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Attitude Extremity and Party Identification Strength on Perceived Polarization

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Abstract

Political polarization is a theme common in the media especially during presidential elections. Not everyone sees America as being extremely polarized. Some people view political parties as being more similar rather than opposites (Fiorina, Abrams, & Pope, 2010). Why do some people perceive more political polarization than others? What influences perceived polarization? This paper looks at how one's own attitude extremity and party identification strength relate to perceived polarization. For our study we examined six different political issues, political ideology and party identification by measuring participant's self-attitude and perceived attitudes of political parties. We suggest that the extremity of an individual's attitude on a political will predict how much polarization they perceive between political parties on that political issue. This could be partly due to the projection of attitudinal processes. If an individual reflects on the process of the formation of their own attitudes, such as extensive thought or emotional arousal, that person might project that same process onto members of the other political party (Van Boven, Judd, & Sherman, 2012). Therefore the more extreme someone's own attitude is, the more extreme they may perceive others' attitudes, but on the opposite side of an issue. We suggest that party identification might be formed differently than political attitudes and therefore does not predict perceived polarization between parties. Influences of perceived polarization and the consequences of greater perceived polarization are discussed. (230 words)

Keywords: attitude extremity, party identification strength, perceived polarization, polarization projection

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“There is too much at stake for us to surrender to the politics of polarization.” - Brad Henry,
Governor of Oklahoma

“At a time when our discourse has become so sharply polarized - at a time when we are far too eager to lay the blame for all that ails the world at the feet of those who think differently than we do - it's important for us to pause for a moment and make sure that we are talking with each other in a way that heals, not a way that wounds.” - Barack Obama, speech at memorial for Arizona shooting victims, Jan. 12, 2011

Attitude Extremity and Party Identification Strength on Perceived Polarization

It is apparent that many people view Americans as being politically polarized. The media during the 2012 presidential elections emphasized this political polarization. News articles with titles such as “Mitt Romney vs. Barack Obama: a polarizing election for a divided nation” (Seattle Times, Aug 29, 2012) and “Look How Far We've Come Apart” (NY Times, Sep 17, 2012) were common throughout the election season.

Although perceived political polarization is present in the media, not everyone views the nation as being politically polarized. For example, Morris Fiorina's book, *Culture Wars? The Myth of a Polarized America*, claims that the perception of political polarization of Americans is a myth. Fiorina questions, “Is the nation really polarized on these hot-button moral, religious, and cultural issues? Should we believe the media pundits and politicians who tell us that Americans are deeply divided?” From Fiorina's work we can infer that some Americans do not view other Americans as being politically polarized.

If not everyone views America as being polarized, what influences some people to view more polarization than others? What are the effects of perceiving more polarization between political parties than exists in reality? Previous research suggests that people overestimate the amount of

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polarization that exists between partisan groups (Fiorina, Abrams, & Pope, 2010; Seyle & Newman, 2006). This overestimation of polarization may also be influenced by pluralistic ignorance, which suggests that people overestimate a group's endorsement of an attitude, when in fact the attitude has little support by group members (Van Boven, 2000; Prentice & Miller, 1996).

Conformity processes surrounding pluralistic ignorance can influence people to support a particular stance on an issue in order to conform to the political party they identify with, despite privately held beliefs (Prentice & Miller, 1996; Shamir & Shamir, 1997). Furthermore, these processes can play out in voting behavior. Perceiving greater amounts of polarization has been shown to increase the likelihood of voting in presidential elections, independent of one's own attitudes and attitude extremity (Van Boven, Judd, & Sherman, 2012). The fact that political polarization has been shown to be predictive of civic action highlights the importance of understanding what predicts perceived polarization (Van Boven, Judd, & Sherman, 2012).

Greater amounts of perceived polarization might lead to misperceptions of intergroup conflict which can in turn create feelings of hostility or mistrust of an opposing group (Chambers, 2005). For example, previous research by Chambers, Baron, & Inman, (2006) found that people often misperceive the amount of disagreement between groups. Partisans assume their adversaries disagree with them much more than what their adversaries' actual beliefs indicate (Chambers, Baron, & Inman, 2005). Furthermore, partisans are more likely to perceive more disagreement about their own ideological core values and less disagreement about the ideological core values of their adversaries. This led to a situation where parties were in disagreement with what they disagreed about, leading the authors to content that "Each side saw the other as irrationally and stubbornly challenging the very foundation of their personal ideologies, while seeing consensus of opinion about their adversaries' core values" (p.43). These misperceptions of what opposing groups disagree about might increase negative feelings towards those groups.

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These misperceptions of intergroup conflict can also decrease the willingness to compromise. Misperceptions of conflict between groups can lead to mistrust of opposing groups, and increase feelings of negativity towards members of opposing groups (Chambers, 2005). These negative feelings may influence the willingness to compromise on issues. If political parties are perceived as being on opposite ends of an issue, this may pose barriers to conflict resolution and the ability to compromise on issues (Bazerman & Neale, 1992; Thompson, 1990).

In order to understand why some people perceive more polarization than others, we have to look at previous research on perceived differences among groups. There is a lot of existing research on what influences perceived differences. Three processes that influence perceived polarization and often exaggerate perceived differences are social categorization, social identity, and polarization projection (Corneille & Judd, 1999; Tajfel, 1959; Tajfel & Wilkes, 1963; Mackie, 1986; Mullen, Dovidio, Johnson, & Copper, 1992; Turner et al., 1987; Van Boven, Judd, & Sherman, 2012). For our research we examine the effects of party identification strength and attitude extremity on perceived polarization to see if we find the same effects of previous research.

Social categorization is simply the mental process of categorizing people into different groups and this process has been shown to accentuate differences between groups (Corneille & Judd, 1999; Tajfel, 1959; Tajfel & Wilkes, 1963). Similar to the how differentiating colors into reds and blues can sharpen the differences between the two, categorizing Americans into Democrats and Republicans can sharpen the perceived differences between groups. Therefore, the fact that Americans are typically categorized as Democrats or Republicans may accentuate the perceived differences between those groups (Seyle & Newman, 2006).

Social identity has also been shown to be related to perceived polarization between groups. Self-identification of a social identity is the process of identifying oneself with a particular social group, which creates an in-group as well as out-groups (Tajfel, 1959; Tajfel & Wilkes, 1963). When people identify themselves with partisan groups such as Democrats or Republicans, they are creating

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their own political in-group and out-group. Social identity has been shown to give rise to judgments that affirm the distinctiveness of the in-group relative to the out-group (Turner, Hogg, Oakes, Reher, & Wetherell, 1987). Therefore, people who strongly identify with partisan groups perceive “their side” and the “other side” in ways that affirm their group’s distinctiveness from the opposing group (Ellemers, Spears, & Doosje, 2002; Mackie, 1986; Mullen, Dovidio, Johnson, & Cooper, 1992).

Also the degree to which someone identifies with a group has been shown to influence perceived differences. The strength of identification with a group has been correlated with greater perception of difference between in-groups and out-groups. The more strongly people identify with the in-group, the more motivated they are to differentiate between in-groups and out-groups (Mackie, 1986; Mullen, Dovidio, Johnson, & Copper, 1992; Turner et al., 1987). One way of affirming differences between partisan groups is emphasizing perceived polarization between parties. Previous research has found that people who more strongly identify with a partisan group perceive greater polarization on partisan issues, including abortion (Chambers et al., 2006), support for presidential candidates (Van Boven, Judd, & Sherman, 2012), and immigration policy (Sherman et al., 2003). Our study attempts to replicate these findings with regards to perceived polarization of six different political issues. We also examine the relationship between strength of party identification and perceived polarization of ideology and party identification.

The process of projection also plays a role in perceptions of polarization. When thinking about projection, it is important to understand the difference between simple projection and polarization projection. Simple projection can be defined as the assumption that others share one’s own attitudes perceived political polarization (Cronbach, 1955; Marks & Miller, 1987; Ross, Greene, & House, 1977). Polarization projection differs from simple projection because it encompasses the projection of attitudes that are different or opposite of one’s own attitudes. Polarization projection can be viewed as projecting one’s own attitude extremity onto others. Therefore, people with more

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extreme attitudes might perceive more polarization, because they are projecting the extremity of their own attitudes onto both sides of an issue (Van Boven, Judd, & Sherman 2012).

In research that serves as a helpful case study of polarization projection, Van Boven, Judd, and Sherman (2012), conducted four separate studies, where they measured participant's own attitudes and perceived distribution of Americans' attitudes. They suggest that polarization projection is a separate process that works both simultaneously and independently of simple projection. They also suggest that polarization projection is partly a result of the assumption that others engage in similar attitudinal processes as the self. In other words projecting *how you think* as opposed to *what you think*, (this is associated with simple projection). They found that participant's own attitude extremity significantly predicted their perceived polarization of others, which supports their claim that polarization projection might be partly due to the projection of attitudinal processes. For example, if individuals participate in mental processes that increase their attitude extremity such as extensive thought or emotional arousal, they might assume others engage in similar mental processes.

Furthermore, they found that introspection about the processes underlying one's own partisan attitudes increased both polarization projection and simple projection. Because introspection increases the accessibility of people's perceptions of their own attitudinal processes, these results provide more direct evidence that assumed similarity of attitudinal processes contributes to polarization projection.

We set about to test whether these same effects of polarization projection were present for eight measures of perceived polarization: six different political issues, ideology, and party identification. We decided to use six different political issues to increase generalizability of these processes. We thought that these six political issues were representative of the ANES measures used in nationally representative samples. Our research examines if these processes are consistent across different political issues instead of only looking at one political issue as previous research has done.

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Furthermore, Van Boven, Judd, and Shermans' (2012) research, which found that attitude extremity and party identification were significant predictors of perceived polarization, measured perceived polarization of support to presidential candidates. When looking at perceived polarization of candidate support, it might be clearer that there are only two sides that attitudes could fall into and that these attitudes are in opposition of each other. With political issues, two distinct sides might not be as clear and therefore the effects of attitude extremity and party identification strength might act differently on these measures of perceived polarization.

We also examine perceived polarization on two ideological measures (political ideology and party identification) which have not been measured in previous studies. Political ideology and party identification are more general and abstract concepts than specific political issues. We wanted examine perceived polarization of these ideological measures because we thought that attitude extremity and party identification strength might have different effects on perceptions of ideologies versus perceptions of issue stances. We predicted we would find results consistent with Van Boven, Judd, and Shermans' research, which suggests that individuals who are more extreme in their own attitudes, perceive greater amounts of polarization between parties. We also suspected to find similar results to previous research on party identification strength, which suggests that the stronger someone identifies with a political party, the more polarization they will perceive between parties.

For our study we also looked at the effect of the presidential debates on attitude extremity and perceived polarization. The presidential debates are one of the most anticipated portions of each presidential campaign. The Washington Post states, "On October 3, 2012, about 67 million people tuned into the first presidential debate of the election, 15 million more people than the first presidential debate during the last presidential election" (Moraes, 2012). With this much attention from the public, we wondered if watching a presidential debate has an effect on viewers own attitudes. We suspected that if watching the debates shifted political attitudes, this might also influence perceptions of polarization.

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Previous research indicates that presidential debates have little effect on voting behavior or the outcome of an election, but might have some impact on candidate likability and voter knowledge (Lanoue & Schrott, 1989; Benoit, Webber, & Berman, 1998). For example, an article from The Daily Beast says, “A 2008 Gallup study found that between 1960 and 2004, there were only two years where debates made a difference in actual votes” (Green, 2012). Political Scientists have shown that presidential debates rarely have any effects on voting behavior or the outcome of an election (Matthews, 2012).

On the other hand, the debates are full of memorable moments and can increase a candidate's popularity. Lanoue and Schrotts' (1989) research showed that debate-watchers' degrees of warmth towards Mondale in the 1984 Mondale-Reagan election, significantly increased after watching the debate. But these effects seem to be short term and have little effect on the outcome of the election. “They sometimes have a short-term effect, a bounce in response to the debates, but at the end of the day there often is not much of an effect,” says Robert Erikson, author of *The Timeline of Presidential Elections*.

Other research has shown that presidential debates increase voter knowledge about specific political issues (Benoit, Webber, & Berman, 1998). We contemplated whether an increase in voter knowledge would shift attitudes and acknowledged this possibility. So far there is no significant evidence suggesting that presidential debates shift attitudes about political issues. Because of the lack of research of attitudinal change from debates and the prominence of the debates as an important political event, we decided to use the presidential debates as a ground for further research of attitude extremity and perceived polarization. Our study allows a test of the effects of watching a presidential debate on own attitudes, perceptions of others' attitudes, and the difference between the two.

Method

Participants

Participants included 160 undergraduate-student volunteers (57 males, 101 females, 1 preferred not to say) who received credit for a general psychology course. The average age among participants was 18.82 with a range of (18-33). The majority of students identified as white (81.8% White or Caucasian). The rest of the students identified as (1.9% African American or Black, 4.4% Hispanic or Latino, 6.9% Asian or Pacific Islander, 2.5% Native American or Inuit, 1.3% Other, and 1.3% Preferred not to Say). Students were asked to choose who they would vote for before and after the debate. 115 participants said they would vote for Obama, 41 participants said they would vote for Romney, and 4 participants did not select an answer before and after the debate, but one participant switched voting choice from Obama to Romney following the first debate.

Design and Procedure

For this study we looked at a few different independent variables. These included attitude extremity, party identification strength, and whether or not participants watched the debate (which I will now refer to as debate condition). These variables are defined in more detail below in the measures section. Our primary dependent variable was perceived polarization. This was calculated for six political issues and for ideology and party identification.

To measure the effect of debate condition, the study was designed as a within subjects measure and also a between subjects measure. We wanted to capture the actual effects of watching the debate and a within subjects measure is the best procedure to measure these effects. But because the pre-debate and post-debate questionnaires consisted of identical questions, we were concerned about possible anchoring effects, meaning that answering the same questions twice might influence participant's responses. In order to check for this, we also set up the design as a between subjects measure using scores from the pre-debate questionnaire and post-debate questionnaire of different groups.¹

¹ In this case the post-debate questionnaire came from participants who did not receive a pre-debate questionnaire and therefore had not seen the questions before watching the debate.

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Participants were randomly assigned into two groups that were separated into different rooms. Half of the participants were randomly assigned to fill out a pre-debate questionnaire and the other half filled out a word puzzle. Before the debate, students were instructed not to speak to each other and not to use any other devices during the debate in order to try to keep them as engaged as possible. During the debate, researchers monitored the participants to ensure full engagement while watching the debate.

After watching the debate, both groups filled out a post-debate questionnaire. The post-debate questionnaire included the exact same questions as the pre-debate questionnaire, with added questions about the debate at the end. These included questions about the candidates' performance in the debate and the amount that different topics were covered during the debate. After collecting all of the questionnaires, students were given debrief sheets. Researchers emphasized the importance of not sharing any information about the experiment to anyone else. The same procedure was repeated for all three debates.

When conducting the analysis we compared the means of the post-debate questionnaires of both groups (pre debate condition versus word puzzle condition) to see if there were any significant differences. A difference in these scores would indicate an effect of the pre-debate questionnaire or anchoring effects. Since there was an effect of the pre-debate questionnaire, we used a between subjects measure for our analysis rather than the within subjects measure, to ensure we were capturing the effects of the debate. We compared results of the pre-debate questionnaire with the post-debate questionnaire of the other group (the group who worked on a word puzzle) to conduct a between subjects measure.

Measures

Self-attitudes of political issues were measured on a five point scale ranging from 1 to 5, with 1 being the most liberal position, 5 being the most conservative position and 3 being a neutral position. These were calculated for six political issues. The six different issues we looked at came

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from the ANES measures, which adapted slightly in order to make them more understandable. The six issues we looked at concerned the following: government spending/services, defense spending, public versus private insurance, responsibility for jobs, importance of the environment versus the importance of jobs, and helping minorities. I will now refer to each issue as follows: *government, defense, insurance, responsibility, environment, and minorities.*²

To give an example of how the issue questions worked, the question concerning government spending/services was, *“Some people think the government should decrease spending and provide fewer services in areas such as health and education. Other people think the government should increase spending to provide more services in areas such as health and education.”*

Then participants were asked to place themselves on a five point scale from, strongly believe less spending/services to strongly believe more spending/services. Then subjects were asked to use the same scale to distribute Americans and estimate the attitudes of Democrats, Republicans, Obama, and Romney. This question as well as responsibility and minorities had liberal scores on the right and conservative scores on the left, which was the opposite of the rest of the questions. For our analysis, we reverse coded questions these questions so that all lower scores indicate more liberal attitudes and higher scores indicate more conservative attitudes.

A similar five point scale was used to measure self-perceived ideology, ranging from 1 (extremely liberal) to 5 (extremely conservative). Participants were also asked to estimate the ideology of Americans, Democrats, Republicans, Obama, and Romney on the same five point scale from 1 to 5.

Party identification was also measured on a five point scale from 1 to 5, where 1 represented identifying strongly as a Democrat and 5 represented identifying strongly as a Republican and 3 indicated identification with neither party. Participants were also asked to estimate the party

² For the rest of the questions, refer to the Appendix B

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identification strength of Americans, Democrats, Republicans, Obama, and Romney on the same five point scale from 1 to 5.

The order for each set of questions was always the same: 1. self-attitude/ideology, 2. perceived distribution of American attitudes, 3. perceived attitudes of Democrats, Republicans, Obama, and Romney. The pre-debate and post-debate questionnaires had identical questions, with added questions at the end of the post-debate questionnaire. These questions included seven questions about the performance of the candidates on a five point scale from definitely Obama to definitely Romney. Then participants were asked to rate the amount each issue was discussed during the debate on a seven point scale ranging from “Not at all” to “A lot”. (political ideologies, party identification, and six issues). Finally participants were asked their likelihood of voting on a ten point scale, whether they had watched the previous debates, and demographic questions

Results

Data Transformation

For our analysis we re-calculated scores in order to more easily evaluate our independent measures; self-attitude, attitude extremity, party identification, and party identification strength. We centered our scale on zero, meaning that instead of a scale from 1 to 5, we changed the scale to be from -2 to 2, with 0 indicating a neutral response. With this scale we could easily evaluate responses because negative scores indicate more liberal responses and positive scores indicate more conservative responses. But our sample was not an equal distribution of conservative and liberal ideologies³, and was instead skewed left (more liberal) and therefore a slightly “liberal” response could actually represent a slightly conservative response in our sample. Because our sample was skewed to the left or more liberal side we decided to mean-center scores in order to better capture attitude shifts. In other words, we subtracted the overall mean score for each issue from each participant’s score on that issue, so that negative scores indicated a more-liberal-than-average score

³ About two thirds of participants identified with liberal ideologies.

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and positive scores indicated a more-conservative-than-average score. Self-perceived ideology scores were calculated in a similar manner by centering scores on the mean. Attitude extremity scores for each issue and ideology extremity scores were calculated by squaring the values of self-attitudes for each issue and for self-perceived ideology. Extremity scores for individual issues and ideology ranged from 0.00 to 6.97.

For the average self-attitude across issues and average issue extremity we left the scales centered on zero, meaning average self-attitude scores ranged from -2 to 2 and average attitude extremity scores ranged from 0 to 4. We kept the average attitude and attitude extremity scores centered on zero because once we mean-centered participants scores, each issue was operating on a different scale relative to the mean of that issue. We thought it would be better to measure average attitudes on one unified scale.

To examine party identification, we centered scores around zero, where -2 would indicate the strongest Democrat identification, 2 would indicate the strongest Republican identification, and 0 would indicate identification with neither party or identification as an independent. Party identification was left centered on zero because we thought that the boundaries of political parties were more concretely defined than ideology or issue stances. For example, we suspected that the term “liberal” has more variability than the term “Democrat”. Party identification strength was then calculated by squaring the values of party identification scores. Therefore 0 would represent the least amount of identification strength and 4 would represent the highest amount of identification strength.

Our dependent variable was perceived polarization which we separated into two sets:

1. Perceived polarization between parties on issues both independently by issue and averaged across all six issues. Average perceived issue polarization was calculated by averaging all six of the issue polarization means. I will now refer to these measures as *perceived issue polarization*.
2. Perceived polarization between parties on party identification strength, which I will now refer to as *perceived identification polarization*.

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Perceived Democrat and Republican attitude scores remained on the original scale from 1 to 5. The issues; government, environment, and minorities were reverse coded, meaning that most liberal position was on the right and the most conservative position was on the left. For these questions we subtracted perceived Republican scores from perceived Democrat scores and for the rest of the issues we subtracted perceived Democrat scores from perceived Republican scores. Therefore, larger numbers would mean greater perceived polarization between parties on each issue. Similarly, perceived identification polarization was calculated by subtracting perceived Democrat identification strength scores from perceived Republican identification strength scores.

Regression Models

Overall we found a pattern that attitude extremity predicted perceived polarization on issues, but not on party identification strength. One's own party identification strength did not predict perceived issue polarization or perceived identification polarization. This pattern is illustrated in Figure 1 of Appendix A. This figure shows the relationships of the two independent variables (attitude extremity and party identification strength) with the two subsets of the dependent variable (perceived issue polarization and perceived identification polarization). These findings replicate similar results with regards to attitude extremity as a predictor of perceived polarization, but did not replicate findings of previous research, which found a significant relationship between party identification strength and perceived polarization.

We conducted multiple simultaneous linear regression models for two main independent measures, attitude extremity and party identification strength, while controlling for, self-attitude, party identification, debate contrast, and debate condition. We also looked at our two main independent variables separately and together to see if the correlation between attitude extremity and party identification was affecting the model. We compared these two independent variables with two subsets of our dependent variable, perceived attitude polarization and perceived identification polarization.

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Here is an example of the formula used to conduct a linear regression model on the issue of defense spending.

Perceived Polarization of Defense Spending

$$\begin{aligned}
 &= \beta_0 + \beta_1(\text{Own Attitude}) + \beta_2(\text{Own Attitude Extremity}) + \beta_3(\text{Party Id}) \\
 &+ \beta_4(\text{Party Id Strength}) + \beta_5(\text{Debate Contrast 1}) + \beta_6(\text{Debate Constrast 2}) \\
 &+ \beta_7(\text{Debate Condition})
 \end{aligned}$$

Therefore in our analysis to measure perceived polarization on the issue of defense spending looked like this:

Perceived Polarization of Defense Spending

$$\begin{aligned}
 &= (1.46) + (-.15)(\text{Own Attitude}) + (.32)(\text{Own Attitude Extremity}) \\
 &+ (-.27)(\text{Party Id}) + (-.07)(\text{Party Id Strength}) + (-.15)(\text{Debate Contrast 1}) \\
 &+ (-.38)(\text{Debate Constrast 2}) + (.09)(\text{Debate Condition})
 \end{aligned}$$

From this regression model, we found that one's own attitude extremity significantly predicted perceived polarization of defense spending, $t(147) = 2.97$, $p = .003$ and that party identification strength did not significantly predict perceived polarization of defense spending, $t(147) = -.74$, $p = .46$.

Descriptives

Overall the means for self-attitude of the six issues were slightly liberal (negative values), with the exception of the issue of responsibility of the government with had a mean of $m = .26$. Self-perceived ideology and party identification also leaned left, or slightly more liberal. Average perceived polarization for the six political issues and the two ideology measures, ranged from 1.71 to 2.94, with defense spending having the smallest amount of perceived polarization and party identification having the greatest amount of perceived polarization. The average amount of perceived polarization across issues was 1.87. For more information on means and standard deviations of our measures refer to Table 1 of Appendix A.

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We found that party identification and self-attitudes had positive correlations with each other for all six issues. Party identification also had a strong positive correlation with the average self-attitude across issues. Party identification strength and attitude extremity also was positively correlated with each of the six issues, with the exception of the environment. These correlations were also not as strong as party identification and self-attitude. Party identification strength and the average attitude extremity were slightly positively correlated $r=.18$. For the rest of the correlations between these variables, refer to Table 2 of Appendix A.

Effect of Debate

We ran linear regression models for self-attitudes for the six political issues as a between subjects measure. We compared self-attitude scores before and after the debate, while controlling for party identification and which debate participants watched for the study. Overall, watching the debate did not significantly affect self-attitudes with the exception of the issue on the environment. For detailed statistics of the effects of debate condition on self-attitudes, refer to Table 3 of Appendix A. We also tested whether watching the debates had an effect on perceived polarization for all six issues and perceived polarization of ideology and party identification strength. For each of these dependent measures, watching the debates had no significant effects on perceived polarization. Lastly, we tested to see whether there were any interactions between watching the debate and either of our independent variables, attitude extremity and party identification strength. We found no significant interactions of debate condition.

Perceived Issue Polarization

Average attitude extremity significantly predicted the average perceived polarization across issues $B=.59$, $t(147)=4.74$, $p<.001$. Attitude was also a significant predictor of perceived issue polarization for defense and insurance and was a marginally significant predictor of perceived issue polarization for responsibility and minorities. All correlation coefficients were positive and the largest coefficient was for the average attitude extremity across issues. Party identification strength

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was a significant predictor of perceived issue polarization for only one out of six issues and did not significantly predict average perceived issue polarization. Most of the correlation coefficients were also positive but not as large as the correlation coefficients for attitude extremity. Neither attitude extremity nor party identification strength was a significant predictor of our ideology measures, political ideology polarization or party identification polarization. For the detailed statistics of these regressions refer to Table 4 of Appendix A.

Discussion

Overall, we found a pattern such that greater attitude extremity predicted greater amounts of perceived polarization. This was true for polarization on issues, but not for perceived polarization of party identification strength. Our findings also suggest that one's own strength of party identification does not predict greater perceived polarization between parties or perceived polarization on issue attitudes. This leads to the question of why attitude extremity predicts perceived polarization while party identification strength does not.

Attitude extremity and party identification strength are positively correlated $r=.18$. The correlation between the two variables could have been affecting the models and in order to check for this we ran the regression models with party identification strength and attitude extremity simultaneously. This would account for any shared variance between the two measures.

One possibility for why attitude extremity predicts perceived polarization and party identification does not is that the value or importance of attitudes might be influencing perceived polarization. It could be that this third variable of attitude importance is what is influencing perceived polarization. For example, attitude extremity could have a stronger correlation with importance/value than party identification strength. Someone's own attitude extremity might derive from the personal importance or value of that issue. For example, if someone has an extreme attitude about government spending, it might be because this issue has personal importance or value to them.

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Therefore it could be that attitude importance is *indirectly* predicting perceived attitude polarization, by working through attitude extremity.

This hypothesis also suggests that the correlation between political identification strength and political identification importance might not be as strong as the correlation between attitude extremity and attitude importance, which is consistent with our results in which party identification did not significantly predict perceived polarization whereas attitude extremity did. For example, someone who strongly identifies as a democrat might place little value or importance on this identity or it might be very important to someone to identify as a moderate and not identify with either democrats or republicans. This could be why party identification strength did not significantly predict perceived identification polarization.

Another possibility for why we did not find effects of party identification strength on perceived polarization is that our sample is different from a nationally represented sample. Our sample consisted of mostly freshman undergraduate students who were relatively young in age ($m=18.82$). It could be that younger individuals have not fully developed identification with a political party or that they do not participate in the same amount of political rhetoric that older individuals do. This is another possible reason that we did not find a significant relationship between party identification strength and perceived polarization.

One research question to further investigate is what the direction of the relationship between attitude extremity and perceived polarization is. Is the extremity of one's own attitude influencing perceived polarization through processes such as polarization projection? Or are perceptions of polarization influencing the extremity of attitudes through conformity processes around pluralistic ignorance? Another relationship to investigate further is the relationship between our two independent measures, attitude extremity and party identification strength. Understanding the relationship between attitudes and party identification might give further insight on the influences of perceived polarization. For example, if party identification significantly influences the formation of

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attitudes, then party identification might indirectly be affecting perceived polarization, even when party identification strength does not directly influence perceived polarization.

Effect of Debate

Our results showed that watching a presidential debate did not have an effect on attitude extremity or perceived polarization. The stability of attitudes is supported by previous findings in a couple of ways. First, although debates have been shown to influence the popularity or likability of a candidate, there has been no research indicating that presidential debates shift attitudes about political issues. We thought that it might be possible that the debates would shift political attitudes because debates have been shown to increase voter knowledge about political issues (Benoit, Webber, & Berman, 1998). But previous research has also shown a number of ways in which attitudes are resistant to change. For example, the more importance or value an attitude holds, the more resistant it is to change (Rhine & Severance 1970). Therefore our results are not that surprising when examining previous research on the effect of presidential debates.

It could also be that our measures were not sensitive enough to accurately capture changes in attitudes. Our five point scale might not be able to show smaller amounts of change in attitude. If we used a larger scale such a seven point scale, we might have been able to more accurately calculate changes in attitudes.

One question to investigate further is whether original placement of attitudes or party identification plays a role in attitude change. For example, it could be that participants in our study were already extreme in their attitudes and that more extreme attitudes are less likely to change. It would be interesting to look a sample of participants with relatively moderate attitudes and see if there is a shift in their attitudes about political issues following a presidential debate. It would also be interesting to look at people who do not identify with either the Democratic or Republican Party to see if they are more likely to shift in their attitudes after watching a debate.

Conclusion

Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

Perceived polarization is something that is deeply rooted in our nation. Perceived polarization is often overestimated and can affect individuals' behavior. Perceptions of political polarization can affect voting behavior, perceptions of conflict, feelings toward out-groups, and willingness to compromise. Understanding what influences perceived polarization can help us be able to more accurately regulate these perceptions, which in turn can influence the other outcomes of overestimating polarization between political parties.

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Appendix A



Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

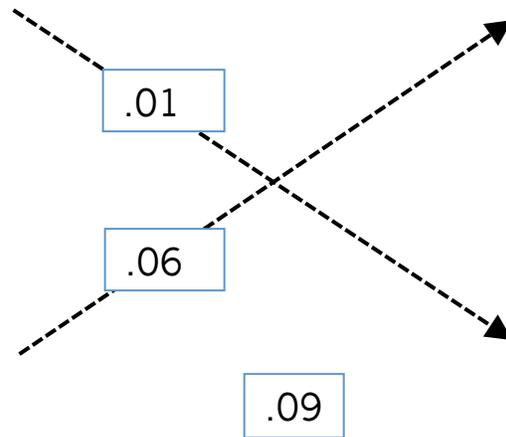


Figure 1. Multiple simultaneous regression model which shows the relationship between peoples' own attitude extremity, their perception of polarization of others' attitudes on political issues, their own party identification strength, and their perception of the polarization of other's party identification strength. Attitude extremity significantly predicts perceived issue polarization, while party identification strength does not predict perceived identification polarization. Standardized Coefficients (Betas) are reported.

Table 1
Means and Standard Deviations of Measures

	Own Responses		Estimated Republican Responses		Estimated Democrat Responses		Perceived Polarization b Republicans and Democrats	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Government	-.64	1.08	2.28	1.27	3.83	1.12	1.56	2.17
Defense	-.33	.99	3.93	.96	2.24	.99	1.71	1.71
Insurance	-.41	1.33	4.19	.99	1.68	.78	2.51	1.57
Responsibility	.26	1.15	4.0	1.03	2.01	.83	1.95	1.61
Environment	-.36	1.03	2.04	.88	3.63	.88	1.59	1.47
Minorities	-.52	1.19	2.1	1.02	4.03	.8	1.93	1.52
Average	.00	.74	3.08	.35	2.91	.31	1.87	1.12
Ideology	-.34	.99	4.12	.86	2.0	.84	2.13	1.57
Party ID	-.33	1.14	4.49	.69	1.55	.69	2.94	1.23

Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

Table 2

Correlations Between Party ID and Party ID strength and Attitudes and

Attitude Extremity

Attitude	Party ID	Attitude Extremity	Party ID Strength
Government	.41	Government	.18
Defense	.4	Defense	.2
Insurance	.58	Insurance	.18
Responsibility	.41	Responsibility	.03
Environment	.43	Environment	-.02
Minorities	.29	Minorities	.05
Average	.64	Average	.18

Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

Table 3

Effect of Debate on Self-Attitudes

Issue	Debate		Party ID		Debate*Party ID	
	B	t	B	t	B	t
Government	-.001	-.01	.4	5.73*	.03	.42
Defense	.018	.24	.352	5.39*	.056	.86
Insurance	.011	.12	.641	8.3*	-.136	-1.76*
Responsibility	-.059	-.68	.42	5.66*	-.014	-.19
Environment	.205	2.61*	.378	5.69*	.076	1.14
Minorities	-.176	-1.86*	.3	3.73*	-.009	-.12

Note. $p < .05 = *$, $p \leq 1 = \cdot$.

Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

Table 3
Perceived Polarity of Political Issues, Ideology, and Party Identification Table

Issue	Attitude			Attitude Extremity			Party ID			Party ID Strength		
	B	Std E	t	B	Std. E	t	B	Std. E	t	B	Std. E	t
Gov	-.45	.19	-2.31*	.17	.12	1.37	-.02	.17	-.11	.2	.13	1.58+
Def	-.15	.14	-1.06	.32	.11	2.97*	-.27	.13	-2.12*	-.07	.09	-.74
Ins	-.12	.12	-1.02	.28	.08	3.52*	-.13	.14	-.93	.2	.09	2.28*
Resp	-.22	.12	-1.77+	.18	.1	1.82+	.18	.13	1.38	.11	.09	1.21
Env	-.32	.13	-2.48*	.17	.09	1.79+	-.06	.12	-.5	.06	.08	.67
Min	-.09	.12	-.79	.03	.08	.36	-.19	.11	-1.74+	.05	.08	.57
Avg	-.27	.15	-1.79+	.59	.13	4.74*	-.15	.1	-1.54	.05	.06	.74
Ideo	-.04	.23	-.19	.09	.19	.47	-.12	.15	-.78	.13	.09	1.4
PtID	.00	.18	.004	.01	.16	.08	-.06	.12	-.5	.08	.08	1.05

Note. Gov=Government spending on services, Def=Defense Spending, Ins=Public vs Private Insurance, Resp=Responsibility for jobs, Env=Environment vs Jobs, Min=Help to minorities, Avg=Average Polarization across issues, Ideo=Ideology, PtID=Party Identification

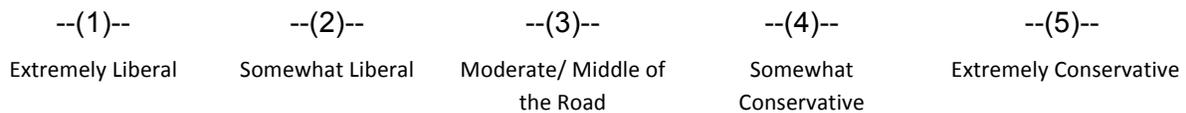
* $p < .05$ *, $p \leq .1$ +

Appendix B

Below is the complete set of questions for the ideology section of the questionnaire. Following, the rest of the questions are listed and follow the same format of, self, distribution of Americans, perceived American attitudes, perceived attitudes for Democrats, Republicans, Obama, and Romney.

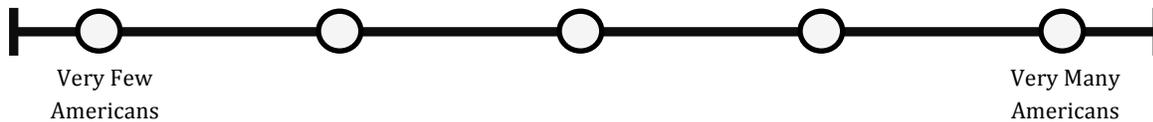
We hear a lot of talk these days about liberals and conservatives. Here is a five-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative.

Where would you place **YOURSELF** on this scale?

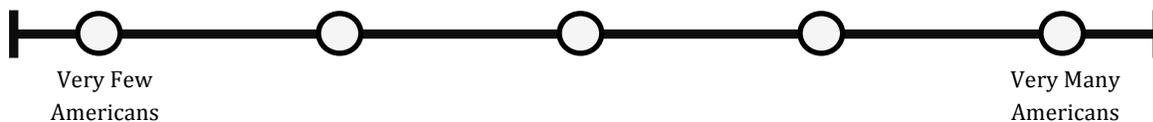


4) Now, how many **AMERICANS** hold each political view on the scale? Please **check (✓) or X** the circle for the approximate number of Americans who hold each view.

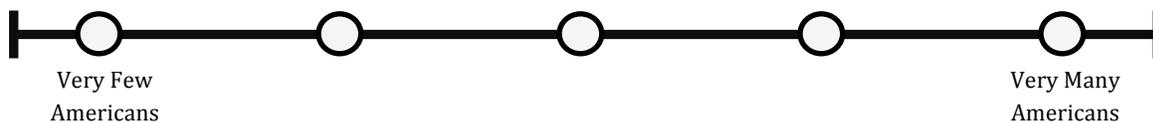
How many Americans would place themselves at EXTREMELY LIBERAL on the scale?



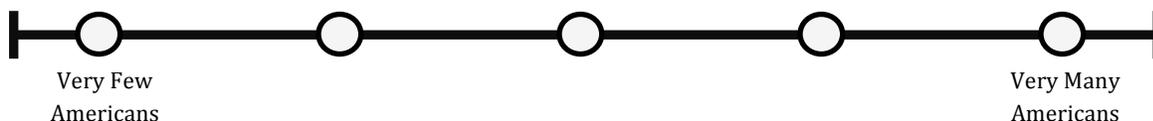
How many Americans would place themselves at SOMEWHAT LIBERAL on the scale?



How many Americans would place themselves at MODERATE OR MIDDLE OF THE ROAD on the scale?

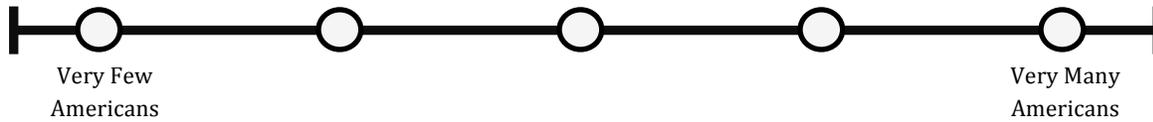


How many Americans would place themselves at SOMEWHAT CONSERVATIVE on the scale?



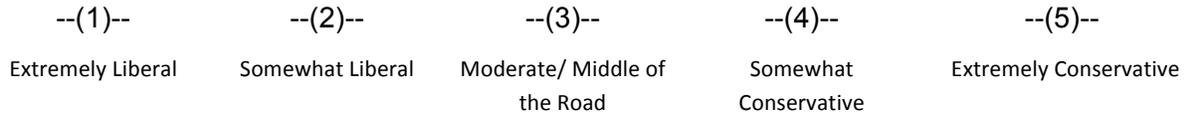
How many Americans would place themselves at EXTREMELY CONSERVATIVE on the scale?

Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

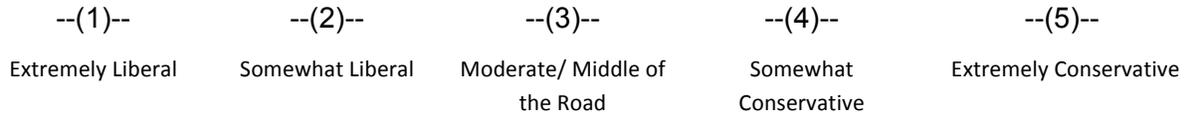


5) Again, here is the five-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative.

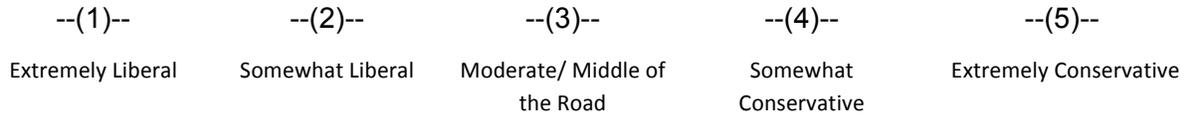
Where would you place **AMERICANS** on this scale, on average?



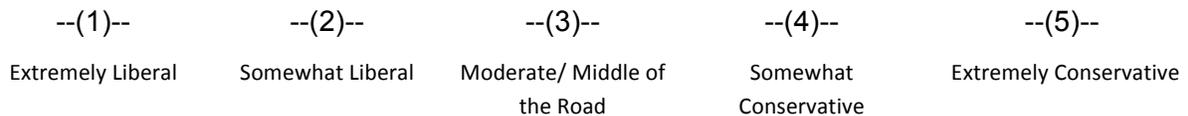
Where would you place **DEMOCRATS** on this scale, on average?



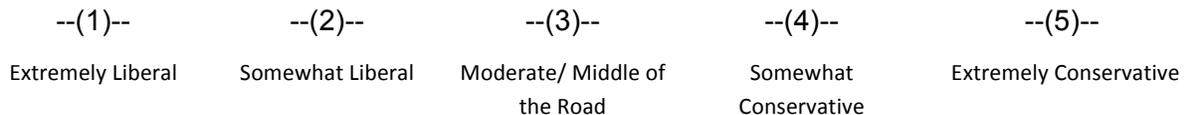
Where would you place **REPUBLICANS** on this scale, on average?



Where would you place **BARACK OBAMA** on this scale?



Where would you place **MITT ROMNEY** on this scale?



Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

How strongly do you identify with the Democratic or Republican Party? Here is a five-point scale on which the political views that people might hold are arranged from strongly identifying with the Democratic Party to strongly identifying with the Republican Party.

Where would you place **YOURSELF** on this scale?

--(2)--	--(-1)--	--(0)--	--(1)--	--(2)--
Strongly identify with Democratic Party	Somewhat identify with Democratic Party	Independent/Other	Somewhat identify with Republican Party	Strongly identify with Republican Party

Some people think the government should decrease spending and provide fewer services in areas such as health and education. Other people think the government should increase spending to provide more services in areas such as health and education.

Where would you place **YOURSELF** on this scale?

--(1)--	--(2)--	--(3)--	--(4)--	--(5)--
Strongly believe less services / spending	Somewhat believe less services / spending	Undecided, in between, or neither	Somewhat believe more services / spending	Strongly believe more services/spending

Some people believe we should decrease defense spending. Others feel that defense spending should be increased.

Where would you place **YOURSELF** on this scale?

--(2)--	--(-1)--	--(0)--	--(1)--	--(2)--
Strongly believe decrease defense spending	Somewhat believe decrease defense spending	Undecided, in between, or neither	Somewhat believe increase defense spending	Strongly believe increase defense spending

Some people feel there should be a government insurance plan that would cover all medical and hospital expenses for everyone. Others feel that all medical expenses should be paid by individuals only through private insurance plans like Blue Cross or other company-paid plans.

Where would you place **YOURSELF** on this scale?

--(1)--	--(2)--	--(3)--	--(4)--	--(5)--
Strongly support government insurance	Somewhat support government insurance	Undecided, in between, or neither	Somewhat support only private insurance	Strongly support only private insurance

Running head: ATTITUDE EXTREMITY ON PERCEIVED POLARIZATION

Some people feel it is the government's responsibility to see that every person has the opportunity for a job and can maintain a decent standard of living. Others think it is solely the individual's responsibility to maintain a decent standard of living and get ahead on their own.

Where would you place **YOURSELF** on this scale?

--(1)--	--(2)--	--(3)--	--(4)--	--(5)--
Strongly believe government's responsibility	Somewhat believe government's responsibility	Undecided, in between, or neither	Somewhat believe individual's responsibility	Strongly believe individual's responsibility

Some people think that maintaining jobs and our standard of living is more important, even if it damages the environment. Other people think it is more important to protect the environment, even if it costs some jobs or somewhat reduces our standard of living.

Where would you place **YOURSELF** on this scale?

--(1)--	--(2)--	--(3)--	--(4)--	--(5)--
Strongly believe jobs more important than environment	Somewhat believe jobs more important than environment	Undecided, in between, or neither	Somewhat believe environment more important than jobs	Strongly believe environment more important than jobs

Some people feel that the government should not make any special effort to help minorities achieve a more equal social and economic position because they should help themselves. Other people feel that the government in Washington should make an effort to improve the social and economic position of minorities.

Where would you place **YOURSELF** on this scale?

--(1)--	--(2)--	--(3)--	--(4)--	--(5)--
Strongly feel minorities should help themselves	Somewhat feel that minorities should help themselves	Undecided, in between, or neither	Somewhat feel government should help minorities	Strongly feel government should help minorities
