables. At each step, it always selects the “best” variable. However, there may be cases in which a less than optimal selection at one step may allow for an even better selection later.

To address this, the random forest algorithm involves building a large number decision trees based on a subset of the variables. By building a tree based on a subset of variables at each iteration, this allows the random forest algorithm to try different splits and account for the problem of the ordering of the variable selection.

Crucially, for each tree, the algorithm also records which variables were included and how well the tree performed. At the end of the algorithm, it is able to evaluate the importance of each variable by noting the decrease in the performance of the trees in which the variable was not present.

Like many machine learning techniques, random forests do not generally provide tests of statistical significance as used within the null hypothesis significance testing framework. Rather, the typical metrics are based on practical importance, such as predictive accuracy. For the

random forest regressions used in Study 2, the metric is the percent of variance explained by the predictors.

Cross-Validation

In developing and validating machine learning models, cross-validation methods are used to evaluate model performance. Not only is this used to evaluate whether a model is good or bad, it is also used to tune parameters. Broadly speaking, validation involves dividing the dataset into subsets: a training set and a test set. The test set is held out of the model building process, and is only used to validate the resulting model (Chen & Wojcik, 2016).

K-fold cross-validation. Study 2 uses a cross-validation technique called k-fold cross-validation (Flach, 2012; Raschka, 2015). This technique involves repeatedly dividing the dataset into different training and test sets. This allows for more robust model evaluation. The performance metric of the model depends on the procedure being tested. For these regressions, the metric is the variance explained.

Study 2 Method

The machine learning procedures used for this study require complete data. Therefore, the variables used were narrowed to those with less than 15% missingness. In addition, abortion attitude measures were only administered to two-thirds of the sample (randomly selected). In order to include these measures, which are known (based on results from Study 1 as well as prior research) to be central to the traditional view of ideology, the sample was narrowed to the participants administered these measures.

The final set of 174 variables is shown in Appendix B. These variables included the key political attitudes measures and many of the behavioral measures. The imputation used the predictive mean matching method, implemented in the R package mice.

Because the goal of Study 2 is to target Black participants and participants with no college education and assess whether political attitude measures are, collectively, importantly linked to ideology, participants were divided into four subgroups: Black participants with no college education, Black participants with at least some college education, White participants with no college education, and White participants with at least some college education.

The narrowing procedure resulted in a final sample size of 3,151 participants. There were a total of 2,641 White participants, with 1,560 White participants with at least some college education and 1,081 White participants with no college education. There were a total of 510 Black participants, with 256 Black participants with at least some college education and 254 Black participants with no college education.

Random forest regression. Random forest regression was conducted using the R package `caret`, calling the `randomForest` package. Separate regressions were run for the subgroups as described above. The number of variables sampled for the random forest was tuned using the `tuneLength` option, with a length of 10. The forest with the optimal parameter was then used to generate variable importance and variance explained statistics. The key metric is the variance explained statistic, because it provides an evaluation of the degree to which the measures—the political attitude measures in particular—are collectively associated with ideology.

Study 2 Results

White participants with at least some college education. Overall, 51.22% of the variance in ideology was explained by the measures that were identified as important by the analyses. The 20 most important variables are shown in Table 14, ordered by the greatest percent increase in MSE when the variable is not present in the tree fitting. Political party affiliation,

attitude toward same-sex marriage, and attitude toward spending on education were all associated with at least a 10% change in MSE.

Table 14. White participants with at least some college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.

Variable	% increase in MSE
Political party affiliation (Dem to Rep)	40.838
Homosexuals should have right to marry	19.113
Spending on education	10.359
Spending on the environment	9.633
Homosexual sex relations	8.471
Spending on alternative energy sources	7.777
Spending on health	7.761
Allow homosexual's book in library	6.152
Tried to convince others to accept Jesus	6.037
P's confidence in the existence of God	5.666
Understand issues facing country	5.629
Courts dealing with criminals	4.933
Spending on defense	4.908
Oppose or favor death penalty for murder	4.891
Feelings about the bible	4.701
Abortion if woman wants for any reason	4.360
How fundamentalist is P currently	4.243
Strength of religious affiliation	3.888
Did P vote in 2008 election	3.769
Size of place in thousands	3.737

White participants with no college education. Overall, 20.48% of the variance in ideology was explained by the measures that were identified as important by the analyses. The 20 most important variables are shown in Table 15, ordered by the greatest percent increase in MSE when the variable is not present in the tree fitting. Political party affiliation was the only measure associated with at least a 10% change in MSE.

Table 15. White participants with no college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.

Variable	% increase in MSE
Political party affiliation (Dem to Rep)	15.754
Homosexuals should have right to marry	8.985
Abortion if strong chance of serious defect	7.752
Homosexual sex relations	7.023
Spending on health	6.479
Abortion if married--wants no more children	5.770
Age of participant	4.401
P accept others even when they do things wrong	3.878
Abortion if pregnant as result of rape	3.814
Spending on foreign aid	3.530
P offered seat to a stranger during past 12 months	3.464
How often P attends religious services	3.120
Spending on alternative energy sources	3.076
Reside in largest metro area to rural	2.992
Abortion if not married	2.801
Household members 18 years and older	2.755
Helped someone with homework during past 12 months	2.659
Belief in life after death	2.625
Allow anti-religionist to speak	2.607
Spending on assistance for childcare	2.579

Black participants with at least some college education. Overall, 1.56% of the variance in ideology was explained by the measures that were identified as important by the analyses. The 20 most important variables are shown in Table 16, ordered by the greatest percent increase in MSE when the variable is not present in the tree fitting. None of the measures were associated with more than 10% change in MSE.

Table 16. Black participants with at least some college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.

Variable	% increase in MSE
How close feel to Whites	7.093
Homosexuals should have right to marry	3.642

Change in financial situation	3.493
P accept others even when they do things wrong	2.453
P offered seat to a stranger during past 12 months	2.255
P's understanding of questions	2.096
Abortion if low income--can't afford more children	2.064
How many sex partners P had in last year	1.877
Subjective class identification	1.877
People need not overly worry about others	1.775
P's facial coloring by interviewer	1.774
Afraid to walk at night in neighborhood	1.728
Allow communist to speak	1.662
Allow anti-American muslim clergymen teaching in college	1.641
Have you ever been tested for HIV	1.625
Any opp. race in neighborhood	1.624
Spending on foreign aid	1.614
Spending on health	1.614
How many grandparents born in U.S.	1.593
Spending on mass transportation	1.440

Black participants with no college education. Overall, -5.75% of the variance in ideology was explained by the measures that were identified as important by the analyses. This negative variance explained suggests that the model was unable to acceptably fit the predictors to the outcome variable. Nevertheless, the 20 most important variables are shown in Table 17, ordered by the greatest percent increase in MSE when the variable is not present in the tree fitting. None of the measures were associated with more than 10% change in MSE.

Table 17. Black participants with no college education. Variable importance ranked by percent increase in MSE in predicting ideology when the variable is removed.

Variable	% increase in MSE
Spending on the poor	3.319
Political party affiliation (Dem to Rep)	2.864
How often P attends religious services	2.699
How close feel to Whites	2.552
P feels like a selfless caring for others	2.152
P's attitude toward interview	2.099
P has given food or money to a homeless person	1.944
How fundamentalist was P at age 16	1.780
P accept others even when they do things wrong	1.612

Was P born in this country	1.569
Spending on defense	1.542
Whites hurt by affirmative action	1.463
Can P speak language other than english	1.452
P ever use crack cocaine	1.448
P ever inject drugs	1.331
Rifle in home	1.269
Subjective class identification	1.258
Lent money to another person past 12 months	1.190
Against housing discrimination?	1.107
Those in need have to take care of themselves	1.105

Study 2 Discussion

These results provide further support for the conclusion that liberal-conservative ideology bears very little relation to the political attitudes (as well as nonpolitical behaviors and attitudes) of Black Americans. Furthermore, within White Americans, ideology appears to be a weaker organizing structure for those with no college education (20.48% variance explained), compared to those with at least some college education (51.22% variance explained). Ideology as an organizing structure appears to be contingent on circumstance.

The variances explained for Black Americans with no college education (-5.75%) and with at least some college education (1.56%) are remarkably low. Because random forests are known for their ability to handle small sample sizes (Biau & Scornet, 2016), it is unlikely that these results are because the sample sizes for Black participants were smaller than the sample sizes for White participants. In addition, supplemental analyses were conducted on the combined data for all Black participants and found similar results. Study 1 detected few associations between ideology and any of the measures, political or non-political. Study 2's results add to Study 1's results by combining the measures and using them to attempt to explain as much variance in ideology as possible. Study 2's results suggest that even if there were small

associations with ideology overlooked by Study 1, collectively, they did not combine into an organized ideological structure.

The difference in the amount of variance explained between Black Americans with no college education (-5.75%) and with at least some college education (1.56%) is notable but the numbers are so small that it is difficult to draw any firm conclusions. In any case, the amount of variance explained is smaller for those with no college education.

The findings for White Americans with and without a college education are in line with previous research that tightly links certain political attitudes with political ideology. Furthermore, they suggest that of these attitudes, those concerning homosexuality and government spending are consistently important across several measures. This suggests that social and economic conservatism/liberalism are both importantly associated with ideology for White Americans.

For White Americans with no college education, abortion appears to be more important, compared to White Americans with at least some college education. Attitudes toward abortion if a woman wants no more children, if she becomes pregnant as a result of rape, and if she is not married were all among the 20 most important predictors of ideology for those with no college education. For White Americans with at least some college education, their attitude about abortion for any reason was the only abortion-related predictor in the top 20.

Importantly, the predictors in Study 2 include political attitude measures that are considered synonymous with political ideology. Some of these measures are used as part of larger scales of political ideology (Knight, 1999). Future research examining the methodological consequences of this could examine scale reliabilities and confirm or disconfirm the assumed ideological factor structure of political attitudes across different cultural groups.

This presents challenges to studies that interchange attitude measures and liberal-conservative scale measures. Across studies, unless they all draw on college-educated White American samples, the findings may not be comparable if they interchangeably use the two types of measurements of ideology. Within a study, combining the two types of measures would be valid only for White Americans.

One limitation of both Study 1 and Study 2 is that they used only the 2012 dataset. Perhaps these patterns only hold for the year 2012, and not for other years. Also, although the data collection procedures of the GSS are robust, any single dataset may have its own random anomalies. Study 3 addresses these concerns.

Study 3: Are group differences consistent in other years?

Study 3 extends the previous studies to examine whether these group differences are also found in other years. Data from 2000 and 2014 were used. Methodologically, these two years maintained the greatest consistency in their sampling methods and with the measures from the 2012 dataset used in Studies 1 and 2. At the same time, they also allow for an additional analysis of potential change over time in ideological polarization. They provide the largest possible separation in time, while also maintaining methodological consistency. The 2014 dataset was the most recent dataset available and datasets prior to 2000 introduced ever increasing methodological differences.

Study 3 used the same methodology as Study 1 to investigate the associations between political ideology and political and non-political measures. Because this approach systematically examines the individual links between each measure and ideology, it is a more fine-grained approach than that of Study 2.

Study 3 Method

For the 2000 dataset, the average age was 46.022, and 56.37% were female. Average household income was \$47,896.85. For the 2014 dataset, the average age was 49.013, and 55.04% were female. Average household income was \$48,603.29.

In order to maximize the comparability between the two years, only the variables present in both years were included. In total, there were 244 shared variables. These variables are listed and described in Appendix C. As with the standalone analyses, each variable was analyzed in seven ways. Thus, the number of statistical comparisons was $244 \times 7 = 1708$. For reference, a Bonferroni correction of an alpha of .05 for this number of comparisons yields a threshold of 2.927×10^{-5} .

In addition to balancing the measures, the two datasets were also balanced for sample size and race distribution. Because the detection of associations using the approach taken in Study 1 depends on the sample size, if, in the year for which the sample size is larger, more associations were detected, this could have been due to the larger sample size, rather than a greater number of associations.

To address this, because the sample size of the 2000 dataset ($N = 2817$) is larger than that of the 2014 dataset ($N = 2538$), the 2000 dataset was downsampled to match the size of the 2014 dataset and to equalize the race distribution. Importantly, the numbers of Black and White Americans were equalized between the two years. In the 2000 dataset, there are 2,213 White participants and 429 Black participants. In the 2014 dataset, there are 1,890 White participants and 386 Black participants. To match the distribution and size of the 2014 dataset, for the 2000 dataset, 1,890 White participants and 386 Black participants were randomly sampled from the full 2000 dataset to form a downsampled 2000 dataset. Thus, there were 2,276 ($1,890 + 386$) participants from 2000 and from 2014 analyzed in Study 3.

To partially address the difference in power between Black and White participants, supplementary analyses were conducted for 2000 and 2014 in which a random sample of 386 (the sample size of Black participants) from each year's White participants was drawn. These analyses aim to provide a simple benchmark for the number of associations that could be expected given the sample size available for Black participants.

The 2000 and 2014 GSS datasets also include survey design correction variables to estimate more accurate standard errors. The VPSU and VSTRAT design variables were used, along with the WTSSALL weight variable. These were used in the regressions, using the R package, survey.

Study 3 Results

Year 2000. As shown in Table 18, there were 76 significant associations after adjusting for multiple comparisons, and not accounting for interactions. Because subgroup analyses found that there were no significant associations with ideology for Black participants, the regressions not accounting for this should be interpreted with caution. In the interaction tests, interactions between ideology with race and with education were significant.

Overall, the measures that were associated with ideology are consistent with previous research and with the results of Study 1. For example, more conservative participants were more opposed to abortion and government spending (except on defense) compared to more liberal participants. More conservative participants were more religious and more likely to own a gun compared to more liberal participants.

Table 18. Year 2000: Significant associations ordered by adjusted p-value for all participants.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Race	p
Political party affiliation (Dem to Rep)	0.34*	-0.12*	0.08	0.01	0.07	0.1*	-0.27*	0
Should government help pay for medical care?	-0.28*	-0.03	-0.05	-0.02	-0.06	-0.12*	0.17*	0
Should government reduce income differences	-0.27*	-0.04	0.02	-0.04	-0.1*	-0.15*	0.07	0
Should government improve standard of living?	-0.24*	-0.03	0	-0.04	-0.03	-0.07	0.18*	0
Spending on the environment	-0.22*	-0.15*	-0.06	0.01	-0.02	0.01	0.04	0
Homosexual sex relations	-0.22*	-0.19*	-0.25*	0.13*	-0.07	0.06	-0.09	0
Spending on helping Black people	-0.2*	-0.04	0	0.04	-0.06	-0.02	0.36*	0

Should government aid Blacks?	-0.24*	0.04	0	0	-0.02	-0.07	0.33*	0
Should government do more?	-0.22*	-0.05	-0.05	-0.06	-0.08	-0.1	0.15*	0
Spending on the poor	-0.17*	-0.02	-0.01	-0.07	-0.03	-0.02	0.14*	0
Spending on big cities	-0.17*	-0.04	0	0.06	-0.06	0.02	0.12*	0
Birth control to teenagers 14-16	-0.16*	-0.17*	-0.22*	0.05	-0.04	-0.05	0.03	0
Abortion if woman wants for any reason	0.74	1	0.81*	1.81*	0.85	1	1.3	0
Abortion if low income--can't afford more children	0.72	1.01	0.81*	1.84*	0.87	1	1.36	0
Better for man to work woman tend home	0.18*	0.29*	0.09*	-0.16*	0.08	-0.09	-0.02	0
Abortion if not married	0.72	1.01	0.82*	1.87*	0.97	1.0*	0.96	0
Sex before marriage -- teens 14-16	-0.2*	-0.2*	-0.15*	0.05	0.1	-0.04	-0.04	0
Blacks overcome prejudice without favors	0.2*	0.06	-0.03	-0.13*	0.03	0	-0.26*	0
Abortion if married--wants no more children	0.75	1.01	0.8*	1.69*	0.99	1	1.36	0
Favor gun restriction law	0.7	1	0.96	0.98	0.35*	1	1.46	0
Favor death penalty for murder	1.3	1	0.9*	0.81	1.58*	1	0.24*	0
Favor preference in hiring Blacks	-0.18*	-0.04	-0.03	0	0	-0.06	0.27*	0
Allow homosexual to teach	0.72	0.98*	0.9	2.08*	0.62	1	0.7	0
How fundamentalist is P currently	0.14*	0	0.28*	-0.11*	0.01	-0.09*	0.16*	0
Spending on health	-0.17*	0.01	-0.05	0.01	-0.08	-0.01	0.07	0
Attitude about sex before marriage	-0.15*	-0.17*	-0.4*	0.05	0.03	0.09*	-0.03	0
Spending on assistance for childcare	-0.16*	-0.12*	-0.02	0	-0.1*	-0.06	0.1*	0
Close relative marry Black	-0.12*	-0.26*	-0.01	0.12*	-0.06	-0.02	0.37*	0
Feelings about the bible	0.13*	0.01	0.33*	-0.13*	-0.08*	-0.14*	0.07	0

Assist incurable patients to die	0.75	0.99	0.79*	0.92	1.13	1.0*	0.4*	0
Spending on defense	0.16*	0.18*	0.1*	-0.04	0.06	-0.01	-0.08	0
Divorce laws made more difficult?	0.15*	0.01	0.19*	0.08	-0.05	-0.03	-0.22*	0
Favor spanking to discipline child	0.13*	0.03	0.07	-0.06	0.12*	-0.12*	0.09	0
Spending on mass transportation	-0.13*	0.08	0.02	0.08	0.04	0.03	0.06	0
Racial differences due to discrimination	0.79	1.01	0.97	1.16	0.86	1	3.87*	0
Confidence in organized labor	-0.15*	-0.16*	0	-0.04	-0.07	-0.06	0.08	0
Spending on foreign aid	-0.13*	-0.03	0.08*	0.04	-0.03	0.04	0.1	0
Abortion if strong chance of serious defect	0.72	1.02*	0.81*	1.33	1.23	1	0.7	0
For preferential hiring of women	-0.17*	-0.04	0.04	-0.08	0.01	-0.09	0.3*	0
Racial differences due to lack of education	0.82	1.01	1.01	1.4	0.93	1	1.89*	0
Abortion if pregnant as result of rape	0.72	1.01	0.78*	1.59	1.47	1	0.75	0
How close feel to Blacks	-0.14*	-0.12*	0.14*	0.02	-0.01	0.01	0.39*	0
Should marijuana be made legal	0.78	0.98*	0.84*	1.08	1.2	1	0.83	0
Confidence in exec branch of fed government	-0.15*	-0.11	-0.03	0.02	0	0.02	0.09	0
Suicide if incurable disease	0.81	0.99	0.78*	1.3	1.05	1.0*	0.49*	0
Spending on fighting drugs	-0.14*	0.02	0	-0.04	-0.08	0.02	0.08	0
Strength of religious affiliation	0.1*	0.1*	0.51*	-0.02	-0.03	-0.04	0.02	0
Allow homosexual to speak	0.76	0.99	0.92	2.27*	0.86	1.0*	0.62	0
How often does P pray	0.13*	0.16*	0.47*	0.03	-0.2*	-0.09	0.12*	0

Spending on education	-0.14*	-0.1*	-0.03	0.06	-0.1*	0.03	0.09*	0
Have gun in home	1.22	1.01	1.01	0.88	1.89*	1	0.24*	0
Spending on social security	-0.11*	0.02	-0.01	-0.06	-0.11*	-0.09	0.11*	0
Courts dealing with criminals	0.11*	0.04	0.03	-0.03	-0.06	0.01	-0.13	0
Importance of teaching children to obey	0.13*	0.1	0.13*	-0.12*	0	-0.1	0.12*	0.01
How rich are Whites?	-0.11*	-0.13*	0.07	0.03	0.04	0	0.11*	0.01
Preschool kids suffer if mother works	0.12*	0.15*	0.05	-0.06	0.17*	-0.09	-0.04	0.01
Rifle in home	1.25	1.01	1.01	0.76	1.83*	1	0.17*	0.01
Mother working doesn't hurt children	-0.12*	-0.13*	-0.1*	0.08	-0.17*	0.05	0.05	0.01
Bible prayer in public schools	0.8	0.98	0.86*	1.6	1.25	1	0.4*	0.01
P's confidence in the existence of God	0.15*	0.08	0.32*	0	-0.1	-0.05	0.08	0.01
Spend evening at bar	-0.11*	-0.29*	-0.17*	0.1	0.15*	0.07	-0.07	0.01
Suicide if tired of living	0.8	1.01	0.85*	1.4	1.16	1	0.85	0.02
Confidence in press	-0.1*	-0.03	-0.03	0.01	-0.07	-0.06	0	0.02
Attitude about sex with person other than spouse	-0.13*	-0.02	-0.18*	0.06	0.05	-0.02	-0.06	0.02
P favors living in half Black neighborhood	-0.1*	-0.11*	0.02	0.04	-0.09	-0.03	0.27*	0.02
How many sex partners P had in last 5 years	-0.09*	-0.35*	-0.08*	0.05	0.19*	-0.1*	0.06	0.02
Number of persons in household	0.08*	-0.37*	0.09*	-0.08*	-0.04	0.18*	0.1	0.02
How hard working are Blacks?	-0.12*	-0.11*	0	0.12*	-0.01	0.02	0.17*	0.02
Seen x-rated movie in last year	0.82	0.95*	0.86*	0.97	2.2*	1	1.07	0.02

Number of children	0.08*	0.42*	0.04	-0.08	-0.05	0.03	0.13*	0.02
Racial differences due to lack of will	1.21	1.02	0.99	0.49*	1.05	1	0.59	0.03
Abortion if woman's health seriously endangered	0.74	1.01	0.81	1.45	1.54	1	0.66	0.03
Police violence OK if citizen attempting to escape custody?	1.19	1.01	1.05	1.28	1.75	1	0.3*	0.04
Does P or spouse hunt	1.26	0.98	1.01	0.71	1.87	1	0.36	0.04
Shotgun in home	1.26	1.01	1.06	0.65	2.32	1	0.26*	0.04
Household members 13 thru 17 years old	0.07	-0.1*	0.06	-0.06	-0.05	0.09	0.13	0.05

Note. Total variables = 76. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Race interactions. As shown in Figure 13 and Table 19, there were five significant interactions between race and ideology. Overall, the general pattern is the same as that found in Study 1: Although ideology was significantly associated with these measures for White participants, for Black participants, ideology was not significantly associated with any of these measures.

Figure 13. Interactions between race and ideology.

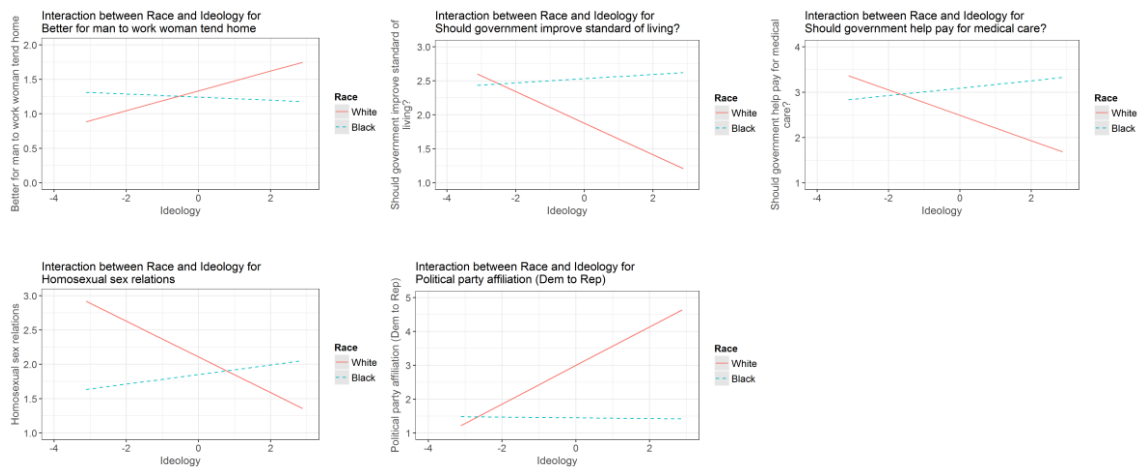


Table 19. Year 2000: Significant Race \times Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.4*	-0.16*	-0.13*	0.07	0.02	0.06	0.09*	-0.29*
Should government help pay for medical care?	-0.34*	0.16*	-0.02	-0.04	-0.03	-0.05	-0.11*	0.18*
Homosexual sex relations	-0.27*	0.14*	-0.19*	-0.24*	0.13*	-0.06	0.06	-0.07
Should government improve standard of living?	-0.28*	0.12*	-0.02	0.01	-0.04	-0.03	-0.07	0.19*
Better for man to work woman tend home	0.22*	-0.11*	0.29*	0.09	-0.15*	0.07	-0.09	-0.04

Note. Total variables = 5. * $p < .001$.

Black participants. For Black participants, after adjusting for multiple comparisons, there were no significant associations between ideology and any of the measures. Also, for the five measures for which there were significant interactions (noted above), none were significant in the Black participant-only analyses, even at an unadjusted .05 alpha level.

White participants. As shown in Table 20 through Table 23, for White participants, after adjusting for multiple comparisons, there were 71 significant associations. The associations are divided into behavior and personal attributes measures, and attitude measures.

For the downsampled analyses, after adjusting for multiple comparisons, there were 16 significant associations. These were a subset of the measures found to be significant in the full sample.

Table 20. Year 2000: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
How fundamentalist is P currently	0.15*	-0.01	0.29*	-0.13*	0.02	-0.1*	0
How often does P pray	0.13*	0.15*	0.49*	0.03	-0.21*	-0.09	0.02
Strength of religious affiliation	0.1*	0.1*	0.53*	-0.03	-0.03	-0.02	0.01
Number of children	0.09*	0.45*	0.04	-0.06	-0.04	0.04	0.01
Number of persons in household	0.09*	-0.4*	0.11*	-0.09	-0.03	0.18*	0.01
Frequency of sex during last year	0.08	-0.38*	-0.06	0	0.01	0.16*	0.04

Note. Total variables: 6. All coefficients are standardized coefficients. * $p < .001$.

Table 21. Year 2000: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Was one of P's sex partners spouse or regular	1.42	1.05	1.12	1.63	0.4	1	0.03
Shotgun in home	1.29	1.01	1.05	0.67	2.15*	1	0.02
Rifle in home	1.28	1	1	0.79	1.73	1	0
Have gun in home	1.25	1.01	1	0.87	1.76*	1	0

Note. Total variables: 4. All coefficients are odds ratios. * $p < .001$.

Table 22. Year 2000: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: attitude measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Political party affiliation (Dem to Rep)	0.4*	-0.13*	0.1*	0.05	0.08	0.1*	0
Should government help pay for medical care?	-0.35*	-0.05	-0.04	-0.04	-0.05	-0.12*	0
Should government reduce income differences	-0.32*	-0.03	0.04	-0.05	-0.11*	-0.16*	0
Should government improve standard of living?	-0.29*	-0.04	0.01	-0.03	-0.04	-0.06	0
Should government aid Blacks?	-0.28*	0.04	-0.02	0.01	-0.03	-0.08	0
Homosexual sex relations	-0.27*	-0.19*	-0.25*	0.15*	-0.07	0.06	0
Should government do more?	-0.26*	-0.07	-0.04	-0.05	-0.08	-0.08	0
Spending on the environment	-0.24*	-0.17*	-0.07	-0.02	-0.05	0.01	0
Spending on helping Black people	-0.23*	-0.06	-0.01	0.05	-0.07	-0.02	0
Favor preference in hiring Blacks	-0.23*	-0.07	-0.01	0	-0.01	-0.05	0
Blacks overcome prejudice without favors	0.23*	0.07	-0.03	-0.17*	0.06	0.03	0
Better for man to work woman tend home	0.21*	0.28*	0.1*	-0.15*	0.09	-0.08	0
Spending on big cities	-0.2*	-0.03	0.01	0.05	-0.06	0.04	0
Attitude about sex before marriage	-0.2*	-0.17*	-0.4*	0.08	0.02	0.08	0
For preferential hiring of women	-0.2*	-0.06	0.07	-0.06	0	-0.1	0

Spending on the poor	-0.19*	-0.01	0.01	-0.07	-0.02	-0.01	0
Birth control to teenagers 14-16	-0.19*	-0.16*	-0.24*	0.07	-0.03	-0.04	0
Spending on health	-0.19*	0.01	-0.06	0	-0.08	-0.02	0
Divorce laws made more difficult?	0.19*	-0.01	0.21*	0.04	-0.08	-0.03	0
Spending on defense	0.19*	0.2*	0.1*	-0.03	0.05	-0.01	0
Sex before marriage -- teens 14-16	-0.19*	-0.21*	-0.16*	0.08	0.1	-0.06	0
Spending on assistance for childcare	-0.18*	-0.13*	-0.02	0	-0.11*	-0.06	0
Attitude about sex with person other than spouse	-0.17*	-0.02	-0.17*	0.06	0.06	-0.02	0
Favor spanking to discipline child	0.16*	0.01	0.05	-0.09	0.11*	-0.1	0
Preschool kids suffer if mother works	0.16*	0.14*	0.06	-0.05	0.18*	-0.08	0
Feelings about the bible	0.15*	0.01	0.32*	-0.14*	-0.09*	-0.13*	0
Spending on foreign aid	-0.15*	-0.02	0.1*	0.07	-0.03	0.05	0
Mother working doesn't hurt children	-0.15*	-0.12*	-0.09	0.07	-0.16*	0.04	0
Confidence in exec branch of fed government	-0.15*	-0.15*	-0.03	0.02	-0.01	0.03	0.01
Confidence in organized labor	-0.15*	-0.18*	-0.01	-0.05	-0.08	-0.06	0.01
P's confidence in the existence of God	0.15*	0.11	0.34*	0.02	-0.1	-0.05	0.02
Close relative marry Black	-0.14*	-0.32*	-0.01	0.13*	-0.06	0	0
Spending on mass transportation	-0.14*	0.09	0.03	0.08	0.03	0.04	0

Courts dealing with criminals	0.14*	0.02	0.03	-0.03	-0.07	0.01	0
How close feel to Blacks	-0.14*	-0.15*	0.14*	0.04	-0.03	0.01	0.01
Spending on education	-0.14*	-0.12*	-0.03	0.05	-0.11*	0.02	0.01
Spending on fighting drugs	-0.14*	0.02	-0.01	-0.04	-0.08	0.01	0.01
Importance of teaching children to obey	0.14*	0.1	0.14*	-0.14*	0.01	-0.09	0.02
Confidence in press	-0.13*	-0.04	-0.02	0.02	-0.07	-0.05	0
Spending on social security	-0.13*	0	-0.01	-0.09	-0.13*	-0.09	0
P favors living in half Black neighborhood	-0.12*	-0.15*	0.02	0.04	-0.09	-0.02	0.02
How hard working are Blacks?	-0.12	-0.15*	0.02	0.13*	-0.04	0.03	0.05
How rich are Whites?	-0.11*	-0.16*	0.07	0.07	0.01	0.02	0.02
Happy with federal income tax?	-0.11	0.02	0	0.09	0.06	-0.14*	0.05

Note. Total variables: 44. All coefficients are standardized coefficients. * $p < .001$.

Table 23. Year 2000: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: attitude measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Sex education in public schools	0.62	0.99	0.82*	1.68	0.88	1	0
Favor death penalty for murder	1.35	1	0.9*	0.7	1.51	1	0

Favor gun restriction law	0.67	1	0.97	0.99	0.32*	1	0
Abortion if pregnant as result of rape	0.68	1.02	0.75*	1.69	1.58	1	0
Abortion if not married	0.69	1.01*	0.8*	2.01*	0.92	1.0*	0
Abortion if low income--can't afford more children	0.69	1.02*	0.79*	2.11*	0.91	1	0
Abortion if woman wants for any reason	0.71	1.01	0.8*	1.91*	0.87	1	0
Abortion if married--wants no more children	0.71	1.01	0.78*	1.79*	1.02	1	0
Allow homosexual to teach	0.71	0.98*	0.9	2.25*	0.58	1	0
Assist incurable patients to die	0.72	0.99	0.76*	0.91	1.14	1	0
Abortion if strong chance of serious defect	0.72	1.02	0.78*	1.34	1.1	1	0.01
Should marijuana be made legal	0.75	0.98*	0.84*	1.06	1.25	1	0
Allow homosexual to speak	0.75	0.98	0.92	2.75*	0.82	1	0.01
Racial differences due to lack of will	1.22	1.02	0.98	0.45	1.13	1	0.04
Racial differences due to discrimination	0.78	1.01	0.97	1.2	0.76	1	0
Women not suited for politics	1.21	1.01	1.04	0.72	1.35	1	0.02
Suicide if tired of living	0.79	1.01	0.83	1.59	1.06	1	0.03
Racial differences due to lack of education	0.8	1.01	1	1.59	0.93	1	0
Bible prayer in public schools	0.8	0.99	0.86*	1.66	1.27	1	0.02
Suicide if incurable disease	0.83	0.99	0.74*	1.56	0.99	1	0.02

Note. Total variables: 20. All coefficients are odds ratios. * $p < .001$.

Education interactions. As shown in Figure 14 and Table 24, there were two significant interactions between education and ideology. Overall, the general pattern is the same as that

found in Study 1: Ideology was more weakly associated with these measures for participants with no college education compared to participants with at least some college education. Specifically, the associations between ideology and party affiliation and between ideology and the attitude about whether Black people overcome prejudice without favors were both less steep for participants with no college education.

Figure 14. Interactions between education and ideology.

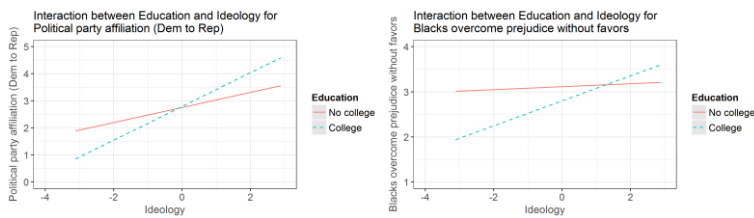


Table 24. Year 2000: Significant Education \times Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.2*	0.19*	-0.12*	0.07	0.01	0.07	0.09*	-0.27*
Blacks overcome prejudice without favors	0.04*	0.21*	0.07	-0.03	-0.12*	0.03	-0.01	-0.27*

Note. Total variables = 2. All coefficients are linear standardized coefficients. * $p < .001$.

Table 25 compares the regression coefficients from the separate analyses for participants with no college education compared to participants with at least some college education. For party affiliation, the effect size of the association with ideology is smaller for participants with no college education than that for participants with at least some college education. For their attitude about whether Black people can overcome prejudice without favors, the association was

not significant for participants with no college education. The association was significant for those with at least some college education, $\beta = 0.311$, *adjusted p* = .001.

Table 25. Year 2000: Comparison of separate analyses for each significant interaction for Non-college-educated vs. College-educated participants.

Variable	Ideology	Age	Church attendance	Gender	Income	Race	Adjusted p-value
Political party affiliation (Dem to Rep)	0.2*	-0.17*	0.08	0.06	0.08	-0.24*	0
Political party affiliation (Dem to Rep)	0.44*	-0.07	0.07	0.08	0.08	-0.3*	0
Blacks overcome prejudice without favors	NS						
Blacks overcome prejudice without favors	0.31*	0.02	-0.04	0.01	0.02	-0.19*	0

Note. The first row of each pair of rows is for No college participants. The second row is for College educated participants. All coefficients are standardized linear regression coefficients. * $p < .001$.

Year 2014. As shown in Table 26, there were 75 significant associations after adjusting for multiple comparisons, and not accounting for interactions. Because subgroup analyses found that there were no significant associations with ideology for Black participants, the regressions not accounting for this should be interpreted with caution. Across the interaction tests, the interactions for race, age, church attendance, education, and income were significant.

Overall, the measures that were associated with ideology are consistent with previous research and with the results of Study 1 and for the year 2000. For example, more conservative participants were more opposed to abortion and government spending (except on defense) compared to more liberal participants. More conservative participants were more religious and more likely to own a gun compared to more liberal participants.

Table 26. Year 2014: Significant associations ordered by adjusted p-value for all participants.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Race	p
Political party affiliation (Dem to Rep)	0.49*	-0.05	0.02	0.03	0.03	0.08	-0.31*	0
Should government help pay for medical care?	-0.35*	-0.05	0	-0.03	-0.04	-0.12*	0.15*	0
Should government do more?	-0.35*	-0.03	-0.03	-0.07	-0.07	-0.07	0.2*	0
Spending on defense	0.27*	0.08	-0.02	-0.07	-0.06	0.01	-0.04	0
Should government reduce income differences	-0.35*	-0.05	0	-0.04	-0.05	-0.14*	0.13*	0
Spending on the environment	-0.28*	-0.15*	-0.03	0.07	-0.02	-0.04	-0.02	0
Spending on the poor	-0.26*	-0.02	0	-0.02	0.03	-0.09*	0.16*	0
Spending on education	-0.27*	-0.13*	0	0.01	-0.08	0.06	0.04	0
Abortion if strong chance of serious defect	0.61	1.03*	0.81*	1.48	1.13	1	1.37	0
Homosexual sex relations	-0.23*	-0.15*	-0.28*	0.12*	-0.11*	0.13*	-0.09	0
Spending on assistance for childcare	-0.24*	-0.04	-0.02	-0.04	-0.02	-0.02	0.06	0
Spending on health	-0.24*	0.01	-0.04	-0.04	-0.07	-0.07	0.12*	0
Birth control to teenagers 14-16	-0.23*	-0.13*	-0.15*	0.01	-0.05	0	-0.01	0
Should government improve standard of living?	-0.26*	-0.05	-0.04	-0.01	-0.06	-0.1	0.2*	0
Abortion if married--wants no more children	0.67	1.01	0.81*	1.89*	1.24	1.0*	1.47	0
Blacks overcome prejudice without favors	0.24*	0.01	0	-0.13*	0	-0.06	-0.24*	0
Favor spanking to discipline child	0.22*	-0.13*	0.05	-0.03	0.12*	-0.14*	0.11*	0
Favor death penalty for murder	1.49	1	0.89*	0.86	1.47	1	0.43*	0

Feelings about the bible	0.19*	0.03	0.36*	-0.13*	-0.05	-0.09*	0.1*	0
Abortion if not married	0.67	1.01	0.81*	2.02*	1.1	1.0*	1.14	0
Abortion if woman wants for any reason	0.67	1	0.81*	1.72*	1.08	1.0*	1.83	0
Abortion if low income--can't afford more children	0.67	1	0.82*	1.45	1.08	1.0*	1.96*	0
Spending on fighting drugs	-0.17*	0.02	0.07	0	-0.06	0	0.05	0
Racial differences due to lack of education	0.76	1	1.04	1.63*	1.19	1	1.72	0
Confidence in exec branch of fed government	-0.25*	-0.02	-0.01	-0.01	-0.02	0	0.17*	0
Spending on helping Black people	-0.18*	-0.05	-0.02	0.06	-0.04	-0.01	0.32*	0
P's confidence in the existence of God	0.18*	0.07	0.35*	-0.07	-0.14*	-0.08*	0.08*	0
Spending on mass transportation	-0.15*	0.05	0.02	0.05	0.06	0.08	-0.02	0
Sex before marriage -- teens 14-16	-0.2*	-0.11*	-0.15*	0.04	0.05	-0.04	-0.05	0
Racial differences due to discrimination	0.71	1	1.02	1.12	0.81	1	3.33*	0
Happy with federal income tax?	-0.2*	0.01	0.06	0.05	0.05	-0.04	-0.07	0
Should marijuana be made legal	0.69	0.99*	0.85*	1.1	1.66	1	1.46	0
Bible prayer in public schools	0.75	0.98*	0.88*	1.88*	1.14	1	0.57	0
Courts dealing with criminals	0.16*	0.03	0.06	-0.01	-0.1*	0	-0.12*	0
Shotgun in home	1.35	1.01	0.95	0.81	1.45	1.0*	0.29*	0
Should government aid Blacks?	-0.21*	0.02	-0.01	0.05	-0.01	-0.03	0.33*	0
Abortion if pregnant as result of rape	0.7	1.01	0.77*	1.81*	1.29	1	1.36	0
Confidence in organized labor	-0.15*	-0.18*	-0.06	-0.05	-0.04	-0.08	0.11	0
Preschool kids suffer if mother works	0.16*	0.15*	0.05	-0.07	0.16*	-0.07	0	0

Suicide if incurable disease	0.77	1	0.84*	1.32	1.17	1.0*	0.48*	0
Rifle in home	1.36	1.01	0.94	0.83	1.36	1.0*	0.22*	0
Get ahead by hard work (vs. luck)?	0.17*	-0.03	-0.01	-0.05	-0.13*	0.05	-0.05	0
Better for man to work woman tend home	0.15*	0.08	0.13*	-0.12*	0.08	-0.14*	-0.03	0
Racial differences due to lack of will	1.26	1	1.01	0.59*	0.98	1	0.6	0
Favor gun restriction law	0.78	1.01	1.11*	1.24	0.62*	1	1.85	0
Attitude about sex before marriage	-0.14*	-0.07	-0.4*	0.05	0.05	0.05	-0.03	0
Pistol or revolver in home	1.26	1.01	0.93	1.27	1.35	1	0.54	0
How fundamentalist is P currently	0.11*	-0.01	0.33*	-0.12*	-0.03	-0.06	0.09	0
Spending on big cities	-0.15*	-0.04	-0.02	-0.01	-0.02	0.01	0.07	0
Have gun in home	1.25	1.02	0.95	0.96	1.38	1.0*	0.38*	0
Sex education in public schools	0.6	0.98	0.87	0.95	1.69	1	1.45	0
Importance of teaching children to think for ones self	-0.12*	0.11	-0.17*	0.14*	-0.05	0.1	0.04	0
Assist incurable patients to die	0.76	0.99	0.84*	0.94	1.27	1	0.49	0
Attitude about sex with person other than spouse	-0.13*	-0.01	-0.12	0.01	0.05	0.02	0.02	0
Abortion if woman's health seriously endangered	0.7	1.03*	0.77*	2.33*	1.09	1	2.76	0
Favor preference in hiring Blacks	-0.15*	-0.01	-0.04	-0.02	0	0.02	0.3*	0
Women not suited for politics	1.31	1	1.09	0.9	1.12	1	0.86	0
How close feel to Blacks	-0.1*	-0.03	0.05	0.03	-0.08	0	0.32*	0.01
Spending on foreign aid	-0.11*	-0.13*	0.09	-0.04	-0.02	0.02	0.07	0.01

Strength of religious affiliation	0.08*	0.14*	0.52*	-0.03	-0.07	-0.01	0.01	0.01
P favor close relative marrying White person	0.12*	0.03	0.02	-0.01	-0.05	0.02	-0.03	0.01
Whites hurt by affirmative action	0.13*	0.09	0.02	-0.11*	-0.04	-0.01	-0.12	0.02
Confidence in press	-0.13*	0.05	-0.03	-0.05	0.03	-0.04	-0.01	0.02
Mother's highest degree	-0.09*	-0.26*	0.01	0.21*	0.08	0.15*	-0.03	0.02
How often does P pray	0.08*	0.1*	0.46*	-0.03	-0.19*	-0.06	0.12*	0.02
Does P or spouse hunt	1.22	0.98*	1.04	0.75	1.69	1	0.33*	0.02
Spending on parks and recreation	-0.09*	-0.12*	-0.03	-0.01	0	-0.02	0.04	0.02
Spend evening at bar	-0.09*	-0.23*	-0.05	0.16*	0.1	0.08	-0.01	0.02
Divorce laws made more difficult?	0.11*	0.02	0.15*	0.06	-0.06	0.04	-0.14*	0.02
Confidence in scientific community	-0.13*	-0.02	-0.07	0.14*	0	0.09	-0.08	0.02
How many sex partners P had in last 5 years	-0.08*	-0.41*	-0.08*	0.03	0.19*	-0.09*	0.07	0.02
Confidence in military	0.11	-0.01	-0.01	-0.08	0.02	0.01	-0.04	0.03
Could P find equally good job?	-0.12	0.21*	-0.01	-0.02	0	-0.09	-0.05	0.04
Should communist teacher be fired	1.17	1.02	1	0.42*	0.79	1	1.18	0.04

Note. Total variables = 74. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Race interactions. As shown in Figure 15 and Table 27, there were four significant interactions. As with the interactions between ideology and education, these interactions were further examined in separate analyses. Overall, the general pattern is the same as that found in Study 1: Although ideology was significantly associated with these measures for White

participants, for Black participants, ideology was significantly associated with only one of these measures (political party affiliation).

Figure 15. Interactions between Race and Ideology.

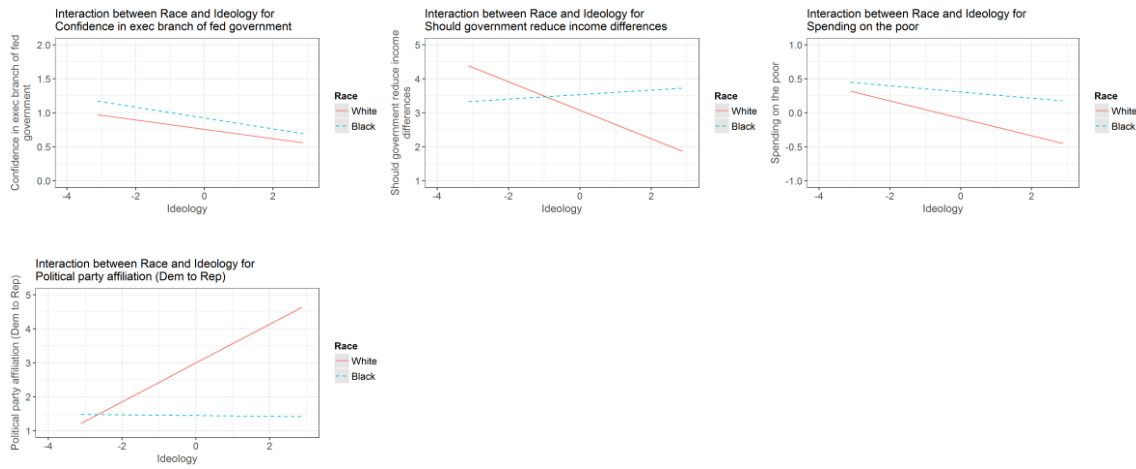


Table 27. Year 2014: Significant Race × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.56*	-0.19*	-0.06	0.02	0.02	0.02	0.08	-0.34*
Confidence in exec branch of fed government	-0.3*	0.13*	-0.02	0	-0.01	-0.02	0	0.18*
Spending on the poor	-0.3*	0.12*	-0.01	0.01	-0.02	0.03	-0.09	0.18*
Should government reduce income differences	-0.4*	0.13*	-0.05	0.01	-0.04	-0.05	-0.14*	0.14*

Note. Total variables = 4. Asterisks denote logistic regression odds ratios coefficients. * $p < .001$.

Black participants. There were no significant associations between ideology and any measure after adjusting for multiple comparisons. In addition, of the four associations for which there were interactions between Race and Ideology (i.e., party identification, confidence in the

government, spending on the poor, and attitudes about wealth inequality), only party identification was significant even at an unadjusted alpha level of .05, $\beta = 0.092$, *adjusted-p* = .036.

White participants. As shown in Table 28 through Table 31, there were 71 significant associations. As in Study 1, these associations are divided into Behavior and personal attributes measures and Attitude measures. These are further subdivided into linear and logistic regressions, so that the coefficients can be ordered and compared. For the downsampled analyses, after adjusting for multiple comparisons, there were 20 significant associations. These were a subset of the measures found to be significant in the full sample.

Table 28. Year 2014: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Strength of religious affiliation	0.1*	0.13*	0.52*	-0.05	-0.07	-0.01	0
Mother's highest degree	-0.09*	-0.24*	0.01	0.23*	0.08	0.14*	0.02

Note. Total variables: 2. All coefficients are standardized coefficients. * $p < .001$.

Table 29. Year 2014: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Rifle in home	1.37	1.01	0.93	0.83	1.36	1.0*	0
Shotgun in home	1.35	1.01	0.95	0.83	1.43	1.0*	0

Pistol or revolver in home	1.27	1	0.93	1.24	1.43	1	0
Have gun in home	1.26	1.01	0.95	0.9	1.42	1.0*	0
Does P or spouse hunt	1.21	0.98	1.05	0.75	1.57	1	0.03

Note. Total variables: 5. All coefficients are odds ratios. * $p < .001$.

Table 30. Year 2014: Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: attitude measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Political party affiliation (Dem to Rep)	0.58*	-0.04	0.04	0.03	0.01	0.08	0
Should government reduce income differences	-0.4*	-0.07	0	-0.03	-0.05	-0.15*	0
Should government do more?	-0.4*	-0.06	0	-0.06	-0.07	-0.08	0
Should government help pay for medical care?	-0.39*	-0.08	0.01	-0.04	-0.03	-0.12*	0
Spending on the environment	-0.32*	-0.14*	-0.01	0.06	-0.01	-0.05	0
Should government improve standard of living?	-0.32*	-0.05	-0.02	-0.02	-0.07	-0.1	0
Confidence in exec branch of fed government	-0.32*	-0.04	0.01	-0.01	-0.06	0	0
Spending on the poor	-0.31*	-0.03	0	-0.04	0.05	-0.1	0
Spending on defense	0.3*	0.07	-0.05	-0.07	-0.06	0.02	0
Blacks overcome prejudice without favors	0.29*	0.02	-0.01	-0.14*	-0.02	-0.06	0
Should government aid Blacks?	-0.28*	0	-0.01	0.05	0	-0.04	0
Birth control to teenagers 14-16	-0.27*	-0.15*	-0.15*	0.02	-0.04	0.01	0
Spending on education	-0.26*	-0.16*	-0.01	0	-0.09	0.05	0
Favor spanking to discipline child	0.26*	-0.14*	0.02	-0.05	0.13*	-0.15*	0

Spending on health	-0.25*	0	-0.05	-0.04	-0.06	-0.08	0
Spending on assistance for childcare	-0.24*	-0.05	-0.03	-0.07	-0.03	-0.02	0
Homosexual sex relations	-0.24*	-0.15*	-0.27*	0.14*	-0.11*	0.14*	0
Happy with federal income tax?	-0.23*	0.04	0.07	0.07	0.07	-0.03	0
Sex before marriage -- teens 14-16	-0.22*	-0.11*	-0.15*	0.06	0.05	-0.04	0
Spending on helping Black people	-0.21*	-0.08*	-0.02	0.07	-0.04	-0.01	0
Feelings about the bible	0.2*	0.03	0.37*	-0.13*	-0.05	-0.09*	0
Spending on fighting drugs	-0.19*	0.02	0.07	-0.01	-0.05	-0.01	0
Courts dealing with criminals	0.19*	0.04	0.05	-0.03	-0.12*	0	0
Favor preference in hiring Blacks	-0.19*	-0.02	-0.04	-0.03	0	0.02	0
P's confidence in the existence of God	0.18*	0.09	0.37*	-0.08*	-0.14*	-0.09	0
Get ahead by hard work (vs. luck)?	0.18*	-0.01	-0.01	-0.06	-0.12*	0.06	0
Better for man to work woman tend home	0.17*	0.08	0.13	-0.14*	0.08	-0.15*	0
Spending on big cities	-0.17*	-0.04	-0.02	-0.03	-0.02	0.02	0
Preschool kids suffer if mother works	0.16*	0.16*	0.03	-0.07	0.17*	-0.09	0
Spending on mass transportation	-0.15*	0.05	0.03	0.06	0.06	0.07	0
Confidence in organized labor	-0.15*	-0.23*	-0.06	-0.04	-0.06	-0.1	0
Attitude about sex before marriage	-0.15*	-0.08	-0.42*	0.07	0.05	0.06	0
Confidence in press	-0.15*	0.05	-0.04	-0.03	0	-0.03	0
Attitude about sex with person other than spouse	-0.15*	-0.02	-0.1	0.02	0.05	0.02	0
Whites hurt by affirmative action	0.15*	0.08	0.02	-0.13*	-0.08	-0.01	0.01
Could P find equally good job?	-0.15*	0.21*	0.02	-0.02	-0.02	-0.09	0.01
How fundamentalist is P currently	0.14*	-0.04	0.32*	-0.14*	-0.04	-0.07	0
Divorce laws made more difficult?	0.14*	0.02	0.13*	0.06	-0.07	0.03	0
Spending on foreign aid	-0.13*	-0.13*	0.08	-0.04	-0.02	0.02	0
Confidence in scientific community	-0.13	-0.03	-0.07	0.16*	-0.01	0.1*	0.04

How close feel to Blacks	-0.12*	-0.04	0.05	0	-0.09	0.01	0
P favor close relative marrying White person	0.12*	0.03	0.02	-0.06	-0.03	0.04	0.01
Confidence in military	0.12*	-0.03	-0.03	-0.09	0.01	0.02	0.03
Importance of teaching children to think for ones self	-0.11*	0.1	-0.18*	0.18*	-0.01	0.1	0.01
Spending on parks and recreation	-0.09	-0.14*	-0.04	0	0.01	-0.02	0.04

Note. Total variables: 45. All coefficients are standardized coefficients. * $p < .001$.

Table 31. Year 2014: Significant logistic regressions ordered by distance from one of ideology odds ratio. White participants: attitude measures.

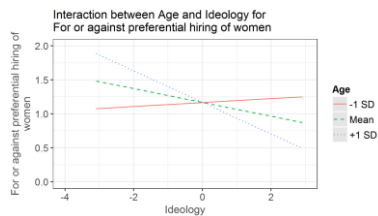
Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Favor death penalty for murder	1.52	1	0.88*	0.9	1.43	1	0
Sex education in public schools	0.57	0.98	0.87	0.79	2.1	1	0
Abortion if strong chance of serious defect	0.58	1.03*	0.8*	1.47	1.12	1	0
Women not suited for politics	1.39	1	1.08	0.87	0.93	1	0
Abortion if married--wants no more children	0.64	1.01	0.82*	2.2*	1.34	1.0*	0
Abortion if low income--can't afford more children	0.64	1	0.81*	1.71	1.06	1.0*	0
Abortion if pregnant as result of rape	0.64	1.01	0.75*	1.65	1.56	1	0
Abortion if not married	0.65	1.01	0.81*	2.24*	1.2	1.0*	0
Abortion if woman wants for any reason	0.66	1	0.79*	2.08*	1.11	1.0*	0

Racial differences due to discrimination	0.66	1	1.02	0.99	0.79	1	0
Should marijuana be made legal	0.69	0.99	0.86*	1.27	1.75*	1	0
Abortion if woman's health seriously endangered	0.71	1.02	0.76*	2.09	1.21	1	0.01
Bible prayer in public schools	0.72	0.99	0.9	2.0*	1.23	1	0
Racial differences due to lack of education	0.74	1.01	1.05	1.65*	1.1	1	0
Assist incurable patients to die	0.74	0.99	0.82*	0.92	1.27	1	0.01
Racial differences due to lack of will	1.25	1.01	1	0.57*	0.93	1	0
Favor gun restriction law	0.75	1.01	1.11*	1.09	0.58*	1	0
Suicide if incurable disease	0.76	1	0.84*	1.23	1.11	1.0*	0

Note. Total variables: 18. All coefficients are odds ratios. * $p < .001$.

Age interaction. As shown in Figure 16 and Table 32, there was a significant interaction for attitudes about preferential hiring for women. The regressions were mean-centered at the mean age of 49.01.

Figure 16. Interaction between Age and Ideology for attitudes about preferential hiring for women.



The mean was 49.01.

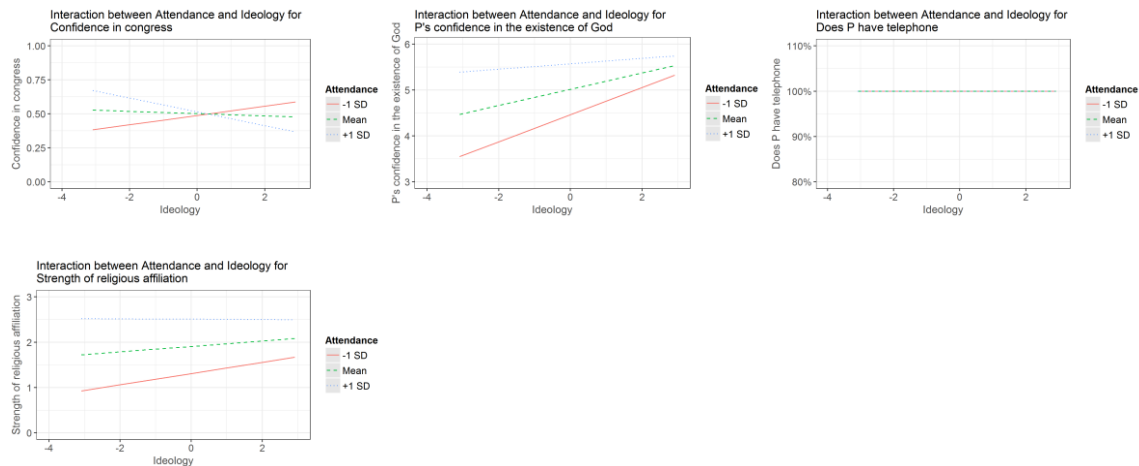
Table 32. Year 2014: Significant Age × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
For or against preferential hiring of women	-0.12*	-0.17*	0	0.02	-0.12	-0.04	-0.1	0.2*

Note. Total variables = 1. All coefficients are linear standardized coefficients. * $p < .001$.

Church attendance interactions. As shown in Figure 17 and Table 33, there were four significant interactions. The regressions were mean-centered at the mean church attendance value of 3.32 (approximately equivalent to “Several times a year”). There were no consistent patterns regarding the differences in the associations between ideology and these measures based on differences in church attendance.

Figure 17. Interactions between Church attendance and Ideology.



The mean was 3.32.

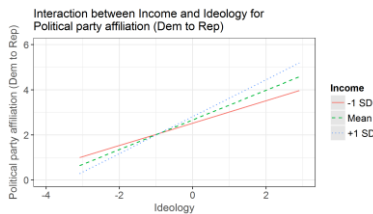
Table 33. Year 2014: Significant Church attendance × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
P's confidence in the existence of God	0.17*	-0.12*	0.07	0.37*	-0.07	-0.14*	-0.08*	0.06
Does P have telephone	1.16	1.11*	1.01	1.06	0.46	0.88	1	1.84
Strength of religious affiliation	0.08*	-0.08*	0.14*	0.54*	-0.03	-0.07	-0.01	0
Confidence in congress	-0.02*	-0.11*	-0.17*	0.02	-0.08	-0.02	-0.09	0.06

Note. Total variables = 4. Asterisks denote logistic regression odds ratios coefficients. * $p < .001$.

Income interaction. As shown in Figure 18 and Table 34, there was one significant interaction. The regressions were mean-centered at the mean income of \$48,603 (in 2000 dollars). For this measure, the association between ideology and political party affiliation was weaker for lower income participants compared to higher income participants.

Figure 18. Interaction between Income and Ideology for Political party affiliation.



The mean was \$48,603.

Table 34. Year 2014: Significant Income × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.47*	0.12*	-0.04	0.02	0.03	0.03	0.07	-0.32*

Note. Total variables = 1. All coefficients are linear standardized coefficients. * $p < .001$.

Education interactions. As shown in Figure 19 and Table 35, there were 10 significant interactions. The overall pattern is that the effect sizes are larger for participants with at least some college education for these measures. In other words, the association between ideology and these measures is weaker for those with no college education. These interactions are further investigated in the separate analyses.

Figure 19. Interactions between Education and Ideology.

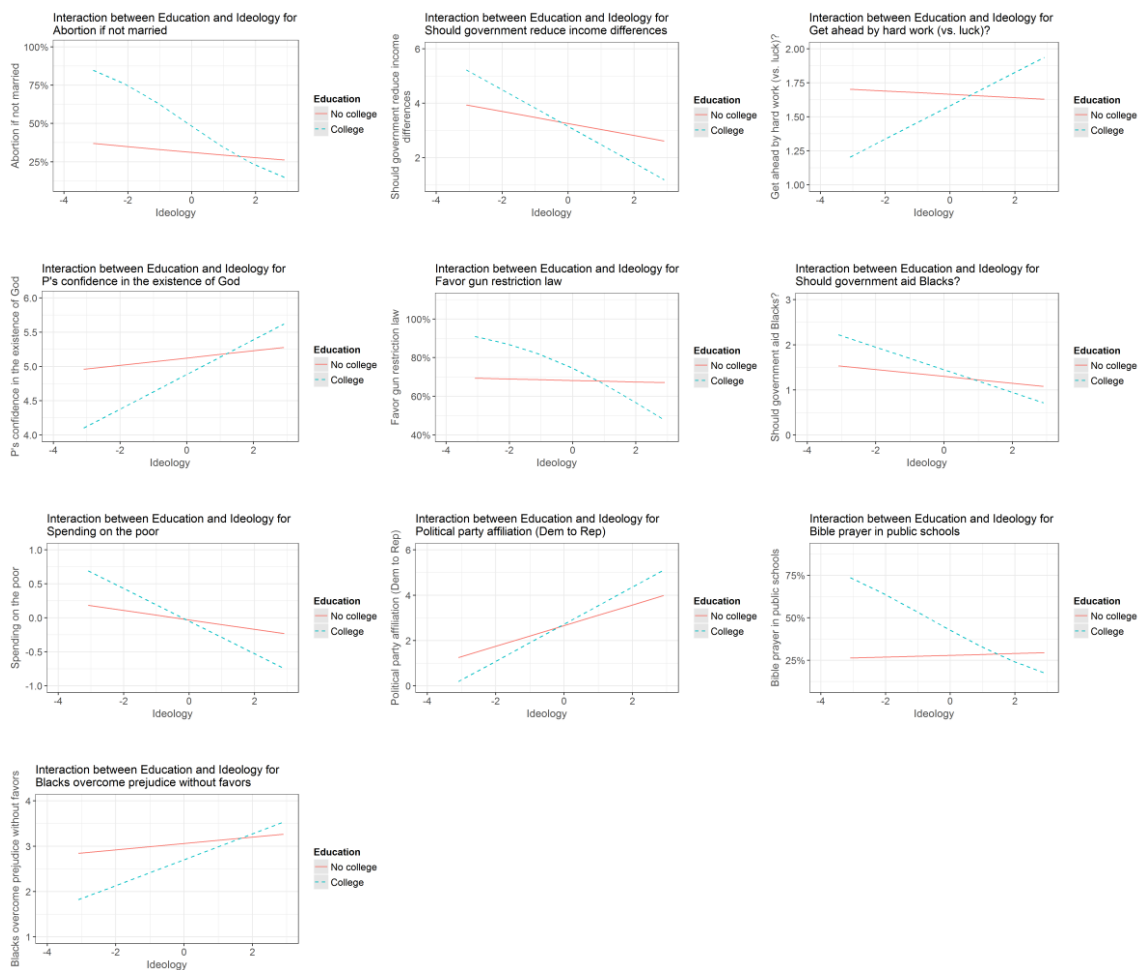


Table 35. Year 2014: Significant Education × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.33*	0.21*	-0.05	0.02	0.02	0.02	0.08*	-0.31*
Get ahead by hard work (vs. luck)?	-0.03*	0.24*	-0.03	-0.02	-0.06	-0.13*	0.05	-0.06
P's confidence in the existence of God	0.05*	0.15*	0.07	0.35*	-0.08*	-0.14*	-0.08*	0.08*
Blacks overcome prejudice without favors	0.08*	0.2*	0.02	0	-0.14*	0	-0.06	-0.24*
Spending on the poor	-0.1*	-0.2*	-0.02	0	-0.01	0.03	-0.1*	0.17*
Favor gun restriction law	0.98	0.68*	1.01	1.11*	1.37	0.62*	1	1.88
Should government reduce income differences	-0.16*	-0.25*	-0.05	0	-0.03	-0.05	-0.15*	0.13*
Abortion if not married	0.92	0.61*	1.01	0.81*	2.06*	1.12	1.0*	1.13
Bible prayer in public schools	1.03	0.64*	0.98*	0.88*	1.92*	1.13	1	0.56
Should government aid Blacks?	-0.09*	-0.16*	0.02	-0.01	0.06	-0.01	-0.04	0.33*

Note. Total variables = 10. Asterisks denote logistic regression odds ratios coefficients. * $p < .001$.

Table 36 shows the comparisons from the separate analyses. For participants with no college education, the effect sizes for all measures are either smaller than that for participants with at least some college education, or they are not significantly different from zero. There were six measures which, for participants with no college education, were not significantly different from zero at an unadjusted .05 alpha level. In addition, again for participants with no college education, three measures—confidence in the existence of God, government spending to help the poor, and government intervening to reduce income differences—were not significant after adjusting for multiple comparisons.

Table 36. Year 2014: Comparison of separate analyses for each significant interaction for Non-college-educated vs. College-educated participants.

Variable	Ideology	Age	Church attendance	Gender	Income	Race	Adjusted p-value
Political party affiliation (Dem to Rep)	0.31*	-0.05	0	0.04	0.15*	-0.34*	.00
Political party affiliation (Dem to Rep)	0.59*	-0.04	0.04	0.02	0.04	-0.3*	.00
Get ahead by hard work (vs. luck)?	NS						
Get ahead by hard work (vs. luck)?	0.27*	-0.03	-0.04	-0.14*	0.1	-0.01	.00
P's confidence in the existence of God	0.08	0.12*	0.25*	-0.17*	-0.07	0.04	1.49
P's confidence in the existence of God	0.22*	0.05	0.41*	-0.13*	-0.08	0.1*	.00
Blacks overcome prejudice without favors	NS						
Blacks overcome prejudice without favors	0.32*	0.03	-0.01	-0.05	-0.08	-0.21*	.00
Spending on the poor	-0.09	-0.06	0.01	0.01	-0.19*	0.1	1.28
Spending on the poor	-0.35*	-0.01	-0.01	0.05	-0.04	0.2*	.00
*Favor gun restriction law	NS						
Favor gun restriction law	0.64	1	1.15*	0.65	1	3.36*	.00
Should government reduce income differences	-0.12	-0.04	-0.08	-0.07	-0.15	0.17	1.49
Should government reduce income differences	-0.49*	-0.07	0.05	-0.04	-0.14*	0.1	.00
*Abortion if not married	NS						
Abortion if not married	0.55	1.01	0.77*	1.14	1	0.82	.00
*Bible prayer in public schools	NS						
Bible prayer in public schools	0.64	0.98*	0.91	1.39	1	0.43	.00
Should government aid Blacks?	NS						
Should government aid Blacks?	-0.3*	-0.01	-0.03	0.03	0	0.33*	.00

Note. The first row of each pair of rows is for No college participants. The second row is for College educated participants. Coefficients for variables with an asterisk (*) are logistic regression odds ratios. All other coefficients are standardized linear regression coefficients. * $p < .001$.

Study 3 Discussion

Although the overall pattern of results of Study 3 were the same as in Study 1, many fewer interactions were detected. Thus, the findings of Study 3 are largely inconclusive. For Black Americans, ideology was not associated with any measure of behavior, attribute, or attitude, except for a small association with political party affiliation. In contrast, for White Americans, ideology was significantly associated with 71 measures in both years. For education, in both years, for participants with no college education, the effect sizes of the associations were smaller than those for participants with at least some college education. Similarly, in both years, the lower the household income of the participant, the smaller the effect size of the association with ideology.

Also, these results do not suggest that attitude alignment along ideological lines is more extensive in 2014 compared to 2000. For White participants, 71 measures were significantly associated with ideology in both 2000 and 2014. The particular measures were slightly different between the two years, but they are all consistent with previous research on ideological attitudes.

Polarization can also be thought of as the *number* of things for which there are ideological differences. Study 3 provides evidence that polarization of this kind has not worsened between 2000 and 2014—the number of behaviors, attributes, or attitudes associated with ideological differences has not increased across this timespan.

This is consistent with research suggesting that Americans as a whole do not vary greatly in their political attitudes (Fiorina et al., 2011). Specifically, Fiorina and colleagues examined American attitudes toward specific issues and found, overall, limited differences. Rather, much of the polarization that has occurred involves animosity towards members of the opposing political party (Iyengar & Westwood, 2015). The findings of Study 3 suggest that the number of

attitudes organized along a left-right ideological spectrum has not increased over the first 15 years of the 21st century.

Given the overall lack of associations with ideology for Black participants, this raises the issue of false negatives. In addition to the smaller sample sizes, the survey-design corrections may have given significantly more conservative estimates of the standard errors. Although the overall samples sizes are much smaller, particularly for Black participants (386 in each year), based on post-hoc power analysis, 386 participants is enough to detect a small effect with .791 power, and a medium effect with 1.000 power. In addition, in the supplementary analyses in which the White participants were downsampled to the same number as the Black participants, there were 16 significant associations in 2000 and 20 significant associations in 2014. This provides some initial assurance that the strongest significant associations would have been detected at that sample size, were they present in Black Americans.

In addition, regression interaction tests are known to be a more conservative way to detect subgroup differences (Marshall, 2007). The usual shortcoming is that the sample sizes are not large enough to detect subgroup differences.

Thus, the concern over false negatives affects both the confirmation of the qualitative differences between races as well as the detection of the quantitative differences across the other covariates. Even for Studies 1 and 2, which used the larger 2012 dataset, the sample size of Black Americans may not have been large enough. Study 4 addresses this limitation.

Study 4: Does the same pattern of variability in ideology hold with a larger sample size?

To boost the ability to detect associations with ideology, Study 4 aggregated the 2000, 2002, 2004, 2006, 2008, 2010, 2012, and 2014 datasets. Because Study 3 found similar patterns of associations in both 2000 and 2014, this suggests that it would be appropriate to combine the datasets bookended by those two years. Had Study 3 found differences, aggregating the datasets would have masked obvious historical differences. Study 4 uses the same methodology as Studies 1 and 3.

Study 4 Method

Study 4 aggregated the 2000 to 2014 datasets for a total $N = 21,483$. There were 3,129 Black participants and 16,395 White participants. The average age was 47.180, and 55.37% were female. Average household income was \$49,447.93. The sample sizes per year are as follows. 2000: $N = 2817$. 2002: $N = 2765$. 2004: $N = 2812$. 2006: $N = 4510$. 2008: $N = 2023$. 2010: $N = 2044$. 2012: $N = 1974$. 2014: $N = 2538$.

For these analyses, 251 variables were analyzed, shown in Appendix D. Only the variables present in all eight datasets were used. These variables constitute the core measures of the GSS, and include the key political attitude measures relating to government spending, police violence, and abortion. There are also a number of measures of behavior and personal attributes, including sexual behaviors, drug use, satisfaction with life, socializing habits, and gun ownership. These measures are a subset of the measures present in the full 2012 dataset that was used in Studies 1 and 2.

As with the Study 1 analyses, each of the 251 variables was analyzed in seven ways. Thus, the number of statistical comparisons was $251 \times 7 = 1757$. For reference, a Bonferroni correction of an alpha of .05 for this number of comparisons yields a threshold of 2.846×10^{-5} .

Study 4 Results

As shown in Table 37, there were 144 significant associations after adjusting for multiple comparisons, and not accounting for interactions. There were significant interactions for every term tested. The results for interactions with race are presented first. The remaining interactions are presented in alphabetical order. Because there were extensive interactions found for all interaction tests, the regressions not accounting for them cannot be fully interpreted without taking them into consideration.

Overall, the measures that were associated with ideology are consistent with previous research and with the results of Studies 1 and 3. For example, more conservative participants were more opposed to abortion and government spending (except on defense) compared to more liberal participants. More conservative participants were more religious and more likely to own a gun compared to more liberal participants.

Table 37. Significant associations ordered by adjusted p-value for all participants.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Race	p
Political party affiliation (Dem to Rep)	0.45*	-0.08*	0.05*	0.02	0.04*	0.08*	-0.29*	.00
Spending on the environment	-0.26*	-0.11*	-0.06*	0.04*	-0.03	0.01	0.02	.00
Should government reduce income differences	-0.3*	-0.04	-0.01	-0.07*	-0.06*	-0.14*	0.11*	.00
Should government help pay for medical care?	-0.29*	-0.06*	-0.03	-0.03	-0.05*	-0.09*	0.14*	.00
Homosexual sex relations	-0.25*	-0.12*	-0.28*	0.15*	-0.12*	0.1*	-0.1*	.00
Spending on the poor	-0.22*	0	0	-0.05*	-0.03*	-0.07*	0.13*	.00

Spending on defense	0.23*	0.1*	0.04*	-0.07*	-0.04*	0	-0.06*	.00
Should government improve standard of living?	-0.25*	-0.04*	-0.01	-0.05*	-0.05*	-0.12*	0.16*	.00
Spending on helping Black people	-0.21*	-0.02	0.01	0.04*	-0.05*	-0.01	0.35*	.00
Should government do more?	-0.26*	-0.06*	-0.04	-0.06*	-0.05*	-0.08*	0.18*	.00
Birth control to teenagers 14-16	-0.23*	-0.13*	-0.22*	0.01	-0.07*	0	0.03	.00
Spending on health	-0.2*	0	-0.04*	-0.02	-0.08*	-0.05*	0.08*	.00
Feelings about the bible	0.17*	-0.01	0.36*	-0.15*	-0.07*	-0.1*	0.11*	.00
Favor death penalty for murder	1.4	1	0.93*	0.77*	1.43*	1	0.34*	.00
Blacks overcome prejudice without favors	0.22*	0.02	0	-0.13*	0	-0.05*	-0.22*	.00
Attitude about sex before marriage	-0.18*	-0.09*	-0.39*	0.05*	0.05*	0.09*	-0.02	.00
Spending on assistance for childcare	-0.18*	-0.08*	-0.02	-0.02	-0.06*	-0.06*	0.08*	.00
Abortion if woman wants for any reason	0.7	1	0.79*	1.75*	0.95	1.0*	1.42*	.00
Abortion if married--wants no more children	0.7	1.01*	0.8*	1.74*	1.09	1.0*	1.47*	.00
Abortion if not married	0.7	1.01*	0.8*	1.84*	1.05	1.0*	1.13	.00
Spending on education	-0.19*	-0.12*	-0.01	0.02	-0.08*	0.03	0.06*	.00
Abortion if low income--can't afford more children	0.71	1.01*	0.8*	1.69*	0.99	1.0*	1.54*	.00
Should government aid Blacks?	-0.22*	0.01	0	0.01	-0.01	-0.05*	0.32*	.00
Abortion if strong chance of serious defect	0.68	1.02*	0.76*	1.48*	1.02	1.0*	1.02	.00
Abortion if pregnant as result of rape	0.69	1.01*	0.75*	1.59*	1.22	1.0*	1.23	.00
Racial differences due to discrimination	0.76	1.01*	1	1.11	0.86	1.0*	3.02*	.00
Better for man to work woman tend home	0.17*	0.14*	0.13*	-0.14*	0.1*	-0.11*	-0.02	.00

How fundamentalist is P currently	0.12*	-0.03*	0.31*	-0.11*	-0.02	-0.07*	0.15*	.00
Should marijuana be made legal	0.75	0.99*	0.84*	1.22*	1.37*	1	0.98	.00
Sex before marriage -- teens 14-16	-0.17*	-0.12*	-0.2*	0.06*	0.08*	-0.01	-0.01	.00
Spending on mass transportation	-0.13*	0.06*	0.01	0.08*	0.05*	0.06*	0.01	.00
Spending on big cities	-0.15*	-0.01	-0.01	0.02	-0.05*	0	0.11*	.00
Suicide if incurable disease	0.77	1	0.8*	1.56*	1.19	1.0*	0.54*	.00
Assist incurable patients to die	0.75	1	0.79*	1.07	1.26*	1.0*	0.51*	.00
How often does P pray	0.11*	0.1*	0.45*	-0.01	-0.19*	-0.05*	0.1*	.00
Confidence in organized labor	-0.15*	-0.17*	0.02	-0.05*	-0.06*	-0.06*	0.05*	.00
Favor preference in hiring Blacks	-0.16*	-0.01	-0.01	-0.03	-0.01	-0.01	0.29*	.00
Confidence in military	0.17*	-0.04	0.03	-0.07*	0.05*	0.03	-0.07*	.00
Favor spanking to discipline child	0.15*	-0.05*	0.04	-0.07*	0.11*	-0.09*	0.11*	.00
Strength of religious affiliation	0.1*	0.09*	0.52*	-0.03*	-0.06*	-0.02	0.01	.00
Bible prayer in public schools	0.79	0.99*	0.89*	2.01*	1.19	1.0*	0.53*	.00
Courts dealing with criminals	0.14*	0.03	0.05*	-0.04*	-0.08*	0.01	-0.13*	.00
Sex education in public schools	0.61	0.99*	0.84*	1.43*	0.89	1	1.16	.00
Favor gun restriction law	0.77	1	1.04*	1	0.5*	1	1.5*	.00
Racial differences due to lack of education	0.82	1.01*	0.99	1.64*	0.96	1.0*	1.58*	.00
Spending on fighting drugs	-0.12*	0.03	0.02	-0.03	-0.08*	-0.02	0.08*	.00
Racial differences due to lack of will	1.24	1.01*	1	0.52*	1.09	1.0*	0.78	.00
Divorce laws made more difficult?	0.14*	0.05*	0.18*	0.03	-0.02	0.02	-0.17*	.00

Confidence in press	-0.14*	0	-0.02	-0.06*	-0.01	-0.01	0.02	.00
Spending on foreign aid	-0.13*	-0.1*	0.09*	0.01	-0.01	0	0.06*	.00
Have gun in home	1.22	1.01*	1	0.92	1.63*	1.0*	0.38*	.00
Preschool kids suffer if mother works	0.13*	0.12*	0.08*	-0.08*	0.18*	-0.07*	-0.05*	.00
Women not suited for politics	1.27	1	1.06*	0.71*	1.21	1.0*	0.91	.00
Spending on social security	-0.11*	0	-0.01	-0.07*	-0.1*	-0.09*	0.08*	.00
Mother working doesn't hurt children	-0.12*	-0.06*	-0.07*	0.07*	-0.18*	0.06*	0.03	.00
Importance of teaching children to obey	0.12*	0.01	0.17*	-0.18*	0.01	-0.1*	0.12*	.00
Shotgun in home	1.24	1.01*	1.01	0.74*	1.9*	1.0*	0.27*	.00
Should hire and promote women	-0.16*	0.05	0.01	-0.1*	-0.14*	-0.09*	0.12*	.00
Rifle in home	1.24	1.01*	1	0.8	1.77*	1.0*	0.22*	.00
Abortion if woman's health seriously endangered	0.73	1.02*	0.76*	1.59*	1.02	1	1.45	.00
Suicide if tired of living	0.8	1	0.87*	1.69*	1.29*	1.0*	0.82	.00
Happy with federal income tax?	-0.12*	0.02	0.03	0.06*	0.05*	-0.08*	-0.07*	.00
Strict pornography laws?	0.11*	0.17*	0.22*	-0.05*	-0.17*	-0.06*	-0.09*	.00
Attitude about sex with person other than spouse	-0.11*	0.03	-0.16*	0.06*	0.05*	0.01	0.01	.00
Spending on parks and recreation	-0.09*	-0.08*	-0.03	0	0.02	-0.03	0.09*	.00
Allow homosexual to teach	0.81	0.98*	0.89*	2.69*	0.57*	1.0*	0.85	.00
Number of children	0.07*	0.41*	0.1*	-0.13*	-0.05*	0.03	0.1*	.00
Belief in life after death	1.18	0.99*	1.25*	1.03	0.65*	1	1.01	.00

Close relative marry Black	-0.09*	-0.17*	0	0.09*	-0.08*	0.01	0.33*	.00
Whites hurt by affirmative action	0.1*	0.04*	0.03	-0.09*	-0.02	-0.04	-0.12*	.00
Pistol or revolver in home	1.19	1.01*	0.96	1.03	1.56*	1.0*	0.55*	.00
How many sex partners P had in last 5 years	-0.07*	-0.39*	-0.11*	0.02	0.18*	-0.07*	0.07*	.00
Confidence in organized religion	0.09*	-0.01	0.3*	-0.03	-0.02	-0.01	0.01	.00
Should communist teacher be fired	1.16	1.01*	1.05*	0.43*	0.87	1.0*	1.23	.00
Confidence in major companies	0.1*	-0.07*	0.06*	0.04	0.03	0.11*	-0.03	.00
Seen x-rated movie in last year	0.84	0.95*	0.87*	1.01	3.13*	1	1.96*	.00
Does P or spouse hunt	1.19	0.98*	1.05*	0.7*	1.93*	1	0.28*	.00
Importance of teaching children to think for ones self	-0.09*	0.06*	-0.13*	0.17*	-0.07*	0.08*	-0.02	.00
Confidence in banks & financial institutions	0.08*	-0.11*	0.06*	-0.03	-0.04*	0.02	-0.04	.00
Allow homosexual to speak	0.83	0.99*	0.89*	2.89*	0.7*	1.0*	0.77	.00
P favor close relative marrying White person	0.09*	0.06*	0.04	-0.03	-0.05*	0.01	-0.11*	.00
Spend evening at bar	-0.08*	-0.29*	-0.11*	0.12*	0.11*	0.05*	-0.03	.00
Get ahead by hard work (vs. luck)?	0.08*	-0.05*	0.05*	-0.04	-0.06*	0.03	-0.05	.00
Allow homosexual's book in library	0.85	0.98*	0.87*	2.59*	0.76*	1.0*	0.69*	.00
Reside in largest metro area to rural	0.07*	0.02	0.03	-0.1*	0.01	-0.07*	-0.22*	.00
Allow anti-religionist to teach	0.87	0.98*	0.91*	2.34*	0.98	1.0*	0.69*	.00
P ever use crack cocaine	0.81	0.98*	0.96	0.55*	1.91*	1.0*	0.92	.00
P's highest degree	-0.05*	0.06*	0.06*	0.55*	0	0.22*	-0.05*	.00
For preferential hiring of women	-0.11*	0	0.02	-0.15*	-0.05	-0.09*	0.22*	.00
How fundamentalist was P at age 16	0.06*	-0.05*	0.13*	-0.08*	0.01	-0.06*	0.19*	.00

Women hurt by affirmative action	-0.11*	0.06*	-0.01	-0.01	-0.12*	-0.04	0.02	.00
Confidence in scientific community	-0.08*	-0.04	-0.06*	0.12*	0.05*	0.09*	-0.1*	.00
Men hurt by affirmative action	0.11*	-0.03	0.03	-0.05	0.1*	-0.04	0	.00
How close feel to Blacks	-0.07*	-0.05*	0.05*	0.04	-0.03	0.02	0.35*	.00
How hard working are Blacks?	-0.07*	-0.06*	0	0.09*	0	0	0.18*	.00
Suicide if bankrupt	0.84	0.99*	0.88*	2.09*	1.29	1.0*	0.78	.00
Confidence in education	-0.07*	-0.03	0.07*	-0.07*	-0.01	-0.04*	0.07*	.00
P favors living in half Black neighborhood	-0.07*	-0.05*	0.05*	0.07*	-0.04	-0.01	0.22*	.00
Suicide if dishonored family	0.84	0.99*	0.89*	2.04*	1.32	1.0*	0.7	.00
Police violence OK if citizen attempting to escape custody?	1.13	1	1.03	1.25*	1.47*	1.0*	0.36*	.00
Allow communist's book in library	0.89	0.99*	0.9*	2.94*	1.09	1.0*	0.62*	.00
Importance of teaching children to be well liked or popular	-0.07*	0.06*	-0.09*	-0.03	0.09*	0.01	0.03	.00
Were P's parents born in this country	1.11	1	0.95*	0.94	0.97	1	1.29	.00
Reside in large city to open country	0.06*	0.02	0.03	-0.11*	0	-0.06*	-0.16*	.00
Does P own home?	1.02	1.01*	1.01*	1	0.99	1.0*	0.82*	.00
Ideal number of children	0.06*	-0.02	0.13*	-0.07*	-0.01	-0.03	0.15*	.00
Allow anti-religious book in library	0.89	0.99*	0.86*	2.43*	1	1.0*	0.58*	.00
Allow militarist to teach	0.91	0.98*	0.94*	1.85*	1.01	1.0*	0.7*	.00
Can people be trusted	1.1	0.98*	0.95*	0.46*	0.8*	1.0*	2.81*	.00
Spend evening with friends	-0.06*	-0.3*	0.04	0.06*	0	0.02	0	.00
Number of persons in household	0.05*	-0.37*	0.09*	-0.11*	-0.04*	0.18*	0.02	.00
Ever approve of police striking citizen	1.1	1	1	1.91*	1.74*	1.0*	0.39*	.00

How many grandparents born in U.S.	0.04*	-0.11*	-0.05*	-0.02	-0.02	-0.01	0.11*	.00
Was P born in this country	1.12	1	0.93*	1.2	0.92	1	1	.00
Spouse's highest degree	-0.06*	-0.04*	0.09*	0.29*	0	0.32*	-0.03	.00
Allow militarist's book in library	0.92	0.99*	0.9*	2.42*	0.89	1.0*	0.54*	.00
Confidence in television	-0.05*	-0.01	-0.08*	-0.11*	-0.01	-0.02	0.06*	.00
Police violence OK if citizen said vulgar or obscene things?	1.16	1.01*	1.04	0.73	1.54*	1	0.76	.00
How often does P read newspaper	0.05*	-0.23*	-0.05*	-0.1*	-0.05*	-0.1*	0.02	.00
Any opp. race in neighborhood	0.93	0.99*	0.98	1.37*	1.1	1	3.18*	.00
Type of place lived in when 16 years old	-0.04*	-0.04*	-0.04	0.1*	-0.02	0.08*	0.15*	.00
Father's highest degree	-0.04*	-0.25*	-0.01	0.26*	0.01	0.13*	-0.06*	.00
Have sex other than spouse while married	0.92	1.01*	0.92*	1.04	1.71*	1	1.85*	.00
In relationship w/last sex partner?	1.11	1.01*	1.07*	1.13	0.44*	1.0*	0.82	.00
Presence of others: spouse partner	1.01	1.0*	1	0.94*	1.07*	1	0.95*	.00
Spouse ever work as long as a year	1.23	1.02*	0.98	1.8*	0.2*	1	1.46	.00
Importance of teaching children to work hard	0.05*	-0.11*	-0.08*	0.03	0.04*	0.05*	0	.00
Was one of P's sex partners spouse or regular	1.13	1.04*	1.06	1.07	0.53*	1.0*	0.55*	.00
Importance of teaching children to help others	-0.05*	-0.03	0.08*	0.01	-0.02	-0.04	-0.15*	.00
Household members less than 6 years old	0.04*	-0.28*	0.04*	-0.03	-0.05*	0	0.02	.00
Allow communist to speak	0.93	0.99*	0.92*	2.71*	1.31*	1.0*	0.83	.00
How many sex partners P had in last year	-0.03*	-0.31*	-0.06*	0	0.14*	0.02	0.07*	.00
Participant income in constant dollars	0.04*	0.09*	-0.02	0.06*	0.15*	0.58*	0.02*	.00

Highest year school completed spouse	-0.05*	-0.05*	0.06*	0.32*	-0.01	0.31*	-0.01	.01
Mother's highest degree	-0.04*	-0.28*	0	0.24*	0.03	0.11*	-0.05*	.01
Spend evening with neighbor	-0.04*	-0.09*	0.07*	0	0.06*	-0.02	-0.01	.01
Household members 13 thru 17 years old	0.04*	-0.11*	0.05*	-0.07*	-0.04*	0.11*	0.05*	.01
Condition of health	-0.04*	0.2*	-0.08*	-0.14*	-0.01	-0.18*	0.04*	.01
P ever inject drugs	0.86	0.99	0.92	0.78	2.15*	1	1.14	.01
Household members 6 thru 12 years old	0.03	-0.19*	0.06*	-0.04*	-0.07*	0.05*	0.02	.01
Mother's employment when P was 16	0.95	0.96	0.97	1.31*	0.94	1	1.88*	.02
Allow anti-religionist to speak	0.93	0.99	0.9*	2.27*	1.2	1.0*	0.69*	.03
Number in household not related	-0.05	-0.2*	-0.08*	0.03	0.09*	-0.21*	-0.05*	.04
Is life dull (vs. exciting)?	0.04	0.04*	-0.12*	-0.13*	-0.06*	-0.13*	0.02	.04

Note. Total variables = 144. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Race interactions. As shown in Figure 20, Figure 21, and Table 38, there were 58 significant interactions between race and ideology. These interactions were further tested in separate analyses. Overall, the general pattern is the same as that found in Studies 1 and 3: Although ideology was significantly associated with these measures for White participants, for Black participants, ideology was significantly associated with only a few of these measures. As will be seen later in the separate analyses, for Black participants, only two measures—political party affiliation and use of crack cocaine—were significantly associated with ideology. More conservative Black participants affiliated more closely with the Republican Party compared to more liberal Black participants, $\beta = 0.132$, *adjusted-p* < .001. More conservative Black

participants were less likely to report ever using crack cocaine compared to more liberal Black participants, $OR = 0.785$, $adjusted-p = .019$.

Figure 20. Interactions between Race and Ideology: Behavior and personal attributes measures.

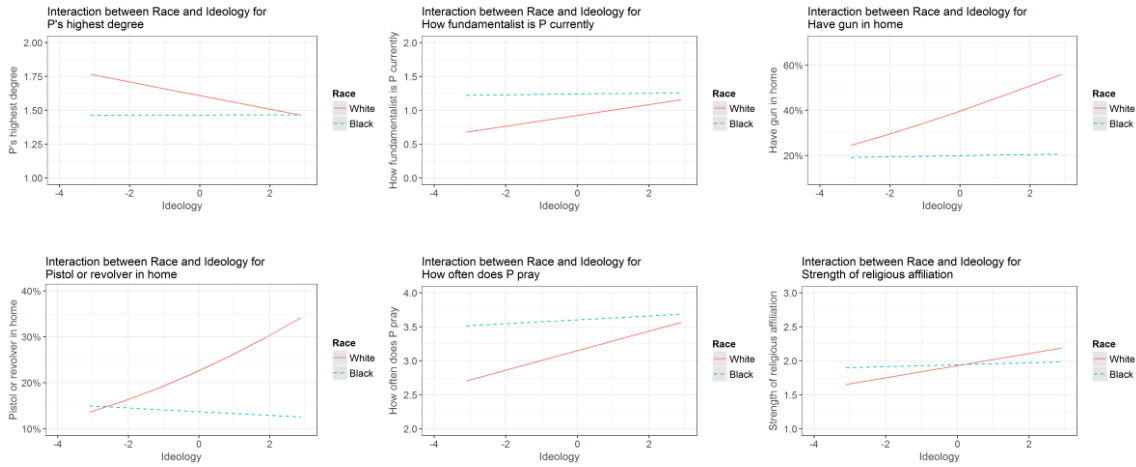
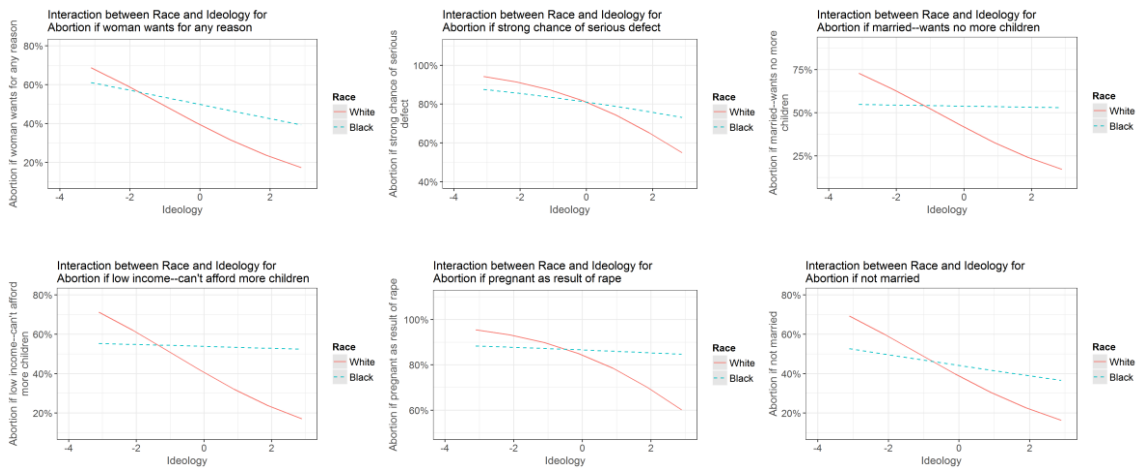
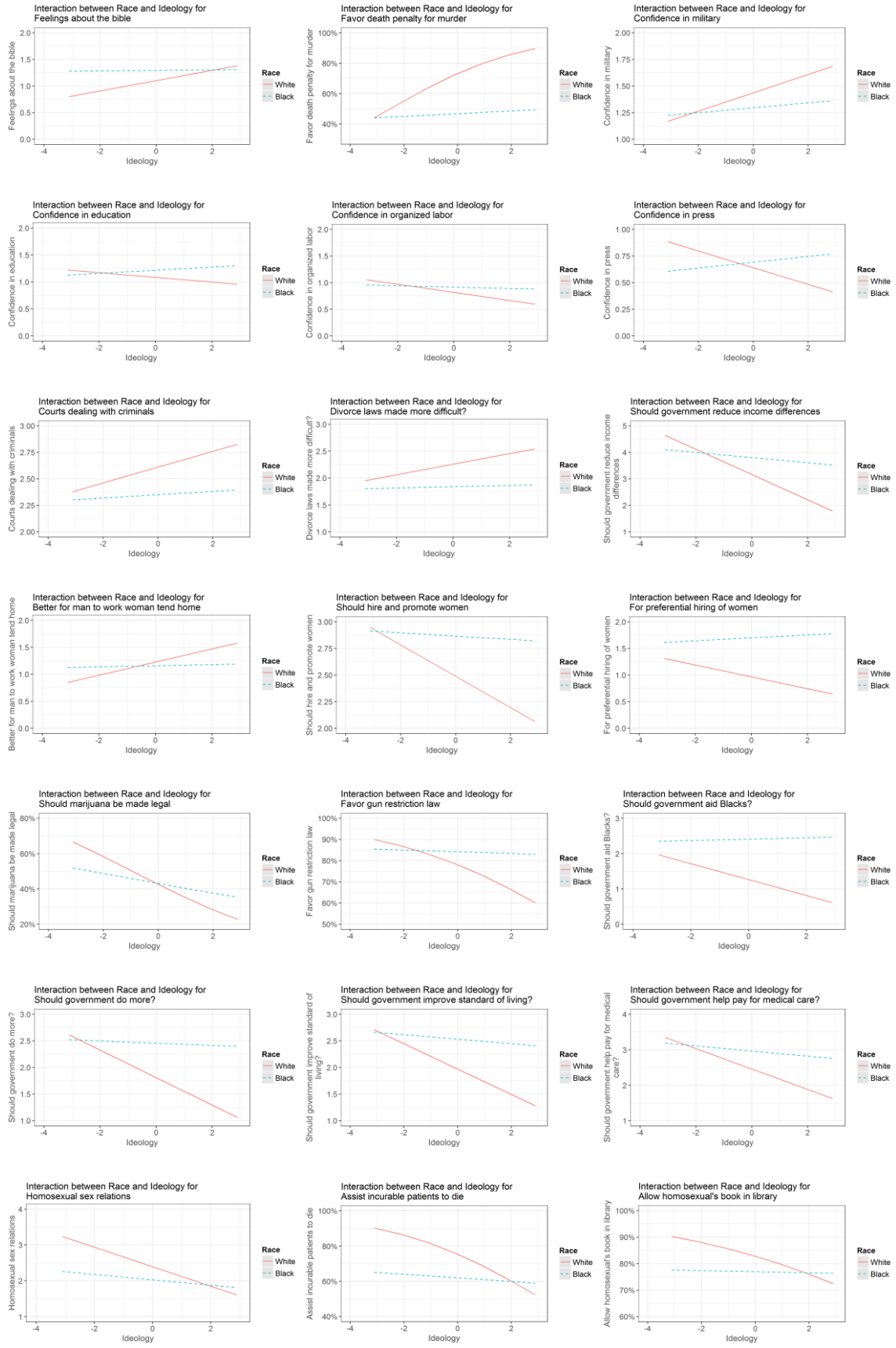
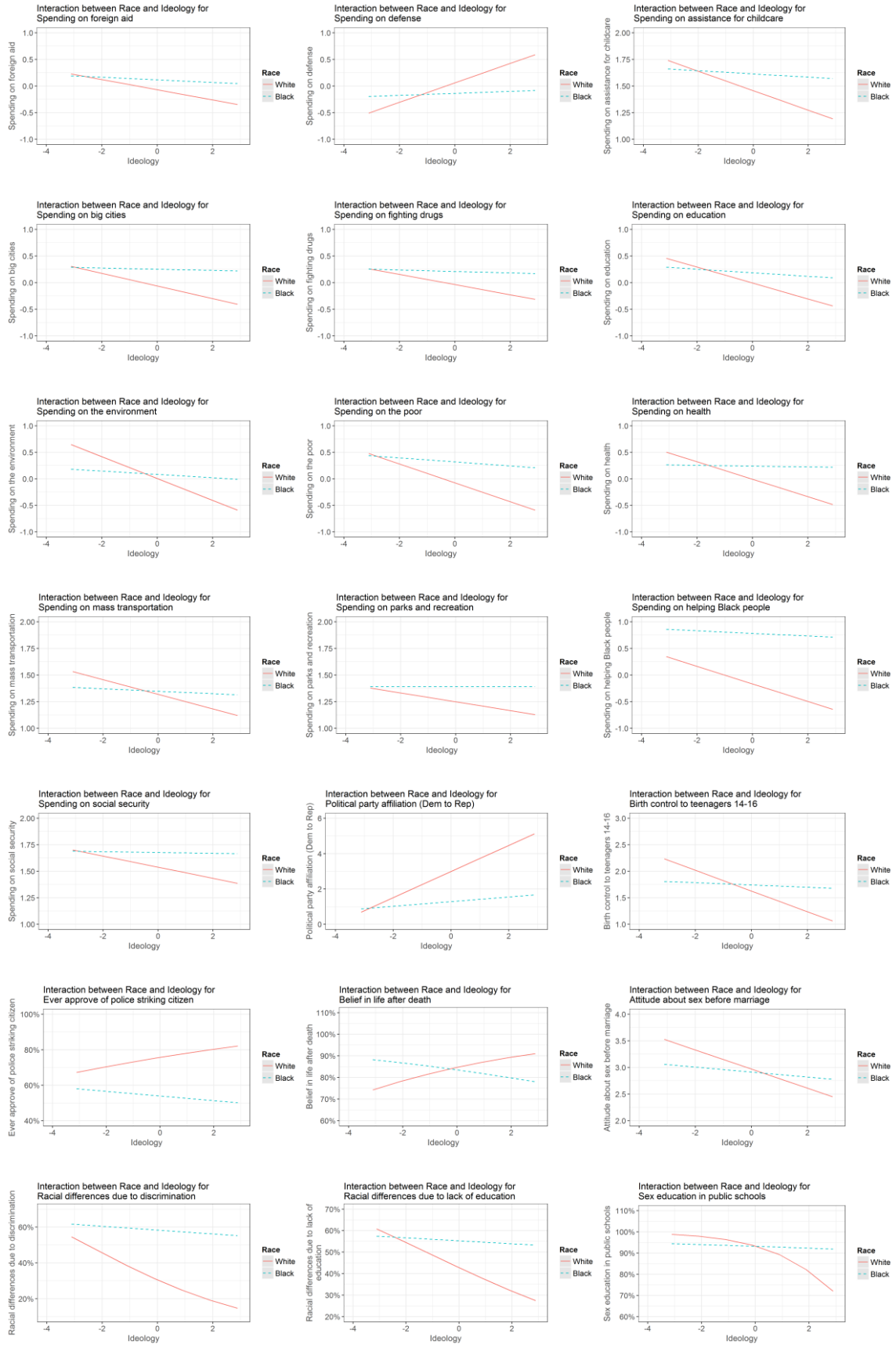


Figure 21. Interactions between Race and Ideology: Attitude measures.







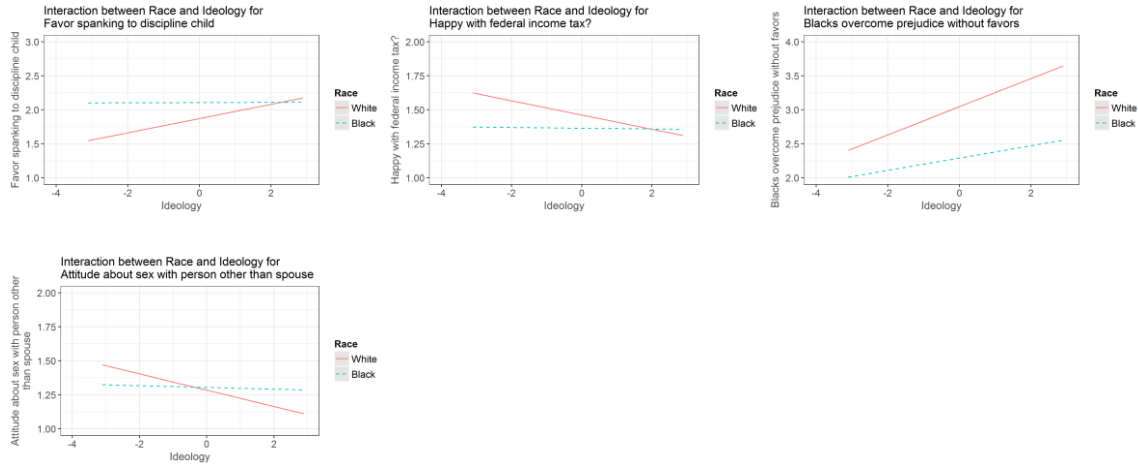


Table 38. Significant Race \times Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.52*	-0.17*	-0.08*	0.04*	0.02	0.03*	0.07*	-0.31*
Spending on the environment	-0.3*	0.1*	-0.11*	-0.05*	0.04*	-0.03	0.01	0.03
Spending on health	-0.24*	0.09*	0	-0.03	-0.02	-0.08*	-0.05*	0.09*
Spending on helping Black people	-0.24*	0.08*	-0.02	0.01	0.04*	-0.05*	-0.01	0.36*
Should government reduce income differences	-0.34*	0.11*	-0.03	0	-0.07*	-0.05*	-0.14*	0.11*
Favor death penalty for murder	1.49	0.69*	1	0.92*	0.77*	1.42*	1	0.32*
Spending on defense	0.26*	-0.09*	0.09*	0.04*	-0.06*	-0.04*	0	-0.07*
Spending on the poor	-0.25*	0.08*	0	0	-0.05*	-0.03*	-0.07*	0.14*
Abortion if married--wants no more children	0.65	1.51*	1.01*	0.8*	1.73*	1.11	1.0*	1.63*
Abortion if low income--can't afford more children	0.66	1.49*	1.01*	0.8*	1.69*	1	1.0*	1.71*
Birth control to teenagers 14-16	-0.26*	0.09*	-0.13*	-0.21*	0.01	-0.07*	0	0.04
Feelings about the bible	0.2*	-0.07*	-0.01	0.36*	-0.15*	-0.07*	-0.1*	0.1*
Homosexual sex relations	-0.28*	0.08*	-0.11*	-0.28*	0.14*	-0.11*	0.1*	-0.09*
Should government aid Blacks?	-0.26*	0.11*	0.01	0.01	0.01	-0.01	-0.05*	0.33*

Should government help pay for medical care?	-0.33*	0.1*	-0.06*	-0.02	-0.03	-0.05*	-0.09*	0.15*
Should government do more?	-0.3*	0.11*	-0.05*	-0.03	-0.07*	-0.05*	-0.08*	0.19*
Spending on education	-0.22*	0.07*	-0.12*	0	0.02	-0.08*	0.03	0.07*
Should government improve standard of living?	-0.29*	0.09*	-0.04*	0	-0.05*	-0.05*	-0.11*	0.17*
Spending on assistance for childcare	-0.21*	0.07*	-0.08*	-0.02	-0.02	-0.06*	-0.06*	0.09*
Assist incurable patients to die	0.7	1.37*	1	0.8*	1.06	1.28*	1.0*	0.53*
Confidence in press	-0.18*	0.09*	0.01	-0.01	-0.06*	-0.01	-0.01	0.03
Better for man to work woman tend home	0.2*	-0.07*	0.14*	0.13*	-0.14*	0.1*	-0.11*	-0.03
Abortion if pregnant as result of rape	0.64	1.48*	1.01*	0.75*	1.6*	1.24	1.0*	1.19
Belief in life after death	1.23	0.72*	0.99*	1.25*	1.04	0.64*	1	0.92
Racial differences due to discrimination	0.72	1.32*	1.01*	1.01	1.11	0.87	1.0*	3.19*
Abortion if not married	0.67	1.35*	1.01*	0.8*	1.83*	1.06	1.0*	1.25
How fundamentalist is P currently	0.14*	-0.05*	-0.04*	0.31*	-0.11*	-0.02	-0.07*	0.14*
Sex education in public schools	0.56	1.69*	0.99*	0.85*	1.45*	0.9	1	0.98
Spending on big cities	-0.17*	0.06*	-0.01	-0.01	0.02	-0.05*	0	0.12*
Favor spanking to discipline child	0.17*	-0.07*	-0.05*	0.03	-0.07*	0.1*	-0.09*	0.1*
Attitude about sex before marriage	-0.21*	0.06*	-0.09*	-0.39*	0.05*	0.05*	0.09*	-0.02
How often does P pray	0.12*	-0.04*	0.1*	0.45*	-0.01	-0.19*	-0.05*	0.1*
Spending on fighting drugs	-0.14*	0.05*	0.03	0.02	-0.03	-0.08*	-0.02	0.09*
Spending on mass transportation	-0.15*	0.05*	0.06*	0.01	0.08*	0.05*	0.06*	0.02
Abortion if woman wants for any reason	0.68	1.28*	1	0.8*	1.74*	0.96	1.0*	1.52*
Favor gun restriction law	0.74	1.31*	1	1.05*	1	0.5*	1	1.5*
Spending on social security	-0.12*	0.05*	0	-0.01	-0.07*	-0.1*	-0.09*	0.08*
Racial differences due to lack of education	0.79	1.23*	1.01*	1	1.64*	0.97	1.0*	1.65*
Confidence in education	-0.1*	0.06*	-0.03	0.07*	-0.07*	-0.01	-0.04*	0.07*
Strength of religious affiliation	0.12*	-0.04*	0.09*	0.52*	-0.03*	-0.06*	-0.02	0
Happy with federal income tax?	-0.14*	0.05*	0.02	0.03	0.06*	0.05*	-0.08*	-0.07*
Abortion if strong chance of serious defect	0.65	1.32*	1.02*	0.76*	1.48*	1.03	1.0*	1.01

Divorce laws made more difficult?	0.16*	-0.06*	0.05*	0.18*	0.03	-0.02	0.02	-0.18*
Should hire and promote women	-0.19*	0.07*	0.06*	0.01	-0.1*	-0.14*	-0.09*	0.13*
Confidence in organized labor	-0.18*	0.06*	-0.17*	0.02	-0.05*	-0.06*	-0.06*	0.06*
Should marijuana be made legal	0.73	1.23*	0.99*	0.84*	1.21*	1.38*	1	1.02
Confidence in military	0.19*	-0.05*	-0.04	0.03	-0.07*	0.05*	0.03	-0.08*
For preferential hiring of women	-0.14*	0.07*	0	0.02	-0.15*	-0.04	-0.09*	0.23*
Courts dealing with criminals	0.15*	-0.05*	0.03	0.05*	-0.04*	-0.08*	0.01	-0.14*
Blacks overcome prejudice without favors	0.24*	-0.05*	0.02	-0.01	-0.13*	0	-0.05*	-0.22*
Have gun in home	1.25	0.81*	1.01*	1	0.92	1.63*	1.0*	0.38*
Attitude about sex with person other than spouse	-0.13*	0.05*	0.03	-0.15*	0.06*	0.05*	0.01	0.01
Spending on parks and recreation	-0.11*	0.04*	-0.08*	-0.03	0	0.02	-0.03	0.09*
Pistol or revolver in home	1.22	0.79*	1.01*	0.96	1.03	1.55*	1.0*	0.54*
Ever approve of police striking citizen	1.14	0.83	1	1	1.93	1.72*	1.0*	0.38*
P's highest degree	-0.06	0.02	0.06*	0.06*	0.55*	0	0.22*	-0.04*
Spending on foreign aid	-0.14	0.04	-0.1*	0.09*	0.01	-0.01	0	0.07*
Allow homosexual's book in library	0.81	1.22	0.98	0.88*	2.59*	0.77*	1.0*	0.69*

Note. Total variables = 58. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Table 39 shows the separate analyses for each of the 58 significant interactions. The first row of each pair represents the regression coefficients for White participants. The second row represents the regression coefficients for Black participants. The effect sizes of all of the ideology associations for Black participants either are smaller than those for White participants, or are not significant even at an unadjusted .05 alpha level.

For Black participants, even at an unadjusted alpha level of .05, 41 out of the 58 measures were not significantly associated with ideology. For 15 out of the 58 measures, the

associations were significant at an unadjusted alpha level of .05 and were in the same direction for Black and White participants. Of these 15 measures, only political party affiliation was significant after adjusting for multiple comparisons. More conservative Black participants affiliated more closely with the Republican party compared to more liberal Black participants, $\beta = 0.132$, *adjusted-p* < .001. Likewise, more conservative White participants affiliated more closely with the Republican party compared to more liberal White participants, $\beta = 0.522$, *adjusted-p* < .001. For all 15 of these measures, the effect sizes were smaller for Black participants compared to White participants.

For two out of the 58 measures, the associations were in the opposite directions compared to those for White participants. Regarding belief in life after death, more conservative Black participants were less likely to believe in life after death compared to more liberal Black participants, *OR* = 0.914, *adjusted-p* = 1.478, whereas more conservative White participants were more likely to believe in life after death compared to more liberal White participants, *OR* = 1.228, *adjusted-p* < .001. Regarding confidence in education, more conservative Black participants had more confidence in the education system compared to more liberal Black participants, $\beta = 0.060$, *adjusted-p* = 1.440, whereas more conservative White participants had less confidence in the education system compared to more liberal White participants, $\beta = -0.097$, *adjusted-p* < .001.

Table 39. Comparison of separate analyses for each significant interaction for White vs. Black participants.

Variable	Ideology	Age	Church attendance	Gender	Income	Race	Adjusted p-value
Political party affiliation (Dem to Rep)	0.52*	-0.07*	0.06*	0.04*	0.04*	0.08*	.00
Political party affiliation (Dem to Rep)	0.13*	-0.18*	-0.07*	-0.12*	0.03	0.04	.00
Spending on the environment	-0.29*	-0.11*	-0.05*	0.02	-0.04*	0.01	.00
Spending on the environment	-0.04	-0.08*	-0.03	0.12*	0.06	0.04	1.42
Spending on health	-0.23*	-0.01	-0.04	-0.04*	-0.09*	-0.06*	.00
Spending on health	NS						
Spending on helping Black people	-0.24*	-0.04*	0.01	0.05*	-0.05*	-0.01	.00
Spending on helping Black people	-0.05	0.09*	0.04	0.03	-0.05	-0.03	1.45
Should government reduce income differences	-0.34*	-0.04*	0	-0.08*	-0.06*	-0.15*	.00
Should government reduce income differences	-0.07	0.02	-0.03	0	-0.02	-0.06	.71
Favor death penalty for murder	1.5	1	0.91*	0.7*	1.46*	1	.00
*Favor death penalty for murder	NS						
Spending on defense	0.27*	0.09*	0.02	-0.07*	-0.03*	0	.00
Spending on defense	NS						
Spending on the poor	-0.25*	0	0.01	-0.05*	-0.03*	-0.07*	.00
Spending on the poor	-0.06	0.02	-0.05	-0.05	-0.02	-0.07	.55
Abortion if married--wants no more children	0.65	1.01*	0.79*	1.86*	1.14	1.0*	.00
*Abortion if married--wants no more children	NS						
Abortion if low income--can't afford more children	0.66	1.01*	0.79*	1.87*	1	1.0*	.00
*Abortion if low income--can't afford more children	NS						
Birth control to teenagers 14-16	-0.26*	-0.13*	-0.23*	0.02	-0.06*	0.01	.00

Birth control to teenagers 14-16	NS							
Feelings about the bible	0.2*	-0.02	0.37*	-0.16*	-0.07*	-0.1*	.00	
Feelings about the bible	NS							
Homosexual sex relations	-0.27*	-0.12*	-0.27*	0.16*	-0.12*	0.11*	.00	
Homosexual sex relations	-0.09*	-0.11*	-0.29*	0.07	-0.1*	-0.01	.06	
Should government aid Blacks?	-0.28*	0	0.01	0.01	-0.02	-0.05*	.00	
Should government aid Blacks?	NS							
Should government help pay for medical care?	-0.33*	-0.08*	-0.02	-0.05*	-0.04*	-0.09*	.00	
Should government help pay for medical care?	-0.09	0.05	-0.05	0.04	-0.06	-0.06	.76	
Should government do more?	-0.31*	-0.07*	-0.03	-0.07*	-0.05*	-0.08*	.00	
Should government do more?	NS							
Spending on education	-0.21*	-0.13*	0	0.01	-0.08*	0.02	.00	
Spending on education	-0.05	0.02	-0.01	0.05	-0.02	0.12*	1.39	
Should government improve standard of living?	-0.3*	-0.05*	0	-0.06*	-0.05*	-0.12*	.00	
Should government improve standard of living?	NS							
Spending on assistance for childcare	-0.2*	-0.09*	-0.02	-0.02	-0.06*	-0.06*	.00	
Spending on assistance for childcare	NS							
Assist incurable patients to die	0.71	1	0.78*	1.01	1.26*	1.0*	.00	
*Assist incurable patients to die	NS							
Confidence in press	-0.17*	0	-0.02	-0.04	-0.01	0	.00	
Confidence in press	NS							
Better for man to work woman tend home	0.2*	0.14*	0.13*	-0.15*	0.11*	-0.12*	.00	
Better for man to work woman tend home	NS							
Abortion if pregnant as result of rape	0.64	1.02*	0.74*	1.63*	1.28	1.0*	.00	
*Abortion if pregnant as result of rape	NS							

Belief in life after death	1.23	0.99*	1.27*	1.01	0.58*	1	.00
Belief in life after death	0.91	0.99	1.17	1.17	1.06	1	1.48
Racial differences due to discrimination	0.73	1.01	1	1.12	0.83	1.0*	.00
*Racial differences due to discrimination	NS						
Abortion if not married	0.66	1.01*	0.8*	1.93*	1.07	1.0*	.00
Abortion if not married	0.89	0.99	0.82	1.44	1	1.0*	.44
How fundamentalist is P currently	0.15*	-0.05*	0.31*	-0.13*	-0.02	-0.08*	.00
How fundamentalist is P currently	NS						
Sex education in public schools	0.56	0.99*	0.85*	1.25	0.93	1	.00
*Sex education in public schools	NS						
Spending on big cities	-0.18*	-0.01	0	0	-0.06*	0	.00
Spending on big cities	NS						
Favor spanking to discipline child	0.17*	-0.05*	0.03	-0.08*	0.11*	-0.09*	.00
Favor spanking to discipline child	NS						
Attitude about sex before marriage	-0.21*	-0.1*	-0.4*	0.06*	0.04*	0.1*	.00
Attitude about sex before marriage	-0.05	-0.03	-0.31*	0	0.08	0.03	1.17
How often does P pray	0.11*	0.1*	0.46*	-0.02	-0.2*	-0.05*	.00
How often does P pray	0.05	0.15*	0.39*	0.05	-0.15*	-0.04	.83
Spending on fighting drugs	-0.14*	0.03	0.02	-0.04*	-0.08*	-0.03	.00
Spending on fighting drugs	NS						
Spending on mass transportation	-0.15*	0.07*	0.02	0.09*	0.05*	0.06*	.00
Spending on mass transportation	NS						
Abortion if woman wants for any reason	0.67	1.01	0.79*	1.86*	0.97	1.0*	.00
Abortion if woman wants for any reason	0.86	0.99	0.83*	1.27	0.89	1	.08
Favor gun restriction law	0.74	1	1.04*	0.94	0.5*	1	.00
*Favor gun restriction law	NS						
Spending on social security	-0.12*	-0.02	-0.02	-0.09*	-0.11*	-0.09*	.00
Spending on social security	NS						

Racial differences due to lack of education	0.79	1.01*	1	1.74*	0.96	1.0*	.00
*Racial differences due to lack of education	NS						
Confidence in education	-0.1*	-0.03	0.07*	-0.06*	-0.01	-0.03	.00
Confidence in education	0.06	-0.03	0.1*	-0.12*	0.02	-0.13*	1.44
Strength of religious affiliation	0.12*	0.08*	0.52*	-0.03*	-0.06*	-0.02	.00
Strength of religious affiliation	NS						
Happy with federal income tax?	-0.14*	0.03	0.03	0.06*	0.07*	-0.08*	.00
Happy with federal income tax?	NS						
Abortion if strong chance of serious defect	0.65	1.03*	0.75*	1.47*	0.98	1.0*	.00
Abortion if strong chance of serious defect	0.85	1.01	0.84	1.51	1.3	1	.15
Divorce laws made more difficult?	0.17*	0.05*	0.18*	0.02	-0.02	0.01	.00
Divorce laws made more difficult?	NS						
Should hire and promote women	-0.19*	0.05	0.01	-0.12*	-0.14*	-0.09*	.00
Should hire and promote women	NS						
Confidence in organized labor	-0.17*	-0.19*	0.02	-0.05*	-0.06*	-0.06*	.00
Confidence in organized labor	NS						
Should marijuana be made legal	0.73	0.99*	0.84*	1.23*	1.34*	1	.00
Should marijuana be made legal	0.9	0.99	0.79	1.15	1.65*	1	.72
Confidence in military	0.19*	-0.04	0.02	-0.07*	0.04*	0.04	.00
Confidence in military	NS						
For preferential hiring of women	-0.15*	-0.01	0.03	-0.16*	-0.05	-0.1*	.00
For preferential hiring of women	NS						
Courts dealing with criminals	0.17*	0.01	0.04	-0.06*	-0.07*	0	.00
Courts dealing with criminals	NS						

Blacks overcome prejudice without favors	0.26*	0.03	-0.01	-0.15*	0	-0.04	.00
Blacks overcome prejudice without favors	0.08	-0.03	0.04	-0.06	0.03	-0.09*	.15
Have gun in home	1.26	1.01*	0.99	0.88	1.58*	1.0*	.00
*Have gun in home	NS						
Attitude about sex with person other than spouse	-0.13*	0.02	-0.15*	0.06*	0.06*	0.01	.00
Attitude about sex with person other than spouse	NS						
Spending on parks and recreation	-0.11*	-0.09*	-0.03	0.01	0.02	-0.04*	.00
Spending on parks and recreation	NS						
Pistol or revolver in home	1.22	1.01*	0.96*	0.96	1.53*	1.0*	.00
*Pistol or revolver in home	NS						
Ever approve of police striking citizen	1.14	1	0.99	2.05*	1.75*	1.0*	.00
*Ever approve of police striking citizen	NS						
P's highest degree	-0.06*	0.06*	0.06*	0.56*	0	0.21*	.00
P's highest degree	NS						
Spending on foreign aid	-0.15*	-0.1*	0.09*	0.03	0	0.01	.00
Spending on foreign aid	NS						
Allow homosexual's book in library	0.81	0.98*	0.88*	2.84*	0.79*	1.0*	.00
*Allow homosexual's book in library	NS						

Note. The first row of each pair of rows is for White participants. The second row is for Black participants. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Black participants. Black participants were also analyzed separately across all measures. As shown in Table 40, only two measures were significantly associated with ideology after adjusting for multiple comparisons. More conservative Black participants affiliated more closely with the Republican Party compared to more liberal Black participants, $\beta = 0.132$, *adjusted-p* < .001. More conservative Black participants were less likely to report ever using crack cocaine compared to more liberal Black participants, *OR* = 0.785, *adjusted-p* = .019.

Table 40. Significant associations ordered by adjusted p-value for Black participants.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Political party affiliation (Dem to Rep)	0.13*	-0.18*	-0.07*	-0.12*	0.03	0.04	.00
P ever use crack cocaine	0.78	1.02*	1.03	0.58	2.2*	1	.02

Note. Total variables: 2. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

White participants. As shown in Table 41 to Table 44, there were 147 significant associations for White participants across all measures. As in Studies 1 and 3, these associations are divided into behavior and personal attributes measures and attitude measures. These are further subdivided into linear and logistic regressions, so that the coefficients can be ordered and compared.

Overall, the associations are consistent with previous research on ideology. For example, more conservative White participants were more religious and their families had less education compared to more liberal White participants. In addition, they were less likely to spending an evening at a bar, with friends, or with a neighbor. They also tended to live in smaller, more rural areas. They had fewer sex partners, were more likely to be in a relationship with their sex partners, and were less likely to have recently seen an X-rated movie. They also were more likely to own a gun of some kind. Regarding attitudes, more conservative White participants were more opposed to abortion, and government spending (except on defense) compared to more liberal White participants.

Table 41. Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
How fundamentalist is P currently	0.15*	-0.05*	0.31*	-0.13*	-0.02	-0.08*	.00
Strength of religious affiliation	0.12*	0.08*	0.52*	-0.03*	-0.06*	-0.02	.00
How often does P pray	0.11*	0.1*	0.46*	-0.02	-0.2*	-0.05*	.00
Number of children	0.08*	0.4*	0.11*	-0.12*	-0.05*	0.03*	.00
Reside in largest metro area to rural	0.08*	0.02	0.02	-0.11*	0	-0.07*	.00
Spend evening at bar	-0.08*	-0.29*	-0.1*	0.12*	0.11*	0.06*	.00
How many sex partners P had in last 5 years	-0.07*	-0.38*	-0.11*	0.03	0.16*	-0.07*	.00
Reside in large city to open country	0.07*	0.03	0.02	-0.12*	0	-0.06*	.00
P's highest degree	-0.06*	0.06*	0.06*	0.56*	0	0.21*	.00
How fundamentalist was P at age 16	0.06*	-0.06*	0.12*	-0.11*	0.01	-0.07*	.00
Number of persons in household	0.06*	-0.38*	0.1*	-0.11*	-0.04*	0.18*	.00
Spouse's highest degree	-0.06*	-0.03	0.09*	0.29*	-0.01	0.32*	.00
Spend evening with friends	-0.06*	-0.31*	0.04	0.07*	0	0.02	.00
Type of place lived in when 16 years old	-0.05*	-0.01	-0.03	0.1*	-0.01	0.08*	.00
Size of place in thousands	-0.05*	-0.01	0	0.04*	0	0	.00
How many grandparents born in U.S.	0.05*	-0.14*	-0.05*	-0.01	-0.02	0	.00
How often does P read newspaper	0.05*	-0.26*	-0.06*	-0.11*	-0.05*	-0.1*	.00
Condition of health	-0.05*	0.2*	-0.09*	-0.15*	0	-0.18*	.00

Highest year school completed spouse	-0.05*	-0.04*	0.07*	0.33*	-0.02	0.31*	.00
Spend evening with neighbor	-0.05*	-0.08*	0.07*	0.03	0.05*	-0.02	.01
Number in household not related	-0.05	-0.21*	-0.09*	0.04	0.07*	-0.22*	.01
How many sex partners P had in last year	-0.04*	-0.3*	-0.06*	0	0.12*	0.03*	.00
Household members 13 thru 17 years old	0.04*	-0.12*	0.06*	-0.07*	-0.03	0.11*	.00
Household members less than 6 years old	0.04*	-0.29*	0.05*	-0.02	-0.04*	0	.01
General happiness	-0.04*	0.01	-0.13*	-0.07*	0.02	-0.16*	.01
Father's highest degree	-0.04*	-0.25*	-0.01	0.27*	0.01	0.12*	.01
Mother's highest degree	-0.04	-0.28*	0.01	0.25*	0.03	0.11*	.01
Household members 6 thru 12 years old	0.03	-0.2*	0.07*	-0.04*	-0.06*	0.05*	.02
Participant income in constant dollars	0.03	0.09*	-0.02	0.06*	0.16*	0.57*	.03

Note. Total variables: 29. All coefficients are standardized coefficients. * $p < .001$.

Table 42. Significant logistic regressions ordered by distance from one of ideology odds ratio.

White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Have gun in home	1.26	1.01*	0.99	0.88	1.58*	1.0*	.00
Rifle in home	1.26	1.01*	0.99	0.8	1.73*	1.0*	.00
Shotgun in home	1.25	1.01*	1	0.76*	1.84*	1.0*	.00
Spouse ever work as long as a year	1.25	1.02*	0.97	1.91*	0.19*	1	.00
Pistol or revolver in home	1.22	1.01*	0.96*	0.96	1.53*	1.0*	.00
Does P or spouse hunt	1.21	0.98*	1.05*	0.69*	1.83*	1	.00
Seen x-rated movie in last year	0.83	0.95*	0.87*	0.99	2.99*	1	.00

P ever use crack cocaine	0.83	0.97*	0.94	0.53*	1.88*	1.0*	.00
In relationship w/last sex partner?	1.14	1.01*	1.08*	1.11	0.42*	1.0*	.00
Was one of P's sex partners spouse or regular	1.14	1.04*	1.08*	1.11	0.45*	1.0*	.00
Was P born in this country	1.13	1	0.93*	1.34	0.95	1	.00
Were P's parents born in this country	1.12	1	0.94*	1.04	1	1	.00
Have sex other than spouse while married	0.92	1.01*	0.92*	0.97	1.67*	1	.01
Any opp. race in neighborhood	0.93	0.99*	0.97	1.37*	1.08	1	.00
Government employee	0.94	1.02	1.05*	2.42*	0.72*	1	.02
Does P own home?	1.02	1.01*	1.01*	0.99	0.98	1.0*	.00
Presence of others: spouse partner	1.01	1.0*	1	0.93*	1.07*	1	.00

Note. Total variables: 17. All coefficients are odds ratios. * $p < .001$.

Table 43. Significant linear regressions ordered by absolute value of ideology standardized coefficients. White participants: Attitude measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Political party affiliation (Dem to Rep)	0.52*	-0.07*	0.06*	0.04*	0.04*	0.08*	.00
Should government reduce income differences	-0.34*	-0.04*	0	-0.08*	-0.06*	-0.15*	.00
Should government help pay for medical care?	-0.33*	-0.08*	-0.02	-0.05*	-0.04*	-0.09*	.00
Should government do more?	-0.31*	-0.07*	-0.03	-0.07*	-0.05*	-0.08*	.00
Should government improve standard of living?	-0.3*	-0.05*	0	-0.06*	-0.05*	-0.12*	.00
Spending on the environment	-0.29*	-0.11*	-0.05*	0.02	-0.04*	0.01	.00
Should government aid Blacks?	-0.28*	0	0.01	0.01	-0.02	-0.05*	.00
Spending on defense	0.27*	0.09*	0.02	-0.07*	-0.03*	0	.00

Homosexual sex relations	-0.27*	-0.12*	-0.27*	0.16*	-0.12*	0.11*	.00
Birth control to teenagers 14-16	-0.26*	-0.13*	-0.23*	0.02	-0.06*	0.01	.00
Blacks overcome prejudice without favors	0.26*	0.03	-0.01	-0.15*	0	-0.04	.00
Spending on the poor	-0.25*	0	0.01	-0.05*	-0.03*	-0.07*	.00
Spending on helping Black people	-0.24*	-0.04*	0.01	0.05*	-0.05*	-0.01	.00
Spending on health	-0.23*	-0.01	-0.04	-0.04*	-0.09*	-0.06*	.00
Attitude about sex before marriage	-0.21*	-0.1*	-0.4*	0.06*	0.04*	0.1*	.00
Spending on education	-0.21*	-0.13*	0	0.01	-0.08*	0.02	.00
Feelings about the bible	0.2*	-0.02	0.37*	-0.16*	-0.07*	-0.1*	.00
Spending on assistance for childcare	-0.2*	-0.09*	-0.02	-0.02	-0.06*	-0.06*	.00
Better for man to work woman tend home	0.2*	0.14*	0.13*	-0.15*	0.11*	-0.12*	.00
Confidence in military	0.19*	-0.04	0.02	-0.07*	0.04*	0.04	.00
Favor preference in hiring Blacks	-0.19*	-0.02	0.01	-0.04	-0.01	-0.01	.00
Should hire and promote women	-0.19*	0.05	0.01	-0.12*	-0.14*	-0.09*	.00
Spending on big cities	-0.18*	-0.01	0	0	-0.06*	0	.00
Sex before marriage -- teens 14-16	-0.18*	-0.12*	-0.2*	0.07*	0.07*	-0.01	.00
Favor spanking to discipline child	0.17*	-0.05*	0.03	-0.08*	0.11*	-0.09*	.00
Confidence in press	-0.17*	0	-0.02	-0.04	-0.01	0	.00
Confidence in organized labor	-0.17*	-0.19*	0.02	-0.05*	-0.06*	-0.06*	.00
Courts dealing with criminals	0.17*	0.01	0.04	-0.06*	-0.07*	0	.00
Divorce laws made more difficult?	0.17*	0.05*	0.18*	0.02	-0.02	0.01	.00

Spending on mass transportation	-0.15*	0.07*	0.02	0.09*	0.05*	0.06*	.00
Spending on foreign aid	-0.15*	-0.1*	0.09*	0.03	0	0.01	.00
Preschool kids suffer if mother works	0.15*	0.12*	0.07*	-0.08*	0.18*	-0.08*	.00
For preferential hiring of women	-0.15*	-0.01	0.03	-0.16*	-0.05	-0.1*	.00
Spending on fighting drugs	-0.14*	0.03	0.02	-0.04*	-0.08*	-0.03	.00
Importance of teaching children to obey	0.14*	0.01	0.18*	-0.18*	0.01	-0.11*	.00
Happy with federal income tax?	-0.14*	0.03	0.03	0.06*	0.07*	-0.08*	.00
Mother working doesn't hurt children	-0.13*	-0.06*	-0.08*	0.08*	-0.18*	0.07*	.00
Attitude about sex with person other than spouse	-0.13*	0.02	-0.15*	0.06*	0.06*	0.01	.00
Women hurt by affirmative action	-0.13*	0.07*	0	-0.03	-0.13*	-0.03	.00
Spending on social security	-0.12*	-0.02	-0.02	-0.09*	-0.11*	-0.09*	.00
Strict pornography laws?	0.12*	0.18*	0.23*	-0.05*	-0.18*	-0.07*	.00
Whites hurt by affirmative action	0.12*	0.04	0.02	-0.09*	-0.02	-0.04	.00
Men hurt by affirmative action	0.12*	-0.03	0.02	-0.04	0.1*	-0.04	.00
Spending on parks and recreation	-0.11*	-0.09*	-0.03	0.01	0.02	-0.04*	.00
Confidence in major companies	0.11*	-0.07*	0.05*	0.05*	0.02	0.11*	.00
Importance of teaching children to think for ones self	-0.11*	0.06*	-0.12*	0.17*	-0.06*	0.09*	.00
P favor close relative marrying White person	0.11*	0.08*	0.03	-0.04	-0.06*	0.01	.00
Get ahead by hard work (vs. luck)?	0.1*	-0.05*	0.04	-0.04	-0.06*	0.03	.00
Close relative marry Black	-0.1*	-0.21*	0	0.1*	-0.08*	0.01	.00
Confidence in organized religion	0.1*	-0.02	0.3*	-0.02	-0.02	0	.00

Confidence in education	-0.1*	-0.03	0.07*	-0.06*	-0.01	-0.03	.00
Confidence in scientific community	-0.09*	-0.04	-0.07*	0.14*	0.05*	0.09*	.00
Confidence in banks & financial institutions	0.09*	-0.1*	0.06*	-0.01	-0.04	0.03	.00
How hard working are Blacks?	-0.08*	-0.07*	0	0.12*	0	0	.00
How close feel to Blacks	-0.08*	-0.07*	0.06*	0.03	-0.04*	0.02	.00
P favors living in half Black neighborhood	-0.08*	-0.07*	0.05*	0.07*	-0.04	-0.01	.00
Importance of teaching children to be well liked or popular	-0.08*	0.07*	-0.09*	-0.01	0.09*	0.01	.00
Confidence in television	-0.07*	-0.02	-0.09*	-0.11*	0	-0.01	.00
Ideal number of children	0.06*	-0.03	0.15*	-0.07*	-0.03	-0.03	.00
Importance of teaching children to work hard	0.06*	-0.1*	-0.1*	0.02	0.04	0.06*	.00
Importance of teaching children to help others	-0.06*	-0.03	0.07*	-0.01	-0.03	-0.04	.00
Spending on fighting crime	0.05*	0.04	0.03	-0.05*	-0.12*	0	.00
How hard working are Whites?	0.04	0.05*	0	-0.04	-0.01	-0.02	.02

Note. Total variables: 63. All coefficients are standardized coefficients. * $p < .001$.

Table 44. Significant logistic regressions ordered by distance from one of ideology odds ratio.

White participants: behavior and personal attributes measures.

Variable	Ideology	Age	Church attendance	Education	Gender	Income	Adjusted p-value
Favor death penalty for murder	1.5	1	0.91*	0.7*	1.46*	1	.00
Sex education in public schools	0.56	0.99*	0.85*	1.25	0.93	1	.00

Abortion if pregnant as result of rape	0.64	1.02*	0.74*	1.63*	1.28	1.0*	.00
Abortion if married--wants no more children	0.65	1.01*	0.79*	1.86*	1.14	1.0*	.00
Abortion if strong chance of serious defect	0.65	1.03*	0.75*	1.47*	0.98	1.0*	.00
Abortion if not married	0.66	1.01*	0.8*	1.93*	1.07	1.0*	.00
Abortion if low income--can't afford more children	0.66	1.01*	0.79*	1.87*	1	1.0*	.00
Abortion if woman wants for any reason	0.67	1.01	0.79*	1.86*	0.97	1.0*	.00
Women not suited for politics	1.32	1	1.06*	0.72*	1.11	1.0*	.00
Abortion if woman's health seriously endangered	0.7	1.02*	0.74*	1.52*	1.08	1	.00
Assist incurable patients to die	0.71	1	0.78*	1.01	1.26*	1.0*	.00
Racial differences due to discrimination	0.73	1.01	1	1.12	0.83	1.0*	.00
Should marijuana be made legal	0.73	0.99*	0.84*	1.23*	1.34*	1	.00
Racial differences due to lack of will	1.26	1.01*	0.99	0.48*	1.11	1.0*	.00
Favor gun restriction law	0.74	1	1.04*	0.94	0.5*	1	.00
Suicide if incurable disease	0.75	1	0.79*	1.65*	1.15	1.0*	.00
Belief in life after death	1.23	0.99*	1.27*	1.01	0.58*	1	.00
Bible prayer in public schools	0.77	0.99*	0.9*	2.16*	1.2	1.0*	.00
Racial differences due to lack of education	0.79	1.01*	1	1.74*	0.96	1.0*	.00
Suicide if tired of living	0.79	1	0.87*	1.81*	1.27*	1.0*	.00
Allow homosexual to teach	0.79	0.98*	0.9*	2.83*	0.56*	1.0*	.00
Allow homosexual's book in library	0.81	0.98*	0.88*	2.84*	0.79*	1.0*	.00
Allow homosexual to speak	0.82	0.99*	0.9*	3.16*	0.68*	1.0*	.00
Should communist teacher be fired	1.18	1.01*	1.04*	0.38*	0.88	1.0*	.00
Suicide if dishonored family	0.84	0.99*	0.88*	2.27*	1.28	1.0*	.00
Suicide if bankrupt	0.84	0.99*	0.88*	2.35*	1.25	1.0*	.00
Allow anti-religionist to teach	0.86	0.98*	0.92*	2.46*	0.98	1.0*	.00

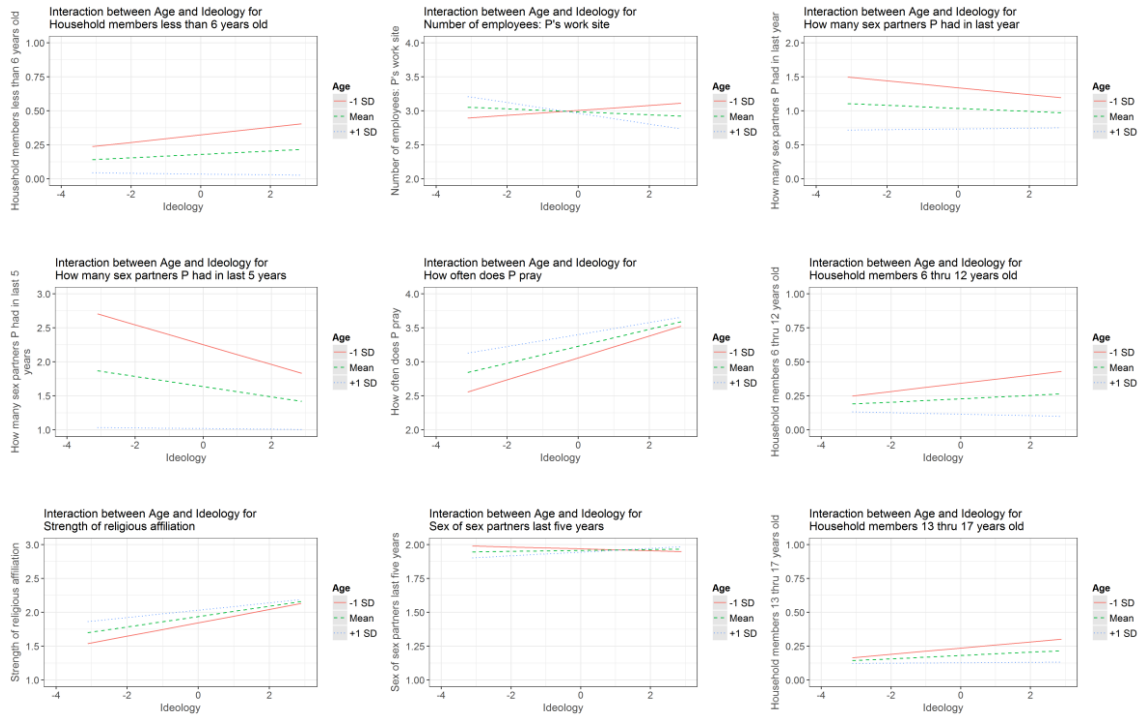
Allow anti-religious book in library	0.86	0.99*	0.87*	2.64*	1	1.0*	.00
Ever approve of police striking citizen	1.14	1	0.99	2.05*	1.75*	1.0*	.00
Police violence OK if citizen attempting to escape custody?	1.14	1.01	1.02	1.25*	1.53*	1.0*	.00
Police violence OK if citizen said vulgar or obscene things?	1.14	1.01	1.04	0.71	1.6*	1	.01
Police violence OK if citizen attacking policeman with fists?	1.12	1	0.96	1.51	1.41	1.0*	.02
Allow communist's book in library	0.88	0.99*	0.89*	3.37*	1.08	1.0*	.00
Can people be trusted	1.1	0.98*	0.95*	0.46*	0.8*	1.0*	.00
Allow militarist to teach	0.9	0.98*	0.95*	1.95*	1.05	1.0*	.00
Allow militarist's book in library	0.9	0.99*	0.9*	2.64*	0.89	1.0*	.00
Allow communist to speak	0.92	0.99	0.93*	3.06*	1.33*	1.0*	.00
If rich continue or stop working	0.98	0.99	1.01*	1.02	1.04	1	.05

Note. Total variables: 38. All coefficients are odds ratios. * $p < .001$.

Age interaction. As shown in Figure 22, Figure 23, and Table 45, there were 17 significant interactions between age and ideology. The regressions were centered at the mean age of 47.18. Regarding the behavior and personal attributes measures, there was no clear overall pattern. However, there appear to be some smaller patterns. For example, among younger participants, compared to older participants, there was a stronger association between ideology and the number of children (babies, preteens, and teens) in the household. More conservative participants tended to have more children in the household compared to more liberal participants. Among younger participants, compared to older participants, there was also a stronger association between ideology and the number of sex partners a participant had (over the previous year and the previous five years). More conservative participants tended to have fewer sex partners compared to more liberal participants.

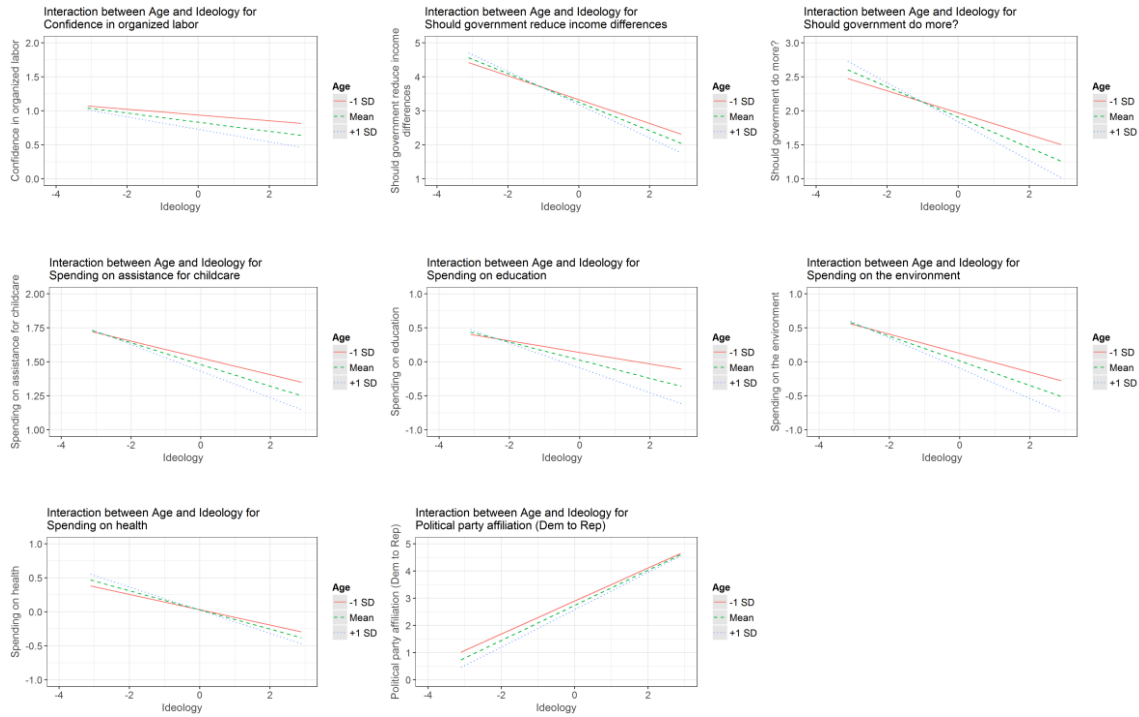
Regarding attitudes, for younger participants, the association with ideology and all of the measures was weaker compared to the associations for older participants. This included attitudes about wealth inequality and government spending on education and on the environment.

Figure 22. Interactions between Age and Ideology: Behavior and personal attributes measures.



The mean was 47.18 years old.

Figure 23. Interactions between Age and Ideology: Attitude measures.



The mean was 47.18 years old.

Table 45. Significant Age × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
How many sex partners P had in last 5 years	-0.07*	0.06*	-0.39*	-0.11*	0.02	0.18*	-0.07*	0.07*
Spending on the environment	-0.26*	-0.06*	-0.11*	-0.06*	0.04*	-0.03	0.01	0.02
Spending on education	-0.19*	-0.07*	-0.12*	-0.01	0.02	-0.08*	0.03	0.06*
Household members 6 thru 12 years old	0.03*	-0.04*	-0.19*	0.06*	-0.04*	-0.07*	0.05*	0.02
Should government do more?	-0.26*	-0.07*	-0.05*	-0.04	-0.07*	-0.05*	-0.08*	0.18*

Household members less than 6 years old	0.04*	-0.04*	-0.28*	0.04*	-0.03	-0.05*	-0.01	0.02
Confidence in organized labor	-0.16*	-0.06*	-0.17*	0.02	-0.05*	-0.06*	-0.06*	0.05*
Should government reduce income differences	-0.3*	-0.05*	-0.04	-0.01	-0.07*	-0.06*	-0.14*	0.1*
Spending on health	-0.2*	-0.04*	0	-0.04*	-0.02	-0.08*	-0.06*	0.08*
How many sex partners P had in last year	-0.03*	0.04*	-0.31*	-0.06*	0	0.14*	0.02	0.07*
Spending on assistance for childcare	-0.18*	-0.04*	-0.08*	-0.02	-0.02	-0.06*	-0.06*	0.08*
Household members 13 thru 17 years old	0.04*	-0.03*	-0.11*	0.05*	-0.07*	-0.04*	0.11*	0.04*
Number of employees: P's work site	-0.03*	-0.05*	-0.01	-0.04	0.08*	-0.03	0.09*	0.1*
Strength of religious affiliation	0.1*	-0.03*	0.09*	0.52*	-0.03*	-0.06*	-0.02	0.01
How often does P pray	0.1*	-0.03*	0.1*	0.45*	-0.01	-0.19*	-0.05*	0.1*
Sex of sex partners last five years	0.01*	0.01*	-0.01*	-0.01	-0.01	0.94*	0	0
Political party affiliation (Dem to Rep)	0.45*	0.03*	-0.08*	0.05*	0.02	0.04*	0.08*	-0.29*

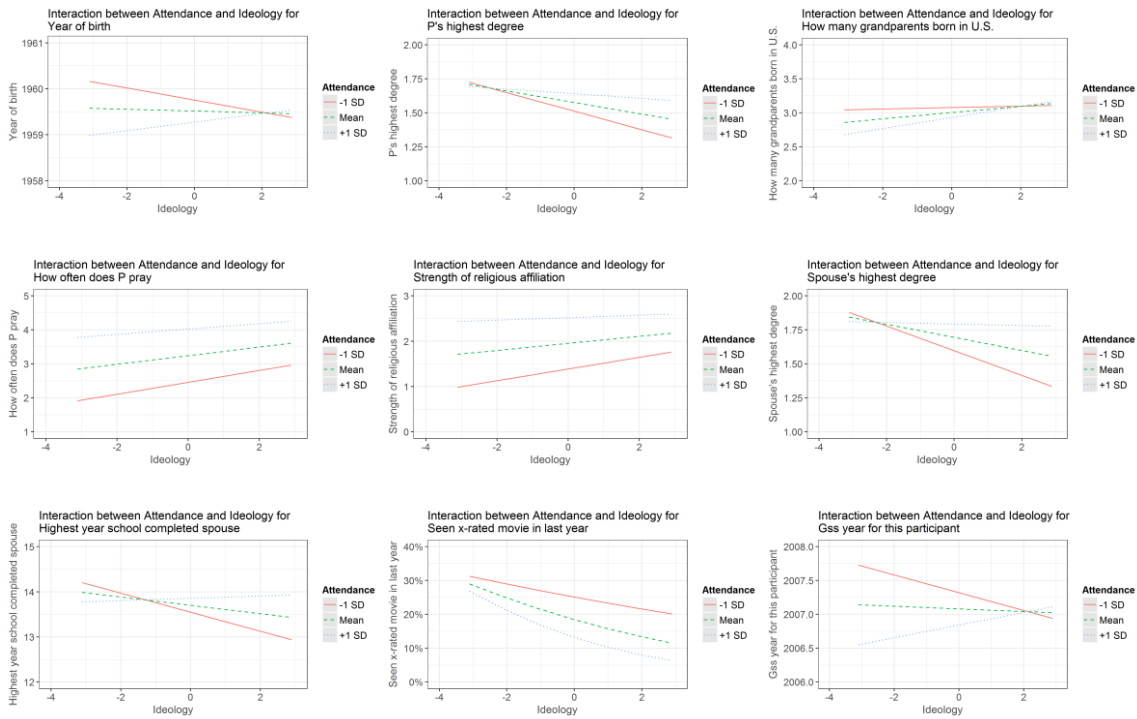
Note. Total variables = 17. All coefficients are standardized linear regression coefficients.

* $p < .001$.

Church attendance interactions. As shown in Figure 24, Figure 25, and Table 46, there were 18 significant interactions between church attendance and ideology. The regressions were centered at the mean church attendance value of 3.56 (between “Several times a year” and “Once a month”). There is no overall pattern across the measures. However, there are a few smaller patterns. For participants who attended church less often, there was a stronger association between education (highest degree attained, spouse’s highest degree attained, and spouse’s years of education) and ideology than for participants who attended church more often. Particularly for those who attended church less often, more conservative participants and their spouses tended to

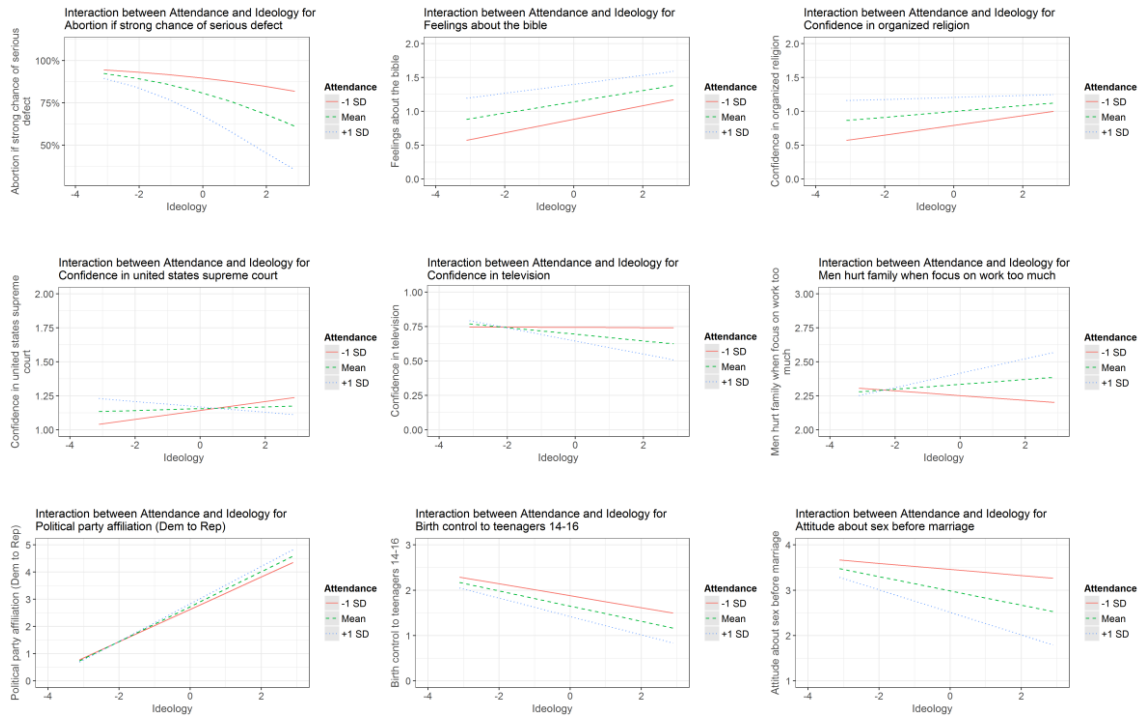
have less education than more liberal participants. Regarding attitude measures, there is no clear pattern to the differences in associations across ages.

Figure 24. Interactions between Church attendance and Ideology: Behavior and personal attributes measures.



The mean was 3.56.

Figure 25. Interactions between Church attendance and Ideology: Attitude measures.



The mean was 3.56.

Table 46. Significant Church attendance × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Attitude about sex before marriage	-0.19*	-0.11*	-0.09*	-0.38*	0.05*	0.05*	0.09*	-0.04
Strength of religious affiliation	0.1*	-0.07*	0.08*	0.53*	-0.03	-0.06*	-0.02	0
Confidence in organized religion	0.09*	-0.06*	-0.01	0.31*	-0.03	-0.02	-0.01	0
How often does P pray	0.1*	-0.04*	0.1*	0.46*	-0.01	-0.19*	-0.05*	0.1*
Highest year school completed spouse	-0.05*	0.06*	-0.05*	0.05*	0.32*	-0.01	0.31*	0
Abortion if strong chance of serious defect	0.71	0.96*	1.02*	0.77*	1.5*	1.01	1.0*	0.98

P's highest degree	-0.05*	0.03*	0.06*	0.05*	0.55*	0	0.22*	-0.04*
Spouse's highest degree	-0.06*	0.05*	-0.04*	0.08*	0.28*	0	0.32*	-0.03
Confidence in television	-0.06*	-0.05*	-0.01	-0.08*	-0.11*	-0.01	-0.02	0.06*
Confidence in united states supreme court	0.01*	-0.06*	-0.06*	0.02	0.07*	0.03	0.07*	-0.05*
Birth control to teenagers 14-16	-0.23*	-0.05*	-0.13*	-0.21*	0.01	-0.07*	0	0.02
Political party affiliation (Dem to Rep)	0.45*	0.03*	-0.08*	0.05*	0.02	0.04*	0.08*	-0.28*
Feelings about the bible	0.17*	-0.03*	-0.01	0.37*	-0.15*	-0.07*	-0.1*	0.1*
Seen x-rated movie in last year	0.82	0.97*	0.95*	0.87*	1.02	3.12*	1	1.89*
Gss year for this participant	-0.01*	0.04*	0.08*	-0.05*	0.04*	-0.01	-0.01	0.04
Year of birth	-0.0*	0.01*	-0.96*	-0.01*	0.01*	0	0	0.01
Men hurt family when focus on work too much	0.03*	0.05*	0.09*	0.08*	0	0.13*	-0.02	-0.07*
How many grandparents born in U.S.	0.04*	0.03*	-0.11*	-0.05*	-0.02	-0.02	-0.01	0.11*

Note. Total variables = 18. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Education interactions. As shown in Figure 26, Figure 27, and Table 47, there were 70 significant interactions. These interactions were further examined via separate analyses for participants with no college education and participants with at least some college education. In general, across almost all measures the association between ideology and each measure is weaker for participants with no college education. This includes behavior measures, non-political attitudes, and political attitudes. For example, regarding government spending attitudes, across 13 measures, in general, more conservative participants were more disapproving of abortion compared to more liberal participants. However, the associations between government spending attitudes and ideology was weaker for participants with no college education compared to the

associations for those with at least some college education. As will be discussed later in the section on the separate analyses, the two exceptions to this pattern are the average number of hours of TV watched and whether the participant used a condom the last time he or she had sex.

Figure 26. Interactions between Education and Ideology: Behavior and personal attributes measures.

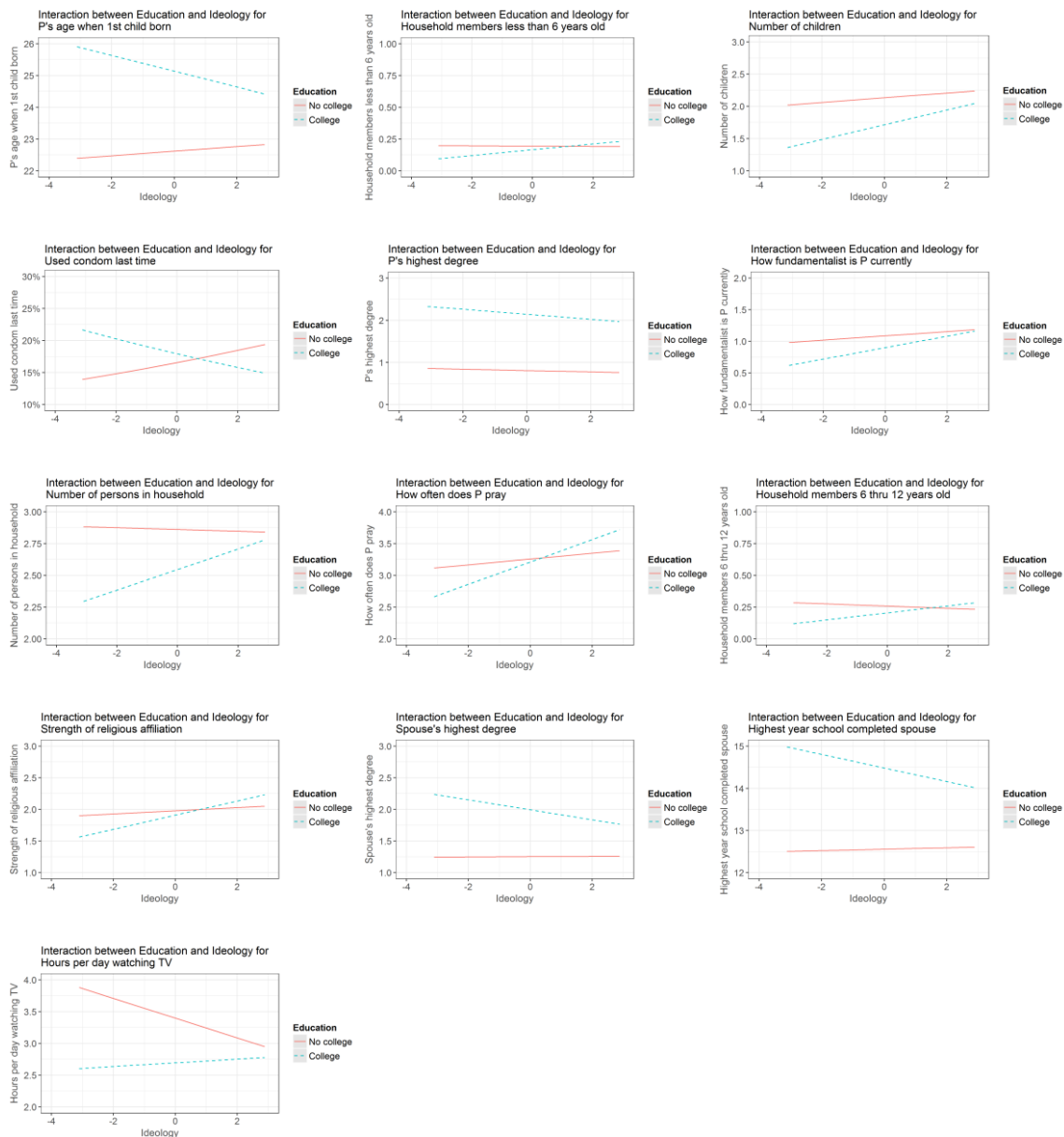
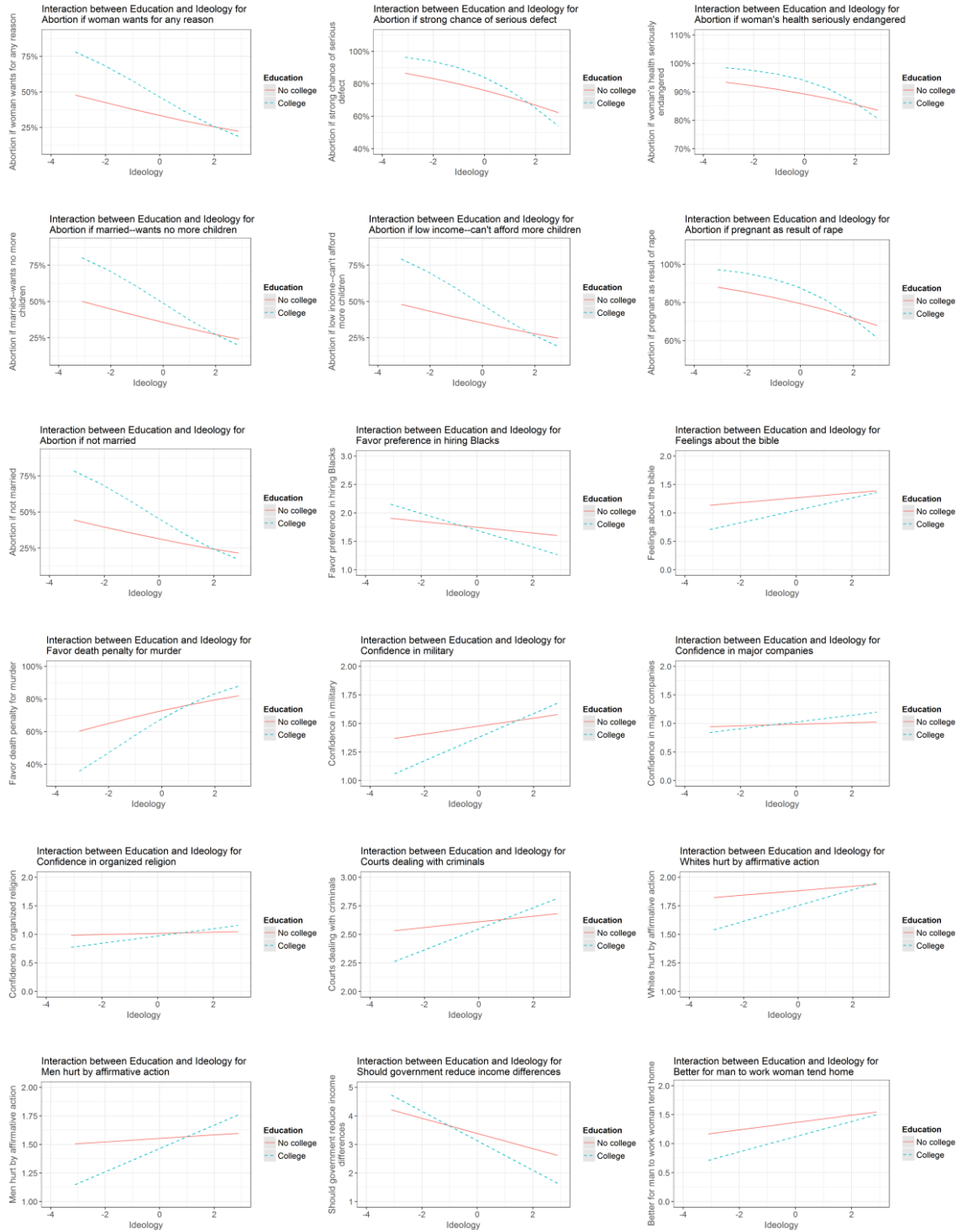
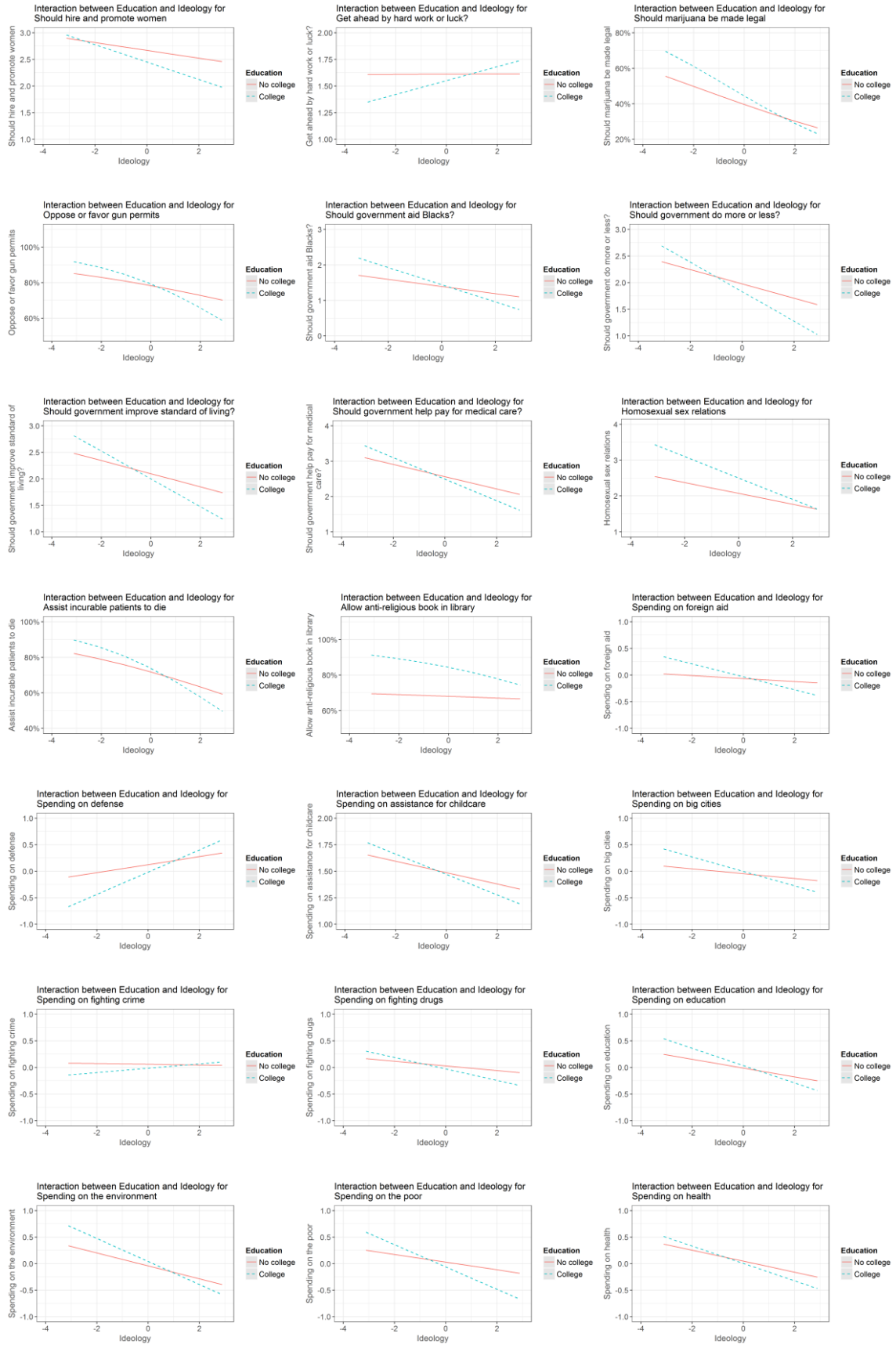


Figure 27. Interactions between Education and Ideology: Attitude measures.





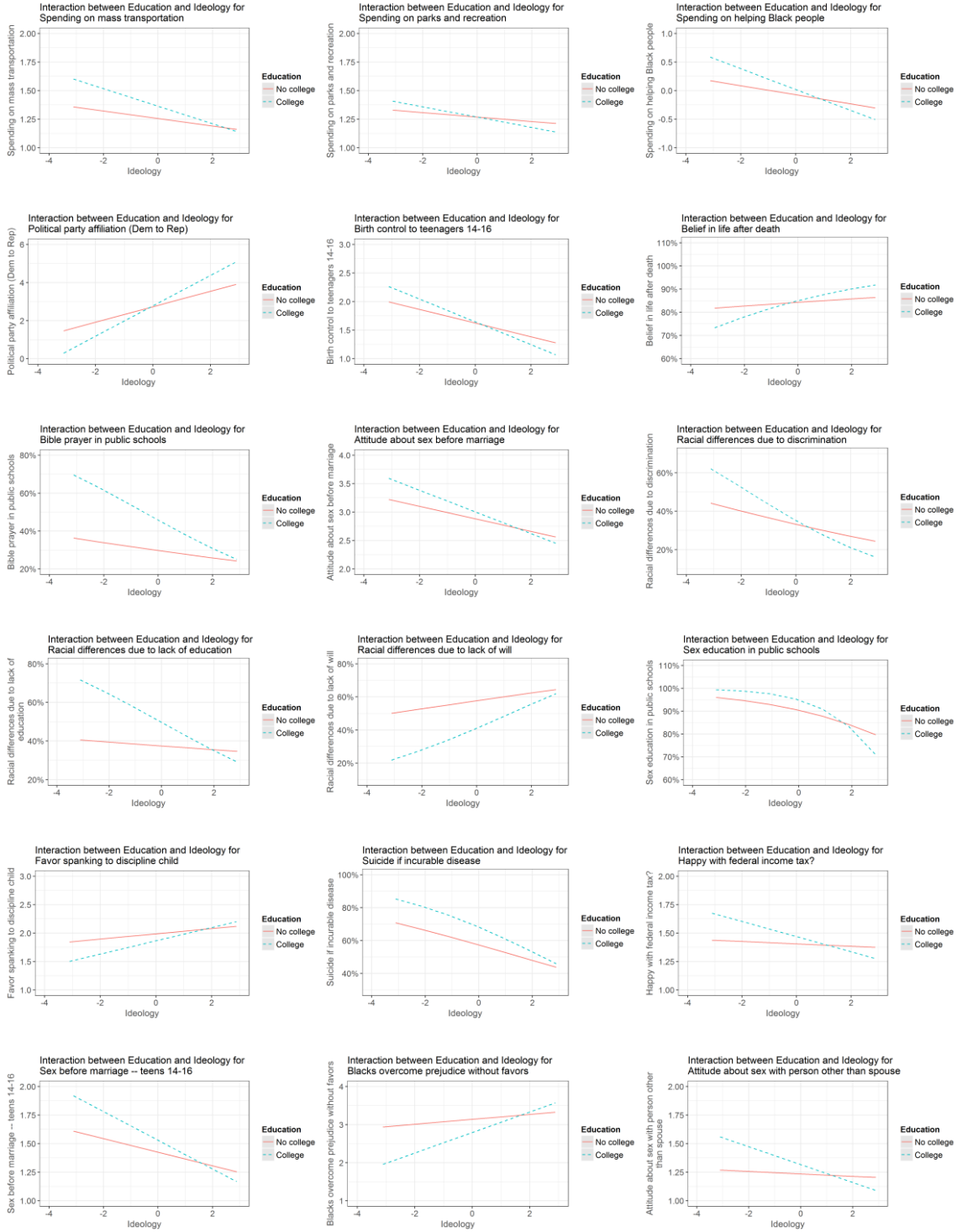


Table 47. Significant Education × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.29*	0.22*	-0.08*	0.05*	0.01	0.03*	0.08*	-0.29*
Blacks overcome prejudice without favors	0.08*	0.19*	0.02	-0.01	-0.14*	0	-0.05*	-0.22*
Spending on the poor	-0.1*	-0.16*	0	0	-0.04*	-0.03	-0.07*	0.14*
Spending on defense	0.11*	0.15*	0.1*	0.04*	-0.07*	-0.04*	0	-0.06*
Feelings about the bible	0.09*	0.11*	-0.01	0.36*	-0.15*	-0.08*	-0.1*	0.11*
Spending on helping Black people	-0.12*	-0.12*	-0.02	0.01	0.05*	-0.05*	-0.01	0.35*
Homosexual sex relations	-0.15*	-0.12*	-0.12*	-0.28*	0.15*	-0.11*	0.1*	-0.1*
Strength of religious affiliation	0.03*	0.09*	0.09*	0.52*	-0.03*	-0.06*	-0.02	0.01
Should government reduce income differences	-0.19*	-0.14*	-0.04*	-0.01	-0.06*	-0.05*	-0.14*	0.11*
Racial differences due to lack of education	0.96	0.77*	1.01*	1	1.65*	0.97	1.0*	1.6*
Favor death penalty for murder	1.2	1.28*	1	0.92*	0.79*	1.41*	1.0*	0.34*
Abortion if not married	0.84	0.74*	1.01*	0.8*	1.8*	1.07	1.0*	1.15
Should government improve standard of living?	-0.15*	-0.13*	-0.05*	0	-0.04*	-0.05*	-0.12*	0.16*
Should government do more?	-0.16*	-0.13*	-0.06*	-0.04	-0.06*	-0.05*	-0.08*	0.18*
Abortion if low income-can't afford more children	0.84	0.75*	1.01*	0.8*	1.67*	1	1.0*	1.56*
Attitude about sex with person other than spouse	-0.02*	-0.11*	0.02	-0.15*	0.06*	0.05*	0.01	0.01
Spending on foreign aid	-0.04*	-0.11*	-0.1*	0.09*	0.02	-0.01	0	0.07*
Should government aid Blacks?	-0.12*	-0.13*	0	0	0.02	-0.01	-0.05*	0.32*
How often does P pray	0.04*	0.09*	0.1*	0.45*	-0.01	-0.19*	-0.05*	0.1*

Spending on the environment	-0.18*	-0.11*	-0.11*	-0.05*	0.04*	-0.03	0.01	0.02
Courts dealing with criminals	0.05*	0.11*	0.03	0.05*	-0.04*	-0.08*	0.01	-0.13*
Happy with federal income tax?	-0.03*	-0.12*	0.02	0.03	0.06*	0.05*	-0.08*	-0.07*
Abortion if married--wants no more children	0.82	0.76*	1.01*	0.8*	1.72*	1.11	1.0*	1.48*
Should government help pay for medical care?	-0.2*	-0.12*	-0.07*	-0.02	-0.03	-0.05*	-0.09*	0.14*
Abortion if woman wants for any reason	0.82	0.77*	1	0.8*	1.72*	0.96	1.0*	1.43*
Spending on big cities	-0.07*	-0.1*	-0.01	-0.01	0.02	-0.05*	0	0.11*
Abortion if pregnant as result of rape	0.81	0.73*	1.01*	0.75*	1.84*	1.24	1.0*	1.23
Confidence in military	0.08*	0.12*	-0.03	0.03	-0.07*	0.04*	0.03	-0.07*
How fundamentalist is P currently	0.06*	0.08*	-0.03*	0.31*	-0.12*	-0.02	-0.07*	0.15*
Get ahead by hard work (vs. luck)?	0.0*	0.11*	-0.05*	0.05*	-0.04*	-0.06*	0.03	-0.05*
Abortion if strong chance of serious defect	0.8	0.75*	1.02*	0.76*	1.66*	1.04	1.0*	1.02
Bible prayer in public schools	0.91	0.8*	0.99*	0.89*	2.0*	1.2*	1.0*	0.53*
Favor preference in hiring Blacks	-0.07*	-0.11*	-0.01	0	-0.03	-0.01	-0.01	0.29*
Racial differences due to lack of will	1.1	1.22*	1.01*	0.99	0.51*	1.08	1.0*	0.78
Racial differences due to discrimination	0.86	0.81*	1.01*	1.01	1.09	0.87	1.0*	3.03*
Sex education in public schools	0.74	0.67*	0.99*	0.85*	2.0*	0.9	1	1.14
Spending on education	-0.12*	-0.09*	-0.12*	-0.01	0.02	-0.08*	0.03	0.06*
Household members 6 thru 12 years old	-0.02*	0.07*	-0.19*	0.06*	-0.04*	-0.07*	0.05*	0.02
Favor spanking to discipline child	0.08*	0.09*	-0.04*	0.03	-0.07*	0.1*	-0.09*	0.11*
Better for man to work woman tend home	0.11*	0.09*	0.14*	0.13*	-0.14*	0.1*	-0.11*	-0.02
Sex before marriage -- teens 14-16	-0.1*	-0.09*	-0.12*	-0.2*	0.06*	0.08*	-0.01	-0.01

Spending on mass transportation	-0.07*	-0.08*	0.06*	0.01	0.08*	0.05*	0.06*	0.01
Favor gun restriction law	0.86	0.82*	1	1.05*	1.06	0.5*	1	1.49*
Number of persons in household	-0.01*	0.07*	-0.36*	0.09*	-0.11*	-0.04*	0.18*	0.02
Attitude about sex before marriage	-0.13*	-0.07*	-0.09*	-0.39*	0.05*	0.05*	0.09*	-0.02
Confidence in organized religion	0.02*	0.09*	0	0.3*	-0.03	-0.02	-0.01	0.01
Birth control to teenagers 14-16	-0.16*	-0.08*	-0.13*	-0.21*	0.01	-0.07*	0	0.03
Spending on assistance for childcare	-0.12*	-0.08*	-0.08*	-0.02	-0.01	-0.06*	-0.06*	0.09*
Allow anti-religious book in library	0.98	0.83*	0.99*	0.86*	2.54*	1.02	1.0*	0.58*
Spending on fighting drugs	-0.06*	-0.07*	0.03	0.02	-0.03	-0.08*	-0.02	0.09*
Belief in life after death	1.06	1.19*	0.99*	1.25*	1.06	0.64*	1	1
Abortion if woman's health seriously endangered	0.84	0.75*	1.02*	0.76*	1.89*	1.03	1	1.45
Confidence in major companies	0.03*	0.08*	-0.07*	0.06*	0.03	0.02	0.11*	-0.03
Spending on health	-0.15*	-0.07*	-0.01	-0.04*	-0.02	-0.08*	-0.05*	0.08*
P's age when 1st child born	0.02*	-0.06*	0.06*	0.03	0.22*	0.2*	0.18*	-0.12*
Hours per day watching TV	-0.09*	0.08*	0.16*	-0.08*	-0.14*	0.01	-0.15*	0.18*
Spouse's highest degree	0.0*	-0.08*	-0.04*	0.09*	0.3*	0	0.32*	-0.03
Men hurt by affirmative action	0.02*	0.11*	-0.03	0.02	-0.05	0.1*	-0.04	0
Assist incurable patients to die	0.82	0.84*	1	0.8*	1.11	1.28*	1.0*	0.51*
P's highest degree	-0.02*	-0.04*	0.06*	0.06*	0.55*	0	0.22*	-0.05*
Whites hurt by affirmative action	0.04*	0.08*	0.04*	0.02	-0.09*	-0.02	-0.04	-0.12*
Number of children	0.03*	0.05*	0.41*	0.09*	-0.13*	-0.05*	0.03	0.1*
Household members less than 6 years old	-0.0*	0.05*	-0.28*	0.04*	-0.03	-0.05*	-0.01	0.02

Should hire and promote women	-0.09*	-0.09*	0.05	0.01	-0.1*	-0.14*	-0.09*	0.12*
Used condom last time	1.07	0.87*	0.96*	0.99	1.1	1.4*	1.0*	2.38*
Highest year school completed spouse	0.01*	-0.07*	-0.05*	0.07*	0.33*	-0.01	0.31*	-0.01
Spending on parks and recreation	-0.05*	-0.05*	-0.08*	-0.03	0	0.02	-0.03	0.09*
Should marijuana be made legal	0.81	0.88	0.99	0.84*	1.22*	1.38*	1	0.99
Suicide if incurable disease	0.83	0.88	1	0.8	1.59*	1.2*	1.0*	0.54*
Spending on fighting crime	-0.01	0.05	0.05*	0.03*	-0.04*	-0.1*	0.01	0.04*

Note. Total variables = 70. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Table 48 shows the separate analyses for each of the 70 significant interactions. The first row of each pair represents the regression coefficients for participants with no college education. The second row represents the regression coefficients for participants with at least some college education.

For 18 out of the 70 measures, the association was not significant for participants with no college education, at an unadjusted alpha level of .05. For one item, number of hours of TV watched per day, the association was significant for participants with no college education, but not for participants with at least some college education. More conservative participants with no college education watched fewer hours of TV per day compared to more liberal participants with no college education, $\beta = -0.064$, *adjusted-p* = .022.

For one measure, whether the participant used a condom the last time he or she had sex, the associations were in opposite directions. More conservative participants with no college education were more likely to have used a condom the last time they had sex compared to more

liberal participants with no college education, $OR = 1.069$, $adjusted-p = .609$. Conversely, more conservative participants with at least some college education were less likely to have used a condom the last time they had sex compared to more liberal participants with at least some college education, $OR = 0.932$, $adjusted-p = .060$.

For the remaining 51 measures, the associations were significant at an unadjusted .05 alpha level and were in the same direction. The effect sizes for participants with no college education were smaller than those for participants with at least some college education, for all of these measures.

Table 48. Comparison of separate analyses for each significant interaction for Non-college-educated vs. College-educated participants.

Variable	Ideology	Age	Church attendance	Gender	Income	Race	Adjusted p-value
Political party affiliation (Dem to Rep)	0.29*	-0.11*	0.05*	0.02	0.1*	-0.27*	.00
Political party affiliation (Dem to Rep)	0.55*	-0.04*	0.05*	0.04*	0.06*	-0.3*	.00
Blacks overcome prejudice without favors	0.07*	0.04	0	0.03	0	-0.28*	.00
Blacks overcome prejudice without favors	0.31*	0.01	-0.01	-0.02	-0.06*	-0.18*	.00
Spending on the poor	-0.09*	-0.04	-0.03	-0.04	-0.13*	0.14*	.00
Spending on the poor	-0.32*	0.02	0.03	-0.03	-0.04*	0.12*	.00
Spending on defense	0.1*	0.12*	0.06*	-0.02	0.04	-0.08*	.00
Spending on defense	0.32*	0.09*	0.02	-0.06*	-0.02	-0.05*	.00
Feelings about the bible	0.08*	0.03	0.33*	-0.06*	-0.08*	0.09*	.00
Feelings about the bible	0.23*	-0.04*	0.39*	-0.09*	-0.11*	0.12*	.00
Spending on helping Black people	-0.1*	-0.03	0.02	-0.05	-0.02	0.39*	.00
Spending on helping Black people	-0.28*	-0.02	0.01	-0.04*	-0.01	0.31*	.00
Homosexual sex relations	-0.15*	-0.18*	-0.24*	-0.14*	0.06	-0.06	.00

Homosexual sex relations	-0.31*	-0.08*	-0.31*	-0.1*	0.11*	-0.14*	.00
Strength of religious affiliation	0.04	0.12*	0.49*	-0.05*	-0.01	0	.06
Strength of religious affiliation	0.14*	0.07*	0.54*	-0.07*	-0.02	0.01	.00
Should government reduce income differences	-0.18*	-0.07*	-0.03	-0.04	-0.13*	0.08*	.00
Should government reduce income differences	-0.38*	-0.02	0.01	-0.07*	-0.15*	0.13*	.00
*Racial differences due to lack of education	NS						
Racial differences due to lack of education	0.73	1.01	1	1.07	1.0*	1.27	.00
Favor death penalty for murder	1.2	1	0.91*	1.47*	1.0*	0.27*	.00
Favor death penalty for murder	1.52	1	0.94*	1.39*	1	0.43*	.00
Abortion if not married	0.83	1.01*	0.83*	1.2	1.0*	1.45	.00
Abortion if not married	0.62	1.01*	0.78*	0.97	1.0*	0.94	.00
Should government improve standard of living?	-0.12*	-0.08*	-0.04	-0.08*	-0.15*	0.15*	.00
Should government improve standard of living?	-0.35*	-0.03	0.03	-0.02	-0.1*	0.17*	.00
Should government do more?	-0.13*	-0.07*	-0.07*	-0.08*	-0.11*	0.18*	.00
Should government do more?	-0.35*	-0.05*	-0.01	-0.03	-0.07*	0.17*	.00
Abortion if low income--can't afford more children	0.84	1.01*	0.84*	1.11	1.0*	2.23*	.00
Abortion if low income--can't afford more children	0.63	1.01*	0.77*	0.92	1.0*	1.1	.00
Attitude about sex with person other than spouse	NS						
Attitude about sex with person other than spouse	-0.17*	0.07*	-0.16*	0.06*	0.01	-0.01	.00
Spending on foreign aid	NS						
Spending on foreign aid	-0.19*	-0.08*	0.09*	0.03	0.03	0.03	.00
Should government aid Blacks?	-0.1*	-0.02	0	-0.04	-0.09*	0.33*	.00
Should government aid Blacks?	-0.29*	0.01	0	0.01	-0.03	0.3*	.00
How often does P pray	0.04	0.12*	0.42*	-0.2*	-0.03	0.08*	.03

How often does P pray	0.14*	0.09*	0.47*	-0.18*	-0.06*	0.11*	.00
Spending on the environment	-0.16*	-0.17*	-0.04	-0.01	0	-0.02	.00
Spending on the environment	-0.33*	-0.07*	-0.06*	-0.04*	0.01	0.04*	.00
Courts dealing with criminals	0.04	0.1*	0.03	-0.06*	0.06*	-0.17*	.47
Courts dealing with criminals	0.2*	-0.03	0.05*	-0.09*	-0.01	-0.09*	.00
Happy with federal income tax?	NS						
Happy with federal income tax?	-0.19*	0.02	0.03	0.08*	-0.07*	-0.08*	.00
Abortion if married--wants no more children	0.82	1.01	0.84*	1.17	1.0*	1.9*	.00
Abortion if married--wants no more children	0.63	1.01*	0.77*	1.06	1.0*	1.16	.00
Should government help pay for medical care?	-0.19*	-0.09*	-0.03	-0.06*	-0.09*	0.12*	.00
Should government help pay for medical care?	-0.36*	-0.05*	-0.02	-0.03	-0.09*	0.15*	.00
Abortion if woman wants for any reason	0.82	1	0.83*	1	1.0*	1.87*	.00
Abortion if woman wants for any reason	0.64	1.01	0.77*	0.93	1.0*	1.14	.00
Spending on big cities	-0.06*	-0.04	-0.02	-0.08*	-0.01	0.08*	.01
Spending on big cities	-0.21*	0.01	0	-0.03	0	0.13*	.00
Abortion if pregnant as result of rape	0.8	1.01*	0.81*	1.16	1.0*	1.16	.00
Abortion if pregnant as result of rape	0.61	1.01*	0.68*	1.33	1.0*	1.33	.00
Confidence in military	0.07*	-0.01	0.03	0.04	0.03	-0.08*	.02
Confidence in military	0.23*	-0.05*	0.03	0.05*	0.03	-0.06*	.00
How fundamentalist is P currently	0.05*	0.01	0.3*	-0.02	-0.03	0.12*	.02
How fundamentalist is P currently	0.18*	-0.06*	0.31*	-0.02	-0.08*	0.18*	.00
Get ahead by hard work (vs. luck)?	NS						
Get ahead by hard work (vs. luck)?	0.14*	-0.05	0.05*	-0.05*	0.04	-0.04	.00
Abortion if strong chance of serious defect	0.79	1.02*	0.82*	1.02	1.0*	1	.00

Abortion if strong chance of serious defect	0.6	1.03*	0.7*	1.05	1	1.07	.00
Bible prayer in public schools	0.92	0.98	0.89*	1.09	1	0.75	.29
Bible prayer in public schools	0.72	0.99*	0.89*	1.25	1.0*	0.41*	.00
Favor preference in hiring Blacks	-0.06*	-0.05	0.02	-0.02	-0.08*	0.3*	.02
Favor preference in hiring Blacks	-0.23*	0.01	-0.02	0	0.02	0.28*	.00
Racial differences due to lack of will	1.09	1.01	0.98	1.28*	1	0.68*	.03
Racial differences due to lack of will	1.35	1	1	0.97	1.0*	0.92	.00
Racial differences due to discrimination	0.86	1	1.02	0.87	1.0*	3.04*	.00
Racial differences due to discrimination	0.7	1.01	1	0.86	1	2.96*	.00
Sex education in public schools	0.72	0.99	0.88*	0.94	1	0.86	.00
Sex education in public schools	0.51	0.98*	0.8*	0.88	1	2.08	.00
Spending on education	-0.12*	-0.1*	-0.01	-0.05	0.03	0.06*	.00
Spending on education	-0.24*	-0.13*	0	-0.1*	0.03	0.07*	.00
Household members 6 thru 12 years old	NS						
Household members 6 thru 12 years old	0.06*	-0.15*	0.07*	-0.07*	0.08*	0.03	.00
Favor spanking to discipline child	0.07*	0.01	0.03	0.13*	-0.02	0.08*	.01
Favor spanking to discipline child	0.2*	-0.08*	0.03	0.09*	-0.11*	0.14*	.00
Better for man to work woman tend home	0.1*	0.19*	0.09*	0.09*	-0.08*	-0.03	.00
Better for man to work woman tend home	0.22*	0.11*	0.16*	0.12*	-0.13*	-0.01	.00
Sex before marriage -- teens 14-16	-0.1*	-0.15*	-0.16*	0.09*	-0.01	0.03	.00
Sex before marriage -- teens 14-16	-0.2*	-0.11*	-0.22*	0.07*	0	-0.04	.00
Spending on mass transportation	-0.06*	0.05	0	0.01	0.04	0.06*	.00
Spending on mass transportation	-0.19*	0.07*	0.02	0.07*	0.06*	-0.03	.00

Favor gun restriction law	0.87	1	1.03	0.45*	1	1.18	.00
Favor gun restriction law	0.7	1	1.06*	0.55*	1	1.91*	.00
Number of persons in household	NS						
Number of persons in household	0.09*	-0.31*	0.11*	-0.04	0.19*	0.02	.00
Attitude about sex before marriage	-0.12*	-0.15*	-0.35*	0.06*	0.07*	0	.00
Attitude about sex before marriage	-0.23*	-0.04	-0.42*	0.03	0.09*	-0.05	.00
Confidence in organized religion	NS						
Confidence in organized religion	0.12*	-0.02	0.34*	-0.02	0	-0.02	.00
Birth control to teenagers 14-16	-0.15*	-0.15*	-0.19*	-0.05	-0.03	0.05	.00
Birth control to teenagers 14-16	-0.27*	-0.12*	-0.23*	-0.08*	0.02	0.01	.00
Spending on assistance for childcare	-0.12*	-0.1*	-0.02	-0.03	-0.07*	0.07*	.00
Spending on assistance for childcare	-0.22*	-0.06*	-0.02	-0.08*	-0.05*	0.1*	.00
*Allow anti-religious book in library	NS						
Allow anti-religious book in library	0.79	1	0.86*	1.01	1.0*	0.44*	.00
Spending on fighting drugs	-0.06*	0.01	0.02	-0.07*	0	0.07*	.01
Spending on fighting drugs	-0.16*	0.04	0.02	-0.09*	-0.03	0.1*	.00
Belief in life after death	1.08	0.99	1.15	0.68*	1	0.97	.36
Belief in life after death	1.23	1	1.35*	0.6*	1	1.07	.00
Abortion if woman's health seriously endangered	0.83	1.02*	0.81*	1.01	1	1.21	.00
Abortion if woman's health seriously endangered	0.65	1.02*	0.7*	1.06	1	1.9	.00
Confidence in major companies	NS						
Confidence in major companies	0.14*	-0.04	0.05	0.05*	0.12*	-0.06*	.00
Spending on health	-0.15*	0.01	-0.05	-0.05*	-0.03	0.07*	.00
Spending on health	-0.23*	-0.02	-0.03	-0.1*	-0.06*	0.1*	.00
P's age when 1st child born	NS						
P's age when 1st child born	-0.06*	0.03	0.04	0.17*	0.2*	-0.13*	.00

Hours per day watching TV	-0.06*	0.17*	-0.09*	0.02	-0.14*	0.18*	.02
Hours per day watching TV	NS						
Spouse's highest degree	NS						
Spouse's highest degree	-0.1*	-0.03	0.13*	0.01	0.33*	-0.06*	.00
Men hurt by affirmative action	NS						
Men hurt by affirmative action	0.17*	-0.03	0.02	0.12*	-0.03	0	.00
Assist incurable patients to die	0.81	0.99	0.83*	1.3	1.0*	0.44*	.00
Assist incurable patients to die	0.71	1	0.77*	1.26	1.0*	0.59*	.00
P's highest degree	NS						
P's highest degree	-0.1*	0.12*	0.1*	0.02	0.29*	-0.08*	.00
Whites hurt by affirmative action	NS						
Whites hurt by affirmative action	0.15*	0.04	0.01	-0.02	-0.06*	-0.11*	.00
Number of children	0.04	0.4*	0.05*	-0.09*	-0.02	0.12*	.05
Number of children	0.1*	0.42*	0.14*	-0.02	0.05*	0.07*	.00
Household members less than 6 years old	NS						
Household members less than 6 years old	0.06*	-0.25*	0.06*	-0.03	0.02	0.01	.00
Should hire and promote women	-0.09*	0.04	-0.02	-0.13*	-0.1*	0.07	.01
Should hire and promote women	-0.21*	0.06	0.04	-0.14*	-0.08*	0.15*	.00
Used condom last time	1.07	0.97	1	1.48*	1.0*	2.84*	.61
Used condom last time	0.93	0.96	0.98	1.35*	1.0*	2.06*	.06
Highest year school completed spouse	NS						
Highest year school completed spouse	-0.1*	-0.04	0.12*	-0.01	0.33*	-0.05	.00
Spending on parks and recreation	-0.04	-0.12*	-0.01	0.02	-0.05*	0.11*	.12
Spending on parks and recreation	-0.12*	-0.05*	-0.04	0.03	-0.02	0.07*	.00
Should marijuana be made legal	0.82	0.98*	0.85*	1.27	1	1.02	.00

Should marijuana be made legal	0.71	1	0.83*	1.45*	1	0.92	.00
Suicide if incurable disease	0.83	1	0.83*	1.28	1.0*	0.62*	.00
Suicide if incurable disease	0.73	1	0.77*	1.12	1.0*	0.47*	.00
Spending on fighting crime	NS						
Spending on fighting crime	0.06*	0.04	0.05*	-0.12*	0	0.07*	.00

Note. The first row of each pair of rows is for No college participants. The second row is for College educated participants. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Gender interactions. As shown in Figure 28, Figure 29, and Table 49, there were seven significant interactions between gender and ideology. These interactions were further tested in separate analyses. There is no apparent overall pattern. For example, although there is a stronger association with ideology for female participants compared to male participants for whether a gay person's book should be allowed in the library, there is a stronger association with ideology for female participants compared to male participants for government spending on education.

Figure 28. Interactions between Gender and Ideology: Behavior and personal attributes measures.

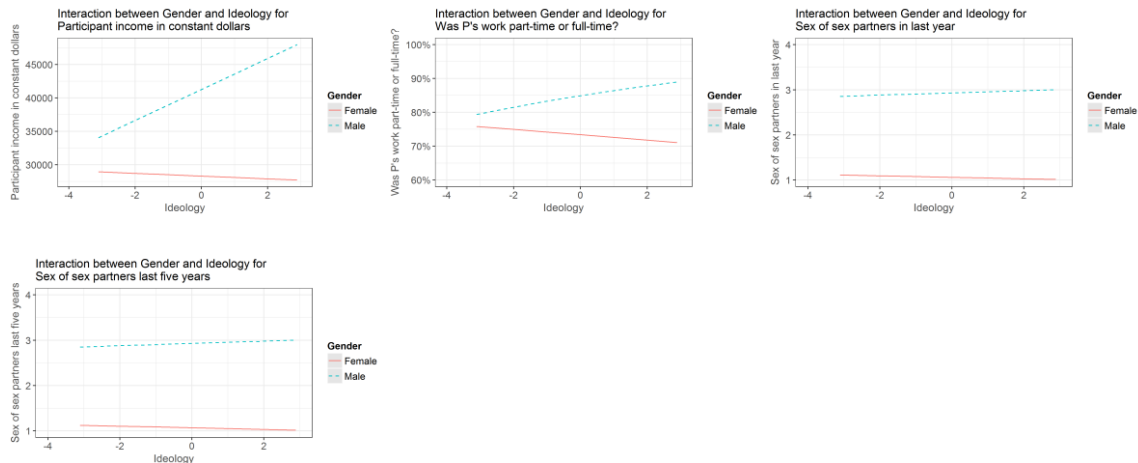


Figure 29. Interactions between Gender and Ideology: Attitude measures.

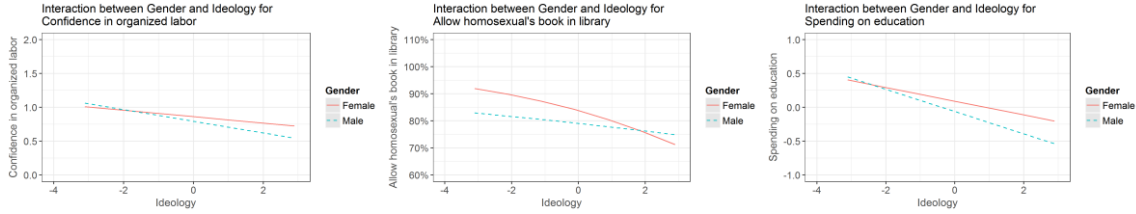


Table 49. Significant Gender \times Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Sex of sex partners last five years	-0.03*	0.04*	-0.01*	-0.01	-0.01	0.94*	0	0
Sex of sex partners in last year	-0.02*	0.04*	-0.01	0	0	0.94*	0	0
Spending on education	-0.15*	-0.06*	-0.12*	-0.01	0.02	-0.08*	0.03	0.06*
Participant income in constant dollars	-0.01*	0.06*	0.09*	-0.02	0.06*	0.15*	0.58*	0.02*
Was P's work part-time (vs. full-time)?	0.99	1.02*	1	0.99*	1.01	1.12*	1.0*	1.05*
Confidence in organized labor	-0.11*	-0.06*	-0.17*	0.02	-0.05*	-0.06*	-0.06*	0.05*
Allow homosexual's book in library	0.77	1.19*	0.98*	0.88*	2.57*	0.73*	1.0*	0.69*

Note. Total variables = 7. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Table 50 shows the separate analyses for each of the seven significant interactions. The first row of each pair represents the regression coefficients for female participants. The second row represents the regression coefficients for male participants. For two of the measures, for

female participants, the associations were not significant at an unadjusted .05 alpha level, though they were for male participants.

Although two measures are associated with ideology in opposite directions, the interpretation of the measures, regarding the gender of sex partners over the last five years and over the last year, show the same result. For both female and male participants, more conservative participants were more likely to have sex partners of the opposite sex compared to more liberal participants. Conversely, more liberal participants were more likely to have sex partners of either sex or of the same sex. The two measures are coded: 1 = Exclusively male, 2 = Both male and female, 3 = Exclusively female. More conservative female participants were more likely to have male sex partners compared to more liberal female participants, over the last five years, $\beta = -0.06$, *adjusted-p* = .008, and over the last year, $\beta = -0.05$, *adjusted-p* = .043. More conservative male participants were more likely to have female sex partners compared to more liberal male participants, over the last five years, $\beta = 0.08$, *adjusted-p* < .001, and over the last year, $\beta = -0.08$, *adjusted-p* < .001.

Table 50. Comparison of separate analyses for each significant interaction for Female vs. Male participants.

Variable	Ideology	Age	Church attendance	Education	Income	Race	Adjusted p-value
Sex of sex partners last five years	-0.06*	-0.08*	-0.04	0	-0.04	-0.01	.01
Sex of sex partners last five years	0.08*	0	0.01	-0.04	0.01	0.01	.00
Sex of sex partners in last year	-0.05	-0.04	-0.04	0.02	-0.03	-0.02	.04
Sex of sex partners in last year	0.08*	0.01	0.02	-0.04	0	0.02	.00

Spending on education	-0.16*	-0.11*	0	0.05*	0.06*	0.05*	.00
Spending on education	-0.21*	-0.12*	-0.02	0	0.01	0.07*	.00
Participant income in constant dollars	NS						
Participant income in constant dollars	0.05*	0.07*	0	0.03	0.65*	-0.01	.01
*Was P's work part-time (vs. full-time)?	NS						
Was P's work part-time (vs. full-time)?	1.02	1	0.99	0.99	1.0*	1.01	.00
Confidence in organized labor	-0.11*	-0.17*	0.02	-0.01	-0.05*	0.05	.00
Confidence in organized labor	-0.19*	-0.17*	0.02	-0.09*	-0.07*	0.06	.00
Allow homosexual's book in library	0.78	0.98*	0.85*	2.46*	1.0*	0.7	.00
Allow homosexual's book in library	0.91	0.98	0.9*	2.67*	1.0*	0.67	.08

Note. The first row of each pair of rows is for Female participants. The second row is for Male participants. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. NS represents regressions in which the ideology coefficient was not statistically significant at an unadjusted alpha of .05. * $p < .001$.

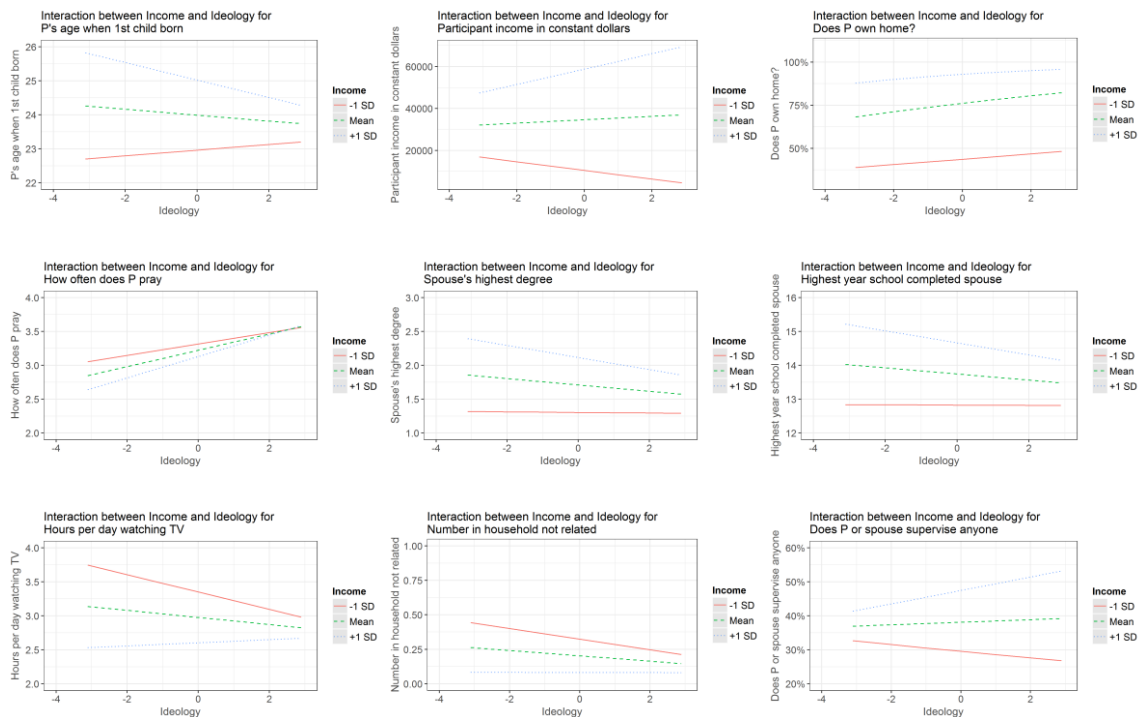
Income interactions. As shown in Figure 30, Figure 31, and Table 51, there were 44 significant interactions between income and ideology. The regressions were mean-centered at the mean income of \$49,447.93 (in year 2000 dollars).

As with Study 1, regarding overall patterns, for almost every one of the attitude measures, the association between ideology and each attitude is weaker the lower the income of the participant. However, there was not an apparent overall pattern for the behavior and personal attributes measures. For example, regarding the age of the participant at which his or her first child was born, for participants with lower income, more conservative participants had their first child at an older age compared to more liberal participants. However, for participants with higher income, more conservative participants had their first child at a younger age compared to more liberal participants. On the other hand, regarding whether the participant supervises anyone at

work, for participants with higher income, more conservative participants were more likely to supervise someone at work to more liberal participants. However, for participants with lower income, more conservative participants were less likely to supervise someone at work to more liberal participants.

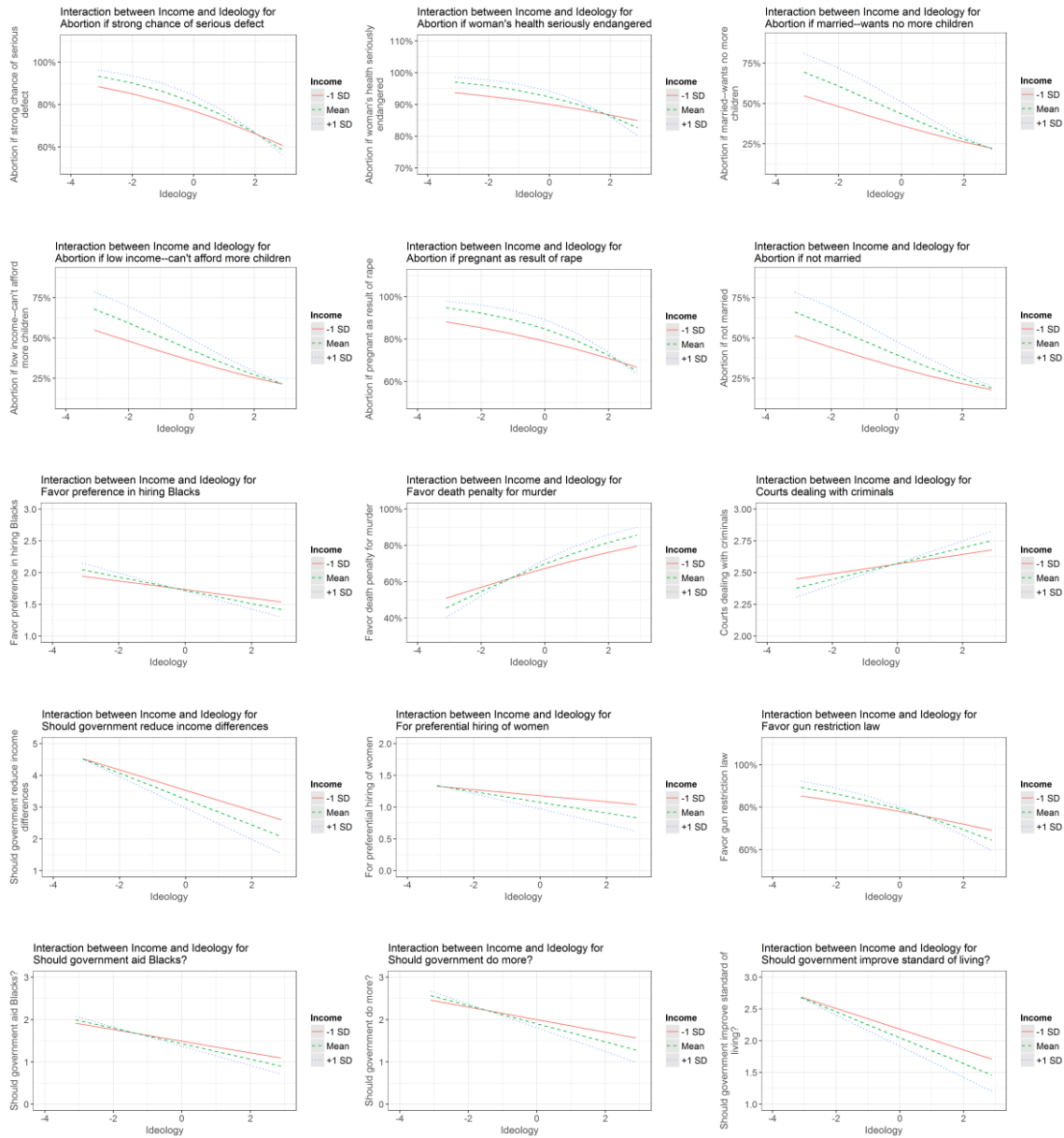
As noted, for almost all attitude measures, the association between ideology and each measure was weaker the lower the income of the participant. Across income levels, all of the associations are generally in the expected directions, based on previous research. For example, the more conservative the participant, the less approving he or she is of government spending, except for military spending. The more conservative the participant, the less approving he or she is of abortion.

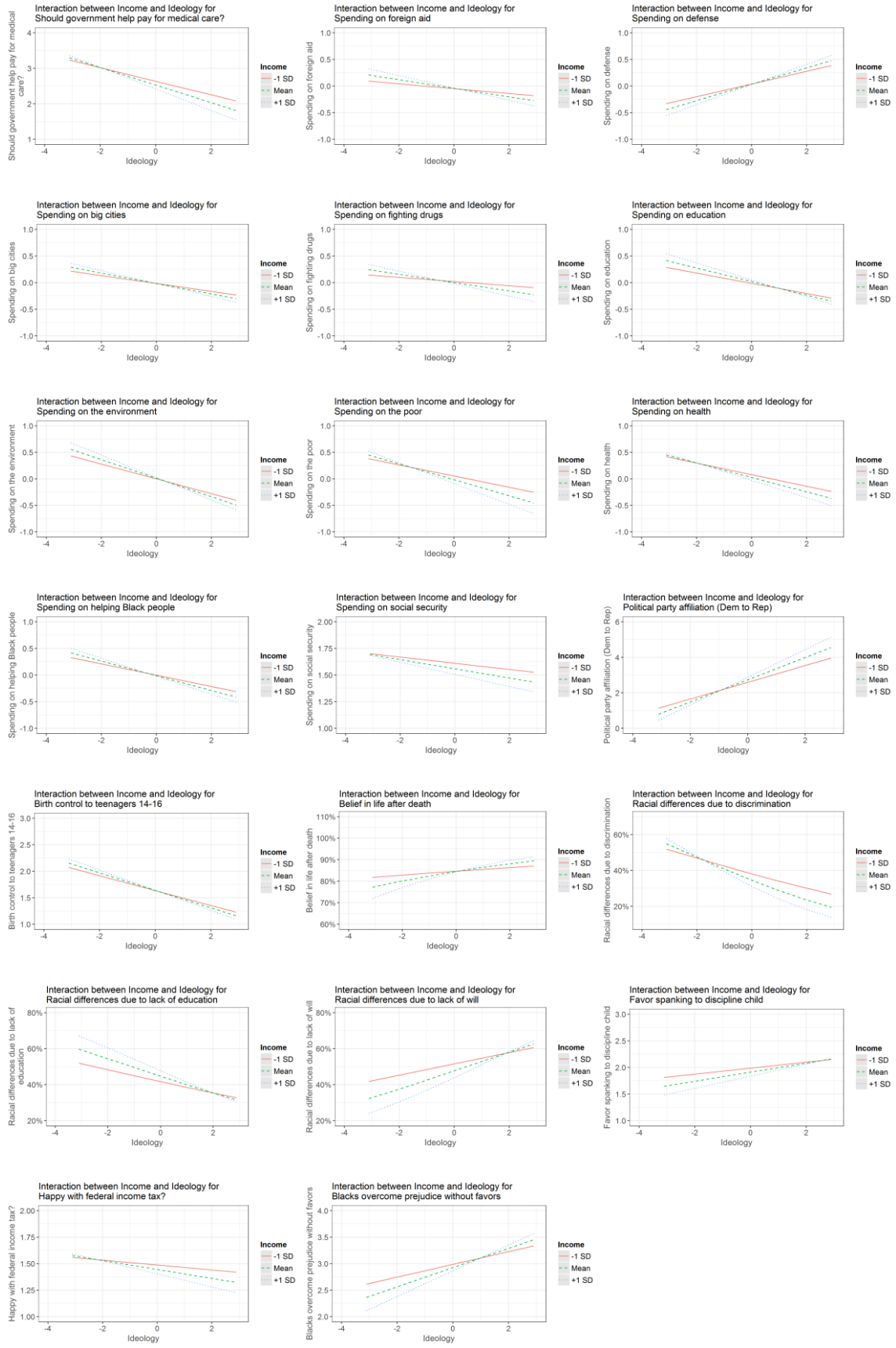
Figure 30. Interactions between Income and Ideology: Behavior and personal attributes measures.



The mean was \$49,447.93.

Figure 31. Interactions between Income and Ideology: Attitude measures.





The mean was \$49,447.93.

Table 51. Significant Income × Ideology interactions.

Variable	Ideology	Int.	Age	Church	Gender	Income	Educ.	Race
Political party affiliation (Dem to Rep)	0.44*	0.11*	-0.07*	0.05*	0.02	0.04*	0.07*	-0.29*
Spending on the poor	-0.21*	-0.07*	0	0	-0.05*	-0.03*	-0.07*	0.13*
Should government do more?	-0.25*	-0.08*	-0.06*	-0.04	-0.06*	-0.05*	-0.08*	0.18*
Blacks overcome prejudice without favors	0.21*	0.07*	0.02	-0.01	-0.13*	0	-0.05*	-0.22*
Should government help pay for medical care?	-0.28*	-0.07*	-0.07*	-0.03	-0.03	-0.05*	-0.09*	0.14*
Should government reduce income differences	-0.29*	-0.07*	-0.04*	-0.01	-0.07*	-0.05*	-0.14*	0.11*
Spending on defense	0.22*	0.05*	0.1*	0.04*	-0.07*	-0.04*	0	-0.06*
Spending on fighting drugs	-0.11*	-0.06*	0.03	0.02	-0.03	-0.08*	-0.02	0.08*
Spending on the environment	-0.25*	-0.05*	-0.11*	-0.05*	0.04*	-0.03	0.01	0.02
Favor death penalty for murder	1.38	1.0*	1	0.93*	0.76*	1.42*	1.0*	0.35*
Abortion if pregnant as result of rape	0.69	1.0*	1.01*	0.75*	1.57*	1.23	1.0*	1.24
Spending on foreign aid	-0.12*	-0.05*	-0.1*	0.09*	0.01	-0.01	0.01	0.06*
Spending on helping Black people	-0.2*	-0.05*	-0.02	0.01	0.04*	-0.05*	-0.01	0.35*
Spending on education	-0.18*	-0.05*	-0.12*	-0.01	0.02	-0.08*	0.03	0.06*
Participant income in constant dollars	0.01*	0.1*	0.1*	-0.02	0.06*	0.15*	0.57*	0.02*
Courts dealing with criminals	0.13*	0.05*	0.03	0.05*	-0.04*	-0.08*	0.01	-0.13*
Favor preference in hiring Blacks	-0.15*	-0.06*	-0.01	-0.01	-0.03	-0.01	-0.01	0.29*

Abortion if married-- wants no more children	0.71	1.0*	1.01*	0.8*	1.73*	1.1	1.0*	1.48*
Should government improve standard of living?	-0.25*	-0.05*	-0.05*	-0.01	-0.05*	-0.05*	-0.11*	0.16*
Belief in life after death	1.16	1.0*	0.99*	1.25*	1.03	0.65*	1	1.01
Hours per day watching TV	-0.03*	0.04*	0.16*	-0.08*	-0.14*	0.01	-0.15*	0.18*
Racial differences due to lack of will	1.23	1.0*	1.01*	0.99	0.52*	1.08	1.0*	0.78
Should government aid Blacks?	-0.21*	-0.05*	0	0	0.01	-0.01	-0.05*	0.32*
Favor gun restriction law	0.78	1.0*	1	1.05*	0.99	0.5*	1	1.5*
Happy with federal income tax?	-0.11*	-0.05*	0.02	0.03	0.06*	0.05*	-0.08*	-0.07*
Racial differences due to discrimination	0.77	1.0*	1.01*	1	1.12	0.86	1.0*	3.0*
Abortion if woman's health seriously endangered	0.73	1.0*	1.02*	0.76*	1.56*	1.02	1.0*	1.47
Favor spanking to discipline child	0.14*	0.05*	-0.04*	0.03	-0.07*	0.11*	-0.09*	0.11*
Spouse's highest degree	-0.03*	-0.06*	-0.04*	0.09*	0.29*	0	0.33*	-0.03
Abortion if low income-- can't afford more children	0.71	1.0*	1.01*	0.8*	1.69*	0.99	1.0*	1.55*
Does P own home?	1.02	-0.03*	1.01*	1.01*	1	0.99	1.0*	0.82*
Abortion if strong chance of serious defect	0.68	1.0*	1.02*	0.76*	1.47*	1.03	1.0*	1.03
How often does P pray	0.1*	0.03*	0.1*	0.45*	-0.01	-0.19*	-0.05*	0.1*
Spending on health	-0.2*	-0.04*	-0.01	-0.04*	-0.02	-0.08*	-0.05*	0.08*
Abortion if not married	0.7	1.0*	1.01*	0.8*	1.83*	1.06	1.0*	1.14
P's age when 1st child born	-0.02*	-0.04*	0.06*	0.03	0.22*	0.2*	0.18*	-0.12*
Number in household not related	-0.06*	0.05*	-0.2*	-0.08*	0.03	0.09*	-0.22*	-0.05*
Highest year school completed spouse	-0.03*	-0.05*	-0.05*	0.07*	0.32*	-0.01	0.32*	-0.01

Spending on big cities	-0.14*	-0.04*	-0.01	-0.01	0.02	-0.05*	0	0.11*
Does P or spouse supervise anyone	1.0	1.0*	1	1.01	1.25*	1.2*	1.0*	0.84
Racial differences due to lack of education	0.82	1.0*	1.01*	1	1.64*	0.96	1.0*	1.58*
For preferential hiring of women	-0.1*	-0.05*	0	0.02	-0.15*	-0.05	-0.09*	0.22*
Spending on social security	-0.1*	-0.03*	0	-0.01	-0.07*	-0.1*	-0.09*	0.08*
Birth control to teenagers 14-16	-0.22	-0.03	-0.13*	-0.22*	0.01	-0.07*	0	0.03

Note. Total variables = 44. All linear regression coefficients are standardized. All logistic regression coefficients (those with descriptions with asterisks) are odds ratios. * $p < .001$.

Study 4 Discussion

Study 4 builds on the previous studies by analyzing a large, aggregated, reasonably well-powered dataset to test whether the previously found patterns hold when analyzed with greater power. The results support the conclusion that ideology varies across contexts.

For Black participants, there was an almost complete lack of association between ideology and all measures. When adjusting for multiple comparisons, only two measures were significantly associated with ideology for Black participants, compared to 147 significant associations for White participants. For the measures for which the interaction test was significant, at an unadjusted alpha level of .05, (a lower threshold by a factor of 1,757), the majority of the measures were still not statistically significant. For associations that were significant, all of the effect sizes were smaller than those for White Americans.

For less wealthy participants and for those with no college education, ideology's associations were weaker compared to participants with more wealth and with at least some college education, respectively, across almost all measures, including political attitude measures. Regarding education interactions, out of 70 measures for which the interaction tests were

significant, on only one measure, hours of TV watching, was the effect size larger for participants with no college education, compared to those with at least some college education. This provides further support for the findings of Study 1 regarding what appears to be a relationship between status and ideological structuring.

The ideology associations for White Americans further support previous findings that, in their culture, ideology is linked to non-political parts of life. White conservatives were more likely to have fewer sex partners, to have been in a relationship with their last sex partner, and to have sex partners of the opposite sex. White conservatives also appear to socialize less outside of their households: greater conservatism was associated with spending fewer evenings socializing at bars, with friends, and with neighbors. In addition, they were more likely to own a gun of some kind (e.g., pistol, rifle, or shotgun) and hunt.

Also, White conservative families appear to be different in some important ways from White liberal families. More conservative families tended to have less education: greater conservatism was associated with a lower educational degree attainment for the participant as well as his or her spouse, mother, and father. White conservative participants also tended to have more children. Finally, they were more likely to have roots in the U.S., White conservative participants, their parents, and their grandparents were all more likely to have been born in the U.S. compared to White liberal participants.

The findings of Studies 1 through 4 have established that there are quantitative and qualitative differences in the ideological structuring of political and non-political attitudes, behaviors, and attributes. It appears that ideology does not structure political attitudes for Black Americans. So how are they structured? More broadly, what are other ways that political attitudes can be structured for both Black and White Americans?

Study 5: How else might political attitudes be prioritized?

The goal of Study 5 is to examine alternative aspects around which political attitudes might be structured. For those for whom ideology is a meaningful structure, differences in ideology are linked to differences in certain political attitudes. However, are there other aspects for which differences in that aspect are linked to differences in certain political attitudes? Study 5 will examine whether this is the case for the six aspects examined alongside ideology in the previous four studies: age, church attendance, education, gender, income, and race. Importantly, these are intersecting group identities which may each be linked to its own particular set of political values and concerns.

Study 5 examines what those values and concerns are and whether such links are important relative to non-political differences across these attributes. These six attributes are already known to be linked to political differences (Erikson & Tedin, 2007). Political party affiliation is another potentially interesting attribute, however, only about 3% of Black participants in the GSS 2012 dataset affiliated with the Republican Party, resulting in very little variance along this dimension for the Black participants. In addition, other research on the structure of political attitudes has investigated, for example, the relation between attitudes and values (Swedlow, 2008). However, it is not fully understood whether and how political differences are important relative to other, non-political differences. Study 5 examines group differences using a wide range of measures, both political and non-political.

Study 5 Method

To analyze these differences, Study 5 uses machine learning classification and regression techniques. This study returns to the expanded GSS 2012 dataset used in Study 2 because that dataset includes a larger number of variables. Specifically, it uses Support Vector Machine

(SVM) classification, Random Forest classification and regression, and lasso regression. These techniques are arguably the most commonly used algorithms in Big Data applications. They are widely used for handling large numbers of predictors. Also, SVM and Random Forest are nonparametric techniques—they do not assume that the data have a particular distribution (e.g., a normal distribution of residuals).

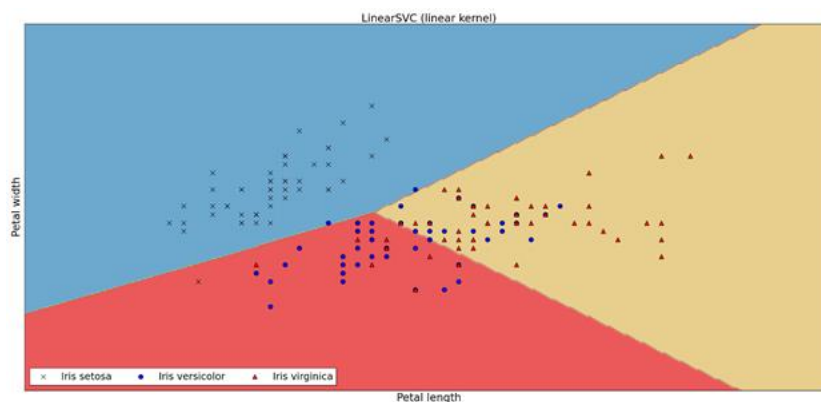
Classification. Classification algorithms aim to categorize entities (e.g., a participant) into a class. They operate by using a specified pool of predictor variables to algorithmically classify each instance into one of the classes of interest, based the instance’s features (Flach, 2012).

In Study 5, classification algorithms are used for the three categorical variables: to classify participants by race, to classify participants by their college education, and to classify participants by gender. For race, the two predicted classes are White and Black. For education, the two predicted classes are no college education and at least some college education. For gender, the two predicted classes are female and male.

SVM Classification. The support vector machine classification approach (SVM: Cortes & Vapnik, 1995; Joachims, 1998) is one of the core machine learning techniques used in Big Data applications. Like all classification algorithms, SVM uses datasets in which the class of each case is known, in addition to the information that will be used to classify the case. The SVM approach aims to find the division with the maximum distance between the different classes. Conceptually, all the data points could be plotted in n-dimensional space, where n = the number of features. The algorithm uses the “borderline” cases to determine the division(s) that best separate the classes into the correct classes.

Figure 32 shows an example of an SVM classification of iris flowers into their correct species, based on their petal width and petal length (Chen & Wojcik, 2016). The data on which the algorithm is developed (i.e., trained) includes the species of flower for each case, as well as the petal length and petal width. The lines between the different colored regions represent the division solutions.

Figure 32. SVM classification of iris flowers.



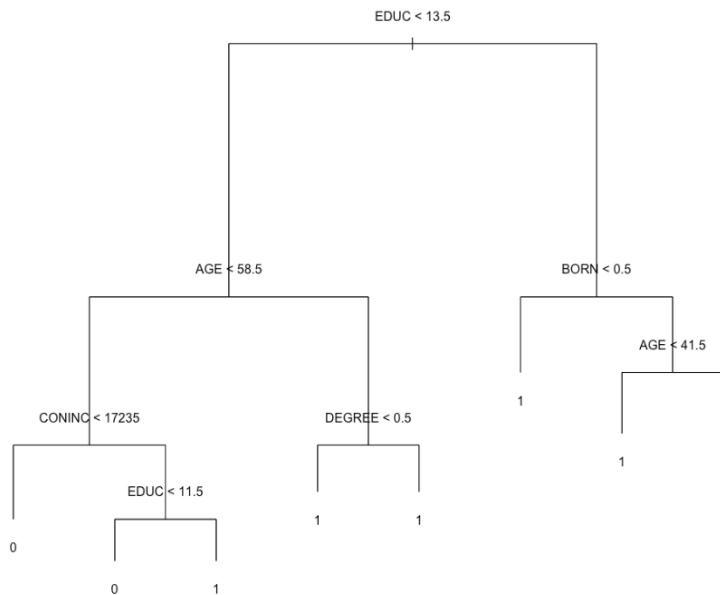
After a classifier is developed, it is then tested on data (i.e., the test set) that do not contain information on the class (e.g., species of flower) of each instance. The performance of the model is based on how well it classifies each case in the test set, based on each case's features.

Kernels. In some cases, the boundary between two classes is nonlinear. In those cases, a different function (known as a kernel) is used to evaluate the separation between the classes given a particular boundary (James et al., 2013). A straight line boundary uses a linear kernel. Curved line boundaries can be implemented using polynomial kernels. Circular boundaries can be implemented using radial kernels. All three are used in this study.

Random Forest Classification. Random forest classification is essentially the same as random forest regression, which was used in Study 2. The key difference is that random forest classification aims to classify an observation into one of two classes. Recall that random forests are made up of decision trees. These are models in which the data are divided into a hierarchy of the key variables that are most important in explaining the data.

An example tree is given in Figure 33. This tree classifies White GSS 2012 participants into those who voted in the 2008 presidential election and those who did not. Reading from the top to the bottom and taking all the left branches gives the following result: Participants with fewer than 13.5 years of education, who are younger than 58.5 years old, and who make less than \$17,235 most likely did not vote. Reading from the top to the bottom and taking all the right branches gives the following result: Participants with more than 13.5 years of education, who were born in the U.S., and who are older than 41.5 years old most likely voted.

Figure 33. Decision tree predicting 2008 presidential voting.



0 = did not vote. 1 = voted.

Classification decision trees are built similarly to regression trees. They begin with the most important variable, in the example tree, this is EDUC (number of years of education). The algorithm determines this by examining the entire dataset to identify the variable which, when split, accounts for the most change in the outcome. This involves achieving “purity” after the split. Greater purity to lower class variability.

As with random forest regressions, random forest classification involves building a large number decision trees based on a subset of the variables. This allows the algorithm to try more effective sets of variable selections and splits.

Cross-Validation. Study 5 uses k-fold cross-validation to assess model performance, previously used in Study 2. For classification algorithms, a typical performance metric is the

percentage of instances correctly classified. Recall that, for cross-validation algorithms, the dataset is divided into a training set and a test set. For Study 5, the classifier algorithms determines how best to classify participants, based on the training set data. To evaluate the model's performance, the models are then run on the test set data. The percentage of participants in the test set who are correctly classified is the performance metric of the model.

Lasso Regression. Lasso regularized regression is a type of regression, related to OLS regression, that is able to generate solutions with a reduced set of non-zero coefficients (Tibshirani, 1996). In Big Data applications, with a multitude of predictor variables, such sparse solutions enable one to identify the variables most closely associated with the outcome variable (Flach, 2012) by handling collinearity and, effectively, filtering noise from the data (Raschka, 2015). Regularized regressions operate by including a weight which reduces the size of the coefficients:

$$\alpha \sum_{j=1}^m |w_j|$$

α is a parameter that can be tuned over the course of learning the optimal model and w is the vector of weights.

Study 5 uses lasso regularized regression to identify the behaviors and attitudes most associated with each social group. In these analyses, the group (e.g., race, gender) is the outcome variable, and all of the behavior and attitudes measures are the predictor variables.

Bootstrapped lasso regression. Bootstrapped lasso regression (Bolasso) is an extension of the lasso regression technique that uses bootstrapping to achieve stable coefficient estimates (Bach, 2008). This extension combines bootstrap resampling (resampling with replacement) over a large number of replications together with an algorithm that evaluates the consistency of the

selected non-zero coefficients. This has been shown to lead to significantly more consistent variable selection results.

One specific application of Bolasso is known as the multiple hypothesis testing algorithm (Rohart, 2011). It uses Bolasso to select and order the important nonzero coefficients. It then tests successive models with increasing numbers of the coefficients at a given probability level (.05, typically) to evaluate the stability of the estimates. When the estimates of a given model become unreliable given that probability level, the algorithm stops. This algorithm is implemented in the R package, mht.

Variable Importance. The importance of each variable will be evaluated using the Variable Importance metrics for the techniques. Across the SVM, Random Forest, and logistic regression techniques, the most important variables will be assessed to determine the most important features in distinguishing each social group.

The same dataset and variables (listed in Appendix B) used in Study 2 were used in Study 5. Recall that the observations were narrowed so that the abortion attitude measures could be used. All variables were narrowed to those with less than 15% missingness. The missing data was then imputed.

Random Forest and SVM classification procedure. These analyses were implemented in R, using the RandomForest, kernlab, e1071, and Caret packages.

Step 1. Set up the training and test sets. Study 5 used 80% of the data for training and 20% of the data for testing.

Step 2. Tune parameters. For the random forest and linear and radial SVM classifiers, the caret tuning function was used and was set to tune to 10 parameters. For the polynomial

SVM classifier, the degree ranged from 1 to 4, the scale ranged from .001 to .1, and C ranged from .25 to 100. These are typical parameter sets (e.g., James, et al., 2013).

Step 3. Validate model performance with 10-repeat 10-fold cross-validation. Within each step of tuning, 10-repeat 10-fold cross-validation was used to evaluate model performance.

Step 4. Generate output based on optimal parameters. Variable importance rankings and model statistics for all methods were generated. For the random forest classifier, percent change in accuracy associated with each variable were generated. For the random forest regression, percent change in mean squared error were generated. For the lasso regression, penalized coefficients were generated.

The education classifiers were run without the predictor variable for the highest degree achieved by the participant. Although this variable provides some extra information over the college-or-no-college variable (giving it some usefulness when predicting non-education related variables), it captures too much of the same information when predicting an education related variable.

Bootstrapped lasso regression procedure. Bootstrapped lasso logistic regressions were run for each binary outcome variable: education, race, and gender. Bootstrapped lasso linear regressions were run for each continuous variable: age, church attendance, and income. All variables were standardized with a mean of 0 and standard deviation of 1. These analyses were implemented in R, using the mht package.

Study 5 Results

The most important measures used in predicting race, age, church attendance, education, gender, and income are reported. Many of these measures are political attitude measures, and the identification of these political attitude measures thus gives some indication of the issues that are

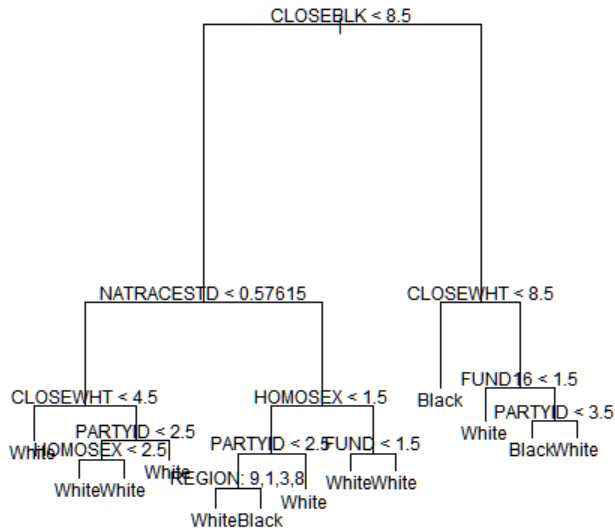
most distinctive of a particular group identity. These issues could then be said to be organized or structured along a particular group identity line. In other words, certain issues might be salient to one's racial identity, while other issues might be salient to one's gender identity.

The results for race are given first, following by the others in alphabetical order. The random forest classification, SVM classification, and lasso logistic regression results are reported for the classification models: for race, education, and gender. The random forest regression and lasso linear regression results are reported for the regression models: age, church attendance, and income.

Race classification. The classification models were able to classify the test set observations with accuracy greater than chance.

Random forest. The tuned random forest model achieved 87.3% accuracy in predicting the race of an individual, which was greater than chance (84.1%), with a probability of $p = .015$. Given an individual who is White, the model was accurate 86.8% of the time in predicting that the individual is White. Given an individual who is Black, the model was accurate 90.0% of the time in predicting that the individual is Black. For predicting Black participants, the precision is 56.3% and the recall is 90.0%. The baseline decision tree is shown in Figure 34.

Figure 34. Baseline decision tree for classifying participants by race.



(CLOSEBLK) How close feel to Blacks. (NATRACESTD) Spending on helping Black people. (CLOSEWHT) How close feel to Whites. (PARTYID) Political party affiliation (Dem to Rep). (HOMOSEX) Homosexual sex relations. (REGION) Region of interview. (FUND) How fundamentalist is P currently. (FUND16) How fundamentalist was P at age 16.

The top 20 most important variables at this setting are shown in Table 52. The most important variable in predicting race was political party affiliation. For reference, of the variables which contributed at least 10% to accuracy of the model, four are political attitudes. The most important political attitude measure, and the third most important variable, was attitudes about government spending to help Black people contributing approximately 28.26% to the accuracy of the model. There are two attitude measures about homosexuality: attitudes about homosexual

sex and about same-sex marriage. Finally, political ideology contributed approximately 10.27% to the accuracy of the model.

Table 52. Race random forest classification. Variable importance ranked by percent decrease in classification accuracy of race when the variable is removed. Top 20 variables shown.

Variable	% decrease in accuracy
Political party affiliation (Dem to Rep)	33.44103
How close feel to Blacks	31.68382
Spending on helping Black people	28.26307
How close feel to Whites	21.06654
How fundamentalist was P at age 16	20.12875
Size of place in thousands	15.83537
Has P ever had a 'born again' experience	14.09457
Type of response about ethnicity -- P	13.98259
How many grandparents born in U.S.	13.66625
Region of interview	13.30027
Feelings about the bible	12.87941
Homosexual sex relations	12.82602
How fundamentalist is P currently	12.62074
Reside in largest metro area to rural	12.27435
Number of brothers and sisters	11.87342
P's confidence in the existence of God	11.0824
Homosexuals should have right to marry	10.67463
Think of self as liberal or conservative	10.27013
Rifle in home	9.353481
Courts dealing with criminals	9.214255

SVM classification. The SVM classifiers all performed similarly. The linear kernel achieved an 87.0% accuracy in predicting race. The radial kernel achieved an 87.6% accuracy in predicting race. The polynomial kernel achieved an 88.3% accuracy in predicting race. Also, the most important variables used in the classification were the same for the three kernel models. The polynomial kernel model results are reported here. For predicting Black participants, the precision is 58.9% and the recall is 86.0%.

Overall, the SVM classification results are similar to those of the random forest classification, as shown in Table 53. However, much of the similarity is in the choice of non-political predictors. The most important predictor variable for these classifiers was, nevertheless, political: attitudes about government spending to help Black people. The SVM classifiers did not use political party affiliation as one of the most important predictor variables. The political attitude measures in the top 20 were attitudes about government spending on the poor, big cities, assistance for childcare, Social Security, and attitudes about housing discrimination.

Table 53. Race SVM polynomial kernel classification. Variable importance ranked by relative importance on a 100 point scale. Top 20 variables shown.

Variable	Importance
Spending on helping Black people	100.00
How close feel to Blacks	99.60
How fundamentalist was P at age 16	85.10
Feelings about the bible	81.31
How fundamentalist is P currently	79.20
Spending on the poor	78.86
Has P ever had a 'born again' experience	78.39
Number of brothers and sisters	77.96
Size of place in thousands	77.48
P consider self a religious person	75.64
Spending on big cities	75.55
P's confidence in the existence of God	75.25
How often does P pray	74.82
Tried to convince others to accept Jesus	72.85
Spending on assistance for childcare	72.68
Spending on social security	71.72
How many grandparents born in U.S.	71.15
Type of place lived in when 16 years old	70.57
How often P attends religious services	70.26
Against housing discrimination?	69.11

Lasso regression. As shown in Table 67, the results of the lasso logistic regression are similar to those of the random forest classifier, though the ordering of the importance of the

variables is different. There were 41 variables that the algorithm identified as relevant to predicting the race of a participant. The most important predictor variable was participants' reports of how close they feel to Black people. Two of the top twenty variables are political. Spending on helping Black people was second in importance, and political party affiliation was third. Attitudes about homosexual sex relations was tenth. Whether courts are too harsh in dealing with criminals, whether the participant voted in the 2008 election, whether abortion should be legal if a woman does not want any more children, and political ideology were the other political variables in the top 20.

Table 54. Race lasso regression. Variables ranked by relative importance.

Variable	Regression coefficient
How close feel to Blacks	1.354
Spending on helping Black people	0.627
Political party affiliation (Dem to Rep)	-1.142
How fundamentalist was P at age 16	0.560
Type of response about ethnicity -- P	-1.012
Number of brothers and sisters	0.585
How close feel to Whites	-1.081
Feelings about the bible	0.613
How many grandparents born in U.S.	1.103
Homosexual sex relations	-0.618
Type of place lived in when 16 years old	0.318
Reside in largest metro area to rural	-0.267
Courts dealing with criminals	-0.350
Size of place in thousands	0.199
Did P vote in 2008 election	0.637
Age of participant	-0.667
Abortion if married--wants no more children	0.547
Spending on space exploration	-0.211
General happiness	-0.274
Think of self as liberal or conservative	0.282
Highest year school completed mother	0.602
Government or private employee	0.549
Presence of others: spouse partner	-0.704
Number of children	0.328
Presence of others: other relatives	-0.082
Was P born in this country	-1.915
P's understanding of questions	-0.103
Spending on foreign aid	0.220

Spending on scientific research	0.001
Mother's employment when P was 16	0.590
P's attitude toward interview	-0.027
Opinion of family income	-0.185
Does P or spouse hunt	-1.014
Subjective class identification	0.267
Participant's sex	0.502
Mother's highest degree	-0.432
Spending on social security	0.012
P's highest degree	-0.243
Get ahead by hard work or luck?	-0.202
Were P's parents born in this country	-0.161
Completed college?	0.320

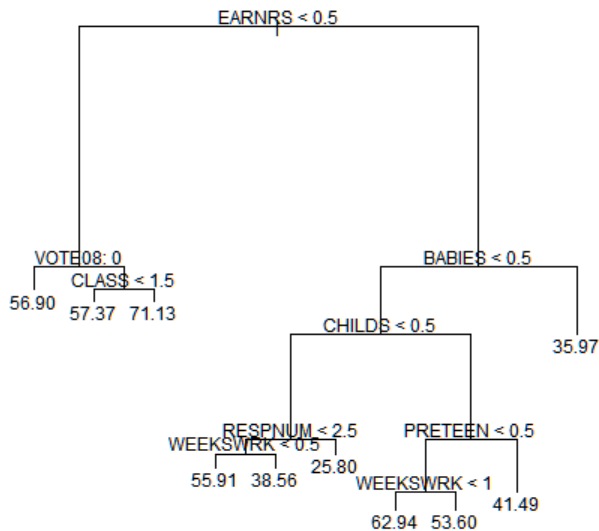
Note. Total variables = 41. Coefficients are log odds.

Age. The random forest regression and lasso linear regression results for predicting age are as follows.

Random forest. The tuned random forest model explained 65.23% of the variance in age.

The baseline decision tree is shown in Figure 35.

Figure 35. Baseline decision tree for age.



(EARNRS) How many in family earned money. (VOTE08) Did P vote in 2008 election.

(CLASS) Subjective class identification. (BABIES) Household members less than 6 years old.

(CHILDS) Number of children. (RESPNUM) Number in family of P. (WEEKSWRK) Weeks P worked last year. (PRETEEN) Household members 6 thru 12 years old.

The top 20 most important variables at this setting are shown in Table 55. The most important variable in predicting age was the participant's number of children. There were two political measures in the top twenty: attitudes about spending on highways and bridges and about same-sex marriage.

Table 55. Age random forest regression. Variable importance ranked by percent increase in MSE when the variable is removed. Top 20 variables shown.

Variable	% increase in MSE
Number of children	103.704
Weeks P worked last year	51.101
Household members less than 6 years old	38.779
Presence of others: children under six	33.144
Number of persons in household	31.603
Household members 6 thru 12 years old	31.347
Family income in constant dollars (2000)	27.648
How many in family earned money	27.211
Did P vote in 2008 election	27.193
Highest year school completed mother	24.554
Number in family of P	20.885
Spending on highways and bridges	18.829
Mother's employment when P was 16	18.197
Household members 18 years and older	17.470
Number of family generations in household	16.838
Household members 13 thru 17 years old	15.211
Satisfaction with financial situation	14.405
Homosexuals should have right to marry	13.288
Subjective class identification	12.483
Mother's highest degree	11.279

Lasso regression. As shown in Table 56, the results of the lasso logistic regression are similar to those of the random forest classifier, though the ordering of the importance of the variables is different. There were 49 variables that the algorithm identified as relevant to predicting the age of a participant. The most important predictor variable was the number of weeks the participant worked in the last year. Most of the variables are household features. Number of persons in household and number of children were numbers second and third most important, respectively. Several of the top twenty variables are political. Whether the participant voted in the 2008 election, spending on highways and bridges, same sex marriage, allowing a gay person to teach, and attitudes about abortion if there is a strong chance of a defect.

Table 56. Age lasso regression. Variables ranked by relative importance.

Variable	Regression coefficient
Weeks P worked last year	-0.176
Number of persons in household	-0.085
Number of children	0.289
Mother's employment when P was 16	-0.189
Household members less than 6 years old	-0.128
Did P vote in 2008 election	0.291
Mother's highest degree	-0.096
Presence of others: children under six	-0.203
Spending on highways and bridges	0.085
Homosexuals should have right to marry	-0.100
Subjective class identification	0.065
How many in family earned money	-0.080
Household members 6 thru 12 years old	-0.099
Change in financial situation	-0.082
Satisfaction with financial situation	-0.085
Highest year school completed mother	-0.075
Allow homosexual to teach	-0.142
Spending on foreign aid	-0.059
Abortion if strong chance of serious defect	0.182
Race of participant	-0.200
How fundamentalist was P at age 16	-0.059
Number in family of P	-0.062
Does P or spouse hunt	-0.206
Have gun in home	0.154
Government or private employee	0.120

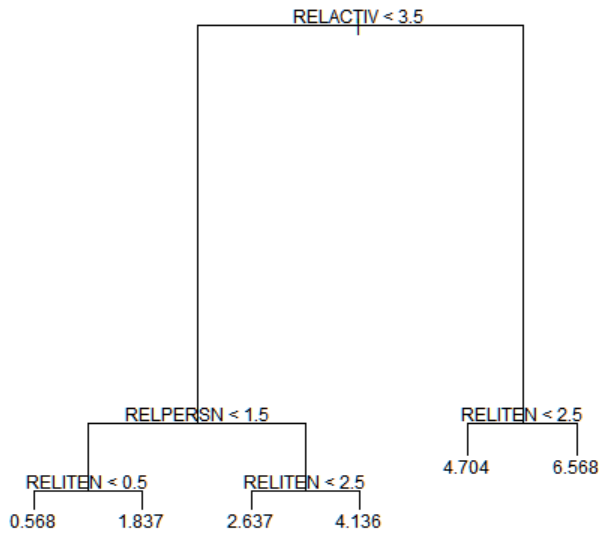
Were P's parents born in this country	0.311
Oppose or favor gun permits	0.115
Strength of religious affiliation	0.057
Spending on education	-0.042
Condition of health	-0.044
Geographic mobility since age 16	0.046
P's highest degree	0.093
Allow anti-religionist to teach	-0.103
P self-employed or works for somebody	0.120
Get ahead by hard work or luck?	-0.034
How many grandparents born in U.S.	-0.098
Political party affiliation (Dem to Rep)	-0.057
P consider self a spiritual person	0.046
Allow racist to teach	0.151
Belief in life after death	-0.078
Presence of others: spouse partner	0.153
Household members 13 thru 17 years old	-0.047
Presence of others: no one	0.106
Sex with person other than spouse	0.031
Was P born in this country	0.118
Tried to convince others to accept Jesus	-0.091
Completed college?	-0.131
Allow militarist to teach	-0.097
P consider self a religious person	0.044

Note. Total variables = 49. Regression coefficients are standardized coefficients.

Church attendance. The random forest regression and lasso linear regression results for predicting church attendance are as follows.

Random forest. The tuned random forest model explained 62.34% of the variance in church attendance. The baseline decision tree is shown in Figure 36.

Figure 36. Baseline decision tree for church attendance.



(RELACTIV) How often does P take part in religious activities? (RELPERSN) P consider self a religious person. (RELITEN) Strength of religious affiliation.

The top 20 most important variables at this setting are shown in Table 57. The most important variables in predicting church attendance was how often the participant takes part in religious activities in general. The most important political attitude measure, and the fifth most important variable, was whether the participant supported abortion if the pregnancy was the result of rape. There were also two attitude measures about homosexuality: attitudes about same-sex marriage and homosexual sex.

Table 57. Church attendance random forest regression. Variable importance ranked by percent increase in MSE when the variable is removed. Top 20 variables shown.

Variable	% increase in MSE
How often does P take part in religious activities	126.141
Strength of religious affiliation	48.333
P consider self a religious person	31.478
How often does P pray	25.607
Abortion if pregnant as result of rape	13.765
Homosexuals should have right to marry	13.735
Feelings about the bible	13.445
How fundamentalist is P currently	12.806
Tried to convince others to accept Jesus	12.496
Homosexual sex relations	11.322
P's confidence in the existence of God	11.178
Was P born in this country	9.325
Spending on foreign aid	8.883
P consider self a spiritual person	8.827
P's highest degree	8.125
Abortion if woman's health seriously endangered	8.038
Has P ever had a 'born again' experience	7.526
Family income in constant dollars (2000)	7.134
Abortion if not married	6.637
Abortion if strong chance of serious defect	6.611

Lasso regression. As shown in Table 58, the results of the lasso logistic regression were similar to those of the random forest classifier, though the ordering of the importance of the variables is different. There were 17 variables that the algorithm identified as relevant to predicting the church attendance. Similar to the random forest regression, the most important political attitude measure, and the fifth most important variable, was whether the participant supported abortion if the pregnancy was the result of rape. Attitudes spending on foreign aid and spending on space exploration were also important political measures.

Table 58. Church attendance lasso regression. Variables ranked by relative importance.

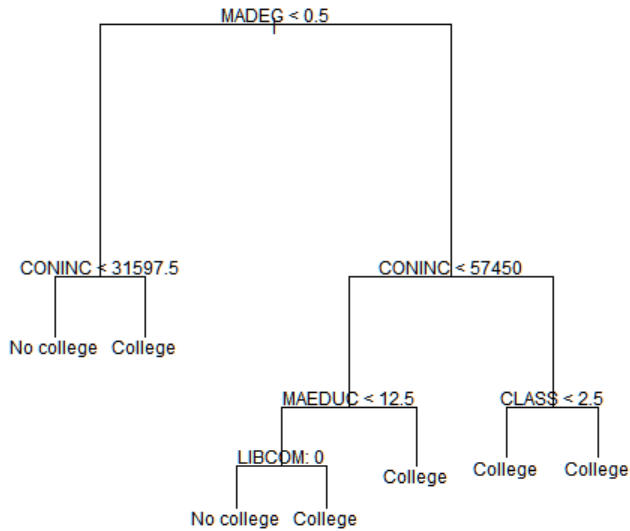
Variable	Regression coefficient
How often does P take part in religious activities	0.418
Strength of religious affiliation	0.178
P consider self a religious person	0.101
How often does P pray	0.121
Abortion if pregnant as result of rape	-0.246
Tried to convince others to accept Jesus	0.114
Homosexual sex relations	-0.050
Spending on foreign aid	0.042
Feelings about the bible	0.041
Completed college?	0.146
Spending on space exploration	-0.015
How close feel to Whites	0.030
Was P born in this country	-0.119
Number of children	0.028
How close feel to Blacks	-0.029
How many grandparents born in U.S.	-0.033
Subjective class identification	0.052

Note. Total variables = 17. Regression coefficients are standardized coefficients.

Education classification. The classification models were able to classify the test set observations into whether or not they had a college education with accuracy greater than chance.

Random forest. The tuned random forest model achieved 75.6% accuracy in predicting whether an individual was someone who had at least some college education, which was greater than chance, with a probability of $p < 2.2 \times 10^{-16}$. Given an observation that is someone with no college education, the model was accurate 77.9% of the time in predicting that this individual has no college education. Given an observation that is someone with at least some college education, the model was accurate 73.8% of the time in predicting that this individual has at least some college education. For predicting participants with at least some college education, the precision is 82.0% and the recall is 73.8%. The baseline decision tree is shown in Figure 37.

Figure 37. Baseline decision tree for classifying participants by college education.



(MADEG) Mother's highest degree. (CONINC) Family income in constant dollars (2000).

(MAEDUC) Highest year school completed mother. (LIBCOM) Allow communist's book in library. (CLASS) Subjective class identification.

The top 20 most important variables at this setting are shown in Table 59. The most important variable in predicting college education was family income. For reference, of the variables which contributed at least 10% to accuracy of the model, several are political attitudes. These attitudes are related to attitudes about religion, homosexuality, and communists, and about free speech. Regarding religion, this includes allowing an anti-religious book in the library. Regarding homosexuality, the two attitudes were: allowing a homosexual person to speak and to

teach. Regarding free speech, the measures previously mentioned concerning books in a library and allowing certain people to speak are concerned with free speech.

Table 59. Education random forest classification. Variable importance ranked by percent decrease in classification accuracy of education when the variable is removed. Top 20 variables shown.

Variable	% decrease in accuracy
Family income in constant dollars (2000)	29.42252
Highest year school completed mother	26.64173
Mother's highest degree	22.48468
P's understanding of questions	19.57864
Did P vote in 2008 election	19.53792
Subjective class identification	19.41376
Opinion of family income	15.90908
Number of brothers and sisters	15.73402
Feelings about the bible	14.81519
Number of children	13.11973
Allow homosexual to speak	12.11262
Allow anti-religious book in library	11.42293
Reside in large city to open country	11.38602
Allow homosexual to teach	11.28852
Allow communist to speak	10.82537
Allow communist's book in library	10.45364
Homosexual sex relations	9.859098
Should communist teacher be fired	9.548273
Size of place in thousands	9.333035
Age of participant	8.800022

SVM classification. The SVM classifiers all performed similarly. The linear kernel achieved a 76.5% accuracy. The polynomial kernel achieved a 77.0% accuracy. The radial kernel achieved a 76.8% accuracy. Also, the most important variables used in the classification were the same for the three kernel models. The polynomial kernel model results are reported here. For predicting participants with at least some college education, the precision is 82.8% and the recall is 75.8%.

As shown in Table 60, the SVM polynomial kernel classification results were similar to those of the random forest classification. Family income was the most important predictor. Attitudes about free speech relating to religion, homosexuality, militarism, and communism were the most important political attitudes.

Table 60. Education SVM polynomial kernel classification. Variable importance ranked by relative importance on a 100 point scale. Top 20 variables shown.

Variable	Importance
Family income in constant dollars (2000)	100.00
Highest year school completed mother	96.26
Mother's highest degree	92.60
Opinion of family income	80.80
Subjective class identification	74.47
Did P vote in 2008 election	74.00
Homosexual sex relations	72.95
Allow communist to speak	71.73
Allow anti-religionist to teach	70.76
Homosexuals should have right to marry	69.50
Allow communist's book in library	69.23
Allow anti-religionist to speak	68.26
Allow anti-religious book in library	67.94
Allow militarist to speak	67.48
Weeks P worked last year	66.60
Abortion if low income--can't afford more children	65.72
Abortion if married--wants no more children	65.46
Allow militarist to teach	65.17
Allow militarist's book in library	65.14
Allow homosexual's book in library	64.74

Lasso regression. As shown in Table 61, the results of the lasso logistic regression have some similarities to those of the random forest and SVM classifiers. There were 32 variables that the algorithm identified as relevant to predicting the race of a participant. The most important predictor variable was family income. There were several important political attitudes measures concerning: allowing an anti-religious book in the library, whether a communist teach should be

fired, government spending on social security, on gun permits, allowing a militarist to speak, political party affiliation, whether whites are hurt by affirmative action, allowing an anti-religionist to speak, government spending on health, political ideology, same-sex marriage, abortion if there is a strong chance of a birth defect, and allowing a gay person to speak.

Table 61. Education lasso regression. Variables ranked by relative importance.

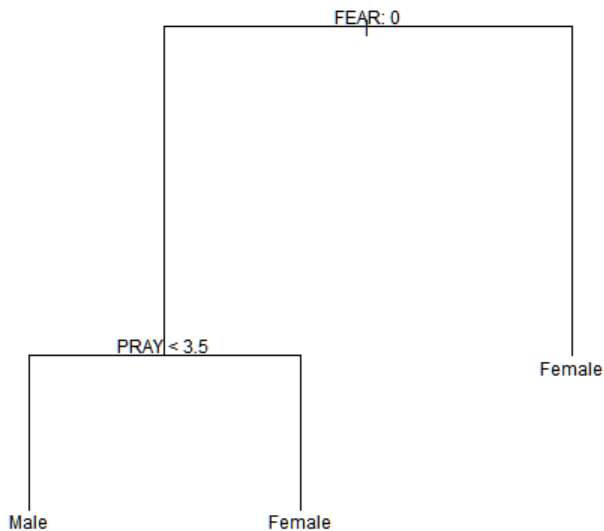
Variable	Regression coefficient
Family income in constant dollars (2000)	0.449
Highest year school completed mother	0.223
P's understanding of questions	0.297
Mother's highest degree	0.367
Did P vote in 2008 election	0.719
Feelings about the bible	-0.242
Number of children	-0.313
Reside in large city to open country	-0.212
Allow anti-religious book in library	0.432
Number of brothers and sisters	-0.191
Is life dull (vs. exciting)?	-0.179
Government or private employee	0.545
Geographic mobility since age 16	0.184
How often P attends religious services	0.365
Should communist teacher be fired	-0.349
Number in family of P	-0.202
Spending on social security	-0.146
Oppose or favor gun permits	0.400
Allow militarist to speak	0.192
Any opp. race in neighborhood	0.239
Political party affiliation (Dem to Rep)	0.070
Subjective class identification	0.118
P consider self a spiritual person	0.144
Whites hurt by affirmative action	-0.136
Allow anti-religionist to teach	0.170
Satisfaction with financial situation	0.119
Spending on health	-0.102
Opinion of family income	0.115
Think of self as liberal or conservative	-0.182
Homosexuals should have right to marry	-0.020
Abortion if strong chance of serious defect	0.200
Allow homosexual to speak	0.482

Note. Total variables = 32. Regression coefficients are log odds.

Gender classification. The classification models were able to classify the test set observations into their gender with accuracy greater than chance.

Random forest. The tuned random forest model achieved 71.0% accuracy in predicting the gender of an individual, which was greater than chance, with a probability of $p = 1.73 \times 10^{-14}$. Given an individual who is female, the model was accurate 72.6% of the time in predicting that this individual is female. Given an observation that is male, the model was accurate 68.8% of the time in predicting that this individual is male. For predicting male participants, the precision is 66.2% and the recall is 68.8%. The baseline decision tree is shown in Figure 38.

Figure 38. Baseline decision tree for classifying participants by gender.



(FEAR) Afraid to walk at night in neighborhood. (PRAY) How often does P pray?

The top 20 most important variables at this setting are shown in Table 62. The most important variable in predicting gender was whether the participant is afraid to walk in their neighborhood at night. For reference, of the variables which contributed at least 10% to accuracy of the model, three are political attitudes. There are two attitude measures about homosexuality: attitudes about homosexual sex and about same-sex marriage. Attitudes about government spending on highways and bridges was also important in the model.

Table 62. Gender random forest classification. Variable importance ranked by percent decrease in classification accuracy of gender when the variable is removed. Top 20 variables shown.

Variable	% decrease in accuracy
Afraid to walk at night in neighborhood	26.10703
How often does P pray	22.28093
Number in family of P	15.89199
Homosexual sex relations	11.61304
Spending on highways and bridges	10.82597
Homosexuals should have right to marry	10.1022
P's confidence in the existence of God	9.357286
Presence of others: spouse partner	8.962507
Weeks r. worked last year	8.521719
Oppose or favor gun permits	8.475331
P consider self a spiritual person	8.245689
Number of children	7.980732
Family income in constant dollars (2000)	7.756159
Does P or spouse hunt	7.72841
Rifle in home	7.526231
Strength of religious affiliation	7.210073
Shotgun in home	7.170228
Have gun in home	7.035054
How often P attends religious services	6.698129
Spending on space exploration	6.319907

SVM classification. The SVM classifiers all performed similarly. The linear kernel achieved a 73.2% accuracy. The radial kernel achieved a 73.7% accuracy. The polynomial kernel achieved a 73.3% accuracy. Also, the most important variables used in the classification were the

same for the three kernel models. The radial kernel model results are reported here. For predicting male participants, the precision is 69.1% and the recall is 72.1%.

As shown in Table 63, the SVM classification results were notably different from those of the random forest classifier (and the lasso logistic regression results, given below). The most important predictor variable for these classifiers was attitudes about government spending on highways and bridges. The political attitude measures in the top 20 were attitudes about government spending on space exploration, government spending on scientific research, allowing a racist to speak, allowing a communist to speak, the death penalty, and the federal income tax.

Table 63. Gender SVM radial kernel classification. Variable importance ranked by relative importance on a 100 point scale. Top 20 variables shown.

Variable	Importance
Spending on highways and bridges	100
Spending on space exploration	91.43
Weeks P worked last year	87.49
Have gun in home	87.27
Family income in constant dollars (2000)	85.38
Rifle in home	84.02
Spending on scientific research	81.43
Shotgun in home	81.34
Pistol or revolver in home	80.52
Opinion of family income	79.32
Allow racist to speak	78.08
Does P or spouse hunt	77.55
Sex with person other than spouse	74.63
Highest year school completed mother	74.26
Allow communist to speak	73.54
Oppose or favor death penalty for murder	73.51
Happy with federal income tax?	73.26
How many in family earned money	73
Household members 18 years and older	72.89
Presence of others: spouse partner	72.65

Lasso regression. As shown in Table 64, the results of the lasso logistic regression have some similarities to those of the random forest classifier. There were 34 variables that the algorithm identified as relevant to predicting the race of a participant. The most important predictor variable was whether the participant feels afraid to walk alone at night in his or her neighborhood. Several of the top twenty variables are political. Attitudes about gun permit laws and about spending on highways and bridges were third and fourth, respectively. Attitudes about same-sex marriage, spending on space exploration, federal income tax, spending on defense, spending on scientific research, spending on social security, and allowing a racist to speak were also in the top 20.

Table 64. Gender lasso regression. Variables ranked by relative importance.

Variable	Regression coefficient
Afraid to walk at night in neighborhood	-1.209
How often does P pray	-0.518
Oppose or favor gun permits	-0.641
Spending on highways and bridges	0.313
Weeks P worked last year	0.273
Homosexuals should have right to marry	-0.311
Presence of others: children under six	-0.842
Spending on space exploration	0.238
Homosexual sex relations	-0.362
P self-employed or works for somebody	0.594
Presence of others: spouse partner	0.716
P consider self a spiritual person	-0.181
Happy with federal income tax?	0.181
Spending on defense	-0.163
Sex with person other than spouse	0.181
Spending on scientific research	0.118
Spending on social security	-0.187
Did P vote in 2008 election	-0.394
Race of participant	0.502
Allow racist to speak	0.279
Number in family of P	-0.169
Household members 18 years and older	0.126
Any opp. race in neighborhood	0.337
Does P or spouse hunt	0.492
How many grandparents born in U.S.	-0.099

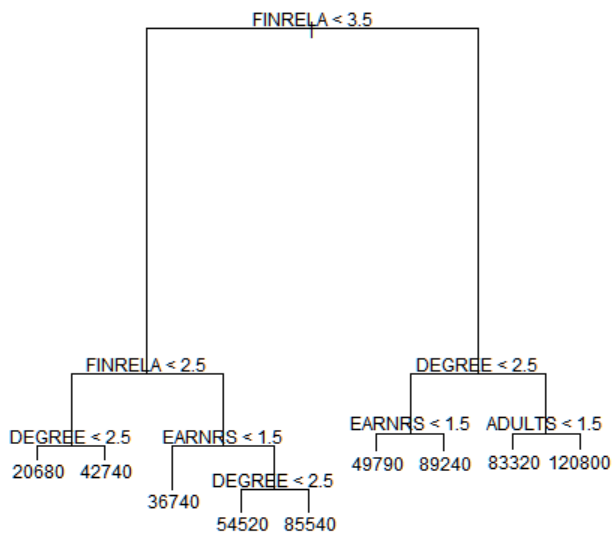
How close feel to Whites	-0.092
Spending on the poor	0.092
Whites hurt by affirmative action	-0.123
Oppose or favor death penalty for murder	0.244
P's understanding of questions	0.107
Reside in largest metro area to rural	-0.117
P's highest degree	-0.141
Condition of health	-0.096
Presence of others: older children	-0.640

Note. Total variables = 34. Regression coefficients are log odds.

Income. The random forest regression and lasso linear regression results for predicting income are as follows.

Random forest. The tuned random forest model explained 54.07% of the variance in income. The baseline decision tree is shown in Figure 39.

Figure 39. Baseline decision tree for income.



(FINRELA) Opinion of family income. (DEGREE) P's highest degree. (EARNRS) How many in family earned money. (ADULTS) Household members 18 years and older.

The top 20 most important variables at this setting are shown in Table 65. The most important variable in predicting income was the participant's positive or negative feelings about his or her family income. The only political measure associated with at least a 10% increase in MSE when removed was whether the participant voted in the 2008 election. Of the other top twenty most important variables, the other political measures were attitudes about allowing gay people to speak in their community, abortion if a woman does not want any more children, and political party affiliation.

Table 65. Income random forest regression. Variable importance ranked by percent increase in MSE when the variable is removed. Top 20 variables shown.

Variable	% increase in MSE
Opinion of family income	58.233
P's highest degree	36.725
How many in family earned money	31.740
Subjective class identification	23.452
Weeks P worked last year	16.612
Household members 18 years and older	16.310
Number of persons in household	15.330
Age of participant	14.633
Did P vote in 2008 election	11.616
Highest year of school completed	11.564
Satisfaction with financial situation	10.801
P's understanding of questions	8.387
Number of family generations in household	6.830
Reside in largest metro area to rural	6.495
Household members less than 6 years old	6.317
Region of interview	6.142
Allow homosexual to speak	5.961
Abortion if married--wants no more children	5.784
Political party affiliation (Dem to Rep)	5.709
Presence of others: spouse partner	5.684

Lasso regression. As shown in Table 66, the results of the lasso logistic regression are similar to those of the random forest classifier, though there are differences in the less important variables. There were 16 variables that the algorithm identified as relevant to predicting a participant's income. The most important predictor variable was the participant's positive or negative feelings about his or her family income. The second most important predictor was the participant's highest degree. There were several more political measures identified by the lasso regression, compared to the measures used by the random forest regression. The political measures were: spending on highways and bridges, political party affiliation, happiness with federal income tax, and spending on health.

Table 66. Income lasso regression. Variables ranked by relative importance.

Variable	Regression coefficient
Opinion of family income	0.277
P's highest degree	0.233
How many in family earned money	0.199
Subjective class identification	0.133
Satisfaction with financial situation	-0.081
Spending on highways and bridges	0.088
Did P vote in 2008 election	0.127
Political party affiliation (Dem to Rep)	0.062
Happy with federal income tax?	-0.067
Type of place lived in when 16 years old	0.064
Household members 18 years and older	0.087
Weeks P worked last year	0.053
Homosexual sex relations	0.068
Number of children	0.057
How fundamentalist is P currently	-0.066
Spending on health	-0.036

Note. Total variables = 16. Regression coefficients are standardized coefficients.

Study 5 Discussion

Across the six attributes, political measures were useful to varying degrees in distinguishing between different groups. The importance of the measures are evaluated along two lines: breadth and depth. First, the breadth is evaluated by the number of political measures identified to be important. Second, the depth is evaluated by the ranking of those measures. Although the importance of political attitudes was most notable for race, education, and gender, political attitudes were important for all groups. Also, each group had its own set of political attitudes that were identified as important. Thus, these results provide evidence that these group identities offer alternative lines along which political attitudes might be prioritized.

Race. The key group comparison, between Black and White Americans, found that political measures are central to the group differences. The most important factors that distinguish between Black and White Americans are political concerns and social distance. Politically, the primary concern is about the role of government spending on helping Black people. Also, their overwhelming association with the Democratic Party is an important factor in distinguishing between the two races.

Together with the finding that Black American political attitudes are not structured by ideology, this suggests that Black Americans' primary concern is racial well-being, through policy and party. This is likely a product of both the long history of racism in the U.S. as well as current issues.

This suggests that a lesser degree of ideological thinking does not necessarily indicate lack of political concern. In addition, a moderate breadth of political differences distinguished Black participants from White participants. A mix of government spending attitudes, including on social concerns (e.g., social security) and science (e.g., space exploration), and attitudes about

homosexuality were important. Research on the specific influence of Black history and current experience is necessary to understand the Black political experience.

Education. Of note is the consistent and prominent connection between education and income. In all three sets of analyses, family income was the most important predictor of college education. Similarly, in the analyses predicting household income (discussed below), the second most important predictor was the highest degree attained by the participant. This was exceeded only by the participant's opinion of his or her household income. This highlights the crucial relationship between education and income.

Politically, attitudes about free speech regarding homosexuality, religion, militarism, and communism were important predictors of college education. None of the government spending attitude predictors were selected by the analyses. This suggests that the primary political differences concern social issues.

Gender. Being afraid to walk at night in their neighborhood was the most important predictor of gender in two of the three analyses. However, for the SVM analyses, attitudes about spending on highways and bridges was the most important predictor. This measure was important in all three analyses, as was spending on space exploration. In the random forest and lasso regression analyses, attitudes about homosexuality and gun control were also important. This suggests that, politically, a combination of social and government spending issues distinguishes the genders.

Church attendance. Overall, there were a number of political issues related to church-going, particularly in the random forest analyses. In those particular analyses, ten measures were directly associated with religion (e.g., how often the participant prays). Seven measures related to political social issues. These were almost all about abortion and homosexuality (with the

exception of attitudes about spending on foreign aid). The social nature of these issues reinforces the view that, in the U.S., religion's influence on politics is primarily social, and not economic.

Income. As noted above, opinion of family income and the participant's highest degree were the two most important predictors of family income. There were few political measures that were important predictors. The only political measure consistent across the two analyses was political party identification. Wealthier participants affiliated more with the Republican Party.

Age. Taking the results of the random forest and lasso regressions together, it appears that political differences are not central to differences across age. The main differences involved household characteristics such as the number and age of their children. Of the political differences, the only topic identified by the analyses across multiple measures concerned homosexuality. Older participants had more negative attitudes toward homosexuality.

Contribution to cultural psychology. This also contributes an important new approach for cultural psychology. Ample research has demonstrated a wide range of differences in many psychological and behavioral factors (Heine, 2010). However, very little research has examined this in a holistic, collective approach. Such an approach would allow for the comparison of a large number of factors to determine what differences are most important.

Overall, these findings provide initial evidence that, to varying degrees, political attitudes can be prioritized differently across different aspects of identity. These results demonstrate that there are consistent political differences across different social categories. This was most evident for race, education, gender, and church attendance. For Black Americans, the differences between races centered on racial identity. For education, the differences centered on free speech attitudes toward specific groups. For gender, the differences centered on a combination of

government spending and social issues. For church attendance, the differences centered on social issues—specifically abortion and homosexuality.

Crucially, these findings also demonstrate that these are dimensions along which people might share common ground. These results do not mean that politics is fractured along these lines. Rather, these analyses examine just some of the aspects by which people can be grouped together. All of these aspects of life feature important and different influences and experiences. Understanding how these influences and experiences shape political attitudes is essential to understanding the richness of social and political life.

General Discussion

These five studies have demonstrated that ideology is not a universally important structure for political attitudes. In addition, it found evidence that there may be other aspects of a person's life that may be linked to different political priorities. For Black Americans, across hundreds of measures and eight datasets, only one measure—political party affiliation—was consistently significantly associated with ideological orientation. Even this association was relatively small: the standardized regression coefficients across all studies were less than .2. Aggregated together, political attitude measures were still not importantly associated with ideology, explaining less than two percent of the variance. It does not appear that Black Americans are apolitical, and would therefore lack a structure to their (nonexistent) political attitudes. Rather, political attitudes were important in distinguishing between Black and White participants. It appears that Black American politics may have a different structure—one centered on addressing racial issues.

In addition, these five studies also established that the importance of ideology as an organizing structure for political attitudes systematically varies across income and education. It is a weaker organizing structure for those who have lower income, compared to those with higher income, and for those who do not have any college education, compared to those who do have some college education. Also, ideology's relationships with political attitudes varied as a function of age, church attendance, and gender. However, that variation was less extensive and less clearly systematic.

Study 1 investigated how ideology's associations with a wide range of measures varied across age, church attendance, education, gender, income, and race. It found significant interactions across all six factors. Grouped together all participants, without the interaction tests,

ideology was associated with the range of political attitudes found in previous research. For example, more conservative participants were more opposed to abortion and same-sex marriage compared to more liberal participants. However, these results are qualified by the interactions. For Black Americans, ideology was only associated with political party affiliation. In contrast, for White Americans, ideology was associated with a wide range of political attitudes, as well as some nonpolitical behaviors and attitudes. In addition, for less wealthy participants, ideology's associations with almost all measures was weaker than that for more wealthy participants. Likewise, for participants with no college education, ideology's associations with almost all measures was weaker than that for participants with at least some college education. For age, church attendance, and gender, there were many fewer interactions and there was no overall pattern to them.

Study 2 investigated whether measures of attitudes (including political attitudes) and behaviors were collectively associated with ideology for those groups in which it was not strongly associated with anything. These groups were divided into college-educated and non-college-educated participants and Black and White participants. Study 2 found that, for Black participants both with no college education and with at least some college education, collectively, these measures explained a very small amount of variance. However, for White participants with at least some college education, these measures explained a large amount of variance. For participants with no college education, these measures explained about half as much variance as for participants with at least some college education.

Study 3 investigated whether the same pattern of interactions was present in data from 2000 and 2014. The interaction patterns for race and education were similar to those found in

Study 1. However, for the 2000 dataset, no interactions were found for age, church attendance, gender, and income. For the 2014 dataset, no interactions were found for gender.

Study 4 investigated whether the same pattern of interactions was present using an aggregated dataset with much greater power. It aggregated GSS data from 2000, 2002, 2004, 2006, 2008, 2010, 2012, and 2014. It found the same pattern as in Studies 1 and 3. For Black Americans, ideology was only associated with political party affiliation and whether the participant had ever used crack cocaine. Whereas for White Americans, ideology was associated with a wide range of political attitudes, as well as some nonpolitical behaviors and attitudes. For less wealthy participants, ideology's associations with almost all measures was weaker than that for more wealthy participants. Likewise, for participants with no college education, ideology's associations with almost all measures was weaker than that for participants with at least some college education. For age, church attendance, and gender, there were many fewer interactions and there was no overall pattern to them.

Study 5 examined different political priorities along the identity lines of race, age, church attendance, education, gender, and income. Political attitudes were relevant for all of these identities, to varying degrees. Notably, along race lines, political party affiliation and attitudes about government spending on race were important in distinguishing between Black and White Americans. The results of Study 5 suggest that these identities might be important focal points for political concerns.

Exploratory Does Not Mean Tentative

Exploratory findings are not tentative findings (to any greater degree than are all scientific findings). The reliability of a study rests on the rigor and appropriateness of its methods, and not simply on how the hypotheses were generated. To the contrary, the exploratory

nature of this dissertation is a strength, and not a limitation. For new theories, theory development should be grounded in robust data and analyses regarding observed phenomena. For existing theories, an exploratory approach allows for the discovery, testing, and falsification of unknown assumptions.

In addition, understanding the context of a phenomenon requires investigating its links as inclusively and comprehensively as possible. For example, much cross-cultural psychology research has focused on differences across races/ethnicities. However, this dissertation also found unexpected differences along income and education lines. These contextual differences would have been missed without taking a broad, inclusive approach. Directed, theory-specific research can miss the forest for the trees.

Methodological techniques drawn from data science and Big Data applications offer an important way to carry out exploratory research. These techniques allow for the systematic analysis of large datasets, including those with more variables than participants. Furthermore, there is a wide range of these techniques that allows for the use of multiple types of analyses that complement each other.

Methodological Considerations

One possible alternative explanation for the differences between Black and White participants is that those differences are due to a linguistic measurement artifact. It may be that there is a construct equivalent to liberal-conservative ideology for Black Americans, but has a different name among Black Americans. In other words, the differences found by this dissertation may be linguistic and not psychological. This would present serious methodological problems for all studies that use the liberal-conservative unidimensional measure of ideology.

This concern seems unwarranted, however. Although there are important differences between Black and White Americans, both live in the same country and are part of the same political system. It seems unlikely that the languages used by Black and White Americans would be so divergent on this particular concept. However, this is an empirical question, and follow-up research could examine linguistic differences in political terminology.

Importantly, these findings raise concerns for the validity of the single item measure of ideological self-placement. Consistent with other work raising such concerns (e.g., Stimson, 2015; Treier & Hillygus, 2009), these findings have shown that ideological placement and attitudes are not consistently related to each other. As Stimson (2015) and others have noted, identification as a liberal or conservative and “operationally” holding particular attitudes is not always strongly linked.

Ideology as a Cultural Phenomenon

This dissertation’s findings are consistent with the cultural psychology perspective that seemingly “basic” psychological constructs are in fact contingent on individuals’ specific cultures (Henrich et al., 2010b; Markus et al., 1996). On this view, whether or not liberal-conservative ideology occurs as an organizing structure would vary by culture. It is specific to a particular group of people. Ideology appears to be a culture-specific phenomenon, and not a universal phenomenon.

Since at least 1865, researchers in the medical field have acknowledged that human physiology varies greatly: “the response of the ‘average’ patient is not necessarily the response of the patient being treated” (Yusuf, Wittes, Probstfield, & Tyroeler, 1991, p. 93). Subgroup analyses in clinical trials are common practice. There is a large body of evidence that suggests that human psychology is no less varied (Henrich et al., 2010b). Decades of research have

illustrated that even low-level psychological features often vary across cultures. The findings of this dissertation suggest that subgroup analyses of the kind that cross-cultural psychology researchers conduct should be common practice in political psychology, as well as other areas that do not already do so.

Skepticism of Generalizability Should be the Default Position

This dissertation makes no new claims in asserting that skepticism of generalizability should be the default position for studies that do not sample across a representative range of human cultures. Consistent with previous research on cultural differences, across all five studies, this dissertation found differences across sociocultural contexts, and these differences suggest that political psychology is also susceptible to different cultural influences.

In addition, the developmental psychology perspective also suggests that there is likely to be variation across cultures, given the wide range of structures and situations in different cultures. For example, the specific politics within a culture can have a profound impact on child development. Coles (1986) describes how the deeply political nature of much of the Nicaraguan education system in the 1980s brought about a profoundly politicized experience to children there, even compared to children in Northern Ireland in the 1970s. Even in their dreams, Nicaraguan children grappled with politics.

Political psychology investigates complex phenomena regarding people's thoughts and feelings about how society ought to be structured. These phenomena develop across the lifespan, and are likely to be differentially influenced by the different sociocultural contexts in which a person is raised (cf. Bronfenbrenner & Morris, 2006). In addition, even in adulthood, these thoughts and feelings might change according to the particular sociocultural context that is salient to a person at a given time, as suggested by the findings of Study 5. Given that even

simple phenomena such as perception have been shown to vary across cultures (Henrich et al., 2010b), it is possible that every finding in political psychology exhibits at least some variation across cultures.

To date, the generalizability of political psychological theories has been subject to only limited investigation. To my knowledge, no large-scale, multi-country, nationally representative studies have been conducted to specifically examine the generalizability of Jost and colleagues (2009), Hibbing and colleagues (2014), and Graham and colleagues' (2012) theories. Such studies would also need to include many countries that do not have Western-style democracies. The World Values Survey dataset is potential starting point, as it assesses ideology as part of its battery of attitude questions. This survey has been conducted in 57 countries.

Culture and the “Foundations” of Ideology

Along these lines, it remains to be seen whether liberal-conservative ideology in Black Americans (and other people who are not wealthy or college-educated or White or American) is associated with the same lower-level psychological needs and motives as they are in wealthy college-educated White Americans. This dissertation did not examine the relationships between lower-level psychological constructs and ideology. In fact, it could be the case that, despite the lack of association between ideology and higher-level political attitudes, ideology might nevertheless still be associated with these lower-level constructs, for Black Americans as well.

However, very little work has specifically examined the political psychology of Black Americans. What work there is has shown that there are differences. For example, Davis and colleagues (2016) found that the moral foundations are less important in the political ideology of Black Americans. Specifically, the binding foundations (i.e., ingroup loyalty, authority, sanctity/purity) were not as strongly associated with ideology as they were for White Americans.

If further research finds in other groups that the moral foundations are not as tightly connected to political ideology, it may be that, for some people, these underlying foundations do not necessarily manifest or organize in any politically relevant way.

More broadly, this dissertation has shown that ideology is an unreliable indicator of political attitudes. This has important implications for existing theories of political psychology. While conservatives may be more sensitive to threat (Hibbing et al., 2014), prefer cognitive closure (Jost et al., 2007), and place more value on authority (Graham et al., 2012), the connection between those characteristics and political attitudes—such as those about abortion, same-sex marriage, taxation, and government spending—is unreliable. These theories describe how certain psychological features (e.g., need for closure) tend to co-occur and vary within a particular population, but, for many people, they are no longer *political* to the extent that they rest on characterizing differences across liberal-conservative ideology.

For example, a person may identify as conservative and, consistent with these theories, hold a strong need for cognitive closure, be highly sensitive to threat, and place great importance on respecting authority. However, if this person is a poor Black American with no college education, the fact that he or she identifies as conservative is at best weakly associated with his or her political attitudes on issues such as government spending for the poor. In other words, for some people and to the extent that the association rests on ideology, those lower-level psychological features are at best weakly associated with political attitudes.

Moreover, because much of this research has been conducted on U.S. and other Western samples, this work is based on people who are decidedly different from the majority of the human population (Henrich, Heine, & Norenzayan, 2010a). Thus, these theories may be not just inapplicable to *many* people, but they may be inapplicable to *most* people.

Is Ideology Meaningless in Non-Ideological Cultures?

Although it appears that ideology is not meaningful in some cultures, it may nevertheless not be entirely meaningless in those cultures. Just as the general concept of honor holds some meaning across cultures, it is likely that the general concept of ideology also holds some meaning across cultures. Individuals from cultures in which honor is not an important organizing construct can still answer questions about how important honor is to them. Similarly, individuals (such as Black Americans) from cultures in which ideology is not an important organizing construct can still place themselves on a liberal-conservative ideological spectrum. However, the construct may be abstract—it may lack coherence (cf. Converse, 1964)—and may have little association with any important aspect of life.

Methodologically, it may be that, if ideology in some cultures is not meaningfully important, then there may be no robustly valid measure of ideology for these cultures. Certainly for these cultures the single item self-placement measure would not be a useful measure. It may be more productive to use measures that are collections of attitudes.

In addressing the variability in the specific content of ideologies and the frequent lack of coherence across the elements of that content, Converse (1964) argued that one reason they are thought to be logically linked together is because they simply happen to co-occur often. While in reality there are no logical connections between the elements.

What is important is that the elites familiar with the total shapes of these belief systems have *experienced* them as logically constrained clusters of ideas, within which one part necessarily follows from another. Often such constraint is quasi-logically argued on the basis of an appeal to some superordinate value or posture toward man and society (Converse, 1964, p. 211).

It is possible that a similar “psychological constraint” occurs regarding political attitudes and the low-level psychological features associated with it. Perhaps certain political attitudes co-occur with these features often enough that they are all taken to be logically connected.

In any case, for non-ideological cultures, one possibility is that the meaning ideology is closer to one of the simpler definitions identified by previous research. Knight (1999) surveys many of them, including: freedom of the individual versus status quo and social stability, humanistic and normative orientations, norm violating versus norm maintaining, and equality versus freedom.

Another possibility, discussed above, is that ideology is only associated with lower-level motives (Jost et al., 2009), threat orientations (Hibbing et al., 2014), and moral foundations (Graham et al., 2012), but not with political attitudes. For example, Black American conservatives may prefer cognitive closure and may be more sensitive to threat, even though they are not significantly different from Black American liberals in their political views. However, Davis and colleagues’ (2016) findings that the moral foundations are more weakly associated with ideology for Black Americans suggest that there may also be differences for Jost and colleagues’ (2009) motives and Hibbing and colleagues’ (2014) threat orientations.

A Contextual Political Psychology

For those people for whom these theories of ideology are applicable, it may be that the association between ideology and the broader political structure of society has a bidirectional causal relationship. These theories posit that ideology arises from deep-seated psychological elements (e.g., Graham et al., 2012; Hibbing et al., 2014; Jost et al., 2009). But it is likely also the case that these deep-seated elements are shaped by the political structure of their cultures. Some people may have greater need for closure or greater sensitivity to threat *because* they

identify as conservative and live in a culture in which “liberal” and “conservative” are meaningful.

Along these lines, Cohen, Nisbett, Bowdle, and Schwarz (1996) found that people from honor cultures perceived greater threat in and responded more aggressively to challenges and insults. They surmised that this was because they came from a culture of honor, rather than that cultures of honor arose because people who had higher threat sensitivity grouped together to form these cultures. This is not to deny that there may be elective affinities between individual psychologies and broader social constructs, to use the term that Jost and colleagues (2007) borrow from Weber. Merely that social influences can be powerful and can shape individual psychology.

Crucially, giving social influences their due includes recognizing that some of the most important factors may be essentially random forces, as is the case with biological evolution. For example, important cultural constructs such as food taboos (Henrich & Henrich, 2010) or honor (Nisbett & Cohen, 1996) arise at least in part in response to essentially random geographical differences. Henrich and Henrich (2010) argued that certain broad food taboos developed in response to the presence of dangerous marine toxins in the local fish populations. Nisbett and Cohen (1996) argued that southern U.S. honor culture may have arisen, in part, because of the presence of geographical regions in the U.S. that supported a shepherding lifestyle. These regions tended to be more sparsely populated and hence it was more difficult to maintain law and order through a central policing system. This, they argued, gave rise to a culture in which defending one’s reputation became paramount to survival.

Work has examined and characterized regional variation in ideology and voting as well (Pew Research Center, 2014; Rentfrow et al., 2013). In addition, Study 2 found some evidence

that ideology is associated with the population size of a participant's place of residence, as well as the degree to which it is urban or rural. One potentially interesting line of research could examine how geographic differences might give rise to differences in the structure of political psychology.

Importantly, the cultural history of the people who settled regions is also a crucial factor in shaping their psychology. They bring cultural norms and practices from the regions from which they immigrated (Nisbett & Cohen, 1996). Similarly, the differences between Black Americans and White Americans found in this dissertation are likely to have arisen in part because of very different cultural histories. Most Black Americans were brought to the U.S. as slaves and largely to the American South. They brought with them their own cultures. The finding in Study 5 that political concerns about race were a distinctive feature of Black Americans, may be indicative of the historical experiences surrounding race in America and how that likely Black American political psychology. Their shared history includes slavery, the Jim Crow era, and the Civil Rights movement.

Thus, psychology generally and political psychology in particular must take history into account, because psychology clearly depends on history. One potential line of research could focus on the political psychology of people who have historically experienced and continue to experience oppression.

The Need to Be Recognized

One of this dissertation's key findings is that, for Black Americans, the less wealthy, and the less educated, ideology is a much weaker organizing structure for political attitudes. Importantly, this same pattern was present across these multiple sociocultural contexts. One feature these groups have in common is that they have been disenfranchised, and they may feel

that they are not adequately recognized by the political system. Taylor (1992) has argued that this need for recognition is a driving force behind both nationalist movements and multiculturalist movements. This notion of recognition broadly refers to the need that an individual has for others to have an accurate and respectful representation of him or her. This can also encompass an acceptance of the person as being a full member of a society, with all due rights and responsibilities. On a basic political level, this need is captured in the slogan, “No taxation without representation.”

This dissertation’s findings suggest that there may be psychological differences between people who have historically held political power and those who have not (e.g., Black Americans, less wealthy, less educated White Americans) potentially because of that political power imbalance. A basic psychological need for recognition may underlie a wide range of cognitive and affective patterns. However, the political psychology of this need is unclear. It may be that voting behavior, for example, may be driven in part by a perception that a candidate more genuinely recognizes and respects that voter and his or her needs and motivations.

Comparative Political Psychology

Just as the field of comparative politics investigates the richness of the variety of political systems, so too could a field of comparative political psychology investigate the potential richness of different political psychologies. Understanding cultural variation requires investigating and identifying the cultural features that influence that variation. Given that this dissertation found differences in the structuring of political attitudes, a sensible place to look for cultural differences is in the political structures of different cultures. Thus, one potentially interesting line of research would be to investigate how individual political psychology might vary as a function of the different political systems within which an individual lives. Perhaps

people who live under different political systems have differences in basic psychological needs, motivations, orientations, and foundations. What are the psychological differences between people who live in democratic societies and people who live in authoritarian societies? What are the psychological differences between people who live multi-party democracies and people who live in two-party democracies?

Tocqueville (1840/1990) examined in detail the influence of democracy on many aspects of American life. He posited that the particular democratic structure and history of the U.S. (and broader historical circumstances of equality and inequality) profoundly shaped basic features, such as an affinity for abstract terms, a desire for physical enjoyment, interest in philosophy, attraction to particular types of religion, and family dynamics. A comparative political psychology could extend his analysis into other psychological constructs, into the influence of other political structures in other countries, and using modern research techniques. Consistent with the breadth of his analysis, it is possible that new research could confirm that history and political structure affect almost every major aspect of human psychology.

Importantly, much of the structural influence he posited rests on whether an individual feels that he or she is recognized and treated as equal to other members of his or her community. This is not unlike research on the effects of differences in subjective status. For example, Brown-Iannuzzi and colleagues (2015) showed that shifting participants' subjective status compared to others shifted their general attitudes about the fairness of inequality and of redistribution. One possible line of political psychology research could investigate how living in a nondemocratic society, in which some hold political power and others hold none, might influence general political attitudes in different ways compared to living in a democratic society.

Another potentially interesting line of research would be to explore differences in how politics is structured. This might be as a function of different political priorities, as appears to be the case with Black Americans, based on the results of Study 5. It might be as a function of different life priorities, somewhat along the lines of Converse's (1964) arguments about differences in the structure of political beliefs. Perhaps poorer people are more concerned with daily life struggles and have less constrained political attitudes. Perhaps women are more concerned with personal safety issues.

Ideology and Identity

So far, the discussion here has followed the dominant view of ideology as an internal psychological construct. However, people also consider liberals and conservatives to be categories of people. This is captured in the wording of the measure in the GSS:

We hear a lot of talk these days about liberals and conservatives. I'm going to show you a seven-point scale on which the political views that people might hold are arranged from extremely liberal--point 1--to extremely conservative--point 7. Where would you place yourself on this scale?

The first sentence of the measure invokes such a category concept by using the nouns "liberals" and "conservatives."

One possibility is that the Black participants were responding to the category concept, introducing a methodological artifact concern. Perhaps Black Americans are not socially divided into liberals and conservatives in a way that aligns with the expected attitudinal patterns. But psychologically, they may still structure their attitudes along that dimension. The second sentence of the measure, however, invokes the concept of attitudes by using the term "political views." Thus, this concern appears unwarranted.

Research on political party affiliation has fruitfully taken a social identity approach, such as work by Iyengar and Westwood (2015), which builds on Tajfel's (1982; Tajfel & Turner, 1979) theories. Research along similar lines regarding social grouping and political attitudes has also been fruitful (e.g., Skitka, Bauman, & Sargis, 2005). Future research expanding on this dissertation's findings could examine whether Black Americans divide themselves into liberals and conservatives as social groups, whereas White Americans do—particularly those who are wealthy and college-educated.

As Achen and Bartels (2016) have noted, race, the “single most powerful social cleavage in contemporary American politics” (p. 229), is deeply connected to identity and group concerns. This is consistent with the findings of Study 5, that race issues are central in distinguishing between Black and White participants. More broadly, Achen and Bartels posit that group ties and social identities are central to political attitudes and behaviors for Americans in general.

Intersectionality

The sociocultural contexts examined in this dissertation represent some of the key lines along which human social experiences intersect and interlock (Collins, 1986). Humans experience elevation and oppression not only as humans, but as, for example, American, Black, female, wealthy, young, church-going, and educated. The experiences of Black American women differ from the experiences of Black American men, which in turn differ from the experiences of White American men (Collins, 1998; Crenshaw, 1991).

One limitation of this dissertation is that only Study 2 examined intersections between sociocultural contexts (i.e., race and education). In Studies 1, 3, and 4, the interaction tests for each covariate (age, church attendance, education, gender, income, and race) involved only the two-way interaction between ideology and that covariate. Thus, the interaction tests for

education lumped together participants of all races, ages, religiosity, genders, and income: they compared all participants with no college education with all participants with at least some college education. Given that there are significant differences in the nature of ideology across income levels (to name one), it may be that the interaction between income and ideology is different for those with no college education, compared to those with at least some college education. However, poor White males with no college education may be different in unique ways from poor White females with no college education, to take one possible set of intersections.

However, the number of possible relevant intersections quickly far outstrips the power available to conduct the proper interaction tests. Not only do more complex interactions (e.g., three-way, four-way) inherently require greater power, but each of these additional tests requires further adjustments for multiple comparisons. Thus, the decision was made to limit the interaction tests to only two-way interactions. Nevertheless, supplemental analyses were conducted for the three-way interaction between race, education, and ideology. These found that the results for the two-way interaction between education and ideology for all participants were essentially equivalent to the results for the two-way interaction between education and ideology for only White participants. This is the expected result because the sample sizes of White participants were much larger than those for Black participants. Because of this sample size imbalance, associations for the White participants likely swamped the associations for the Black participants. Thus, the findings for the differences between participants with no college education compared to those with at least some college education are likely primarily the results for the White participants. Unfortunately, this suggests that the findings for the interactions

besides race (i.e., those for age, church attendance, education, income, and gender) provide little, if any, information about differences across those aspects within the Black participants.

More broadly, this sample size imbalance likely appears in almost all studies conducted in the U.S. (unless non-White Americans are oversampled), and this is likely a major reason why the significant differences between Black and White Americans found in this dissertation have previously gone unrecognized. Black Americans only make up about 13% of the U.S. population (U.S. Census, 2017). Thus, unless group differences are explicitly analyzed (and the studies are adequately powered for them), the results will be representative only of whatever group makes up the majority of the sample.

This also points to the danger posed by looking only at the “main effects” of analyses when all participants across important sociocultural contexts are grouped together. Even when significant subgroup differences are quantitative rather than qualitative, the estimates of the effect sizes will be misleading and possibly uninterpretable. If a particular effect is significantly smaller or larger for a particular subgroup, the effect size will be inappropriately altered by the effect sizes for the other subgroups. In psychology in particular, examining phenomena without properly considering their effect size is of limited value (Cohen, 1994; Meehl, 1990). When subgroups are qualitatively different, grouped analyses are completely misleading.

Researchers’ Viewpoints

Duarte and colleagues (2015) have argued that the lack of certain viewpoints may cause political psychology researchers to overlook important phenomena. This may be another reason why the qualitative differences between Black and White Americans found in this dissertation went previously unnoticed. Although Duarte and colleagues focus on the lack of representation

of political conservatives, this dissertation's findings highlight problems due to the lack of racial, economic, and educational diversity in psychology.

The political attitudinal structures of people from different cultures appear to be decisively different from those of wealthy, college-educated White Americans. By Duarte and colleagues' (2015) arguments, such differences would likely have been readily apparent to researchers who do not belong to that specific category. Much of political psychology research has focused on a psychological construct that is meaningful largely only to a particular subsection of people that is particularly unrepresentative of people as a whole (Henrich et al., 2010a). This underscores the importance of a proper representation across socioeconomic statuses, of non-White, non-Americans, and including those with first-generation college educations. In addition, calls for greater representation of political conservatives, while important, should be considered in light of the evidence that liberal-conservative political ideology has very limited meaningfulness.

Broadening the Scope

This dissertation was limited by the particular measures and participants of the GSS, and there are a number of ways that this research could be broadened. Although the GSS assessed the political attitudes most closely associated with ideological differences (Knight, 1999), political attitudes and beliefs cover a vast range of topics. Also, the GSS had comparatively less coverage of behaviors and non-political attitudes compared to its coverage of political attitudes. Of course, it would be impossible for any single study (or study series) to capture the full range of human existence. Nevertheless, it is possible that ideology is consistently and importantly linked to unmeasured attitudes and/or behaviors in Black Americans, those with lower income, and those with no college education.

For example, given the importance of race-related policies found in Study 5, it may be that, for Black Americans, “liberal” and “conservative” refer to elements specific to racial politics. Perhaps Black liberals and conservatives differ in their views on strategies and tactics for achieving political goals. These might include views on the appropriateness of violence in protests, the utility of building public awareness, or the effectiveness of pursuing change through legislation.

Another avenue for expansion could examine the development of political psychology, regarding both ideology as well as other potential ways of structuring politics. The Monitoring the Future (MTF) study, focused on adolescents, offers a wide range of behaviors and attitudes and could be a good starting point. Using this study would offer important insight into a critical period in the formation of political identity. However, this study is not longitudinal and also does not cover childhood, two crucial aspects of developmental political psychology research. Accordingly, a long-term, longitudinal study on the development of political psychology across the lifespan would be an essential addition to the field.

The Malleability of Political Psychological Structures

If political psychological structures are shaped by a wide range of influences beyond fixed internal psychological factors, it is possible that people are not inevitably grouped into liberals and conservatives—two political categories of people destined by their very natures to be in conflict with one another. One danger of a focus in political psychology research on differences between liberals and conservatives is that it may exacerbate political conflict by promoting a view that these two groups are different from each other in fixed, fundamental ways (Dweck & Ehrlinger, 2006). The findings of Study 5 suggest that there is a wide range of ways in which political attitudes and beliefs can be prioritized. Some of those offer potential areas of

overlap between people who would otherwise be separated within the liberal-conservative structure. To the extent that people can move between these different structures, a more malleable and potentially more cooperative (Carr, Rattan, & Dweck, 2012) political system would be possible.

The phenomenon of frame-switching in bicultural identity (Benet-Martínez & Haritatos, 2005) suggests that this is possible. One common paradigm in research with people who have more than one cultural identity is to prime different cultural backgrounds at different times. Depending on which culture is primed, participants display culturally-congruent behavior. It is possible that different political identities could be similarly accessed, and perhaps this could contribute to greater cooperation in our political system.

Conclusion

My hope is that this dissertation will contribute both new knowledge about political psychology across social contexts, and introduce new methodological approaches. Political diversity in pluralistic societies represents not only a source of conflict but also a source of strength. As Crenshaw (1991) has argued, “delineating difference... can instead be the source of social empowerment and reconstruction” (p. 1242).

Furthermore, recognizing that political attitudes are shaped by more than ideology may help overcome the entrenched conflict that has accompanied ideological polarization. We are more than just our ideologies. The infinite richness of human life offers an infinite number of ways that we can come together.

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Appendix A. Study 1 Variables

Study 1 variables.

ABANY	Abortion if woman wants for any reason
ABDEFECT	Abortion if strong chance of serious defect
ABHLTH	Abortion if woman's health seriously endangered
ABNOMORE	Abortion if married--wants no more children
ABPOOR	Abortion if low income--can't afford more children
ABRAPE	Abortion if pregnant as result of rape
ABSINGLE	Abortion if not married
ACCNTSCI	How scientific: accounting
ACCPTOTH	P accept others even when they do things wrong
ACTUPSET	People at work throw things when upset with P
ADULTS	Household members 18 years and older
ADVFRONT	Science research should be supported by federal government
AFFRMACT	Favor preference in hiring Blacks
AGED	Should aged live with their children
AGEKDBRN	P's age when 1st child born
ALTMED	Alternative medicine provides better solutions
ALTMEDPR	Alternative medicine promises more than can deliver
ARCHITCT	How scientific is architecture
ARREST	Ever picked up or charged by police
ARTEXBT	Did P go to an art exhibit in last 12 months
ARTNOGO	Performance or exhibit P wanted to go to in past 12 months but did not
ASTROLOGY	Ever read a horoscope or personal astrology report
ASTROSCI	Astrology is scientific
BABIES	Household members less than 6 years old
BALPOS	Science research is strongly in favor of benefits
BBLFAV	Have a favorite book of the bible
BBLSTRY	Favorite bible story
BIBLE	Feelings about the bible
BIGBANG	Science knowledge: the universe began with a huge explosion
BIGBANG1	Universe began with a big explosion: true or false
BIOSCI	How scientific: biology
BORN	Was P born in this country
BOSSEMP	Quality of management-employee relations: P's firm
BOYORGR	Science knowledge: father gene decides sex of baby
CAPPUN	Favor death penalty for murder
CARESELF	Those in need have to take care of themselves
CARRIED	P carried a stranger's belongings
CHILDS	Number of children
CHLDIDEL	Ideal number of children
CLASS	Subjective class identification
CLMTCHNG	Belief about climate change happening and cause
CLMTKNOW	How much P understands global warming issue
CLOSEBLK	How close feel to Blacks
CLOSEWHT	How close feel to Whites
CMPRGMNG	How scientific is computer programming
COHABOK	Living together as an acceptable option
COLATH	Allow anti-religionist to teach
COLCOM	Should communist teacher be fired
COLDEG1	The highest degree P have earned
COLHOMO	Allow homosexual to teach
COLMIL	Allow militarist to teach

COLMSLM	Allow anti-American muslim clergymen teaching in college
COLRAC	Allow racist to teach
COLSCI	P has taken any college-level science course
COLSCINM	Number of college-level science courses P have taken
COMPREND	P's understanding of questions
COMPUSE	P use computer
CONARMY	Confidence in military
CONBUS	Confidence in major companies
CONCLERG	Confidence in organized religion
CONDOM	Used condom last time
CONDRIFT	Science knowledge: the continents have been moving
CONEDUC	Confidence in education
CONEXCEL	Conditions of life excellent
CONFED	Confidence in exec branch of fed government
CONFINAN	Confidence in banks & financial institutions
CONHLTH	Confidence in health care system in U.S.
CONJUDGE	Confidence in united states supreme court
CONLABOR	Confidence in organized labor
CONLEGIS	Confidence in congress
CONMEDIC	Confidence in medicine
CONPRESS	Confidence in press
CONRINC	Participant income in constant dollars
CONSCHLS	Confidence in schools and education system
CONSCI	Confidence in scientific community
CONTV	Confidence in television
CONVICTD	Convicted of crime ever
COOKING1	Who in household prepares the meals
COOP	P's attitude toward interview
COURTS	Courts dealing with criminals
CUTAHEAD	P allowed a stranger to go ahead of you in line
DECKIDS	Who makes decision about how to bring up children
DEGREE	P's highest degree
DENYRAIS	Denied raise without reason at work
DIFSTAND	Some people hold standard in workplace that others don't
DIRECTNS	P has given directions to a stranger
DISBLTY	Does P have disability
DISCAFF	Whites hurt by affirmative action
DISCAFFM	Men hurt by affirmative action
DISCAFFW	Women hurt by affirmative action
DIVBEST	Divorce as best solution to marital problems
DIVLAW	Divorce laws made more difficult?
DIVORCE	Ever been divorced or separated
DOCALT	How often visit alternative health care practitioner
DOCEARN	Doctors care more about earnings than patients
DOCMSTK	Doctors would tell patients if they made a mistake
DOCSKLS	Medical skills of doctors not as good as should be
DOCTLK	Doctors discuss all treatment options with their patients
DOCTRST	Doctors can be trusted
DOCVISIT	How satisfied P with office visit
DOCVST	How often visit doctor
DRINK4	How often drink 4 or more on same day
DWELOWN	Does P own home?
EARNRS	How many in family earned money
EARNSHH	Hubby or wife earns more dollars
EARTHSUN	Science knowledge: the earth goes around the sun
ECONSCI	How scientific: economics

EDDONE	Young should complete formal schooling
EDDONE1	Aged should complete formal schooling
EDUC	Completed college?
EDUCBTR	Higher incomes afford better education for kids
EHARASWK	Harassed electronically at work
ELDERSUP	Adult children are important to help elderly parents
ELECTRON	Science knowledge: electrons are smaller than atoms
EMAILHR	Email hours per week
EMAILMIN	Email minutes per week
ENGBRNG	Being engineer boring
ENGBTR	Engineers want to make life better for average person
ENGDA	Happy if daughter engineer
ENGDGR	Engineering work dangerous
ENGDO	Know what engineers do
ENGEARN	Engineers earn less
ENGFUN	Engineers don't have fun
ENGGOOD	Engineers work for good of humanity
ENGINT	Engineers only interested in work
ENGLONE	Engineers usually work alone
ENGNRING	How scientific is engineering
ENGNRSCI	How scientific: engineering
ENGODD	Engineers odd and peculiar
ENGPROB	Engineers help solve problems
ENGREL	Engineers not religious
ENGRESP	Consider work in engineer field
ENGSON	Happy if son engineer
EQWLTH	Should government reduce income differences
ETHNUM	Type of response about ethnicity -- P
EVCRAK	P ever use crack cocaine
EVIDU	P ever inject drugs
EVOLVED	Science knowledge: human beings developed from animals
EVOLVED1	Humans developed from earlier species: true or false
EVPAIDSX	Ever have sex paid for or being paid since 18
EVSTRAY	Have sex other than spouse while married
EVWORK	Ever work as long as one year
EXPDESGN	Better way to test drug between control and non-control
FAIR	People fair?
FAMBUDGT	How couples monitor budget
FAMGEN	Number of family generations in household
FAMSUFFR	Family life suffers if mom works full-time
FAMVSWK1	How often difficult to concentrate at work because family responsibilities
FAMWKBST	Mother work full-time with under school age child best?
FAMWKLST	Mother work full-time with under school age child worst?
FARMING	How scientific is farming
FEAR	Afraid to walk at night in neighborhood
FECHLD	Mother working doesn't hurt children
FEFAM	Better for man to work woman tend home
FEHIRE	Should hire and promote women
FEJOBFF	For preferential hiring of women
FEPOL	Women not suited for politics
FEPRESCH	Preschool kids suffer if mother works
FINALTER	Change in financial situation
FINAN4	Being pressured to pay bills
FININD	Young should be financially independent
FININD1	Aged should be financially independent

FINLCOUN	How scientific is financial counseling
FINRELA	Opinion of family income
FIREFTNG	How scientific is firefighting
FNDAIDS	Favor public funding of treatment HIV/AIDS
FNDMEDCH	Favor public funding of preventative medical checkups
FNDOBSTY	Favor public funding to prevent obesity
FNDORGN	Favor public funding of organ transplants
FRTVEGS	How often P eats fresh fruit/veggies
FTWORK	Young should be employed full-time
FTWORK1	Aged should be employed full-time
FUND	How fundamentalist is P currently
FUND16	How fundamentalist was P at age 16
GETAHEAD	Get ahead by hard work (vs. luck)?
GETMAR	Young should get married
GIVBLOOD	P donated blood during the past 12 months
GIVCHRTY	P has given money to a charity
GIVHMLSS	P has given food or money to a homeless person
GIVSEAT	P offered seat to a stranger during past 12 months
GOD	P's confidence in the existence of God
GOODLIFE	Standard of living of P will improve
GOTTHNGS	Got the important things P wants
GRANBORN	How many grandparents born in U.S.
GRASS	Should marijuana be made legal
GUNLAW	Favor gun restriction law
HAPMAR	Happiness of marriage
HAPORNOT	Happy with life today
HAPPY	General happiness
HAPPY7	How happy P is
HAVCHLD	Young should have child
HEALTH	Condition of health
HEALTH1	P's health in general
HEFINFO	Number of people in informant's household
HELPAWAY	P looked after plant or pet of others while away
HELPBLK	Should government aid Blacks?
HELPFUL	People helpful?
HELPHWRK	Helped someone with homework during past 12 months
HELPJOB	Helped somebody to find a job past 12 months
HELPNOT	Should government do more?
HELPOTH	Importance of teaching children to help others
HELPOOR	Should government improve standard of living?
HELPSICK	Should government help pay for medical care?
HHCLEAN1	Who does household cleaning
HHWKFAIR	Sharing of household work between P and spouse
HISTSCI	How scientific: history
HIVTEST	Have you ever been tested for HIV
HLTH10	Participant in hospital or sanitorium
HLTH11	Participant unable to work for one month or more
HLTHBEH	Suffer health problems from behavior
HLTHBTR	Higher incomes afford better health care
HLTHCHNG	How much should the health care system be changed
HLTHCONF	Lost confidence in self in last 4 weeks
HLTHCTZN	Access to public funded health care if not citizen
HLTHDEP	Felt unhappy or depressed in last 4 weeks
HLTHDMG	Access to public funded health care if damage own health
HLTHENGY	How many days felt healthy full of energy
HLTHENV	Suffer health problems from environment where work or live

HLTHGENE	Suffer health problems because of genes
HLTHGOV	Government should provide only limited health care
HLTHIMP	Health care system improve in next few years
HLTHINF	Health care system in U.S. inefficient
HLTHMORE	People use health care services more than necessary
HLTHNEED	How many don't have access to health care needed in U.S.
HLTHNOT	Felt couldn't overcome problems in last 4 weeks
HLTHPAIN	Body aches or pains in last 4 weeks
HLTHPOOR	Suffer health problems because poor
HLTHPRB	Difficulties with work or housework due to health problems
HLTHSAT	How satisfied P with health care system in U.S.
HLHTAX	Willing to pay higher taxes to improve health care for all
HOMEKID	Most women really want a home and kids
HOMOSEX	Homosexual sex relations
HOMPOP	Number of persons in household
HOSPSAT	How satisfied P with last treatment in hospital
HOTCORE	Science knowledge: the center of earth is very hot
HOUSEWRK	Being housewife as fulfilling as paid work
HRDSHP1	Fall behind in paying rent mortgage
HRDSHP6	Lacking health insurance coverage
HRS1	Number of hours worked last week
HRTOP	Heart operation first for smoker or nonsmoker
HRTOP37	Heart operation first for 30 or 70 yr old
HRTOPKID	Heart operation first for person with young kids or no kids
HSBIO	P ever took a high school biology course
HSCHEM	P ever took a high school chemistry course
HSMATH	The highest level of math P completed in high school
HSPHYS	P ever took a high school physics course
HSPOVRNT	How often hospital overnight inpatient
HUBBYWK1	Men should earn money women keep house
HUNT	Does P or spouse hunt
IDEALLFE	Life close to ideal
IGNORWK	Feel ignored at work
INCGAP	Income differentials in U.S. too big
INEQUAL3	Inequality exists for benefit of rich
INEQUAL5	Pay differences -> American prosperity
INSCOVRG	How well covered by insurance?
INSTYPE	Type of health insurance P has
INTECON	Interested in economic issues
INTEDUC	Interested in local school issues
INTENVIR	Interested in environmental issues
INTFARM	Interested in farm issues
INTINTL	Interested in international issues
INTLBLKS	How intelligent are Blacks?
INTLHSPS	How intelligent are Hispanic Americans?
INTLWHTS	How intelligent are Whites?
INTMED	Interested in medical discoveries
INTMIL	Interested in military policy
INTRHOME	Internet access in P's home
INTSCI	Interested in new scientific discoveries
INTSPACE	Interested in space exploration
INTTECH	Interested in technologies
JOBFIND	Could P find equally good job?
JOBHOUR	Short working hours
JOBINC	High income
JOBLOSE	Is P likely to lose job

JOBMEANS	Work important and feel accomplishment
JOBPROMO	Chances for advancement
JOBSEC	No danger of being fired
JOBSECOK	The job security is good
JOBVSFA1	How often job takes too much time to fulfill family responsibilities
JOKESWK	Target of derogatory comments or jokes at work
JOURNLSM	How scientific is journalism
KIDFINBU	Children are financial burden on parents
KIDJOB	Children limit employment and career for one or both parents
KIDJOY	Kids are life's greatest joy
KIDNOFRE	Kids interfere with parents' freedom
KIDSOCST	Having children increases social standing in society
KIDSSOL	P's kids living standard compared to P
KIDSUFFR	Preschooler will suffer if mom works
LACKINFO	People at work fail to give P necessary information
LASERS	Science knowledge: lasers work by focusing sound waves
LAUNDRY1	Who in household does laundry
LAW5	Arrested
LAWENFRC	How scientific is law enforcement
LENTTO	Lent money to another person past 12 months
LETDIE1	Assist incurable patients to die
LETIN1	Number of immigrants to America nowadays should be
LIBATH	Allow anti-religious book in library
LIBCOM	Allow communist's book in library
LIBHOMO	Allow homosexual's book in library
LIBMIL	Allow militarist's book in library
LIBMSLM	Allow anti-American muslim clergymen's books in library
LIBRAC	Allow racist's book in library
LIEDCWKR	Lied to at work
LIFE	Is life dull (vs. exciting)?
LIVEBLKS	P favors living in half Black neighborhood
LIVEWHTS	P favors living in half White neighborhood
LOANITEM	P has let someone borrow a item of some value
LOCALNUM	Number of employees: P's work site
LOCKEDUP	Prison or jail ever
LOOKAWAY	People look the other way when others are threatened
MADEG	Mother's highest degree
MAEDUC	Highest year school completed mother
MARASIAN	Close relative marry Asian
MARBLK	Close relative marry Black
MARHAPPY	Married people happier than unmarried
MARHISP	Close relative marry Hispanic
MARHOMO	Homosexuals should have right to marry
MARLEGIT	Those wanting kids should get married
MARRCOUN	How scientific is marriage counseling
MARWHT	P favor close relative marrying White person
MATESEX	Was one of P's sex partners spouse or regular
MAWORK14	Did mom work before P was 14 years old
MAWRKGRW	Mother's employment when P was 16
MAWRKSLF	Mother self-employed or worked for somebody
MAWRKWRM	Working mom can have a warm relationship with kids
MEDBEST	How likely to get best treatment available in U.S.
MEDDRCH	How likely to get treatment from doctor of choice
MEDSCI	How scientific: medicine
MEDTREAT	How scientific is medical treatment
MEOVRWRK	Men hurt family when focus on work too much

MNTLHLTH	Days of poor mental health past 30 days
MOBILE16	Geographic mobility since age 16
NATAIDSTD	Spending on foreign aid
NATARMSSTD	Spending on defense
NATCHLD	Spending on assistance for childcare
NATCITYSTD	Spending on big cities
NATCRIMESTD	Spending on fighting crime
NATDRUGSTD	Spending on fighting drugs
NATEDUCSTD	Spending on education
NATENRGY	Spending on alternative energy sources
NATENVIRSTD	Spending on the environment
NATFARESTD	Spending on the poor
NATHEALSTD	Spending on health
NATMASS	Spending on mass transportation
NATPARK	Spending on parks and recreation
NATRACESTD	Spending on helping Black people
NATROAD	Spending on highways and bridges
NATSCI	Spending on scientific research
NATSOC	Spending on social security
NATSPACSTD	Spending on space exploration
NEWS	How often does P read newspaper
NEXTGEN	Science & technology give more opportunities to next generation
NUMCONG	Number of members of the congregation
NUMKIDS	What is ideal number of kids for family
NUMMEN	Number of male sex partners since 18
NUMWOMEN	Number of female sex partners since 18
OBEY	Importance of teaching children to obey
ODDS1	Test of knowledge about probability1
ODDS2	Test of knowledge about probability2
OTHCREDT	Other people take credit for P's work or ideas
OTHLANG	Can P speak language other than english
OTHSHELP	People should help less fortunate others
OWNGUN	Have gun in home
OWNHH	Young should not live with parents
OWNHH1	Aged should stop living with parents
PADEG	Father's highest degree
PAEDUC	Highest year school completed father
PAIDLV	Paid leave for childcare
PAIDLV1	Months of paid leave that should be available
PAIDLVDV	Mother or father paid leave
PAIDLVPY	Who pays for leave
PARBORN	Were P's parents born in this country
PARSOL	P's living standard compared to parents
PARTFULL	Was P's work part-time (vs. full-time)?
PARTNERS	How many sex partners P had in last year
PARTNRS5	How many sex partners P had in last 5 years
PARTYID	Political party affiliation (Dem to Rep)
PAWRKSLF	Father self-employed or worked for somebody
PEOPTRBL	Assisting people in trouble is very important
PHONE	Does P have telephone
PHYSACT	How often P does physical activity for 20 minutes a day
PHYSCSCI	How scientific: physics
PHYSHLTH	Days of poor physical health past 30 days
PILLOK	Birth control to teenagers 14-16
PISTOL	Pistol or revolver in home
POLABUSE	Police violence OK if citizen said vulgar or obscene things?

POLATTAK	Police violence OK if citizen attacking policeman with fists?
POLEFY11STD	How much say about what government does
POLEFY13STD	Have a pretty good understanding of issues
POLEFY15STD	Understand issues facing country
POLEFY16STD	People elected to congress try to keep promises
POLEFY17STD	Most government administrators can be trusted
POLEFY3STD	Average person can influence politicians
POLESCAP	Police violence OK if citizen attempting to escape custody?
POLHITOK	Ever approve of police striking citizen
POLMURDR	Police violence OK if citizen questioned as murder suspect?
POLVIEWS	Think of self as liberal or conservative
POPESPKS	Pope is infallible on matters of faith or morals
POPULAR	Importance of teaching children to be well liked or popular
PORNLAW	Strict pornography laws?
POSTLIFE	Belief in life after death
PRAY	How often does P pray
PRAYER	Bible prayer in public schools
PREMARSEX	Attitude about sex before marriage
PRES08	Vote McCain (0) or Obama (1)
PRESPOP	Approve of president handling job
PRETEEN	Household members 6 thru 12 years old
PRFMATT	Did P attend performance alone or with others
PRFMATT1	Attended performance with spouse or partner
PRFMATT2	Attended performance with child
PRFMATT3	Attended performance with friend
PRFMATT4	Attended performance with relative
PRFMATT5	Attended performance with other
PRFMDAN	Was it a dance performance
PRFMFREE	Was performance attended free
PRFMMUS	Was it a music performance
PRFMNCE	Did P go to a performance in last 12 months?
PRFMTHE	Was it a theater performance
PRFMWHY	Importance of low cost in decision to attend performance
PRFMWHY1	Importance of experiencing high quality art
PRFMWHY2	Importance of wanting to socialize with friends or family in decision to attend performance
PRFMWHY3	Importance of wanting to celebrate cultural heritage in decision to attend performance
PRFMWHY4	Importance of wanting to support community in decision to attend performance
PRFMWHY5	Importance of wanting to learn in decision to attend performance
PRFMWHY6	Importance of location in decision to attend performance
PRFMWHY7	Importance of specific individual performer in decision to attend performance
PUTDOWN	People at work treat P in a manner putting P down
RACDIF1	Racial differences due to discrimination
RACDIF2	Racial differences due to inborn disability
RACDIF3	Racial differences due to lack of education
RACDIF4	Racial differences due to lack of will
RACDIF5	Racial differences due to upbringing
RACLIVE	Any opp. race in neighborhood
RACOPEN	Against housing discrimination?
RACWORK	Racial makeup of workplace
RADIOACT	Science knowledge: all radioactivity is man-made
RANK	P's self ranking of social position
RATETONE	P's facial coloring by interviewer

RDSCDEC	Read scripture to make decisions about personal relationships
RDSCDEVE	Read scripture on e-device
RDSCFUT	Read scripture to learn about the future
RDSCHLTH	Read scripture to learn about attaining health/healing
RDSCINT	Read scripture on the internet
RDSCISS1	Read scripture about abortion or homosexuality
RDSCISS2	Read scripture to learn about poverty or war
RDSCLRN	Read scripture to learn about religion
RDSCMEM	Memorize scripture intentionally
RDSCORG	Number of days read scripture in the past 30 days
RDSCOWN	Number of days read scripture individually in the past 30 days
RDSCPER	Read scripture as a matter of personal prayer and devotion
RDSCRPT	Read scripture outside of services
RDSCCTCH	Read scripture to prepare to teach or participate in study group
RDSCUND	Get help understanding scripture
RDSCWLTH	Read scripture to learn about attaining wealth/prosperity
REBORN	Has P ever had a 'born again' experience
REFBNS	Does P's current employer offer a referral bonus
REFER12	Has P told anyone about a job opportunity in past 12 months
RELACTIV	How often does P take part in religious activities
RELATSEX	In relationship w/last sex partner?
RELITEN	Strength of religious affiliation
RELPERSN	P consider self a religious person
REPAIRS1	Who in household does small repairs
RES16	Type of place lived in when 16 years old
RES2008	Was P living in U.S. during april-june 2008
RES2010	Was P living in U.S. during april-june 2010
RESPNUM	Number in family of P
RETNCHGE	P returned money after getting too much change
RFAMLOOK	Hours P spends looking after family members
RHEIGHT	P's height (inches)
RHHWORK	How many hours a week does P spend on household work
RICHWORK	If rich continue or stop working
RIFLE	Rifle in home
ROWNGUN	Does gun belong to P
RUDEWK	Treated rudely at work
RUMORWK	Rumors or gossip about P at work
RWEIGHT	P's weight (pounds)
SATFAM7	Family satisfaction in general
SATFIN	Satisfaction with financial situation
SATJOB	Satisfaction with job or housework
SATJOB7	Job satisfaction in general
SATLIFE	Satisfied with life
SAVESOUL	Tried to convince others to accept Jesus
SCIBNFTS	Benefits of science research outweigh harmful results
SCIENTAL	Scientists usually work alone
SCIENTBE	Scientists want to make life better for average person
SCIENTBR	Being a scientist boring
SCIENTDA	Happy if daughter scientist
SCIENTDN	Scientific work dangerous
SCIENTDO	Know what scientists do
SCIENTFU	Scientists don't have fun
SCIENTGO	Scientists work for good of humanity
SCIENTHE	Scientists help solve problems
SCIENTMO	Scientists earn less
SCIENTOD	Scientists odd and peculiar

SCIENR	Consider career in science
SCIENTRE	Scientists not religious
SCIENSTN	Happy if son scientist
SCIENWTK	Scientists only interested in work
SCISTUDY	P has clear understanding of scientific study
SELFFRST	People need not overly worry about others
SELFLESS	P feels like a selfless caring for others
SEXEDUC	Sex education in public schools
SEXFREQ	Frequency of sex during last year
SEXORNT	Sexual orientation
SEXSEX	Sex of sex partners in last year
SEXSEX5	Sex of sex partners last five years
SHOP1	Who in household shops for groceries
SHOTGUN	Shotgun in home
SHOUT	People at work shout at P in hostile manner
SIBS	Number of brothers and sisters
SINGLPAR	Single parents can raise kids as well as two
SIZE	Size of place in thousands
SLSMNSHP	How scientific is salesmanship
SMOKEDAY	How many cigarettes a day
SOCBAR	Spend evening at bar
SOCFREND	Spend evening with friends
SOCOMMUN	Spend evening with neighbor
SOCREL	Spend evening with relatives
SOCSCI	How scientific: sociology
SOLARREV	Science knowledge: how long the earth goes around the sun
SPANKING	Favor spanking to discipline child
SPDEG	Spouse's highest degree
SPEDUC	Highest year school completed spouse
SPEVWORK	Spouse ever work as long as a year
SPFALOOK	Hours spouse spends looking after family members
SPFUND	How fundamentalist is spouse currently
SPHHWORK	How many hours a week does spouse on household wrk
SPHRS1	Number of hours spouse worked last week
SPKATH	Allow anti-religionist to speak
SPKCOM	Allow communist to speak
SPKHOMO	Allow homosexual to speak
SPKMIL	Allow militarist to speak
SPKMSLM	Allow muslim clergymen preaching hatred of the U.S.
SPKRAC	Allow racist to speak
SPRTPRSN	P consider self a spiritual person
SPWRKSLF	Spouse self-employed
SRCBELT	Reside in largest metro area to rural
SSFCHILD	Same sex female couple raise child as well as male-female couple
SSMCHILD	Same sex male couple raise child as well as male-female couple
SUICIDE1	Suicide if incurable disease
SUICIDE2	Suicide if bankrupt
SUICIDE3	Suicide if dishonored family
SUICIDE4	Suicide if tired of living
SUPCARES	Supervisor concerned about welfare
SUPFAM	Young should be able to support family
SUPFAM1	Aged should be able to support family
TALKEDTO	Talked with someone depressed past 12 months
TAX	Happy with federal income tax?
TEENS	Household members 13 thru 17 years old
TEENSEX	Sex before marriage -- teens 14-16

THNKSELF	Importance of teaching children to think for ones self
TICKET	Ever received a traffic ticket
TIREDHM1	How often too tired to do housework
TIREDWK1	How often too tired from housework to do job well
TOOFAST	Science makes our way of life change too fast
TREATRES	People are treated with respect
TRUST	Can people be trusted
TRYNEWJB	How likely P make effort for new job next year
TVHOURS	Hours per day watching TV
TWOINCS1	Both men and women should contribute to income
UNEMP	Ever unemployed in last ten years
UNION	Does P or spouse belong to union
UNRELAT	Number in household not related
USWAR	Expect U.S. in war within 10 years
USWARY	Expect U.S. in world war in 10 years
VALABLE	Showing abilities is important to me
VALACHV	Making achievements is important to me
VALCARE	Caring for well-being is important to me
VALDFND	Government's defense of citizens is important to me
VALDIFF	Doing different things is important to me
VALDVOT	Devotion to close people is important to me
VALECO	Ecology or environment is important to me
VALEQL	Equal opportunity is important to me
VALFREE	Being free and independent is important to me
VALFUN	Having fun is important to me
VALLIST	Listening to different opinions is important to me
VALMOD	Being modest is important to me
VALORIG	Doings things in original ways is important to me
VALPRPR	Doing things properly is important to me
VALRICH	Getting rich is important to me
VALRISK	Taking risk is important to me
VALRSPT	Getting respect is important to me
VALRULE	Rules are important to me
VALSAFE	Safety is important to me
VALSPL	Spoiling oneself is important to me
VALTRDN	Tradition is important to me
VETERAN	Is P a veteran?
VETFAM	Family members served in armed forces?
VETYEARS	Years in armed forces
VIRUSES	Science knowledge: antibiotics kill viruses as well as bacteria
VISART	How often P visited art museum last year
VISITORS	Number of visitors in household
VISLIB	How often P visited public library last year
VISNHIST	How often P visited natural history museum last year
VISSCI	How often P visited science museum last year
VISZOO	How often P visited zoo last year
VOEDCOL	Non-college postsecondary education (voednme1)
VOLACTY2	Done other types of volunteering for child's school or youth organization
VOLACTYR	Since last year any volunteering
VOLCHRTY	P done volunteer work for a charity
VOLMONTH	Volunteer in last month
VOTE08	Did P vote in 2008 election
WEEKSWRK	Weeks P worked last year
WHENCOL	When received college degree
WHOELSE1	Presence of others: children under six
WHOELSE2	Presence of others: older children

WHOELSE3	Presence of others: spouse partner
WHOELSE4	Presence of others: other relatives
WHOELSE5	Presence of others: other adults
WHOELSE6	Presence of others: no one
WIDOWED	Ever been widowed
WKAGEISM	P feels discriminated because of age
WKKIDSCL	Did P work outside home with child under school age
WKKIDSCS	Did partner work outside home with child under school age
WKNDACT	Who decides weekend activities
WKRACISM	P feels discriminated because of race
WKSTRESS	How often P find her work stressful
WKSUB	Does P or spouse have supervisor
WKSUBS	Does supervisor have supervisor
WKSUP	Does P or spouse supervise anyone
WKSUPS	Does subordinate supervise anyone
WKVSFAM	How often job interferes fam life
WKYNGSCL	Did P work outside home after child started school
WKYNGSCS	Did partner work outside home after child started school
WLTHBLKS	How rich are Blacks?
WLTHHSPS	How rich are Hispanic Americans?
WLTHWHTS	How rich are Whites?
WORDSUM	Number words correct in vocabulary test
WORK10	During past 12 months P was unemployed and looking for work
WORKBLKS	How hard working are Blacks?
WORKHARD	Importance of teaching children to work hard
WORKHSPS	How hard working are Hispanic Americans?
WORKWHTS	How hard working are Whites?
WRKBABY	Should woman with preschooler work?
WRKGOVT	Government employee
WRKSCH	Should woman work after youngest in school?
WRKSLF	P self-employed
WRKWAYUP	Blacks overcome prejudice without favors
WWWHR	WWW hours per week
XMARSEX	Attitude about sex with person other than spouse
XMOVIE	Seen x-rated movie in last year
XNORCSIZ	Reside in large city to open country
ZODIAC	Participant's astrological sign

Appendix B. Study 2 & 5 Variables

Studies 2 and 5 variables.

ABANY	Abortion if woman wants for any reason
ABDEFECT	Abortion if strong chance of serious defect
ABHLTH	Abortion if woman's health seriously endangered
ABNOMORE	Abortion if married--wants no more children
ABPOOR	Abortion if low income--can't afford more children
ABRAPE	Abortion if pregnant as result of rape
ABSINGLE	Abortion if not married
ADULTS	Household members 18 years and older
AGE	Age of participant
ATTEND	How often P attends religious services
BABIES	Household members less than 6 years old
BIBLE	Feelings about the bible
BORN	Was P born in this country
CAPPUN	Oppose or favor death penalty for murder
CHILDS	Number of children
CLASS	Subjective class identification
CLOSEBLK	How close feel to Blacks
CLOSEWHT	How close feel to Whites
COLATH	Allow anti-religionist to teach
COLCOM	Should communist teacher be fired
COLHOMO	Allow homosexual to teach
COLMIL	Allow militarist to teach
COLRAC	Allow racist to teach
COMPREND	P's understanding of questions
CONINC	Family income in constant dollars (2000)
COOP	P's attitude toward interview
COURTS	Courts dealing with criminals
DEGREE	P's highest degree
DISCAFF	Whites hurt by affirmative action
EARNRS	How many in family earned money
EDUC	Highest year of school completed
ETHNUM	Type of response about ethnicity -- P
FAMGEN	Number of family generations in household
FEAR	Afraid to walk at night in neighborhood
FINALTER	Change in financial situation
FINRELA	Opinion of family income
FUND	How fundamentalist is P currently
FUND16	How fundamentalist was P at age 16
GETAHEAD	Get ahead by hard work or luck?
GOD	P's confidence in the existence of God
GRANBORN	How many grandparents born in U.S.
GUNLAW	Oppose or favor gun permits
HAPPY	General happiness
HEALTH	Condition of health
HOMOSEX	Homosexual sex relations
HOMPOP	Number of persons in household
HUNT	Does P or spouse hunt
LIBATH	Allow anti-religious book in library
LIBCOM	Allow communist's book in library
LIBHOMO	Allow homosexual's book in library
LIBMIL	Allow militarist's book in library

LIBRAC	Allow racist's book in library
LIFE	Is life exciting or dull
MADEG	Mother's highest degree
MAEDUC	Highest year school completed mother
MARHOMO	Homosexuals should have right to marry
MAWRKGRW	Mother's employment when P was 16
MOBILE16	Geographic mobility since age 16
NATAIDSTD	Spending on foreign aid
NATARMSSTD	Spending on defense
NATCHLD	Spending on assistance for childcare
NATCITYSTD	Spending on big cities
NATCRIMESTD	Spending on fighting crime
NATDRUGSTD	Spending on fighting drugs
NATEDUCSTD	Spending on education
NATENVIRSTD	Spending on the environment
NATFARESTD	Spending on the poor
NATHEALSTD	Spending on health
NATMASS	Spending on mass transportation
NATPARK	Spending on parks and recreation
NATRACESTD	Spending on helping Black people
NATROAD	Spending on highways and bridges
NATSCI	Spending on scientific research
NATSOC	Spending on social security
NATSPACSTD	Spending on space exploration
OWNGUN	Have gun in home
PARBORN	Were P's parents born in this country
PARTYID	Political party affiliation (Dem to Rep)
PHONE	Does P have telephone
PISTOL	Pistol or revolver in home
POLVIEWS	Think of self as liberal or conservative
POSTLIFE	Belief in life after death
PRAY	How often does P pray
PRETEEN	Household members 6 thru 12 years old
RACE	Race of participant
RACLIVE	Any opp. race in neighborhood
RACOPEN	Against housing discrimination?
REBORN	Has P ever had a 'born again' experience
REGION	Region of interview
RELACTIV	How often does P take part in religious activities
RELITEN	Strength of religious affiliation
RELPERSN	P consider self a religious person
RES16	Type of place lived in when 16 years old
RESPNUM	Number in family of P
RIFLE	Rifle in home
SATFIN	Satisfaction with financial situation
SAVESOUL	Tried to convince others to accept Jesus
SEX	Participant's sex
SEXORNT	Sexual orientation
SHOTGUN	Shotgun in home
SIBS	Number of brothers and sisters
SIZE	Size of place in thousands
SPKATH	Allow anti-religionist to speak
SPKCOM	Allow communist to speak
SPKHOMO	Allow homosexual to speak
SPKMIL	Allow militarist to speak
SPKRAC	Allow racist to speak

SPRTPRSN	P consider self a spiritual person
SRCBELT	Reside in largest metro area to rural
TAX	Happy with federal income tax?
TEENS	Household members 13 thru 17 years old
VISITORS	Number of visitors in household
VOTE08	Did P vote in 2008 election
WEEKSWRK	Weeks r. worked last year
WHOELSE1	Presence of others: children under six
WHOELSE2	Presence of others: older children
WHOELSE3	Presence of others: spouse partner
WHOELSE4	Presence of others: other relatives
WHOELSE5	Presence of others: other adults
WHOELSE6	Presence of others: no one
WRKGOVT	Government or private employee
WRKSLF	P self-employed or works for somebody
XMARSEX	Sex with person other than spouse
XNORCSIZ	Reside in large city to open country
ZODIAC	Participant's astrological sign

Appendix C. Study 3 Variables

Study 3 variables.

ABANY	Abortion if woman wants for any reason
ABDEFECT	Abortion if strong chance of serious defect
ABHLTH	Abortion if woman's health seriously endangered
ABNOMORE	Abortion if married--wants no more children
ABPOOR	Abortion if low income--can't afford more children
ABRAPE	Abortion if pregnant as result of rape
ABSINGLE	Abortion if not married
ADULTS	Household members 18 years and older
AFFRMACT	Favor preference in hiring Blacks
AGED	Should aged live with their children
AGEKDBRN	P's age when 1st child born
BABIES	Household members less than 6 years old
BIBLE	Feelings about the bible
BORN	Was P born in this country
CAPPUN	Oppose or favor death penalty for murder
CHILDS	Number of children
CHLDIDEL	Ideal number of children
CLASS	Subjective class identification
CLOSEBLK	How close feel to Blacks
CLOSEWHT	How close feel to Whites
COLATH	Allow anti-religionist to teach
COLCOM	Should communist teacher be fired
COLHOMO	Allow homosexual to teach
COLMIL	Allow militarist to teach
COLRAC	Allow racist to teach
COMPREND	P's understanding of questions
COMPUSE	P use computer
CONARMY	Confidence in military
CONBUS	Confidence in major companies
CONCLERG	Confidence in organized religion
CONDOM	Used condom last time
CONEDUC	Confidence in education
CONFED	Confidence in exec branch of fed government
CONFINAN	Confidence in banks & financial institutions
CONJUDGE	Confidence in united states supreme court
CONLABOR	Confidence in organized labor
CONLEGIS	Confidence in congress
CONMEDIC	Confidence in medicine
CONPRESS	Confidence in press
CONRINC	Participant income in constant dollars
CONSCI	Confidence in scientific community
CONTV	Confidence in television
COOP	P's attitude toward interview
COURTS	Courts dealing with criminals
DEGREE	P's highest degree
DISCAFF	Whites hurt by affirmative action
DISCAFFM	Men hurt by affirmative action
DIVLAW	Divorce laws made more difficult?
DIVORCE	Ever been divorced or separated
DWELOWN	Does P own or rent home?
EARNRS	How many in family earned money

EDUC	Highest year of school completed
EMAILHR	Email hours per week
EMAILMIN	Email minutes per week
EQWLTH	Should government reduce income differences
ETHNUM	Type of response about ethnicity -- P
EVCRAK	P ever use crack cocaine
EVIDU	P ever inject drugs
EVPAIDSX	Ever have sex paid for or being paid since 18
EVSTRAY	Have sex other than spouse while married
EVWORK	Ever work as long as one year
FAIR	People fair or try to take advantage
FAMGEN	Number of family generations in household
FEAR	Afraid to walk at night in neighborhood
FECHLD	Mother working doesn't hurt children
FEFAM	Better for man to work woman tend home
FEJOBAFF	For or against preferential hiring of women
FEPOL	Women not suited for politics
FEPRESCH	Preschool kids suffer if mother works
FINALTER	Change in financial situation
FINRELA	Opinion of family income
FUND	How fundamentalist is P currently
FUND16	How fundamentalist was P at age 16
GETAHEAD	Get ahead by hard work or luck?
GOD	P's confidence in the existence of God
GOODLIFE	Standard of living of P will improve
GRANBORN	How many grandparents born in U.S.
GRASS	Should marijuana be made legal
GUNLAW	Oppose or favor gun permits
HAPMAR	Happiness of marriage
HAPPY	General happiness
HEALTH	Condition of health
HEFINFO	Number of people in informant's household
HELPBLK	Should government aid Blacks?
HELPFUL	People helpful or looking out for selves
HELPNOT	Should government do more or less?
HELPOTH	Importance of teaching children to help others
HELPPOR	Should government improve standard of living?
HELPSICK	Should government help pay for medical care?
HOMOSEX	Homosexual sex relations
HOMPOP	Number of persons in household
HRS1	Number of hours worked last week
HUNT	Does P or spouse hunt
INTLBLKS	How intelligent are Blacks?
INTLWHTS	How intelligent are Whites?
JOBFIND	Could P find equally good job?
JOBLOSE	Is P likely to lose job
KIDSSOL	P's kids living standard compared to P
LETDIE1	Assist incurable patients to die
LIBATH	Allow anti-religious book in library
LIBCOM	Allow communist's book in library
LIBHOMO	Allow homosexual's book in library
LIBMIL	Allow militarist's book in library
LIBRAC	Allow racist's book in library
LIFE	Is life exciting or dull
LIVEBLKS	P favors living in half Black neighborhood
LIVEWHTS	P favors living in half White neighborhood

LOCALNUM	Number of employees: P's work site
MADEG	Mother's highest degree
MAEDUC	Highest year school completed mother
MARASIAN	Close relative marry Asian
MARBLK	Close relative marry Black
MARHISP	Close relative marry Hispanic
MARWHT	P favor close relative marrying White person
MATESEX	Was one of P's sex partners spouse or regular
MAWRKGRW	Mother's employment when P was 16
MAWRKSLF	Mother self-employed or worked for somebody
MEOVRWRK	Men hurt family when focus on work too much
MOBILE16	Geographic mobility since age 16
NATAIDSTD	Spending on foreign aid
NATARMSSTD	Spending on defense
NATCHLD	Spending on assistance for childcare
NATCITYSTD	Spending on big cities
NATCRIMESTD	Spending on fighting crime
NATDRUGSTD	Spending on fighting drugs
NATEDUCSTD	Spending on education
NATENVIRSTD	Spending on the environment
NATFARESTD	Spending on the poor
NATHEALSTD	Spending on health
NATMASS	Spending on mass transportation
NATPARK	Spending on parks and recreation
NATRACESTD	Spending on helping Black people
NATROAD	Spending on highways and bridges
NATSOC	Spending on social security
NATSPACSTD	Spending on space exploration
NEWS	How often does P read newspaper
NUMMEN	Number of male sex partners since 18
NUMWOMEN	Number of female sex partners since 18
OBEY	Importance of teaching children to obey
OTHLANG	Can P speak language other than english
OWNGUN	Have gun in home
PADEG	Father's highest degree
PAEDUC	Highest year school completed father
PARBORN	Were P's parents born in this country
PARSOL	P's living standard compared to parents
PARTFULL	Was P's work part-time or full-time?
PARTNERS	How many sex partners P had in last year
PARTNRS5	How many sex partners P had in last 5 years
PARTYID	Political party affiliation (Dem to Rep)
PAWRKSLF	Father self-employed or worked for somebody
PHONE	Does P have telephone
PILLOK	Birth control to teenagers 14-16
PISTOL	Pistol or revolver in home
POLABUSE	Police violence OK if citizen said vulgar or obscene things?
POLATTAK	Police violence OK if citizen attacking policeman with fists?
POLESCAP	Police violence OK if citizen attempting to escape custody?
POLHITOK	Ever approve of police striking citizen
POLMURDR	Police violence OK if citizen questioned as murder suspect?
POLVIEWS	Think of self as liberal or conservative

POPULAR	Importance of teaching children to be well liked or popular
PORNLOW	Strict pornography laws?
POSTLIFE	Belief in life after death
PRAY	How often does P pray
PRAYER	Bible prayer in public schools
PREMARSX	Sex before marriage
PRETEEN	Household members 6 thru 12 years old
RACDIF1	Racial differences due to discrimination
RACDIF2	Racial differences due to inborn disability
RACDIF3	Racial differences due to lack of education
RACDIF4	Racial differences due to lack of will
RACLIVE	Any opp. race in neighborhood
RACWORK	Racial makeup of workplace
RANK	P's self ranking of social position
RELATSEX	In relationship w/last sex partner?
RELITEN	Strength of religious affiliation
RES16	Type of place lived in when 16 years old
RESPNUM	Number in family of P
RICHWORK	If rich continue or stop working
RIFLE	Rifle in home
SATFIN	Satisfaction with financial situation
SATJOB	Satisfaction with job or housework
SEXEDUC	Sex education in public schools
SEXFREQ	Frequency of sex during last year
SEXSEX	Sex of sex partners in last year
SEXSEX5	Sex of sex partners last five years
SHOTGUN	Shotgun in home
SIBS	Number of brothers and sisters
SIZE	Size of place in thousands
SOCBAR	Spend evening at bar
SOCFRIEND	Spend evening with friends
SOCOMMUN	Spend evening with neighbor
SOCREL	Spend evening with relatives
SPANKING	Favor spanking to discipline child
SPDEG	Spouse's highest degree
SPEDUC	Highest year school completed spouse
SPHRS1	Number of hours spouse worked last week
SPKATH	Allow anti-religionist to speak
SPKCOM	Allow communist to speak
SPKHOMO	Allow homosexual to speak
SPKMIL	Allow militarist to speak
SPKRAC	Allow racist to speak
SPWRKSLF	Spouse self-employed or works for somebody
SRCBELT	Reside in largest metro area to rural
SUICIDE1	Suicide if incurable disease
SUICIDE2	Suicide if bankrupt
SUICIDE3	Suicide if dishonored family
SUICIDE4	Suicide if tired of living
TAX	Happy with federal income tax?
TEENS	Household members 13 thru 17 years old
TEENSEX	Sex before marriage -- teens 14-16
THNKSELF	Importance of teaching children to think for ones self
TRUST	Can people be trusted
TVHOURS	Hours per day watching TV
UNEMP	Ever unemployed in last ten years

UNION	Does P or spouse belong to union
UNRELAT	Number in household not related
USWARY	Expect U.S. in world war in 10 years
VISITORS	Number of visitors in household
WEEKSWRK	Weeks r. worked last year
WHOELSE1	Presence of others: children under six
WHOELSE2	Presence of others: older children
WHOELSE3	Presence of others: spouse partner
WHOELSE4	Presence of others: other relatives
WHOELSE5	Presence of others: other adults
WHOELSE6	Presence of others: no one
WIDOWED	Ever been widowed
WKSUB	Does P or spouse have supervisor
WKSUBS	Does supervisor have supervisor
WKSUP	Does P or spouse supervise anyone
WLTHBLKS	How rich are Blacks?
WLTHWHTS	How rich are Whites?
WORDSUM	Number words correct in vocabulary test
WORKBLKS	How hard working are Blacks?
WORKHARD	Importance of teaching children to work hard
WORKWHTS	How hard working are Whites?
WRKGOVT	Government or private employee
WRKSLF	P self-employed or works for somebody
WRKWAYUP	Blacks overcome prejudice without favors
WWWHR	WWW hours per week
WWWMIN	WWW minutes per week
XMARSEX	Sex with person other than spouse
XMOVIE	Seen x-rated movie in last year
XNORCSIZ	Reside in large city to open country
ZODIAC	Participant's astrological sign

Appendix D. Study 4 Variables

Study 4 variables.

ABANY	Abortion if woman wants for any reason
ABDEFECT	Abortion if strong chance of serious defect
ABHLTH	Abortion if woman's health seriously endangered
ABNOMORE	Abortion if married--wants no more children
ABPOOR	Abortion if low income--can't afford more children
ABRAPE	Abortion if pregnant as result of rape
ABSINGLE	Abortion if not married
ADULTS	Household members 18 years and older
AFFRMACT	Favor preference in hiring Blacks
AGED	Should aged live with their children
AGEKDBRN	P's age when 1st child born
BABIES	Household members less than 6 years old
BIBLE	Feelings about the bible
BORN	Was P born in this country
CAPPUN	Oppose or favor death penalty for murder
CHILDS	Number of children
CHLDIDEL	Ideal number of children
CLASS	Subjective class identification
CLOSEBLK	How close feel to Blacks
CLOSEWHT	How close feel to Whites
COHORT	Year of birth
COLATH	Allow anti-religionist to teach
COLCOM	Should communist teacher be fired
COLHOMO	Allow homosexual to teach
COLMIL	Allow militarist to teach
COLRAC	Allow racist to teach
COMPREND	P's understanding of questions
CONARMY	Confidence in military
CONBUS	Confidence in major companies
CONCLERG	Confidence in organized religion
CONDOM	Used condom last time
CONEDUC	Confidence in education
CONFED	Confidence in exec branch of fed government
CONFINAN	Confidence in banks & financial institutions
CONJUDGE	Confidence in united states supreme court
CONLABOR	Confidence in organized labor
CONLEGIS	Confidence in congress
CONMEDIC	Confidence in medicine
CONPRESS	Confidence in press
CONRINC	Participant income in constant dollars
CONSCI	Confidence in scientific community
CONTV	Confidence in television
COOP	P's attitude toward interview
COURTS	Courts dealing with criminals
CRACK30	P last use crack cocaine
DEGREE	P's highest degree
DISCAFF	Whites hurt by affirmative action
DISCAFFM	Men hurt by affirmative action
DISCAFFW	Women hurt by affirmative action
DIVLAW	Divorce laws made more difficult?
DIVORCE	Ever been divorced or separated

DWELLING	Type of structure
DWELOWN	Does P own or rent home?
DWELOWN	Does P own or rent home?
EARNRS	How many in family earned money
EQWLTH	Should government reduce income differences
ETHNUM	Type of response about ethnicity -- P
EVCRAK	P ever use crack cocaine
EVIDU	P ever inject drugs
EVPAIDSX	Ever have sex paid for or being paid since 18
EVSTRAY	Have sex other than spouse while married
EVWORK	Ever work as long as one year
FAIR	People fair or try to take advantage
FAMGEN	Number of family generations in household
FEAR	Afraid to walk at night in neighborhood
FECHLD	Mother working doesn't hurt children
FEFAM	Better for man to work woman tend home
FEHIRE	Should hire and promote women
FEJOBFAF	For or against preferential hiring of women
FEPOL	Women not suited for politics
FEPRESCH	Preschool kids suffer if mother works
FINALTER	Change in financial situation
FINRELA	Opinion of family income
FUND	How fundamentalist is P currently
FUND16	How fundamentalist was P at age 16
GETAHEAD	Get ahead by hard work or luck?
GOODLIFE	Standard of living of P will improve
GRANBORN	How many grandparents born in U.S.
GRASS	Should marijuana be made legal
GUNLAW	Oppose or favor gun permits
HAPMAR	Happiness of marriage
HAPPY	General happiness
HEALTH	Condition of health
HEFINFO	Number of people in informant's household
HELPBLK	Should government aid Blacks?
HELPFUL	People helpful or looking out for selves
HELPNOT	Should government do more or less?
HELPOTH	Importance of teaching children to help others
HELPPOR	Should government improve standard of living?
HELPSICK	Should government help pay for medical care?
HOMOSEX	Homosexual sex relations
HOMPOP	Number of persons in household
HRS1	Number of hours worked last week
HUNT	Does P or spouse hunt
INTLBLKS	How intelligent are Blacks?
INTLWHTS	How intelligent are Whites?
JOBFIND	Could P find equally good job?
JOBLOSE	Is P likely to lose job
KIDSSOL	P's kids living standard compared to P
LETDIE1	Assist incurable patients to die
LIBATH	Allow anti-religious book in library
LIBCOM	Allow communist's book in library
LIBHOMO	Allow homosexual's book in library
LIBMIL	Allow militarist's book in library
LIBRAC	Allow racist's book in library
LIFE	Is life exciting or dull
LIVEBLKS	P favors living in half Black neighborhood

LIVEWHTS	P favors living in half White neighborhood
LOCALNUM	Number of employees: P's work site
MADEG	Mother's highest degree
MAEDUC	Highest year school completed mother
MARBLK	Close relative marry Black
MARWHT	P favor close relative marrying White person
MATESEX	Was one of P's sex partners spouse or regular
MAWRKGRW	Mother's employment when P was 16
MAWRKSLF	Mother self-employed or worked for somebody
MEOVRWRK	Men hurt family when focus on work too much
MOBILE16	Geographic mobility since age 16
NATAIDSTD	Spending on foreign aid
NATARMSSTD	Spending on defense
NATCHLD	Spending on assistance for childcare
NATCITYSTD	Spending on big cities
NATCRIMESTD	Spending on fighting crime
NATDRUGSTD	Spending on fighting drugs
NATEDUCSTD	Spending on education
NATENVIRSTD	Spending on the environment
NATFARESTD	Spending on the poor
NATHEALSTD	Spending on health
NATMASS	Spending on mass transportation
NATPARK	Spending on parks and recreation
NATRACESTD	Spending on helping Black people
NATROAD	Spending on highways and bridges
NATSOC	Spending on social security
NATSPACSTD	Spending on space exploration
NEWS	How often does P read newspaper
NUMMEN	Number of male sex partners since 18
NUMWOMEN	Number of female sex partners since 18
OBEY	Importance of teaching children to obey
OWNGUN	Have gun in home
PADEG	Father's highest degree
PAEDUC	Highest year school completed father
PARBORN	Were P's parents born in this country
PARSOL	P's living standard compared to parents
PARTFULL	Was P's work part-time or full-time?
PARTFULL	Was P's work part-time or full-time?
PARTNERS	How many sex partners P had in last year
PARTNRS5	How many sex partners P had in last 5 years
PARTYID	Political party affiliation (Dem to Rep)
PAWRKSLF	Father self-employed or worked for somebody
PHONE	Does P have telephone
PILLOK	Birth control to teenagers 14-16
PISTOL	Pistol or revolver in home
POLABUSE	Police violence OK if citizen said vulgar or obscene things?
POLATTAK	Police violence OK if citizen attacking policeman with fists?
POLESCAP	Police violence OK if citizen attempting to escape custody?
POLHITOK	Ever approve of police striking citizen
POLMURDR	Police violence OK if citizen questioned as murder suspect?
POPULAR	Importance of teaching children to be well liked or popular

PORNLOW	Strict pornography laws?
POSTLIFE	Belief in life after death
PRAY	How often does P pray
PRAYER	Bible prayer in public schools
PREMARSEX	Sex before marriage
PRETEEN	Household members 6 thru 12 years old
RACDIF1	Racial differences due to discrimination
RACDIF2	Racial differences due to inborn disability
RACDIF3	Racial differences due to lack of education
RACDIF4	Racial differences due to lack of will
RACLIVE	Any opp. race in neighborhood
RACWORK	Racial makeup of workplace
RELATSEX	In relationship w/last sex partner?
RELITEN	Strength of religious affiliation
RES16	Type of place lived in when 16 years old
RESPNUM	Number in family of P
RICHWORK	If rich continue or stop working
RICHWORK	If rich continue or stop working
RIFLE	Rifle in home
ROWNGUN	Does gun belong to P
SATFIN	Satisfaction with financial situation
SATJOB	Satisfaction with job or housework
SEXEDUC	Sex education in public schools
SEXFREQ	Frequency of sex during last year
SEXSEX	Sex of sex partners in last year
SEXSEX5	Sex of sex partners last five years
SHOTGUN	Shotgun in home
SIBS	Number of brothers and sisters
SIZE	Size of place in thousands
SOCBAR	Spend evening at bar
SOCFRIEND	Spend evening with friends
SOCOMMUN	Spend evening with neighbor
SOCREL	Spend evening with relatives
SPANENG	Interviews conducted in spanish or english
SPANENG	Interviews conducted in spanish or english
SPANKING	Favor spanking to discipline child
SPDEG	Spouse's highest degree
SPEDUC	Highest year school completed spouse
SPEVWORK	Spouse ever work as long as a year
SPHRS1	Number of hours spouse worked last week
SPKATH	Allow anti-religionist to speak
SPKCOM	Allow communist to speak
SPKHOMO	Allow homosexual to speak
SPKMIL	Allow militarist to speak
SPKRAC	Allow racist to speak
SPWRKSLF	Spouse self-employed or works for somebody
SRCBELT	Reside in largest metro area to rural
SUICIDE1	Suicide if incurable disease
SUICIDE2	Suicide if bankrupt
SUICIDE3	Suicide if dishonored family
SUICIDE4	Suicide if tired of living
TAX	Happy with federal income tax?
TEENS	Household members 13 thru 17 years old
TEENSEX	Sex before marriage -- teens 14-16
THNKSELF	Importance of teaching children to think for ones self
TRUST	Can people be trusted

TVHOURS	Hours per day watching TV
UNEMP	Ever unemployed in last ten years
UNION	Does P or spouse belong to union
UNRELAT	Number in household not related
USWARY	Expect U.S. in world war in 10 years
VISITORS	Number of visitors in household
WEEKSWRK	Weeks r. worked last year
WHOELSE1	Presence of others: children under six
WHOELSE1	Presence of others: children under six
WHOELSE2	Presence of others: older children
WHOELSE2	Presence of others: older children
WHOELSE3	Presence of others: spouse partner
WHOELSE3	Presence of others: spouse partner
WHOELSE4	Presence of others: other relatives
WHOELSE4	Presence of others: other relatives
WHOELSE5	Presence of others: other adults
WHOELSE5	Presence of others: other adults
WHOELSE6	Presence of others: no one
WHOELSE6	Presence of others: no one
WIDOWED	Ever been widowed
WKSUB	Does P or spouse have supervisor
WKSUBS	Does supervisor have supervisor
WKSUP	Does P or spouse supervise anyone
WKSUPS	Does subordinate supervise anyone
WLTHBLKS	How rich are Blacks?
WLTHWHTS	How rich are Whites?
WORKBLKS	How hard working are Blacks?
WORKHARD	Importance of teaching children to work hard
WORKWHTS	How hard working are Whites?
WRKGOVT	Government or private employee
WRKSLF	P self-employed or works for somebody
WRKWAYUP	Blacks overcome prejudice without favors
XMARSEX	Sex with person other than spouse
XMOVIE	Seen x-rated movie in last year
XNORCSIZ	Reside in large city to open country
YEAR	Gss year for this participant
ZODIAC	Participant's astrological sign
