The Not So Exciting Relationship Between Extreme Political Beliefs and News Media Types

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Abstract:

Previous research by Cass Sunstein and others has pointed to the “self-serve” nature of Internet as a possible source for extreme political beliefs. The “ideological echo chambers” that form online polarize and intensify political beliefs as users are cut off from information that contradicts their political beliefs. This project attempted to examine the correlation between news media formats, political extremeness, and political orientation. Ultimately while extremeness may be linked to online news for some, the correlation fails to appear significant due to the unexpected collinear relationship between age and political extremeness.

Over the past 20 years the social implications of the internet have been becoming harder to avoid. From the early days with the work from Castells, DiMaggio, and Sassen to the current works about “web 2.0” and “datafication,” the internet has gone from the fringe to a central topic of discussion in scholarship. During this time Cass Sunstein has joined into this discussion with a more critical lens about the internet’s role on society due to its isolating effects and the formation of “ideological echo chambers” (Sunstein 2017, 2011, 2001). Bakshy et al in 2015 demonstrated that user choice, more than algorithms, is the primary cause for ideological separation in social media. This combined with the dissolution of the public sphere highlighted in Robert Putnam’s Bowling Alone lead to a world were information is presented in a self-serve experience and people can simply avoid perspectives they disagree with. Throughout Cass Sunstein’s work, he consistently points to the dangers of ideological isolation. According to Sunstein, ideological echo chambers, spaces virtual or physical where people are only surrounded by like-minded people and ideas, give rise to political extremeness. Furthermore, the Internet creates a unique space that is personal to each user, thus users only see news and viewpoints that they want to see. This paper is the product of an analysis to answer two research questions.

* Is there a significant relationship between political extremeness and news media types?
* Is there a significant relationship between political orientation and news media types?

**Method**

The theory that there is a positive relationship between extreme political beliefs and internet news was tested using General Social Survey data from 2006 to 2016 (n = 15,956). This range was selected for two purposes, 1) to control for any current political bias by using data spanning several presidential and congressional elections, 2) 2006 was the first GSS cross section to utilize a variable for internet news media. While this range is useful primarily to control for shifts in US politics, there was a shift in survey weight variables midway through the data that did not allow for a uniform weight to be applied and thus omitted from the analysis. GSS data are collected currently on a biannual basis by the National Opinion Research Center (NORC) at the University of Chicago. Data is collected during 90 minute interviews in person at selected households by NORC (Robinson, et al, 2003; 4-6). Like previous GSS data collected since 1972, potential interviewees are sampled through a 2-stage stratified process based on geographic location and demographic information drawn from census data (Robinson et al 2003; 5). This analysis utilized variables pertaining to political views, news media sources, and some basic demographic variables to test the robustness of the findings.

The first hypothesis that internet news has a significant positive effect on the extremeness of political beliefs was tested using a self-reported measure of extremeness as the dependent variable of an ordered generalized linear model. This model was chosen to maintain the ordinal relationship of the values in the dependent variable without violating the parallel odds assumption of an ordered logistic regression and to account for heteroscedasticity in the data (Williams 2010). The model was constructed using an ordinal measure of extremeness, a categorical variable narrowed to mass media choices, with race, education, age, and income as controls for the “digital divide.”

The second hypothesis that there is no significant relationship between political orientation, as a spectrum from left to right, and news media types was tested using a multinomial logistic model. Using a self-reported positioning on the political spectrum and all the same covariates from the ordered GLM model, this model was designed to explain the relationship between political views and news media types in a more nuanced way than the previous model. Furthermore, unlike the previous model, the multinomial logistic model will assume no relationship between the values the dependent variable.

In addition to the two previous models, two simple binomial logistic models and their predictive margins were used to examine the effect of age on the results due to its unforeseen intense relationship with news media and political extremeness. These models were designed in response to the findings and provide a context for further research on causal effects on political extremism in the future. The first of these two models used extreme political beliefs as a dependent variable with the covariates from the previous models. The second used the internet as the respondent’s primary news source. Predictive margins were created from these models to show the role age plays on both the dependent variable and the primary independent variable.

**Results**

Beneath are the summary statistics of each of the variables used in the OGLM and MNLM used in the analysis. Political views and its recode political extremeness are the dependent variables used for analysis. The political views variable has seven categorical values across the liberal/conservative spectrum. The frequencies are highest at the political center and they taper off dramatically moving toward the extreme ends. The political extremeness variable uses the same data however it is “folded over” so that it acts as an ordinal variable with the lowest value representing the center and the highest representing the extreme liberals and conservatives. This was necessary to control for any liberal or conservative biases and therefore only measures extremeness. One important issue to note here is that people that identify as politically extreme make up less than eight percent of the sample population, thus limiting some options to explore the data.

The independent variable used in both research questions is a categorical variable that has been recoded to limit the values to only mass media formats. The resulting values are print media (primarily newspapers), televised news, internet news, and news radio. Since there is a sharp decline in newspaper readership over time, print media was used as the omitted factor in the analysis. Almost half of the respondents that answered this question received their news from television. Other covariates used in the analysis are race, age, education, and income. While these variables are not essential to the research questions, they help control for the “digital divide” and test the robustness of the relationship.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Univariate Statistics for Each Variable | |  |  |  |
| (Output is dependent on variable type) | |  |  |  |
| GSS Year | Freq. | Percent | R's Age |  |
|  |  |  | Obs | 15,901 |
| 2006 | 4,510 | 28.27 | Sum of Wgt. | 15,901 |
| 2008 | 2,023 | 12.68 |  |  |
| 2010 | 2,044 | 12.81 | Mean | 48.10905 |
| 2012 | 1,974 | 12.37 | Std. Dev. | 17.39465 |
| 2014 | 2,538 | 15.91 |  |  |
| 2016 | 2,867 | 17.97 | Variance | 302.574 |
|  |  |  | Skewness | 0.2902965 |
| Total | 15,956 | 100 | Kurtosis | 2.237604 |
|  |  |  |  |  |
| News Source | Freq. | Percent | R's Income (Continuous) | |
|  |  |  | Obs | 9,361 |
| Print | 1,231 | 17.66 | Sum of Wgt. | 9,361 |
| TV | 3,359 | 48.18 |  |  |
| Internet | 1,945 | 27.9 | Mean | 35611.76 |
| Radio | 437 | 6.27 | Std. Dev. | 42950.42 |
|  |  |  |  |  |
| Total | 6,972 | 100 | Variance | 1.84E+09 |
|  |  |  | Skewness | 4.694446 |
| R's Race | Freq. | Percent | Kurtosis | 35.93644 |
|  |  |  |  |  |
| white | 11,860 | 74.33 | Log of R's Income | |
| black | 2,403 | 15.06 | Obs | 9,361 |
| other | 1,693 | 10.61 | Sum of Wgt. | 9,361 |
|  |  |  |  |  |
| Total | 15,956 | 100 | Mean | 9.9559 |
|  |  |  | Std. Dev. | 1.161009 |
| R's Political Views | Freq. | Percent |  |  |
|  |  |  | Variance | 1.347942 |
| extremely liberal | 595 | 3.88 | Skewness | -0.9680823 |
| liberal | 1,921 | 12.54 | Kurtosis | 4.678051 |
| slightly liberal | 1,751 | 11.43 |  |  |
| moderate | 5,903 | 38.54 | R's Highest Year of Education | |
| slightly conservative | 2,135 | 13.94 | Obs | 15,923 |
| conservative | 2,403 | 15.69 | Sum of Wgt. | 15,923 |
| extremely conservative | 610 | 3.98 |  |  |
|  |  |  | Mean | 13.50581 |
| Total | 15,318 | 100 | Std. Dev. | 3.120031 |
|  |  |  |  |  |
| R's Political Extremeness | Freq. | Percent | Variance | 9.734594 |
|  |  |  | Skewness | -0.4827559 |
| Center | 5,903 | 38.54 | Kurtosis | 4.494042 |
| Near Center | 3,886 | 25.37 |  |  |
| Full Liberal or Conservative | 4,324 | 28.23 |  |  |
| Extreme Liberal or Conservative | 1,205 | 7.87 |  |  |
|  |  |  |  |  |
| Total | 15,318 | 100 |  |  |
|  | p25/p50/p75 | min/max/IQR |  |  |
|  | 1/2/3 | 1/4/2 |  |  |

|  |  |  |  |
| --- | --- | --- | --- |
| Ordered GLM | -1 | -2 | -3 |
|  | Unadjusted Model | Model 2 | Model 3 |
| **Political Extremeness** |  |  |  |
| Tv as News Source | 0.946 | 0.979 | 0.926 |
|  | (-0.91) | (-0.35) | (-0.89) |
|  |  |  |  |
| Internet as News Source | 1.097 | 1.224\*\* | 1.151 |
|  | -1.39 | -2.86 | -1.54 |
|  |  |  |  |
| Radio as News Source | 1.439\*\*\* | 1.511\*\*\* | 1.304\* |
|  | -3.54 | -3.98 | -2.03 |
|  |  |  |  |
| Age of Respondent |  | 1.007\*\*\* | 1.010\*\*\* |
|  |  | -4.89 | -4.21 |
|  |  |  |  |
| Black |  | 0.827\*\* | 0.758\*\* |
|  |  | (-2.89) | (-3.20) |
|  |  |  |  |
| Other |  | 1.009 | 1.132 |
|  |  | -0.12 | -1.26 |
|  |  |  |  |
| Highest Year of School Completed |  |  | 1.075\*\*\* |
|  |  |  | -6.34 |
|  |  |  |  |
| Natural Log of Income |  |  | 0.98 |
|  |  |  | (-0.76) |
| Cut 1 |  |  |  |
| Constant | -0.461\*\*\* | -0.111 | 0.733\* |
|  | (-8.61) | (-1.15) | -2.53 |
| Cut 2 |  |  |  |
| Constant | 0.609\*\*\* | 0.967\*\*\* | 1.882\*\*\* |
|  | -11.33 | -10 | -6.46 |
| Cut 3 |  |  |  |
| Constant | 2.497\*\*\* | 2.860\*\*\* | 3.835\*\*\* |
|  | -37.92 | -27.32 | -12.92 |
| N | 6729 | 6707 | 3922 |
| LL | -8556.8 | -8511.3 | -4921.2 |
| Pseudo R2 | 0.0014 | 0.004 | 0.011 |
| *t* statistics in parentheses |  |  |  |
| \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001 |  |  |  |

The ordered GLM produced significant results for most of the demographic covariates however the results do not support the research hypothesis that there is a significant positive relationship between political extremeness and use of the internet for news. The model did show an uptick in the radio category however the MNLM results show that relationship in further detail.

For the sake of brevity, the full results from the multinomial logistic regression is in the second appendix of this paper. Underneath it a bar chart depicting the relationship of political views and news media types from the MNLM.



For the most part the findings from the MNLM were not significant enough to reject the null hypothesis that there is no relationship between political orientation as it is laid out above and news media types. The two exceptions to this are the strong preference for radio by full conservatives compared to moderates with a relative risk ratio of 1.915 and an avoidance of televised news by extreme liberals compared to moderates with a relative risk ratio of 0.533.

The last part of the analysis is a quick view at the relationship age has with the dependent and independent variables. While this part of the analysis was not designed to test my hypothesis, it is necessary to point out that even when trying to control for age, the relationship age plays is still present in the OGLM and MNLM. The predictive margins of these binary models signify a positive relationship between age and the probability of being politically extreme. On the other end, there is a strong negative relationship between age and the probability of using the internet for news. It is also important to note the degree of heteroscedasticity in the probability of being politically extreme that may have affected the significance of the models above.





**Discussion**

These results seem to act as a splash of cold water on the theories linking internet use to political extremism. While it is possible for this relationship to exist with younger people the GSS data used in this analysis had too few samples of younger (18-35) politically extreme respondents to perform any significant analysis. The MNLM and OGLM contradicted the relationship between politically extreme respondents and internet news. This was most likely due to the role age plays in both variables. In fact, the predictive margins for political extremeness signify that the cause for extreme political beliefs is most likely related to experiences during the life course than where people get their news from. These findings align closely with Gentzkow and Shapiro’s 2011 article in which they too failed to produce findings to support the relationship between political extremeness and internet news. While they were able to effectively make the case that the most ideologically diverse and isolating news source is the internet, it was not were politically extreme respondents looked for news (Gentzkow Shapiro 2011).

**Conclusion**

Extreme political beliefs are more commonly held by older respondents than those who use the Internet for news. While there is a relationship between Internet news and extremeness in younger people, there are not enough cases in the sample to perform any accurate test for significance. Future research could oversample younger people with extreme beliefs and pursue this relationship. However, when examining the whole sample population extremeness appears to most likely be caused by some event in the life-course. Future research could be performed to explore this hypothesis further as well.

**References**

Bakshy, Eytan, Solomon Messing, and Lada A. Adamic. 2015. "Exposure to ideologically diverse news and opinion on Facebook." *Science* 348(6239):1130-32.

Gentzkow, Matthew, and Jesse M. Shapiro. 2011. "Ideological segregation online and offline." *The Quarterly Journal of Economics* 126(4):1799-839.

Putnam, Robert D. 2000. "Bowling alone: America’s declining social capital." Pp. 223-34 in *Culture and politics*: Springer.

Robinson, John P., Paul DiMaggio, and Eszter Hargittai. 2003. "New social survey perspectives on the digital divide." *It & Society* 1(5):1-22.

Robinson, John P., and Steven Martin. 2009. "IT and activity displacement: Behavioral evidence from the US General Social Survey (GSS)." *Social Indicators Research* 91(2):115.

—. 2010. "IT use and declining social capital? More cold water from the General Social Survey (GSS) and the American Time-Use Survey (ATUS)." *Social Science Computer Review* 28(1):45-63.

Sunstein, Cass R. 2001. *Republic.com*. Princeton, N.J.: Princeton University Press.

—. 2009. *Going to extremes: How like minds unite and divide*: Oxford University Press.

—. 2017. *# Republic: Divided Democracy in the Age of Social Media*: Princeton University Press.

Williams, Richard. 2010. "Fitting heterogeneous choice models with oglm." *Stata Journal* 10(4):540.

**Appendix 1**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Bivariate Statistics for Each Variable Using Political Extremeness | | | | |  |  |
| (Output is dependent on variable type) | |  |  |  |  |  |
|  | Print | TV | Internet | Radio | Total |  |
|  |  |  |  |  |  |  |
| Center | 459 | 1,311 | 670 | 129 | 2,569 |  |
|  | 38.09 | 40.74 | 35.52 | 30.71 | 38.18 |  |
| Near Center | 331 | 790 | 526 | 106 | 1,753 |  |
|  | 27 | 24.55 | 27.89 | 25.24 | 26.05 |  |
| Full Lib or Con | 322 | 877 | 543 | 140 | 1,882 |  |
|  | 27 | 27.25 | 28.79 | 33.33 | 27.97 |  |
| Extreme Lib or Con | 93 | 240 | 147 | 45 | 525 |  |
|  | 7.72 | 7.46 | 7.79 | 10.71 | 7.8 |  |
| Total | 1,205 | 3,218 | 1,886 | 420 | 6,729 |  |
|  | 100 | 100 | 100 | 100 | 100 |  |
| Pearson chi2(9) = 32.5097 Pr = 0.000 | | |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  | White | Black | Other | Total |  |  |
|  |  |  |  |  |  |  |
| Center | 4,282 | 1,004 | 617 | 5,903 |  |  |
|  | 37.28 | 44.07 | 39.68 | 38.54 |  |  |
| Near Center | 2,953 | 526 | 407 | 3,886 |  |  |
|  | 25.71 | 23.09 | 26.17 | 25.37 |  |  |
| Full Lib or Con | 3,387 | 526 | 411 | 4,324 |  |  |
|  | 29.49 | 23.09 | 26.43 | 28.23 |  |  |
| Extreme Lib or Con | 863 | 222 | 120 | 1,205 |  |  |
|  | 7.51 | 9.75 | 7.72 | 7.87 |  |  |
| Total | 11,485 | 2,278 | 1,555 | 15,318 |  |  |
|  | 100 | 100 | 100 | 100 |  |  |
| Pearson chi2(6) = 70.5670 Pr = 0.000 | | |  |  |  |  |
|  |  |  |  |  |  |  |
| Age |  |  |  |  |  |  |
| Two-sample | t test with equal variances | | |  |  |  |
| Group | Obs | Mean | Std. Err. | Std. Dev. | [95% Conf. | Interval] |
| Not Extreme | 14,701 | 47.95055 | 0.1433325 | 17.37873 | 47.6696 | 48.2315 |
| Extreme | 1,200 | 50.05083 | 0.504591 | 17.47955 | 49.06085 | 51.04081 |
| t = -4.0237 | df = 15899 | Pr(|T| > |t|) = 0.0001 | |  |  |  |
|  |  |  |  |  |  |  |
| Log Income |  |  |  |  |  |  |
| Two-sample t test with equal variances | | |  |  |  |  |
| Group | Obs | Mean | Std. Err. | Std. Dev. | [95% Conf. | Interval] |
| Not Extreme | 8,695 | 9.960041 | 0.0123802 | 1.154414 | 9.935773 | 9.984309 |
| Extreme | 666 | 9.901831 | 0.048187 | 1.243561 | 9.807214 | 9.996448 |
| t = 1.2471 | df = 9359 | Pr(|T| > |t|) = 0.2124 | |  |  |  |
|  |  |  |  |  |  |  |
| Highest Year of Education | |  |  |  |  |  |
| Two-sample t test with equal variances | | |  |  |  |  |
| Group | Obs | Mean | Std. Err. | Std. Dev. | [95% Conf. | Interval] |
| Not Extreme | 14,721 | 13.51151 | 0.0255313 | 3.09771 | 13.46147 | 13.56156 |
| Extreme | 1,202 | 13.43594 | 0.0975509 | 3.382076 | 13.24455 | 13.62733 |
| t = 0.8075 | df = 15921 | Pr(|T| > |t|) = 0.4194 | |  |  |  |

**Appendix 2**

|  |  |  |  |
| --- | --- | --- | --- |
|  |  |  |  |
| Multinomial Logit Model | -1 | -2 | -3 |
|  | Unadjusted Model | Model 2 | Model 3 |
| **Extremely Liberal** |  |  |  |
| Tv as News Source | 0.752 | 0.741 | 0.533\* |
|  | (-1.54) | (-1.60) | (-2.54) |
|  |  |  |  |
| Internet as News Source | 1.37 | 1.413 | 1.182 |
|  | -1.67 | -1.72 | -0.7 |
|  |  |  |  |
| Radio as News Source | 1.59 | 1.712 | 1.127 |
|  | -1.65 | -1.89 | -0.33 |
|  |  |  |  |
| Age of Respondent |  | 1.001 | 1.008 |
|  |  | -0.25 | -1.33 |
|  |  |  |  |
| Black |  | 1.432\* | 1.162 |
|  |  | -2.14 | -0.67 |
|  |  |  |  |
| Other |  | 1.550\* | 1.722\* |
|  |  | -2.18 | -2.13 |
|  |  |  |  |
| Highest Year of School Completed |  |  | 1.162\*\*\* |
|  |  |  | -4.55 |
|  |  |  |  |
| Natural Log of Income |  |  | 0.849\* |
|  |  |  | (-2.39) |
|  |  |  |  |
| Constant | 0.102\*\*\* | 0.086\*\*\* | 0.0511\*\*\* |
|  | (-14.88) | (-8.67) | (-3.91) |
| **Liberal** |  |  |  |
| Tv as News Source | 0.698\*\* | 0.698\*\* | 0.766 |
|  | (-3.25) | (-3.22) | (-1.70) |
|  |  |  |  |
| Internet as News Source | 1.18 | 1.163 | 1.019 |
|  | -1.43 | -1.23 | -0.12 |
|  |  |  |  |
| Radio as News Source | 1.098 | 1.102 | 1.029 |
|  | -0.49 | -0.51 | -0.2 |
|  |  |  |  |
| Age of Respondent |  | 0.999 | 0.998 |
|  |  | (-0.28) | (-0.20) |
|  |  |  |  |
| Black |  | 0.915 | 1.104 |
|  |  | (-0.78) | (-1.09) |
|  |  |  |  |
| Other |  | 1.191 | 1.408\*\* |
|  |  | -1.33 | -2.74 |
|  |  |  |  |
| Highest Year of School Completed |  |  | 1.189\*\*\* |
|  |  |  | -8.17 |
|  |  |  |  |
| Natural Log of Income |  |  | 0.905\* |
|  |  |  | (-2.13) |
|  |  |  |  |
| Constant | 0.353\*\*\* | 0.366\*\*\* | 0.086\*\*\* |
|  | (-11.40) | (-5.87) | (-4.88) |
| **Slightly Liberal** |  |  |  |
| Tv as News Source | 0.718\*\* | 0.701\*\* | 0.795 |
|  | (-2.95) | (-3.15) | (-1.48) |
|  |  |  |  |
| Internet as News Source | 1.09 | 1.022 | 1.076 |
|  | -0.7 | -0.17 | -0.45 |
|  |  |  |  |
| Radio as News Source | 1.1 | 1.057 | 1.029 |
|  | -0.5 | -0.28 | -0.12 |
|  |  |  |  |
| Age of Respondent |  | 0.996 | 0.998 |
|  |  | (-1.54) | (-0.41) |
|  |  |  |  |
| Black |  | 1.09 | 1.104 |
|  |  | -0.78 | -0.71 |
|  |  |  |  |
| Other |  | 1.046 | 1.408\* |
|  |  | -0.32 | -1.99 |
|  |  |  |  |
| Highest Year of School Completed |  |  | 1.119\*\*\* |
|  |  |  | -5.42 |
|  |  |  |  |
| Natural Log of Income |  |  | 1.002 |
|  |  |  | -0.04 |
|  |  |  |  |
| Constant | 0.338\*\*\* | 0.415\*\*\* | 0.075\*\*\* |
|  | (-11.69) | (-5.07) | (-5.07) |
| **Moderate   (Base Outcome)** |  |  |  |
| **Slightly Conservative** |  |  |  |
| Tv as News Source | 0.939 | 0.986 | 0.858 |
|  | (-0.61) | (-0.14) | (-1.05) |
|  |  |  |  |
| Internet as News Source | 1.09 | 1.173 | 0.979 |
|  | -0.76 | -1.32 | (-0.13) |
|  |  |  |  |
| Radio as News Source | 1.173 | 1.177 | 1.009 |
|  | -0.88 | -0.89 | -0.04 |
|  |  |  |  |
| Age of Respondent |  | 1.005 | 1.009\* |
|  |  | (2.04)\* | -2.34 |
|  |  |  |  |
| Black |  | 0.511\*\*\* | 0.508\*\*\* |
|  |  | (-5.48) | (-4.14) |
|  |  |  |  |
| Other |  | 0.915 | 1.315 |
|  |  | (-0.68) | -1.67 |
|  |  |  |  |
| Highest Year of School Completed |  |  | 1.076\*\*\* |
|  |  |  | -3.78 |
|  |  |  |  |
| Natural Log of Income |  |  | 1.134\*\* |
|  |  |  | -2.6 |
|  |  |  |  |
| Constant | 0.383\*\*\* | 0.321\*\*\* | 0.030\*\*\* |
|  | (-10.81) | (-7.00) | (-6.82) |
| **Conservative** |  |  |  |
| Tv as News Source | 1.212 | 1.319\*\* | 1.19 |
|  | -1.84 | -2.61 | -1.15 |
|  |  |  |  |
| Internet as News Source | 1.13 | 1.379\*\* | 1.297 |
|  | -1.05 | -2.59 | -1.6 |
|  |  |  |  |
| Radio as News Source | 2.001\*\*\* | 2.111\*\*\* | 1.915\*\* |
|  | -4.2 | -4.45 | -3.03 |
|  |  |  |  |
| Age of Respondent |  | 1.012\*\*\* | 1.016\*\*\* |
|  |  | -5.23 | -4.06 |
|  |  |  |  |
| Black |  | 0.471\*\*\* | 0.436\*\*\* |
|  |  | (-6.19) | (-5.02) |
|  |  |  |  |
| Other |  | 0.652\*\* | 0.683\* |
|  |  | (-2.99) | (-1.96) |
|  |  |  |  |
| Highest Year of School Completed |  |  | 1.062\*\* |
|  |  |  | -3.15 |
|  |  |  |  |
| Natural Log of Income |  |  | 1.083 |
|  |  |  | -1.7 |
|  |  |  |  |
| Constant | 0.349\*\*\* | 0.199\*\*\* | 0.036\*\*\* |
|  | (-11.48) | (-9.86) | (-6.53) |
| **Extremely Conservative** |  |  |  |
| Tv as News Source | 1.058 | 1.17 | 1.196 |
|  | -0.32 | -0.87 | -0.62 |
|  |  |  |  |
| Internet as News Source | 0.789 | 1.22 | 1.337 |
|  | (-1.12) | -0.89 | -0.89 |
|  |  |  |  |
| Radio as News Source | 1.856\* | 2.332\*\* | 1.81 |
|  | -2.28 | -3.08 | -1.4 |
|  |  |  |  |
| Age of Respondent |  | 1.026\*\*\* | 1.041\*\*\* |
|  |  | -6.43 | -5.38 |
|  |  |  |  |
| Black |  | 1.017 | 0.996 |
|  |  | -0.09 | (-0.02) |
|  |  |  |  |
| Other |  | 1.188 | 1.372 |
|  |  | -0.74 | -0.98 |
|  |  |  |  |
| Highest Year of School Completed |  |  | 0.944 |
|  |  |  | (-1.65) |
|  |  |  |  |
| Natural Log of Income |  |  | 1.117 |
|  |  |  | -1.2 |
|  |  |  |  |
| Constant | 1.856\*\*\* | 0.022\*\*\* | 0.007\*\*\* |
|  | (-14.87) | (-12.76) | (-4.80) |
| **Model Information**  N | 6729 | 6707 | 3922 |
| LL | -11373 | -11241.9 | -6492.4 |
| Pseudo R2 | 0.004 | 0.013 | 0.025 |
| *t* statistics in parentheses |  |  |  |
| \* *p* < 0.05, \*\* *p* < 0.01, \*\*\* *p* < 0.001 |  |  |  |

Appendix 3

/\*

Final .do file

Alex Schackmuth

SOC 412

Spring Quarter 2017

\*/

\*\*Creation of dataset from the last 6 GSS cross sections (2006-2016)

clear all

set linesize 80

set more off

//2006

use "D:\soc412\dtas\GSS2006.DTA"

gen timeid= string(year) + " " + string(id)

keep age conrinc degree educ ethnic marital newsfrom partyid race realrinc scifrom sex year polviews wrkstat wtss timeid

save "D:\soc412\dtas\GSS2006a.DTA", replace

//2008

clear

use "D:\soc412\dtas\GSS2008.dta"

gen timeid= string(year) + " " + string(id)

keep age conrinc degree educ ethnic marital newsfrom partyid race realrinc scifrom sex year polviews wrkstat wtss timeid

save "D:\soc412\dtas\GSS2008a.dta", replace

//2010

clear

use "D:\soc412\dtas\GSS2010.dta"

gen timeid= string(year) + " " + string(id)

keep age conrinc degree educ ethnic marital newsfrom partyid race realrinc scifrom sex year polviews wrkstat wtss timeid

save "D:\soc412\dtas\GSS2010a.dta", replace

//2012

clear

use "D:\soc412\dtas\GSS2012.dta"

gen timeid= string(year) + " " + string(id)

keep age conrinc degree educ ethnic marital newsfrom partyid race realrinc scifrom sex year polviews wrkstat wtss timeid

save "D:\soc412\dtas\GSS2012a.dta", replace

//2014

clear

use "D:\soc412\dtas\GSS2014.dta"

gen timeid= string(year) + " " + string(id)

keep age conrinc degree educ ethnic marital newsfrom partyid race realrinc scifrom sex year polviews wrkstat wtss timeid

save "D:\soc412\dtas\GSS2014a.dta", replace

//2016

clear

use "D:\soc412\dtas\GSS2016.dta"

gen timeid= string(year) + " " + string(id)

keep age conrinc degree educ ethnic marital newsfrom partyid race realrinc scifrom sex year polviews wrkstat wtss timeid

save "D:\soc412\dtas\GSS2016a.dta", replace

//append all sections to 2006 ex(2006, 2008, 2010, 2012, 2014, 2016)

use "D:\soc412\dtas\GSS2006a.DTA"

append using "D:\soc412\dtas\GSS2008a.dta"

append using "D:\soc412\dtas\GSS2010a.dta"

append using "D:\soc412\dtas\GSS2012a.dta"

append using "D:\soc412\dtas\GSS2014a.DTA"

append using "D:\soc412\dtas\GSS2016a.DTA"

save "D:\soc412\GSS0616v2.dta"

\*\*Recodes

//recode polviews 1=center 2=near center 3=full 4=extreme

recode polviews 4 = 1 5 3 = 2 2 6 = 3 1 7 = 4, gen (polext)

label define polextl 1 "Center" 2 "Near Center" 3 "Full Lib or Con" 4 "Extreme Lib or Con"

label values polext polextl

tab polviews polext

//polext dummy

gen extreme = polext==4

gen fullprty = polext==3

gen nearcntr = polext==2

gen center = polext==1

//recode newsfrom 1=print 2=tv 3=internet 4=radio (mass media formats only)

recode newsfrom 1 2 4 = 1 5 = 2 3 = 3 6 = 4 7/10 = ., gen (newsmedia)

label define newsl 1 "Print" 2 "TV" 3 "Internet" 4 "Radio"

label values newsmedia newsl

tab newsfrom newsmedia

//recode newsfrom 1=print 2=tv 3=internet 4=radio 5= friends and relatives 6= other(Including other formats)

recode newsfrom 1 2 4 = 1 5 = 2 3 = 3 6 = 4 8/9 = 5 7 10 = 6, gen (newsinfo)

label define newsl1 1 "Print" 2 "TV" 3 "Internet" 4 "Radio" 5 "Friends and Family" 6 "Other Sources"

label values newsinfo newsl1

gen printmedia = newsmedia==1

gen tv = newsmedia==2

gen internet = newsmedia==3

gen radio = newsmedia==4

//recode age into groups

recode age 18/29 = 1 30/39 = 2 40/49 = 3 50/59 = 4 60/69 = 5 70/79 = 6 80/89 = 7, gen (agecateg)

tab agecateg

//recode conrinc to normalize income distribution

gen loginc = ln(conrinc)

//labels

label variable educ "Highest Year of Education"

label variable age "Age of Respondent"

label variable year "GSS Year"

\*\* First Presentation Analysis

tab year

tab newsfrom newsmedia

tab polviews polext

tab year newsmedia, col chi

tab year polext, col chi

//Tables in Presentation

ttest age, by (internet)

ttest age, by (tv)

ttest age, by (radio)

ttest age, by (printmedia)

ttest age, by (extreme)

ttest age, by (fullprty)

ttest age, by (nearcntr)

ttest age, by (center)

tab year

tab polext newsmedia, col

tab polext newsmedia, row

tab polext newsmedia if (agecateg) == 1, row

//Controlling for 'digital divide'

tab polext newsmedia if (agecateg) == 1, row

by year, sort: tab polext newsmedia if (agecateg) == 1, row

\*\*Analysis Used in Poster Presentation and Final Paper

\*\* Uses packages st0097 st0208 spost9 estout\*\*

use "/Volumes/Untitled/soc412/GSS0616v2.dta"

//Univariate Tests

tab year

//Variables Treated as Nominal

tab newsmedia

tab race

tab polviews

//Variables Treated as Ordinal

tab polext

tabstat polext, stats(n q min max iqr)

//Variables Treated as Continuous

summarize age, detail

summarize conrinc, detail

summarize loginc, detail

summarize educ, detail

//Bivariate Tests

tab polviews newsmedia, col chi

tab polext newsmedia, col chi

tab polext race, col chi

ttest age, by (extreme)

ttest loginc, by (extreme)

ttest educ, by (extreme)

/\*

\*\*Ordered Generalized Linear Model

Using this type of model in order to retain the ordinal nature of the variable but without violating the parallel odds assumption of the ordinal logit model.

\*/

//1=center 4=ext

xi: oglm polext i.newsmedia, or store (polext1)

xi: oglm polext i.newsmedia age i.race, or store (polext2)

xi: oglm polext i.newsmedia age i.race educ loginc, or store (PoliticalExtremeness)

esttab polext1 polext2 PoliticalExtremeness using oglm.rtf, t stats(N ll pr2) rtf mtitle label

/\*

\*\*Binary Logit Models and Marginal Changes

Using these to quickly highlight the way that age affects the relationship between extremeness and internet use for news. Age has been a huge factor in why the data does not align with some theories and personal observation. Ultimately I would suggest all theories and observations I had in the beginning would hold if the analysis could be performed only on people 18-35. However sample size does not permit this.

\*/

quietly xi: logit extreme i.newsmedia age i.race educ loginc

quietly margins, at(age=(20(5)80))

marginsplot

quietly xi: logit internet i.polext age i.race educ loginc

quietly margins, at(age=(20(5)80))

marginsplot

/\*

\*\*Multinomial Logit Model

Using this model to examine the relationship between political views and news media sources in more detail. This model allows the reader to see the relationship all the way across the political spectrum and assumes no ordinal relationship between values.

\*/

//1=ext lib 7=ext con

eststo clear

xi: mlogit polviews i.newsmedia, rrr

eststo

xi: mlogit polviews i.newsmedia age i.race, rrr

eststo

xi: mlogit polviews i.newsmedia age i.race educ loginc, rrr

eststo

esttab est1 est2 est3 using mlog.rtf, t stats(N ll pr2) rtf mtitle label