

Online appendices for

“New Evidence on Group Polarization From Partisan Media to Misperception: Affective
Polarization as Mediator”

Journal of Communication

DOI: [10.1093/joc/jqz028](https://doi.org/10.1093/joc/jqz028)

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Appendix A. Question wording

2012 U.S. Presidential Election

Political Misperceptions. This section began with a set of general instructions: “Now we’d like to know a bit about what you’ve heard about the Presidential candidates. The next few pages concern different statements people have made about the candidates. Please answer a few questions about each statement.” Several statements about the two candidates followed. Respondents were asked, “How often have you heard this statement?”

1. Never heard at all
2. Once or Twice
3. A few times
4. Many times

And “What do you think about the accuracy of this statement? Is it...”

1. Definitely True
2. Probably True
3. Probably False
4. Definitely False
5. Unsure”

The Obama statements were:

- a. Barack Obama is Muslim, not Christian
- b. Barack Obama used federal stimulus money to outsource U.S. bridge projects to Chinese companies
- c. Barack Obama said he wants gas prices to skyrocket so that Americans will switch to alternative energy sources
- d. Barack Obama is a Socialist because he believes the government should own the property and equipment used to produce goods.

The Romney statements were:

- a. Mitt Romney, who is Mormon, does not call himself a Christian
- b. As Governor of Massachusetts, Mitt Romney signed a healthcare law providing taxpayer-funded abortions
- c. Mitt Romney said he knows what it means to work with the black community because his ancestors owned slaves
- d. Mitt Romney said that Mormon Church leaders should play a defining role in national affairs

Online political news use. This section began with the statement “People also sometimes get their news on the web. Please tell me how often you got information about the

Presidential candidates or the campaign from each of these sources in the past month?" [reverse coded]

1. Every day or almost every day
2. Several times a week
3. Several times a month
4. Rarely
5. Never

The following sources were listed:

- a. The website of a major national news organization that is frequently characterized as favoring liberal positions or Democratic candidates, such as *The New York Times* or *MSNBC*.
- b. The website of a major national news organization that is frequently characterized as favoring conservative positions or Republican candidates, such as *The Wall Street Journal* or *FOX News*.
- c. The website of a politically conservative online news organization or blog, such as *Drudge Report*, *TownHall* or the *Cybercast News Service (CNS News)*.
- d. The website of a politically liberal online news organization or blog, such as *The Huffington Post*, *ThinkProgress* or the *Daily Kos*.

Affective polarization. We would like to know your feelings towards some political figures on a scale from 0 to 10. If you feel very favorable towards this person, you can give him the highest score of 10; if you feel very unfavorable towards this person you can give him a 0 (zero); if you feel absolutely neutral towards this person, you can give him a 5. If you have not heard enough about this person to have an opinion, feel free to choose that option.

- a. Barack Obama
- b. Mitt Romney

General political knowledge. Political knowledge was measured by asking respondents a series of questions about political knowledge: Thinking about Congress, do Republicans currently have a majority in?; The Chief Justice of the Supreme Court is John Roberts – Was he appointed by a Democrat, Republican, Other, or unsure?; Is the national unemployment rate as reported by the government currently closer to 5%, 8%, 15%, 21%, or unsure?; Who is the current U.S. Secretary of State? Correct answer was coded 1 and others were coded 0. The index of political knowledge was constructed by summing up coded respondents' answer (ranges from 0 to 4).

2016 U.S. Presidential Election

Political Misperceptions. Respondents were presented with the following directions: “In this section of the survey, our goal is to understand what you know about some important political figures and issues being discussed this election year. These are questions for which there are right and wrong answers. [In red font: **In order for your answers to be most helpful to us, it is really important that you answer these questions as accurately as you can without consulting any outside sources.**] You will have 45 seconds to answer each question.

If you are not sure which answer is correct, please make your best guess.” Among the questions that followed was the following statement “Investigations into Russian hacking of email accounts associated with the Democratic Party, including that of the Democratic National Committee and Clinton Campaign Manager John Podesta...

1. Confirm that there was coordination between Russian Intelligence and the Trump campaign
2. Offer no conclusive evidence about possible coordination between Russian Intelligence and the Trump campaign
3. Confirm that there was no coordination between Russian Intelligence and the Trump campaign”

Online political news use. Respondents were first asked “How often have you learned anything about politics, including the U.S. Presidential election, from the following sources in the past month?” Among the sources listed were “online news sites, blogs, or news apps” and “social media sites or apps (for example Facebook, YouTube, Twitter, etc.)” Respondents who indicated ever using either of these sources were then told, “We’d like to know a bit more about where you get your online news. The next several screens list places where some people get news. Which of the following websites or mobile apps do you regularly use? Please check any that you used at least once in the past month.” The outlets listed are included in Appendix C.

Affective polarization. We’d like you to rate each of the candidates using something called a “feeling thermometer”. You can choose any number between 0 and 100 by tapping or clicking on the line below. The higher the number, the warmer or more favorable you feel toward the person or group; the lower the number, the colder or less favorable. If you feel neither warm nor cold toward them, place the mark at 50.

- a. Hillary Clinton
- b. Donald Trump

Now we’d like you to rate the **candidates’ supporters** in the same way. Remember, you can choose any number between 0 and 100 by tapping or clicking on the line below.

- a. Individuals who support Hillary Clinton, the Democratic candidate

b. Individuals who support Donald Trump, the Republican candidate

Age. Respondents were asked to enter their age.

Gender. Respondents were asked to mark either “male” or “female” to indicate their gender (female coded 1, male coded 0).

Education. Respondents were asked to report their highest degree received (1= No formal education; 2 = 1st, 2nd, 3rd, or 4th grade; 3 = 5th or 6th grade; 4 = 7th or 8th grade; 5 = 9th grade; 6 = 10th grade; 7 = 11th grade; 8 = 12th grade No diploma; 9 = high school graduate; 10 = some college, no degree; 11 = associate degree; 12 = bachelor’s degree; 13 = master’s degree; 14 = professional or doctorate degree).

Income. Respondents were asked to report their household income (1 = less than \$5,000, 2 = \$5,000 to \$7,499, 3 = \$7,500 to \$9,999, 4 = \$10,000 to \$12,499, 5 = \$12,500 to \$14,999, 6 = \$15,000 – \$19,999, 7 = \$20,000 to \$24,999, 8 = \$25,000 to \$29,000, 9 = \$30,000 to \$34,999, 10 = \$35,000 to \$39,999, 11 = \$40,000 to \$49,999, 12 = \$50,000 to \$59,999, 13 = \$60,000 to \$74,999, 14= \$75,000 to \$84,999, 15 = \$85,000 to \$99,999, 16= \$100,000 to \$124,999, 17 = \$125,000 to \$149,999, 18 = \$150,000 to \$174,999, and 19 = \$175,000 or more).

Race. We constructed a dummy variable coded high when respondents identified as Black, Non-Hispanic.

Political ideology. Respondents were asked to describe their political views from “Very liberal” (1) to “Very conservative” (7).

Political interest. Respondents were asked to indicate their interests in politics and public affairs by answering the following question: More generally, how interested are you in politics and public affairs? (1 = Not at all interested to 4 = Very interested).

Following election. Respondents were asked to answer how closely they follow news about the 2012 Presidential election (1 = Not at all closely to 4 = Very closely).

Political knowledge. Political knowledge was measured by asking respondents a series of questions about political knowledge: Who is the President of Iran? What office is currently held by John Kerry? Of the 100 members of the U.S. Senate, how many are members of the Democratic Party? Respondents’ correct answer was coded 1 and others were coded 0. The index of political knowledge was constructed by summing up the coded responses (ranges from 0 to 3).

Appendix B. Rumor selection for 2012 survey

We used a multi-stage process to identify the falsehoods asked about in the 2012 misperception battery. We began by paying sixty people through Amazon's Mechanical Turk to collect misleading claims, generating a total of ninety statements about each candidate. We next sorted the submitted statements into categories, and confirmed that they were unambiguously false according to major fact-checking organizations, including Snopes, Politifact, and Fact Check. Finally, we selected a subset of commonly named and clearly false statements.

Appendix C. Partisan online news sites used in 2016 survey list

The partisan sites listed were identified by combining several top partisan news site lists (e.g., Pew Research Center 2015), ranking identified sites using Alexa's site traffic U.S. ranking, eliminating overlapping sites (e.g., two parts of a larger news service), and then selecting the top 20 of each type. The outlets included in the site listing task were:

Conservative news sites	Liberal news sites
Fox News (foxnews.com)	New York Times (nytimes.com)
Conservative Tribune (conservativetribune.com)	Huffington Post (huffingtonpost.com)
Wall Street Journal (wsj.com)	Slate (slate.com)
The Drudge Report (drudgereport.com)	The Daily Beast (thedailybeast.com)
Western Journalism (westernjournalism.com)	The Daily Kos (dailykos.com)
New York Post (nypost.com)	The Atlantic (theatlantic.com)
Breitbart (breitbart.com)	Vox (vox.com)
The Blaze (theblaze.com)	MSNBC News (msnbc.com)
Newsmax (newsmax.com)	Salon (salon.com)
The Daily Caller (dailycaller.com)	The New Yorker (newyorker.com)
National Review (nationalreview.com)	Talking Points Memo (talkingpointsmemo.com)
The Washington Times (washingtontimes.com)	Mother Jones (motherjones.com)
Young Conservatives (youngcons.com)	Think Progress (thinkprogress.org)
PJ Media, including Instapundit (pjmedia.com)	Alternet (alternet.org)
Infowars (infowars.com)	Newsweek (newsweek.com)
The Weekly Standard (weeklystandard.com)	The Nation (thenation.com)
Top Right News (toprightnews.com)	The New Republic (newrepublic.com)
Cybercast News Service (www.cnsnews.com)	MoveOn (moveon.org)
Right Wing News (rightwingnews.com)	The Democratic Underground (democraticunderground.com)
Newsbusters (newsbusters.org)	Crooks and Liars (crooksandliars.com)

Appendix D. Zero-order correlations

Table D1. 2012 Election

	Liberal sources	Cons. sources	Knowledge	Polarization	Obama misp.	Romney misp.	Democrat	Republican	Independent
Liberal sources	1.00	0.50	0.28	-0.23	-0.21	0.12	0.21	-0.18	-0.05
Conservative sources	0.50	1.00	0.25	0.24	0.22	-0.05	-0.19	0.16	0.05
Knowledge	0.28	0.25	1.00	0.03	-0.22	-0.01	0.01	0.10	-0.14
Polarization	-0.23	0.24	0.03	1.00	0.68	-0.26	-0.72	0.69	0.08
Obama misp.	-0.21	0.22	-0.22	0.68	1.00	-0.11	-0.54	0.47	0.11
Romney misp.	0.12	-0.05	-0.01	-0.26	-0.11	1.00	0.23	-0.22	-0.03
Democrat	0.21	-0.19	0.01	-0.72	-0.54	0.23	1.00	-0.69	-0.43
Republican	-0.18	0.16	0.10	0.69	0.47	-0.22	-0.69	1.00	-0.35
Independent	-0.05	0.05	-0.14	0.08	0.11	-0.03	-0.43	-0.35	1.00

Table D2. 2016 Election

	Liberal sites	Cons. sites	Polarization	Knowledge	No collusion	Collusion	Ideology	Rep.	Dem.	Indep.	Interest	Attention	Age	Educ.	Income	Race
Liberal sites	1.00	0.33	-0.21	0.09	-0.04	0.10	-0.23	-0.18	0.20	-0.03	-0.22	0.27	0.02	0.14	0.06	0.02
Conservative sites	0.33	1.00	0.24	0.11	0.15	-0.04	0.18	0.12	-0.16	0.05	-0.21	0.22	0.03	0.03	0.05	-0.07
Polarization	-0.21	0.24	1.00	0.02	0.24	-0.21	0.65	0.68	-0.71	0.05	-0.04	-0.01	0.10	-0.12	0.04	-0.26
Knowledge	0.09	0.11	0.02	1.00	-0.02	-0.06	0.00	0.06	-0.02	-0.05	-0.23	0.22	0.14	0.20	0.23	-0.09
No collusion	-0.04	0.15	0.24	-0.02	1.00	-0.20	0.20	0.16	-0.20	0.06	-0.03	-0.04	-0.01	-0.08	-0.06	-0.03
Collusion	0.10	-0.04	-0.21	-0.06	-0.20	1.00	-0.22	-0.19	0.17	0.02	0.13	-0.04	-0.19	-0.08	-0.07	0.12
Ideology	-0.23	0.18	0.65	0.00	0.20	-0.22	1.00	0.68	-0.65	-0.03	-0.08	-0.07	0.14	-0.06	0.03	-0.15
Republican	-0.18	0.12	0.68	0.06	0.16	-0.19	0.68	1.00	-0.70	-0.37	-0.13	0.08	0.13	0.05	0.17	-0.22
Democrat	0.20	-0.16	-0.71	-0.02	-0.20	0.17	-0.65	-0.70	1.00	-0.40	-0.01	0.10	-0.04	0.07	-0.06	0.26
Independent	-0.03	0.05	0.05	-0.05	0.06	0.02	-0.03	-0.37	-0.40	1.00	0.19	-0.22	-0.11	-0.16	-0.14	-0.06
Interest	-0.22	-0.21	-0.04	-0.23	-0.03	0.13	-0.08	-0.13	-0.01	0.19	1.00	-0.59	-0.30	-0.16	-0.12	-0.05
Attention	0.27	0.22	-0.01	0.22	-0.04	-0.04	-0.07	0.08	0.10	-0.22	-0.59	1.00	0.24	0.13	0.09	0.00
Age	0.02	0.03	0.10	0.14	-0.01	-0.19	0.14	0.13	-0.04	-0.11	-0.30	0.24	1.00	0.00	0.00	-0.09
Education	0.14	0.03	-0.12	0.20	-0.08	-0.08	-0.06	0.05	0.07	-0.16	-0.16	0.13	0.00	1.00	0.34	-0.05
Income	0.06	0.05	0.04	0.23	-0.06	-0.07	0.03	0.17	-0.06	-0.14	-0.12	0.09	0.00	0.34	1.00	-0.15
Race (black)	0.02	-0.07	-0.26	-0.09	-0.03	0.12	-0.15	-0.22	0.26	-0.06	-0.05	0.00	-0.09	-0.05	-0.15	1.00

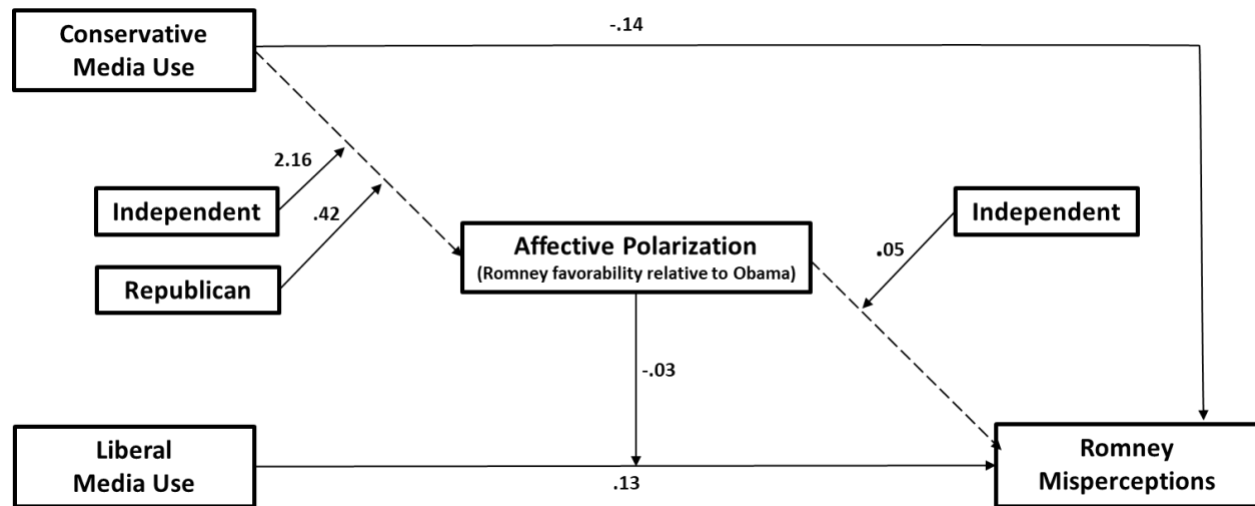
Appendix E. Modeling 2012 misperceptions w/o political knowledge control

	Obama falsehoods								Romney falsehoods							
	Model 1: AP				Model 2: Misperceptions				Model 1: AP				Model 2: Misperceptions			
	<i>b</i>	SE	<i>t</i>	<i>p</i>	<i>b</i>	SE	<i>t</i>	<i>p</i>	<i>b</i>	SE	<i>t</i>	<i>p</i>	<i>b</i>	SE	<i>t</i>	<i>p</i>
(Intercept)	-0.12	0.10	-1.22	0.22	0.13	0.04	3.19	0.00	-0.05	0.05	-0.99	0.32	0.37	0.02	15.49	0.00
Conservative sources	-0.25	0.15	-1.62	0.11	0.08	0.06	1.18	0.24	-0.15	0.08	-1.94	0.05	-0.14	0.04	-3.95	0.00
Liberal sources	-0.44	0.42	-1.06	0.29	-0.02	0.03	-0.74	0.46	-0.16	0.34	-0.47	0.64	0.13	0.02	8.19	0.00
Wave	0.06	0.05	1.14	0.25	-0.06	0.02	-3.38	0.00	0.03	0.03	0.96	0.34	-0.19	0.01	-17.09	0.00
Conservative sources x Independent	1.14	0.35	3.30	0.00	-0.15	0.08	-1.76	0.08	2.17	0.39	5.64	0.00	0.05	0.10	0.49	0.62
Conservative sources x Republican	0.49	0.14	3.51	0.00	-0.09	0.12	-0.76	0.45	0.43	0.15	2.82	0.01	0.31	0.17	1.80	0.07
Liberal sources x Independent	0.54	0.56	0.96	0.34	0.04	0.09	0.44	0.66	-0.86	0.48	-1.77	0.08	-0.00	0.10	-0.03	0.98
Liberal sources x Republican	0.29	0.47	0.61	0.54	0.03	0.07	0.50	0.62	-0.04	0.62	-0.07	0.95	-0.10	0.11	-0.95	0.34
AP	–	–	–	–	-0.02	0.01	-1.63	0.10	–	–	–	–	-0.03	0.02	-1.63	0.10
AP x Candidate-opposed sources	–	–	–	–	0.07	0.03	2.45	0.01	–	–	–	–	-0.04	0.01	-5.19	0.00
AP x Independent	–	–	–	–	0.03	0.01	2.90	0.00	–	–	–	–	0.04	0.02	1.90	0.06
AP x Republican	–	–	–	–	0.03	0.02	1.61	0.11	–	–	–	–	0.04	0.03	1.31	0.19
Observations	1563				1563				678				678			
F	F(8,1555) = 4.10				F(12, 1550) = 3.18				F(8, 670) = 2.78				F(12, 666) = 4.45			
R²	0.02				0.02				0.03				0.07			
Adj. R²	0.01				0.02				0.02				0.05			

Notes. Cluster-robust standard error. AP = affective polarization

Appendix F. Modeling 2016 Misperception: Fit statistics

	Trump cleared of collusion	Trump guilty of collusion
Observations	624	624
$\chi^2(21)$	65.29	76.15
Pseudo-R² (Cragg-Uhler)	0.15	0.22
Pseudo-R² (McFadden)	0.10	0.16
AIC	620.02	438.06
BIC	717.61	535.65

Figure S1. 2012 Romney misperceptions results

Notes. $n = 681$. Paths drawn as solid lines are significant at $p < .05$. Indirect effect of liberal media use on misperception 95% CI $[-.018, 0.039]$.