**APPENDIX**

This Appendix to the article "Authoritarianism and Public Opinion on Church and State in the United States" contains additional details and analyses that may be useful for reviewers and readers. It is my intention that this Appendix would be published (a) exclusively online on the journal's website or (b) published in PDF form on my own personal website.

**Appendix A. Question Wording for Authoritarianism Item**

Although there are a number of qualities that people feel that children should have, every person thinks that some are more important than others. Listed below are pairs of desirable qualities. For each pair please mark which one you think is more important for a child to have:

Independence or respect for elders?

Obedience or self-reliance?

Curiosity or good manners?

Being considerate or well behaved?

Disciplined or creative?

**Appendix B. Factor Analysis**

Table B1 below shows the factor analysis of establishment and free exercise attitudes briefly discussed in the text.

|  |  |  |  |
| --- | --- | --- | --- |
| **Table B1.** Dimensions of Church-State Attitudes: Results of Principal Component Factor Analysis | | | |
|  | **Factor 1** | **Factor 2** | **Uniqueness** |
|  | **(Establishment)** | **(Free Exercise)** |  |
| Vouchers | 0.590 | 0.320 | 0.508 |
| Ten Commandments | 0.877 | 0.024 | 0.226 |
| Manger | 0.546 | 0.208 | 0.634 |
| School Prayer | 0.850 | -0.043 | 0.284 |
|  |  |  |  |
| Scarves | -0.324 | 0.613 | 0.562 |
| All-male clergy | 0.351 | 0.621 | 0.444 |
| Satan Worship | -0.678 | 0.465 | 0.392 |
| Eigenvalue | 2.836 | 1.157 |  |
| Note: Results are principal component factor analysis with oblique rotation. | | | |

**Appendix C: Further Analysis in the Relationship between Establishment Attitudes and Authoritarianism**

In order to establish the relationship between authoritarianism and my establishment attitudes scale, Figure C1 (referenced in the text) shows the mean scores on the establishment scale for each tertile of authoritarianism. Readers may be interested in further comparison. Table C1 shows the results of a bivariate cross-tab of authoritarianism (in tertiles) and establishment attitudes (in quartiles). The results indicate that 48% of those in the lowest tertiles of authoritarianism were in the most separationist quartile of establishment attitudes. In contrast, 37% of those in the highest tertile of authoritarianism were in the most accommodationist quartile of establishment attitudes. The Pearson's Chi-squared statistic (403.70, *p* < 0.001) also indicates a very high probability of a relationship between authoritarianism and establishment attitudes. In short, Table C1 provides further support for the relationship between authoritarianism and attitudes on religious establishment.

**Figure C1.** Mean establishment attitudes by level of authoritarianism. Source: 2008 CCAP, *N* = 2,453. Bars represent mean establishment attitudes on a scale ranging from 0 (most separationist) to 1 (most accommodationist). Error bars represent 95% confidence interval.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table C1.** Establishment attitudes by level of authoritarianism | | | | |
|  | **Establishment Attitudes** | | | |
| **Authoritarianism Tertile** | **Lowest / Most Separationist** | **Lower Middle** | **Upper Middle** | **Highest / Most Accommodationist** |
| Lowest | 48.14 | 28.79 | 13.47 | 9.60 |
| Middle | 19.46 | 32.32 | 24.69 | 23.54 |
| Highest | 10.34 | 22.80 | 29.73 | 37.13 |
| Total | 23.85 | 28.09 | 23.48 | 24.58 |
|  |  |  |  |  |
| Note: *N* = 2,453. Pearson's Chi2 = 403.70\*\*\*. | | | | |

**Appendix D.** Multinomial logistic regression

As noted in the main text, the models for the Satan Worship and Tax Exemption items failed the parallel regression assumption. Tables D1-D3 show the results of multinomial logistic regression models, as a robustness check. Furthermore, Figure D1 replicates the figure in the main paper, but this time using the multinomial logistic regression coefficients as the basis of the predicted probabilities. The results show that the choice of estimator does not substantially affect the results. Given that fact, there are several reasons why I use ordered logistic regression in the main paper despite the fact that the parallel regression assumption is violated: the results are more concise (requiring one table for ordered logit versus three tables for multinomial logit), the results are easier to summarize in prose, and we know that ordered logit/probit is theoretically appropriate given that the dependent variable is in fact ordinal. Nevertheless, these results lend confidence to the basic findings presented in the main paper.

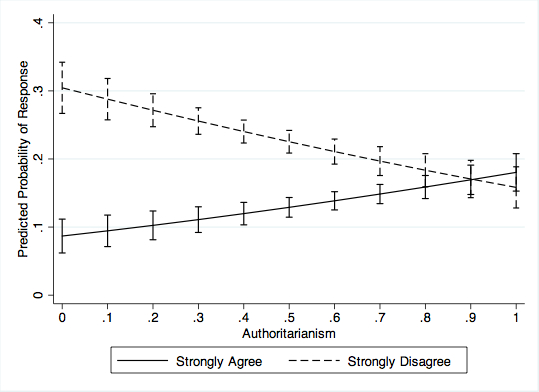
|  |  |  |  |
| --- | --- | --- | --- |
| **Table D1.** Multinomial logistic regression for satan worship | | | |
|  | **Agree** | **Disagree** | **Strongly Disagree** |
|  |  |  |  |
| Party ID | 0.812\* | 0.581 | 0.403 |
|  | (0.383) | (0.355) | (0.408) |
| Ideology | -0.275 | -0.833 | -1.042# |
|  | (0.580) | (0.537) | (0.615) |
| Female | -0.197 | -0.644\*\* | -1.139\*\*\* |
|  | (0.221) | (0.208) | (0.241) |
| Age | -0.217 | -0.357 | -1.407\* |
|  | (0.561) | (0.519) | (0.599) |
| South | -0.489\* | -0.652\*\*\* | -0.270 |
|  | (0.208) | (0.194) | (0.225) |
| Income | 0.0919 | 0.978\* | 1.385\*\* |
|  | (0.441) | (0.409) | (0.473) |
| Education | 0.818# | 2.227\*\*\* | 2.544\*\*\* |
|  | (0.427) | (0.385) | (0.434) |
| Evangelical | -0.0308 | -0.0939 | -0.0253 |
|  | (0.737) | (0.687) | (0.869) |
| Black Protestant | 1.078 | 1.113 | 1.999 |
|  | (2.085) | (2.098) | (2.392) |
| Catholic | 0.255 | 0.548 | 1.074 |
|  | (0.724) | (0.677) | (0.774) |
| Jewish | 1.141 | 0.824 | 1.776# |
|  | (1.120) | (1.049) | (1.068) |
| None | -0.252 | 0.651 | 2.143\*\* |
|  | (0.682) | (0.603) | (0.668) |
| Religious Commitment | -1.358 | -0.986 | 0.0761 |
|  | (0.910) | (0.779) | (0.896) |
| Evangelical × Commitment | -0.173 | -0.0857 | -0.867 |
|  | (1.132) | (1.013) | (1.272) |
| Black × Commitment | -0.643 | -1.402 | -2.954 |
|  | (2.601) | (2.583) | (3.074) |
| Catholic × Commitment | -0.245 | -1.643 | -2.660\* |
|  | (1.194) | (1.095) | (1.297) |
| Jew × Commitment | 0.0799 | -2.253 | -2.621 |
|  | (1.981) | (2.607) | (2.285) |
| None × Commitment | 0.991 | -1.036 | -3.671\* |
|  | (1.539) | (1.533) | (1.705) |
| Authoritarianism | -0.292 | -1.118\*\* | -1.818\*\*\* |
|  | (0.403) | (0.363) | (0.422) |
| Ethnocentrism | 0.340 | -0.966# | -1.371\* |
|  | (0.551) | (0.515) | (0.650) |
| Constant | 0.796 | 2.195\*\* | 1.506# |
|  | (0.827) | (0.742) | (0.877) |
|  |  |  |  |
| Observations | 1,282 | | |
| Pseudo *R*2 | 0.1464 | | |
| Wald χ2 | 335.26\*\*\* | | |
| Note: 2008 Cooperative Campaign Analysis Project. Coefficients shown are multinomial logit. Robust standard errors are in parenthesis. All independent variables have been recoded to range from 0 to 1. \*\*\**p* < 0.001, \*\**p* < 0.01, \**p* < 0.05 (two-tailed tests). | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Table D2.** Multinomial logistic regression for muslim headscarves | | | |
|  | **Agree** | **Disagree** | **Strongly Disagree** |
|  |  |  |  |
| Party ID | -0.154 | -0.513 | -0.852\* |
|  | (0.387) | (0.362) | (0.402) |
| Ideology | -0.430 | -0.992# | -1.337\* |
|  | (0.638) | (0.593) | (0.664) |
| Female | 0.120 | 0.329 | 0.587\* |
|  | (0.236) | (0.223) | (0.246) |
| Age | -0.118 | -1.254\* | -2.702\*\*\* |
|  | (0.566) | (0.539) | (0.588) |
| South | -0.102 | -0.212 | -0.214 |
|  | (0.214) | (0.204) | (0.231) |
| Income | -0.193 | -0.426 | -0.378 |
|  | (0.479) | (0.456) | (0.505) |
| Education | 0.321 | 0.585 | 0.486 |
|  | (0.408) | (0.391) | (0.439) |
| Evangelical | -0.230 | -0.168 | 0.200 |
|  | (0.719) | (0.699) | (0.853) |
| Black Protestant | -0.114 | -0.805 | 0.289 |
|  | (1.726) | (1.778) | (1.857) |
| Catholic | -0.980 | -0.640 | -0.501 |
|  | (0.626) | (0.601) | (0.751) |
| Jewish | -1.883# | -1.967\* | -1.783 |
|  | (0.962) | (0.982) | (1.161) |
| None | -0.770 | -1.176\* | -0.0543 |
|  | (0.513) | (0.507) | (0.620) |
| Religious Commitment | -0.597 | 0.188 | 0.944 |
|  | (0.769) | (0.762) | (0.952) |
| Evangelical × Commitment | 0.125 | 0.115 | -0.0171 |
|  | (1.043) | (1.021) | (1.246) |
| Black × Commitment | 0.00897 | 1.369 | 0.161 |
|  | (2.287) | (2.337) | (2.430) |
| Catholic × Commitment | 1.380 | 0.627 | 0.702 |
|  | (1.096) | (1.065) | (1.296) |
| Jew × Commitment | 8.256\*\* | 8.227\*\* | 8.413\*\* |
|  | (2.760) | (2.777) | (3.061) |
| None × Commitment | -1.030 | 1.245 | -0.673 |
|  | (1.690) | (1.584) | (1.756) |
| Authoritarianism | -0.692# | -1.322\*\*\* | -0.804# |
|  | (0.386) | (0.381) | (0.426) |
| Ethnocentrism | -0.617 | -1.939\*\* | -2.932\*\*\* |
|  | (0.647) | (0.643) | (0.735) |
| Constant | 2.571\*\* | 4.884\*\*\* | 4.573\*\*\* |
|  | (0.859) | (0.837) | (0.936) |
|  |  |  |  |
| Observations | 1,284 | | |
| Pseudo *R*2 | .0652 | | |
| Wald χ2 | 189.84\*\*\* | | |
| Note: 2008 Cooperative Campaign Analysis Project. Coefficients shown are multinomial logit. Robust standard errors are in parenthesis. All independent variables have been recoded to range from 0 to 1. \*\*\**p* < 0.001, \*\**p* < 0.01, \**p* < 0.05 (two-tailed tests). | | | |

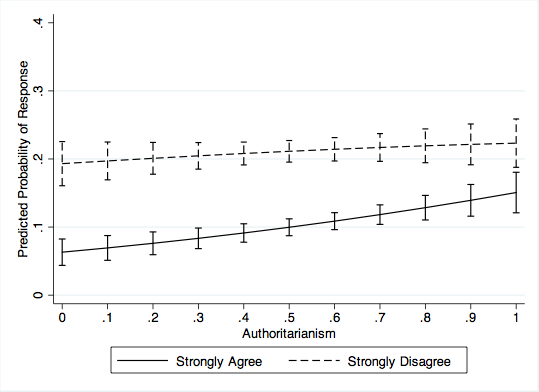
|  |  |  |  |
| --- | --- | --- | --- |
| **Table D3.** Multinomial logistic regression for tax exemptions for all male clergy | | | |
|  | **Agree** | **Disagree** | **Strongly Disagree** |
|  |  |  |  |
| Party ID | 0.0622 | 0.310 | 0.503 |
|  | (0.442) | (0.417) | (0.436) |
| Ideology | -0.288 | 0.400 | 1.619\* |
|  | (0.641) | (0.611) | (0.672) |
| Female | 0.466# | 0.121 | -0.152 |
|  | (0.244) | (0.236) | (0.251) |
| Age | 0.198 | 0.802 | 0.670 |
|  | (0.549) | (0.551) | (0.591) |
| South | -0.254 | -0.174 | 0.0484 |
|  | (0.235) | (0.224) | (0.235) |
| Income | -0.0781 | 0.344 | -0.423 |
|  | (0.471) | (0.457) | (0.495) |
| Education | 0.0634 | 0.636 | 1.018\* |
|  | (0.443) | (0.435) | (0.463) |
| Evangelical | -0.504 | -0.950 | -0.863 |
|  | (0.819) | (0.797) | (0.882) |
| Black Protestant | -1.443 | 0.590 | 0.219 |
|  | (1.473) | (1.387) | (1.547) |
| Catholic | -0.0114 | 0.243 | 0.564 |
|  | (0.720) | (0.688) | (0.766) |
| Jewish | -0.858 | -1.481# | -1.142 |
|  | (0.927) | (0.851) | (1.086) |
| None | -1.031\* | -1.556\*\* | -0.955# |
|  | (0.507) | (0.495) | (0.563) |
| Religious Commitment | 0.492 | 0.797 | 1.979\* |
|  | (0.901) | (0.871) | (0.933) |
| Evangelical × Commitment | -0.242 | 1.072 | 1.081 |
|  | (1.436) | (1.381) | (1.465) |
| Black × Commitment | 0.246 | -1.829 | -1.656 |
|  | (2.017) | (1.935) | (2.060) |
| Catholic × Commitment | -0.725 | -0.0449 | -0.402 |
|  | (1.452) | (1.374) | (1.448) |
| Jew × Commitment | 5.590# | 6.671\* | 3.067 |
|  | (3.034) | (2.758) | (3.153) |
| None × Commitment | 6.626\*\*\* | 6.958\*\*\* | 6.424\*\* |
|  | (1.999) | (2.030) | (2.054) |
| Authoritarianism | -0.0290 | -0.594 | 0.296 |
|  | (0.425) | (0.410) | (0.427) |
| Ethnocentrism | -1.156# | -0.689 | -0.192 |
|  | (0.660) | (0.669) | (0.703) |
| Taxes | 0.247 | 0.953\* | 1.634\*\*\* |
|  | (0.417) | (0.400) | (0.417) |
| Constant | 1.403# | 0.292 | -2.047\* |
|  | (0.792) | (0.794) | (0.869) |
|  |  |  |  |
| Observations | 1,221 | | |
| Pseudo *R*2 | 0.1520 | | |
| Wald χ2 | 352.47\*\*\* | | |
| Note: 2008 Cooperative Campaign Analysis Project. Coefficients shown are multinomial logit. Robust standard errors are in parenthesis. All independent variables have been recoded to range from 0 to 1. \*\*\**p* < 0.001, \*\**p* < 0.01, \**p* < 0.05 (two-tailed tests). | | | |

**Figure D1. The Effect of Authoritarianism on Free Exercise Attitudes**

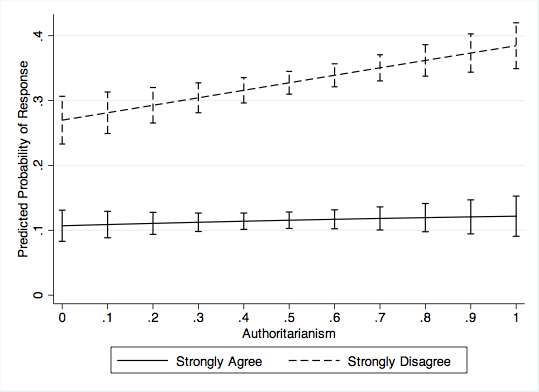
Laws Against Satan Worship



Schools Should Be Able to Ban Muslim Headscarves



Tax Exemptions for Churches That Don't Ordain Women



**Appendix E: Models Including Race/Ethnicity**

The models in the main text do not include race/ethnicity, largely in order to avoid the problem of multicollinearity inherent in including both Black (race) and Black Protestant (religious tradition) in the model. However, given the enormous importance of race/ethnicity in American politics, it is important to examine whether including race/ethnicity changes the findings. In this Appendix, dummy variables for Black, Hispanic, and Mixed/Other are included in the analysis. Specifically, respondents were asked to choose from a list of racial/ethnic identities including White, Black, Hispanic, Asian, Native American, Mixed, Other, and Middle Eastern. For the purposes of this analysis, Asian, Native American, Mixed, Other, and Middle Eastern were all recoded into the Mixed/Other category. The results of the analysis shown here demonstrate that including the race/ethnicity dummy variables does not affect the substantive results, lending further confidence to the essential findings.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table E1.** The impact on authoritarianism on attitudes towards church and state: models including race | | | | |
|  | **Establishment** | **Satan Worship** | **Muslim Headscarves** | **Tax Exemption/ Female Clergy** |
|  |  |  |  |  |
| Party | 0.153\*\*\* | 0.159 | -0.423\* | 0.239 |
|  | (0.021) | (0.205) | (0.191) | (0.221) |
| Ideology | 0.231\*\*\* | -0.718\* | -0.742\* | 1.167\*\*\* |
|  | (0.033) | (0.316) | (0.309) | (0.339) |
| Female | 0.023\* | -0.660\*\*\* | 0.315\*\* | -0.256\* |
|  | (0.012) | (0.117) | (0.115) | (0.120) |
| Age | -0.055# | -0.885\*\* | -1.579\*\*\* | 0.191 |
|  | (0.028) | (0.294) | (0.276) | (0.292) |
| Black | -0.011 | -0.906\* | 0.164 | -0.654# |
|  | (0.038) | (0.455) | (0.385) | (0.343) |
| Hispanic | -0.014 | -0.467# | 0.234 | 0.313 |
|  | (0.029) | (0.281) | (0.276) | (0.268) |
| Other/Mixed Race | 0.036 | -0.011 | -0.231 | -0.674\*\* |
|  | (0.025) | (0.297) | (0.268) | (0.227) |
| South | 0.001 | -0.062 | -0.110 | 0.201 |
|  | (0.011) | (0.119) | (0.111) | (0.123) |
| Income | -0.037 | 0.669\*\* | -0.249 | -0.250 |
|  | (0.023) | (0.228) | (0.237) | (0.253) |
| Education | -0.120\*\*\* | 1.352\*\*\* | 0.239 | 0.669\*\* |
|  | (0.022) | (0.207) | (0.206) | (0.217) |
| Evangelical | 0.071# | 0.165 | 0.195 | -0.585 |
|  | (0.040) | (0.357) | (0.362) | (0.423) |
| Black Protestant | 0.019 | 1.922# | -0.0278 | 1.581# |
|  | (0.103) | (1.033) | (0.859) | (0.818) |
| Catholic | -0.092\* | 0.614# | -0.036 | 0.393 |
|  | (0.036) | (0.317) | (0.306) | (0.326) |
| Jewish | -0.169\*\*\* | 0.467 | -0.364 | -0.200 |
|  | (0.049) | (0.446) | (0.463) | (0.424) |
| None | -0.150\*\*\* | 1.378\*\*\* | 0.0376 | -0.423 |
|  | (0.030) | (0.266) | (0.245) | (0.270) |
| Religious Commitment | 0.090\* | 0.350 | 0.731# | 1.069\* |
|  | (0.045) | (0.431) | (0.393) | (0.419) |
| Evangelical × Commitment | -0.030 | -0.707 | -0.093 | 1.187# |
|  | (0.060) | (0.578) | (0.560) | (0.634) |
| Black Protestant × Commitment | 0.074 | -1.896 | 0.278 | -1.725 |
|  | (0.129) | (1.283) | (0.966) | (1.062) |
| Catholic × Commitment | 0.163\*\* | -1.500\* | -0.029 | -0.053 |
|  | (0.061) | (0.604) | (0.573) | (0.583) |
| Jew × Commitment | 0.082 | -1.014 | 1.209 | -0.336 |
|  | (0.138) | (1.161) | (1.059) | (0.872) |
| None × Commitment | 0.390\*\*\* | -2.424\*\* | 0.193 | 1.604\* |
|  | (0.087) | (0.832) | (0.844) | (0.809) |
| Authoritarianism | 0.127\*\*\* | -1.012\*\*\* | -0.403\* | 0.232 |
|  | (0.021) | (0.206) | (0.200) | (0.217) |
| Ethnocentrism | 0.011 | -1.092\*\* | -1.782\*\*\* | 0.393 |
|  | (0.032) | (0.335) | (0.344) | (0.366) |
| Taxes |  |  |  | 1.094\*\*\* |
|  |  |  |  | (0.189) |
| Constant | 0.380\*\*\* |  |  |  |
|  | (0.042) |  |  |  |
|  |  |  |  |  |
| Observations | 1,289 | 1,282 | 1,284 | 1,221 |
| *R*2 | 0.544 |  |  |  |
| *F*-Test | 90.59\*\*\* |  |  |  |
| Pseudo *R*2 |  | 0.1299 | 0.0522 | 0.1316 |
| Wald χ2 |  | 379.64\*\*\* | 160.53\*\*\* | 339.74\*\*\* |
| Note: 2008 Cooperative Campaign Analysis Project. Coefficients shown are OLS for establishment and ordered logit for the three individual free exercise items. Robust standard errors are in parenthesis. Cut points for the ordered logit's were omitted for space but are available on request. All independent variables have been recoded to range from 0 to 1. \*\*\**p* < 0.001, \*\**p* < 0.01, \**p* < 0.05 (two-tailed tests). | | | | |

**Appendix F. Individual Analysis of Establishment Items**

Readers may be interested in whether the principal finding extends to each of the individual establishment items. In this Appendix, I replicate the models from the text, but this time using each individual establishment item as the dependent variable. Given that each item is measured on the four-point agree/disagree scale, I employ ordered logistic regression here. The results show that authoritarianism exerts a statistically significant effect on each policy attitude (p<.05 for the manger item and p<.001 for each of the other three items). These results lend further confidence to the findings described in the main text.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table F1.** Individual regression analysis of establishment items | | | | |
|  | **Ten Commandments** | **School Prayer** | **Manger Scene** | **School Vouchers** |
|  |  |  |  |  |
| Party ID | 1.293\*\*\* | 0.552\*\* | 0.513\*\* | 1.253\*\*\* |
|  | (0.204) | (0.190) | (0.193) | (0.192) |
| Ideology | 1.963\*\*\* | 1.654\*\*\* | 1.217\*\*\* | 1.817\*\*\* |
|  | (0.342) | (0.312) | (0.308) | (0.320) |
| Female | 0.433\*\*\* | 0.302\* | 0.343\*\* | -0.225\* |
|  | (0.129) | (0.120) | (0.113) | (0.114) |
| Age | 0.179 | -0.242 | -0.222 | -0.987\*\*\* |
|  | (0.315) | (0.281) | (0.280) | (0.264) |
| South | 0.048 | 0.295\*\* | -0.027 | -0.271\* |
|  | (0.128) | (0.114) | (0.115) | (0.114) |
| Income | -0.203 | -0.622\* | -0.011 | 0.093 |
|  | (0.254) | (0.243) | (0.226) | (0.230) |
| Education | -1.266\*\*\* | -0.964\*\*\* | -0.761\*\*\* | -0.410# |
|  | (0.225) | (0.218) | (0.211) | (0.211) |
| Evangelical | 0.588 | 0.535 | 0.081 | 0.256 |
|  | (0.434) | (0.362) | (0.413) | (0.393) |
| Black Protestant | -0.802 | 0.783 | -0.404 | 0.940 |
|  | (0.872) | (0.977) | (0.708) | (0.824) |
| Catholic | -0.847\* | -0.461 | -0.911\*\* | -0.028 |
|  | (0.344) | (0.319) | (0.307) | (0.337) |
| Jewish | -0.201 | -1.392\*\* | -1.610\*\*\* | -0.729 |
|  | (0.504) | (0.516) | (0.454) | (0.517) |
| None | -1.536\*\*\* | -1.076\*\*\* | -1.035\*\*\* | 0.090 |
|  | (0.296) | (0.255) | (0.252) | (0.285) |
| Religious Commitment | 1.082\* | 1.059\*\* | -0.252 | 0.819# |
|  | (0.466) | (0.387) | (0.451) | (0.479) |
| Evangelical × Commitment | -0.194 | -0.265 | 0.437 | 0.137 |
|  | (0.672) | (0.552) | (0.662) | (0.634) |
| Black Protestant × Commitment | 0.803 | -0.245 | 0.169 | -0.087 |
|  | (1.221) | (1.312) | (1.015) | (1.121) |
| Catholic × Commitment | 0.997 | 0.706 | 1.258\* | 0.776 |
|  | (0.635) | (0.575) | (0.594) | (0.627) |
| Jewish × Commitment | -0.758 | 1.157 | 0.165 | 1.204 |
|  | (1.148) | (1.196) | (1.013) | (1.229) |
| None × Commitment | 4.487\*\*\* | 2.880\*\*\* | 2.315\* | 0.267 |
|  | (1.034) | (0.776) | (0.942) | (0.747) |
| Authoritarianism | 1.280\*\*\* | 0.953\*\*\* | 0.454\* | 0.819\*\*\* |
|  | (0.223) | (0.204) | (0.197) | (0.196) |
| Ethnocentrism | 0.397 | 0.407 | 0.616# | -0.442 |
|  | (0.338) | (0.326) | (0.315) | (0.331) |
|  |  |  |  |  |
| Observations | 1,283 | 1,285 | 1,289 | 1,284 |
| Pseudo *R*2 | 0.2607 | 0.1872 | 0.0973 | 0.1439 |
| Wald χ2 | 732.63\*\*\* | 569.86\*\*\* | 259.43\*\*\* | 436.45\*\*\* |