**Online Appendix for: “(Mis)perceptions of Partisan Polarization in the American Public”**

**This Version: 20 November 2014**

**Online Appendix A: Results Excluding Partisan Leaners**

In the main text, we present our results including partisan leaners (following Keith et al 1992). To assess robustness, we replicate our findings excluding partisan leaners in Tables A1-A3. The point estimates are quite similar when analyzing this restricted sample and the substantive conclusions are unchanged.

**Online Appendix B: Assessing Measurement Effects**

In the main text, we compared the actual degree of issue polarization between Democratic and Republican respondents against people’s perceptions of the degree of polarization between partisan subgroups. We did this by first asking people to place themselves on seven-point scales and then placing “typical Democratic voters” and “typical Republican voters.” These questions were asked right after one another, consistent with other studies of false polarization in the literature. One concern with this measurement approach is that it may inflate the degree of false polarization since people are comparing themselves directly to other voters. People may first place themselves in the moderate range of the issue scale, and then place other voters as more extreme since they have themselves as a clear reference point. In short, people’s placement of themselves might act as anchor for their placements of other partisans (Brady and Sniderman 1985, Brody and Page 1972).

 To investigate this issue, we conducted a follow-up survey on a sample of 1062 individuals recruited by Survey Sampling International (SSI). The survey was administered between August 20-23, 2014. This is not a probability sample; respondents opt in to complete online questionnaires and therefore no response rate can be calculated. Accordingly, the levels of actual and perceived polarization reported here cannot be compared to those reported in the main text (in which we analyze a probability sample from GfK Custom Research). Rather, the purpose of this exercise is to assess the extent to which measurement techniques affect estimates of false polarization. We replicated two issues from the original study (capital gains taxes and immigration) and included a new issue (same-sex marriage).

***Design***

 We randomly assigned respondents to two experimental treatment conditions (see Table A4).[[1]](#footnote-1) In Condition A, respondents first reported their self-placement on the issue scale before placing other voters on the same scale. In Condition B, respondents first placed other voters before placing themselves. In both conditions, there was a large gap in the questionnaire between the self and other placements. Respondents answered four demographic questions (gender, race/ethnicity, age, education), as well as three open-ended questions intended to both serve as distractors and increase the length of survey time between measurements (“What was the name of the last movie you saw in a theater?”, “Think back to the last time you filled your car up with gas. How much did the gas cost per gallon?”, “Where would you like to take your next vacation?”).

***Survey Items***

*Party Identification*. Respondents were first asked “Generally speaking, I think of myself as a:” (response options: “Democrat,” “Republican,” “Independent,” “Other”). Respondents identifying with one of the two major parties were then asked “Would you call yourself a strong [Democrat/Republican] or a not very strong [Democrat/Republican]?” All other respondents were asked “Do you think of yourself as closer to the Democratic Party or closer to the Republican Party?” As in the main text, we bifurcated respondents into partisan subgroups by pooling leaners and partisans together.

 *Taxes*. To measure self-placement, respondents were asked: “The tax rates on the profits people make from selling stocks and bonds, called capital gains taxes, are currently lower than the income tax rates many people pay. Do you think that capital gains tax rates should be increased, decreased, or kept about the same?” (response options: “increased a lot,” “increased somewhat,” “increased a little,” “kept about the same,” “decreased a little,” “decreased somewhat,” “decreased a lot”). To measure placement of partisans, respondents were asked: “The tax rates on the profits people make from selling stocks and bonds, called capital gains taxes, are currently lower than the income tax rates many people pay. Do you think the TYPICAL [DEMOCRATIC/ REPUBLICAN] VOTER would want capital gains tax rates to be increased, decreased, or kept about the same?” with the same response options.

 *Immigration*. To measure self-placement, respondents were asked: “There is some debate about whether or not undocumented immigrants who were brought to this country illegally as children should be deported. Which of the following positions on the scale below best represents your position on this issue?” (response options: “very strongly oppose deportation,” “somewhat strongly oppose deportation,” “not so strongly oppose deportation,” “neither support nor oppose deportation,” “not so strongly support deportation,” “somewhat strongly support deportation,” “very strongly support deportation”). To measure placement of partisans, respondents were asked: “There is some debate about whether or not undocumented immigrants who were brought to this country illegally as children should be deported. Which of the following positions do you think best represents the opinion of the TYPICAL [DEMOCRATIC/REPUBLICAN] VOTER?” with the same response options.

 *Same-Sex Marriage*. To measure self-placement, respondents were asked: “There is some debate about whether the government should permit same-sex couples to be married. Which of the following best represents your position on this issue?” (response options: “very strongly oppose same-sex marriage,” “somewhat strongly oppose same-sex marriage,” “not so strongly oppose same-sex marriage,” “neither support nor oppose same-sex marriage,” “not so strongly support same-sex marriage,” “somewhat strongly support same-sex marriage,” “very strongly support same-sex marriage”). To measure placement of partisans, respondents were asked: “There is some debate about whether the government should permit same-sex couples to be married. Which of the following positions do you think best represents the opinion of the TYPICAL [DEMOCRATIC/REPUBLICAN] VOTER?” with the same response options.

***Test #1: Does Increasing the Time Between Measurements Eliminate the Effect?***

As a first test, we assessed whether the false polarization effect emerged even when separating in time the measurement of self and others’ positions. To do so, we present the relevant estimand from equation (1) in the main text (*η* − *γ*) in Table A5. This test only analyzes data from respondents in Condition A. Averaging across the three issues, we find that respondents perceived a .303-unit gap between Republicans’ and Democrats’ issue positions while in reality the gap was only .189 units. The difference of .114 units is statistically significant (*t* = 5.6, *p* < 0.01). This false polarization effect is about half the size of that reported in the main text and serves as the benchmark for subsequent analysis. As mentioned above, given that these data are not from a probability sample, the effect sizes are not comparable to those reported from the original study.

***Test #2: Does it Matter Whether Self or Other Placements Are Asked First?***

We next explored whether a false polarization effect emerged even when others’ positions are asked before respondents are asked to report their own positions. As noted above, people might perceive other partisans to be less extreme if they did not place themselves as moderate initially. To evaluate this possibility, we examine respondents in Condition B only and estimate equation (1) (see Table A6). Averaging across the three issues, the difference between perceived and actual polarization is 0.65 units, which is significantly different from zero (*t* = 3.3, *p* < .01). The effect size is about 57% as large in Condition B compared to Condition A, suggesting that alterations in measurement strategy can reduce but not eliminate the false polarization effect.

 We also tested whether the false polarization effect was significantly larger in Condition A than Condition B. To do so, we estimated the following regression model:

*Yi* = *βOi* + *γ*(*Oi* × *Ri*) + *ηPi* + *δ*(*Oi* × *Si*) + *φ*(*Oi* × *Ri*× *Si*) + *λ*(*Pi* × *Si*) + *εi*

where *i* indexes respondents, *Yi* represents a survey response provided by the respondent, *Oi* represents a dummy variable indicating whether the response is the respondent’s own position, *Ri* is a dummy variable indicating whether the respondent is a Republican (Democrats are the baseline category), *Pi* is a dummy variable indicating whether the response is the respondent’s perceived position of partisans, *Si* is a dummy variable indicating whether the respondent was assigned to the condition where he/she reported his/her own positions first, and *εi* is normally distributed stochastic error. Standard errors are clustered by respondent given that respondents contribute more than one observation in the analysis. The linear combination *λ− φ* represents the difference in false polarization between Condition A and Condition B.

 Averaging across issues, the difference in the false polarization effect between conditions is approximately .049 units (.114 − .065), which is marginally statistically significant (*t* = 1.7, *p* = .09). Hence, there is some evidence that the order of question presentation affects the estimate of false polarization. For the three individual issues, the estimates of *λ− φ* are: taxes (.052 units, *p* = .13), immigration (.064 units, *p* = .15), and same-sex marriage (.026 units, *p* = .59).

***Test #3: Between-Subjects Estimates***

As a final test, we can calculate a between-subjects estimate of false polarization using the experimental design by comparing the first measurements of Conditions A and B against one another (see Table A4). Because the first measurement in Condition A is a self-placement, that experimental group can be used to estimate the actual level of polarization. Because the first measurement in Condition B is the placements of others, that experimental group can be used to estimate the perceived level of polarization. Note that thus far we have presented within-subject measures of false polarization. As with all between-subject estimates, the test is less statistically powered than Tests #1 and #2.

 The between-subjects estimate can be derived from the following regression equation:

*Yi* = *βSi* + *γ*(*Si* × *Ri*) + *ηZi* + *εi*

where *i* indexes respondents, *Yi* represents a survey response provided by the respondent, *Si* is a dummy variable indicating whether the respondent was assigned to the condition where he/she reported his/her own positions first, *Ri* is a dummy variable indicating whether the respondent is a Republican (Democrats are the baseline category), *Zi* is a dummy variable indicating whether the respondent was assigned to the condition where he/she reported others’ positions first, and *εi* is normally distributed stochastic error. The false polarization effect is represented by *η* − *γ*. As shown in Table A7, averaging across all issues, the between-subjects estimate of false polarization is .039 units, which does not quite reach statistical significance (*t* = 1.4, *p* = .16). Among the individual issues, the smallest false polarization effect was observed for the tax issue. Marginally significant effects were obtained for the immigration (*t* = 1.7 *p* = .09) and gay marriage issues (*t* = 1.7 *p* = .09). These estimates are about half the size reported in Test #1. This suggests that the effect is somewhat sensitive to measurement issues, but it cannot be entirely eliminated.

**Online Appendix C: Demographic Characteristics of the GfK Sample**

In Table A8 we report demographic characteristics of the GfK sample analyzed in the main text.

**Online Appendix D: Who is Most Likely to Misperceive?**

In Table A9 we report perceived polarization for various subgroups of respondents as well as *t*-tests of the differences between subgroups. We find that false polarization is increasing in education and issue extremity, and that white respondents are more likely to misperceive than non-white respondents. Future research will be needed to hypothesize about why the level of misperception varies across groups.

|  |
| --- |
| **Table A1: Table 1, Excluding Partisan Leaners**  |
|  | Actual Positions |  | Perceived Positions(All Respondents) |  | Perceived Positions(Democratic Respondents) |  | Perceived Positions(Republican Respondents) |
|  | Dems | Reps |  | Dems | Reps |  | Dems | Reps |  | Dems | Reps |
| Average | .39(n=194) | .59(n=155) |  | .31(n=501) | .69(n=501) |  | .36(n=193) | .72(n=193) |  | .24(n=155) | .67(n=155) |
| Taxes | .34(n=191) | .52(n=155) |  | .29(n=496) | .65(n=492) |  | .33(n=192) | .69(n=190) |  | .22(n=155) | .62(n=154) |
| Immigration | .34(n=193) | .60(n=154) |  | .30(n=499) | .74(n=497) |  | .36(n=192) | .79(n=191) |  | .20(n=155) | .71(n=155) |
| Trade | .49(n=92) | .61(n=86) |  | .39(n=247) | .68(n=247) |  | .41(n=92) | .71(n=92) |  | .35(n=86) | .68(n=85) |
| Public Financing | .49(n=99) | .72(n=69) |  | .31(n=247) | .66(n=247) |  | .37(n=98) | .68(n=98) |  | .23(n=69) | .66(n=69) |

|  |
| --- |
| **Table A2: Table 2, Excluding Partisan Leaners** |
|  |  |  | False Polarization |
|  | Perceived Polarization | Actual Polarization | Perceived − Actual | Perceived / Actual |
| Average | .39(.02) | .20(.02) | .19(.02) | 1.95(.16) |
| Taxes | .38(.02) | .18(.02) | .20(.02) | 2.11(0.26) |
| Immigration | .47(.02) | .26(.03) | .21(.03) | 1.78(.19) |
| Trade | .31(.03) | .12(.04) | .20(.04) | 2.67(.75) |
| Public Financing | .36(.04) | .23(.05) | .13(.04) | 1.54(.28) |
| Note: Standard errors in parentheses. |

|  |
| --- |
| **Table A3: Table 3, Excluding Partisan Leaners**  |
|  | Democratic Respondents |  | Republican Respondents |
|  | Misperception of Republicans | Misperception of Democrats | Difference |  | Misperception of Democrats | Misperception of Republicans | Difference |
| Average | .13(.02) | .03(.01) | .10(.03) |  | .15(.02) | .08(.02) | .08(.03) |
| Taxes | .17(.02) | .003(.01) | .17(.03) |  | .11(.03) | .10(.02) | .004(.03) |
| Immigration | .18(.03) | -.02(.02) | .21(.03) |  | .14(.03) | .11(.02) | .03(.03) |
| Trade | .10(.04) | .09(.03) | .01(.05) |  | .14(.04) | .07(.03) | .07(.04) |
| Public Financing | -.04(.05) | .12(.03) | -.17(.06) |  | .25(.04) | -.07(.04) | .33(.06) |
| Note: Standard errors in parentheses. |

|  |
| --- |
| **Table A4: Experimental Design** |
|  | CONDITION A | CONDITION B |
| First Measurement | Self Placement | Others Placement |
|  | Filler Questions | Filler Questions |
| Second Measurement | Others Placement | Self Placement |

|  |
| --- |
| **Table A5: Estimates of False Polarization (Within-Respondent Estimates, Self-Placement First)** |
|  |  |  | False Polarization |
|  | Perceived Polarization | Actual Polarization | Perceived − Actual | Perceived / Actual |
| Average (n=1045) | .303(.015) | .189(.019) | .114(.020) | 1.60(.16) |
| Taxes(n=1033) | .185(.019) | .145(.023) | .040(.024) | 1.27(.20) |
| Immigration(n=1036) | .330(.019) | .189(.029) | .140(.031) | 1.74(.26) |
| Gay Marriage(n=1028) | .401(.019) | .241(.034) | .160(.035) | 1.67(.23) |
| Note: Standard errors in parentheses. |

|  |
| --- |
| **Table A6: Estimates of False Polarization (Within-Respondent Estimates, Self-Placement Second)** |
|  |  |  | False Polarization |
|  | Perceived Polarization | Actual Polarization | Perceived − Actual | Perceived / Actual |
| Average (n=1020) | .228(.014) | .163(.020) | .065(.020) | 1.40(.16) |
| Taxes(n=1014) | .115(.018) | .127(.023) | -.012(.025) | .90(.18) |
| Immigration(n=998) | .254(.019) | .178(.030) | .076(.031) | 1.43(.24) |
| Gay Marriage(n=1002) | .317(.020) | .182(.034) | .135(.034) | 1.74(.31) |
| Note: Standard errors in parentheses. |

|  |
| --- |
| **Table A7: Estimates of False Polarization (Between-Respondent Estimates, First Response Only)** |
|  |  |  | False Polarization |
|  | Perceived Polarization | Actual Polarization | Perceived − Actual | Perceived / Actual |
| Average (n=1044) | .228(.012) | .189(.025) | .039(.028) | 1.21(.17) |
| Taxes(n=1032) | .115(.015) | .145(.032) | -.030(.035) | .79(.20) |
| Immigration(n=1020) | .254(.016) | .189(.034) | .065(.038) | 1.34(.26) |
| Gay Marriage(n=1021) | .317(.018) | .241(.038) | .076(.042) | 1.32(.22) |
| Note: Standard errors in parentheses. |

|  |
| --- |
| **Table A8: Demographic Characteristics of Sample**  |
| Gender |  |
| Male | 52.6% |
| Female | 47.5 |
|  |  |
| Race/Ethnicity |  |
| White (non-Hispanic) | 73.7% |
| Black (non-Hispanic) | 9.8 |
| Other (non-Hispanic) | 6.7 |
| Hispanic | 9.8 |
|  |  |
| Education |  |
| Less than High School | 8.8% |
| High School | 29.0 |
| Some College | 27.7 |
| Bachelor’s or Higher | 34.5 |
|  |  |
| Age |  |
| 18-29 | 16.3% |
| 30-44 | 25.5 |
| 45-59 | 29.6 |
| 60+ | 28.6 |
|  |  |
| Party Identification |  |
| Strong Republican | 14.9% |
| Not Strong Republican | 12.8 |
| Leans Republican | 17.3 |
| Independent | 3.5 |
| Leans Democrat | 16.9 |
| Not Strong Democrat | 14.7 |
| Strong Democrat | 20.0 |
| Note: N=510 |

|  |
| --- |
| **Table A9: Perceptions of Extremity by Demographic Characteristics**  |
| Gender | Perceived Extremity | N |
| Males | .37(.02) | 265 |
| Females | .38(.02) | 236 |
| Difference | .01(.03) |  |
| Race |  |  |
| Whites | .41(.02) | 370 |
| Non-whites | .27(.03) | 131 |
| Difference | .13\*(.03) |  |
| Education |  |  |
| High School and Below | .25(.03) | 189 |
| More than High School | .45(.02) | 312 |
| Difference | .20\*(.03) |  |
| Strength of Party ID |  |  |
| Strong Partisans | .41(.02) | 197 |
| Not Strong Partisans and Leaners | .36(.02) | 290 |
| Difference | .05(.03) |  |
| Issue Extremity |  |  |
| Above Median | .49(.02) | 238 |
| Below Median | .27(.02) | 263 |
| Difference | .22\*(.03) |  |
| \**p*<.05 (two-tailed)Note: Cells contain mean perceptions of ideological distance between Republican and Democratic voters for average issue scale. |

1. As in the main text, we also randomized whether respondents had to place “Republican voters” or “Democratic voters” first. [↑](#footnote-ref-1)