

A Trade War With or Without Trump: Actual Topical Knowledge as a Moderator of Question Wording Effect on Survey Responses

GABRIEL MIAO LI¹
University of Michigan, USA

JACK LIPEI TANG
University of Southern California, USA

It is a platitude of communication and public opinion research that responses to survey questions to a great extent depend on the words used in those questions. This idea, however, was not always well supported in empirical studies. We argue that the inconsistent findings from prior research might stem from the fact that different groups of individuals have varying sensitivity to the influences of question wording variations. With an online survey experiment testing participants' attitudes toward the foreign trade disputes under the Trump administration, we found that the impact of changes in question wording on inducing different responses was moderated by participants' actual topical knowledge. Referring to the issue as "Trump's trade war" significantly reduced its favorability compared to describing it as "the trade war" without mentioning Trump, but only among participants who were unknowledgeable about tariffs and international trade issues. The normative implications of attaching political and partisan cues to polling questions were discussed.

Keywords: question wording, political knowledge, survey experiment, issue framing, partisanship, foreign policy attitude

There are often multiple ways to describe one issue and/or to phrase one question in surveys and opinion polls, but respondents do not seem to recognize that those different descriptions and phrasings were not asking different questions but rather trying to tap the same underlying concept. Even some minor variations in question wording might tremendously change people's responses. For instance, "gay marriage" garnered more support than "same-sex marriage" (Husser & Fernandez, 2016), "Affordable Care Act" was

Gabriel Miao Li: miaoli@umich.edu
Jack Lipei Tang: lipei.tang@usc.edu
Date submitted: 2021-07-19

¹ Funding for data collection for the current study was provided through a grant from the Marsh Fund of the Department of Communication and Media at the University of Michigan. The authors would like to thank Professor Josh Pasek at the University of Michigan and the anonymous reviewers for their insightful feedback on earlier versions of the manuscript.

Copyright © 2022 (Gabriel Miao Li and Jack Lipei Tang). Licensed under the Creative Commons Attribution Non-commercial No Derivatives (by-nc-nd). Available at <http://ijoc.org>.

more favorable than “Obamacare” (Newport, 2013), “climate change” was consistently perceived as being more real than “global warming” (Schuldt, Enns, & Cavaliere, 2011; Schuldt, Konrath, & Schwarz, 2017), and terms such as “death tax” were created by political strategists to replace “estate tax” in the hope of inducing public resentments (Abadi, 2017), even though these pairs of seemingly different phrasings are essentially synonymous.

This line of research could be indeed traced back to Converse’s (1964) foundational works on nonattitudes where individuals demonstrated a very low stability in their answers to similar questions across time and an inability to form ideologically consistent policy preference. This poses a substantial methodological question for communication and public opinion researchers: Are the variances that we observed in different surveys and opinion polls genuine reflections of true attitudinal differences? Or are they nothing but noises rooted in people’s nonattitudes and instigated by different measurement strategies?

This problem is further complicated by the presence of various heuristic cues in survey questions, especially political and partisan cues in the context of American politics. Intuitively, to solicit an honest and genuine response, we should avoid presenting any heuristic cues that could potentially prime respondents and sway their answers, particularly political and partisan cues that could greatly bias reported attitudes in surveys and polls (Goren, Federico, & Kittilson, 2009; Mondak, 1993; Page & Shapiro, 1992). However, some other scholars argued that when the complexity of modern politics has gone far beyond what ordinary citizens could manage to comprehend and a systematic information processing is therefore not likely achievable, providing respondents with heuristics such as political and partisan cues might be a constructive alternative to help them make meaningful choices with additional contexts and information (Arceneaux, 2008; Chaiken, 1980; Merolla, Stephenson, & Zechmeister, 2016).

Researching the effects of political cues in survey questions is of particular relevance and importance in the United States for current times. On the one hand, partisan cues were found to be an important predictor of public opinion polarization for inducing out-party identifiers to take an opposing position (Nicholson, 2012). On the other hand, after four years of Trump’s administration, the public opinion environment in the United States is arguably more polarized than ever. Some scholars even claimed that the current United States is the most divided since the Civil War (Manchester, 2018). It is therefore a thought-provoking question that to what extent the attitudes that Americans expressed in surveys and opinion polls are subject to the influence of political and partisan cues. Would a Democrat oppose a bill that they would have supported just because the bill was attached to a Republican label? Or would a Republican withdraw the support that they would have offered for a policy just because the policy was branded as a Democratic one? And if that is the unfortunate reality, what can we do to mitigate such impact?

The current study aims to tackle some of these questions. More specifically, we ask, would changing question wording with political cues alter individuals’ survey responses? And if variations in responses to survey questions could be attributed to changes in question wording, would the wording effect be contingent on, and potentially mitigated by, any individual characteristics? We propose that the actual knowledge that individuals possess about a given topic should be considered as a potentially important moderator because the most topically knowledgeable individuals should also be the most capable ones to recognize the identicalness of different wordings used to describe the same issue, and therefore offer more consistent

answers than their less-knowledgeable counterparts. With an online survey experiment conducted in 2019 testing participants' attitudes toward the foreign trade disputes under the Trump administration, we found that the impact of changes in question wording on inducing different responses was moderated by participants' actual topical knowledge. Referring to the issue as "Trump's trade war" significantly reduced its favorability compared to describing it as "the trade war" without mentioning Trump, but only among participants who were unknowledgeable about tariffs and international trade issues. The normative implications of attaching political and partisan cues to polling questions were discussed.

The Impact of Question Wording on Survey Responses

As renowned social psychologist Norbert Schwarz (1999) put it, "The questions shape the answers" (p. 93). We have long known that the huge difference in survey responses might arise from a seemingly minor change in question wording. For instance, when asked about their attitude toward public speeches against democracy, 54% of the respondents said that the United States should "forbid" such speeches, while 75% of them said the United States should "not allow" such speeches, with a shift of 21 percentage points, although these two expressions are essentially equivalent, given the binary options provided (Rugg, 1941).

Early scholars believed that the impact of question wording on survey responses might stem from different connotations of the words used. There is an asymmetry between "forbid" and "not allow" because the former seems to be much harsher than the latter (Hippler & Schwarz, 1986). Similarly, supporting "assistance to the poor" while disliking "welfare" might be because the latter triggers more concerns about abuse and fraud than the former (Smith, 1987, p. 77). Therefore, abstract concepts might be more susceptible to such effect because they have a greater potential to generate various connotative meanings.

Recent studies indicated that changes in question wording could alter individuals' perceptions and attitudes, not only about vague and abstract concepts like freedom or big government but also about concrete and specific issues. For example, Schuldt and colleagues (2011, 2017) found that whether people recognize that the phenomenon of an increasing global temperature is real was largely dependent on the wording. More people believed that the global temperature is rising when it was referred to as "climate change" rather than "global warming."

An issue that is more similar to the current study because of its highly visible political cue, is the "Patient Protection and Affordable Care Act," or, as it is colloquially known and referred to, "Obamacare." Leveraging on Gallup's national opinion poll with its daily tracking sample by asking people to report their attitudes toward "Affordable Care Act," "Obamacare," a combination of both, or the "2010 healthcare law that restructured the American healthcare system" without mentioning either "Affordable Care Act" or "Obamacare," Newport (2013) found that using the phrase "Affordable Care Act" without referring to Obama yielded the highest level of public support, while only mentioning "Obamacare" yielded the lowest.

Issue framing studies suggested that different presentations of an issue might lead individuals to understand and subsequently respond to the issue differently (Nelson, Oxley, & Clawson, 1997; Stalans, 2012). Political stimuli are "inherently ambiguous" (Iyengar, 1990, p. 20). One certain frame might induce a unique process through which individuals "reorient their thinking about an issue" as they make judgements

based on the availability, accessibility, and applicability of certain beliefs stored in their memories (Chong & Druckman, 2007, p. 104). Different terms can thus activate distinctive associations with the issue, make some beliefs more salient than others, and subsequently influence individuals' evaluations of and attitudes toward the issue (Iyengar, 1990).

Notwithstanding the abundance of prior studies, there remain important issues to be addressed. First, past studies generated inconsistent findings. For instance, although Newport (2013) reported a higher level of approval for "Affordable Care Act" over "Obamacare," Holl, Niederdeppe, and Schuldt (2018) did not find a significant impact of labelling change on the public support for the new healthcare law. After analyzing 376 national opinion polls fielded in the United States in a time span of six years, Holl and colleagues (2018) concluded that describing the law either specifically, such as "Obamacare" or "Affordable Care Act," or more generically, such as healthcare law, healthcare reform, or the healthcare bill passed by Congress, did not change people's attitudes toward the said law. In a similar vein, although Schuldt and colleagues (2011, 2017) found that respondents perceived "climate change" to be more real than "global warming," Villar and Krosnick (2011) reported that referring to the phenomenon as either "global warming" or "climate change" or "global climate change" did not influence individuals' assessments of the seriousness of the said problem. Moreover, Villar and Krosnick (2011) found that the public support for the legislation mitigating global warming did not change regardless of whether the increased costs of such legislation were described as "higher taxes" or "higher prices," contrary to the traditional wisdom that "taxes" have a deep-rooted negative connotation and are generally more unwelcome by the American public (Holler, Hoelzl, Kirchler, Leder, & Mannetti, 2008; Kirchler, 1998). Similar inconsistency also emerged from the discussion of marriage equality. Husser and Fernandez's (2016) summary of nine experiments in three years reported that "gay marriage" received consistently higher support than "same-sex marriage." However, Flores's (2015) meta-analysis of 138 public opinion polls did not find systematic differences in public support no matter whether the marriage was referred to as "gay marriage" or "same-sex marriage" or "homosexual marriage." In view of these inconsistent findings, we ask the following question:

RQ1: For questions surveying public attitudes toward the same issue, will a question with partisan cues induce different responses compared to a question without partisan cues?

Actual Topical Knowledge as a Moderator

We believe that the differences in which groups of respondents are more sensitive to question wording variations may explain why aggregate differences from empirical studies have not always replicated, and education has been identified as a potential individual-level attribute that might moderate the effect of question wording variations. Hippler and Schwarz (1986) proposed that people with low levels of education would be influenced more easily by the persuasive aspects of wording variations than those with higher levels of education. Presumably, better-educated individuals should be more able to recognize the identicalness of the issues no matter what descriptions were used in survey questions, and therefore provide more similar answers regardless of question wording variations. However, this prediction was not well supported in empirical studies. Although Schuman and Presser (1977) found that the attitudinal difference between supports for "forbid" and "not allow" is greater among respondents who did not finish high school than those with a college degree, Rasinski's (1988) comprehensive General Social Survey methodological

report indicated that there was no consistent pattern observed in the responses that less-educated people were more vulnerable to the changes in survey question wording. In some cases, the most educated respondents offered more inconsistent answers to the same questions using different wordings than their less-educated counterparts.

Such discrepancies might at least be partially attributable to the lack of distinction between educational attainment and knowledge. Despite that the American public remained ignorant in many regards (Delli Carpini & Keeter, 1996; Galston, 2001), it is undeniable that knowledge, or the lack thereof, has important consequences for civic life, such as influencing people's voting choices, policy preferences, and their reasoning and information processing (Bartels, 1996; Gilens, 2001; Popkin & Dimock, 1999). We expect that it is the topically relevant knowledge, rather than general education attainment, that helps people recognize the identicalness of issues concealed by question wording variations and therefore respond to the issue more similarly no matter how the issue was described.

Very few studies have investigated how topical knowledge might moderate the question wording effect, among which Bullock and Vedlitz's (2017) research on public support for a hydraulic fracturing project in a local community was a rare exception but provided some unexpected findings. In their survey experiment, Bullock and Vedlitz (2017) referred to the same engineering technique as either "hydraulic fracturing" or "fracking" and expected that the latter would receive a much lower public support because of its strong negative connotation. However, in their research, the most knowledgeable participants turned out to be the group who was most susceptible to the influence of labeling variations—changing the name from "hydraulic fracturing" to "fracking" significantly reduced the most knowledgeable participants' support for the project, while the least knowledgeable participants remained largely unaffected.

This finding is contradictory to our expectation because supposedly the most knowledgeable individuals on this topic should also be those who were most capable to tell that "fracking" is just another name of "hydraulic fracturing," and therefore respond to the issue with more similar attitudes, while the least knowledgeable individuals who presumably did not possess such capacity, should be more vulnerable to the manipulation.

We suspect that Bullock and Vedlitz's (2017) relatively counterintuitive finding might stem from the fact that they used perceived knowledge rather than actual knowledge as knowledge measurement. Both perceived knowledge and actual knowledge are justifiable approaches of knowledge measurement and have long traditions in social scientific studies with respective advantages and disadvantages (Visser, Holbrook, & Krosnick, 2008). However, in this specific context, it should be *what individuals actually know* about a certain topic that helps them recognize the identicalness of different labels referring to the same issue, rather than *what they think they know* about the topic. In fact, individuals who believe that they are highly knowledgeable might be among the most uninformed ones in terms of actual knowledge, just as what the Dunning-Kruger effect suggested, because they do not have adequate knowledge and competence to recognize their ignorance and incompetence (Dunning, 2011; Kruger & Dunning, 1999). No prior studies, to our knowledge, have examined how the survey question wording effect might be contingent on the level of individuals' actual knowledge relevant to the issue under investigation. Considering the findings on the

effect of perceived knowledge from Bullock and Vedlitz (2017) and the discussions above, we propose the following research question:

RQ2: Would the impact of question wording variations on survey responses be different for individuals with different levels of actual topical knowledge and perceived topical knowledge?

The Potential Influence of Partisanship

Another individual-level attribute that scholars believe might moderate the impact of question wording variation on survey responses, especially in the context of the United States, is partisan identity. For instance, although Villar and Krosnick (2011) reported that their participants perceived “climate change” and “global warming” to be equally serious when considering all participants as an entirety, the story was indeed quite different when considering different partisan groups separately: Democrats perceived “global warming” to be more serious than “climate change,” whereas the reverse was true for Republicans. Husser and Fernandez’s (2016) study about the public support for marriage equality showed that neither Democrats nor Republicans seemed to be affected by whether the issue was phrased as “gay marriage” or “same-sex marriage.” Nevertheless, the question wording variations significantly changed Independents’ attitude toward legalizing marriage between same-sex couples.

However, in prior studies examining the role of partisanship in how question wording variations influence individuals’ reported attitudes, the issue under investigation itself is usually highly partisan. There are clearly divisive partisan stands for issues like climate change and marriage equality. Most Republicans and Democrats might just choose sides along their party lines, and a specific way of phrasing the issue, either corresponding or contradictory to their own preferences and ideologies, might induce changes in their responses. Whether such patterns could still hold when the issues are less partisan remains unclear. It is possible that the survey question wording effect is less sensitive to the impact of partisanship if the issue itself is less divisive party-wise. It is also plausible that individuals’ attitudes might still be easily swayed by question wording changes with partisan cues in this highly polarized public opinion environment even if the issue itself is not highly controversial. In the present study, we would like to explore whether the impact of question wording variations being moderated by individuals’ partisanship is exclusive to highly partisan issues, or it could be extended to issues with less partisan divide as well.

The issue of foreign trade disputes and negotiations offers a unique opportunity to test these competing possibilities as it is arguably one of the very few issues on which there seemed to be a general bipartisan consensus in Trump’s era. Starting from 2018, a series of moves of escalating tariffs against China and investigating Chinese companies by Trump was widely welcomed by Democratic lawmakers (Lauter & Kaiman, 2018). The United States-Mexico-Canada Agreement (USMCA)—the new trade deal initiated by the Trump administration to replace the North American Free Trade Agreement (NAFTA)—gained an overwhelmingly bipartisan support in both the House of Representatives and the Senate, including two of the most vocal Trump critics and the then candidates running for Democratic presidential nomination—Elizabeth Warren and Amy Klobuchar (Neuman & Romo, 2020). As one would expect, Democratic presidential candidates including Bernie Sanders and Elizabeth Warren severely criticized Trump’s foreign trade policy, but they indeed largely aligned themselves with Trump on various trade agendas, such as

embracing a more protectionist approach and a tougher stance against China (Pramuk, 2019; Thompson & Behsudi, 2019).

This contradiction indeed poses a series of intriguing questions: How would the general public, in a highly polarized public opinion environment, respond to an issue with a relatively lower level of partisan disagreement, at least among political elites, when the issue is framed in a more partisan way like “Obamacare,” and when the issue is framed in a more neutral light like “the healthcare law passed by Congress?” If the changes in question wording do alter individuals’ responses to the question, would such effect be contingent on their partisanship as Husser and Fernandez (2016) and Villar and Krosnick (2011) found in their studies of marriage equality and climate change? Therefore, we ask the following research question:

RQ3: Would the impact of question wording variations on survey responses be different for individuals with different partisan identities?

Methods

Data

The data discussed in this research are part of a larger two-wave survey experiment using an online, nonprobability panel of Americans provided by Dynata. The first wave of the data collection was conducted between November 8 and November 15, 2019, and the second wave was carried out between November 26 and December 3, 2019. At Wave 1, participants were asked about a series of questions assessing the factors that might potentially impact their attitudes toward the Trump administration’s trade policy, including their preexisting beliefs about free trade and their knowledge of foreign trade and tariffs. At Wave 2, participants were randomly assigned to four groups, each of which was presented with a different news excerpt covering the foreign trade disputes between the United States and its trading partners. After reading the news, participants were asked about their attitudes toward the trade disputes. Of the 1,100 participants who answered the questions at Wave 1, 728 were successfully contacted and completed the survey at Wave 2. Participants were debriefed at the end of Wave 2. The information of demographic composition of participants is available in Supplementary Appendix I (available at <https://osf.io/wp75r>).

Design

Participants were asked to read a news excerpt about the U.S. government’s plan of imposing new tariffs on imported goods as well as the likely consequences (both positive and negative) of raising tariffs. The experiment employs a 2 (partisan cue) × 2 (the other party in the trade disputes) randomized between-subject design. For the first factor, in the *Trump* condition, the action was referred to as “Trump’s trade war,” and the subject enacting the policy was described as “the Trump administration”; in the *No Trump* condition, the action was simply referred to as “the trade war” that was initiated by “the United States.” For the second factor, the manipulation is whether the news excerpt depicted the trade war as being directed against China or against the European Union. The articles were otherwise identical. This design allows us to test the impact of question wording variations on survey responses while controlling for the possible confounding effect of

participants' preexisting attitudes toward the trade disputes with a specific foreign entity. The full version of the experimental stimuli is available in Supplementary Appendix II (available at <https://osf.io/wp75r>).

Key Measurements

Actual Foreign Trade Knowledge

Participants were asked five questions about the basic mechanisms of international trade and tariffs. For each question, they were provided with two choices, as shown in the parentheses, and the underlined texts indicate the correct answer.

1. Generally speaking, what is likely to happen if tariffs on imported goods were raised? (The price of those imported goods is likely to increase/decrease.)
2. Generally speaking, what is the likely goal of raising tariffs on imported goods? (To encourages/suppress imports.)
3. Generally speaking, what do the policy makers want to achieve through raising tariffs on imported goods? (To get people to buy more foreign/domestic goods.)
4. What is a trade deficit? (When a country imports a greater value than it exports/exports a greater value than it imports.)
5. If the United States increases tariffs imposed on goods imported from a country, what is the likely reaction to be taken by that country? (To decrease/increase tariffs on goods imported from the United States.)

For each correct answer, the participants got one point. The sum score was then recoded into a scale ranging from 0 to 1 to measure participants' actual knowledge about foreign trade ($M = 0.72$, $SD = 0.28$).

Perceived Foreign Trade Knowledge

Following Bullock and Vedlitz's (2017) approach, we asked participants how much they heard about trade disputes and negotiations between the United States and foreign countries with a five-point scale ranging from "nothing at all" (coded: 0) to "a great deal" (1; $M = 0.55$, $SD = 0.34$).

Partisanship

Participants were asked two questions to assess their party identification. First, they were asked, "Generally speaking, do you usually think of yourself as a Republican, a Democrat, an Independent, or what?" Note that in the questionnaire, the sequence of "Republican" and "Democrat" changed randomly for different participants. Response options were "Democrat, Republican, Independent," and "Other (specify)." If

participants chose "Democrat" or "Republican," they were then asked, "Would you call yourself a strong Democrat (Republican) or not a very strong Democrat (Republican)?" If participants chose "Independent" or "Other," they were then asked, "Do you think of yourself as closer to the Republican Party or to the Democratic Party?" Response options were "Closer to Republican Party" and "Closer to Democratic Party" and "Neither." Response options were then recoded into a seven-point scale ranging from strong Democrat (coded: 0) to strong Republican (1), with no-lean Independent at 0.5 ($M = 0.49$, $SD = 0.37$).

Table 1. Zero-Order Correlations Between Main Measures.

	1	2	3	4	5	6	7	8	9	10	11
1. Age	—										
2. Sex (female = 0; male = 1)	.17 ***	—									
3. Education	.18 ***	.10 *	—								
4. Household income	.21 ***	.17 ***	.44 ***	—							
5. Preexisting belief about foreign trade	.25 ***	.10 *	.17 ***	.16 ***	—						
6. Attitude toward China	-.31 ***	-.21 ***	-.16 ***	-.13 ***	-.10 ***	—					
7. Attitude toward European Union	.37 ***	.07 ***	.22 ***	.23 ***	.40 ***	.08 *	—				
8. Partisanship (Strong Democrat = 0; Strong Republican = 1)	.06 ***	.11 **	.04 ***	.04 ***	-.04 ***	-.16 ***	-.10 *	—			
9. Perceived foreign trade knowledge	-.10 *	-.07 ***	-.16 ***	-.17 ***	-.20 ***	.04 ***	-.16 ***	-.05 ***	—		
10. Actual foreign trade knowledge	.46 ***	.09 *	.21 ***	.21 ***	.29 ***	-.26 ***	.46 ***	.09 *	-.10 ***	—	
11. Attitude toward the foreign trade disputes	.03 **	.12 **	-.03 ***	.00 ***	-.12 ***	-.11 **	-.17 ***	.50 ***	-.12 ***	-.08 **	—

Note. * $p < .05$; ** $p < .01$; *** $p < .001$.

Attitude Toward the Foreign Trade Disputes

Participants were asked whether they think the trade war (or Trump's trade war) with China (or the European Union) is a good thing or a bad thing for the United States on a five-point scale ranging from "a very bad thing" to "a very good thing." They were then asked whether they support or oppose the trade war (or Trump's trade war) with China (or the European Union) on a five-point scale ranging from "strongly oppose" to "strongly support." The two items are highly correlated ($r = .83$, $p < .001$) and therefore combined and recoded into a scale ranging from 0 to 1, with a higher score indicating a more favorable attitude toward the trade war ($M = 0.48$, $SD = 0.31$).

Control Variables

Demographics including age, sex, education, and household income were operationalized as control variables. Participants' preexisting belief about foreign trade, attitude toward China, and attitude toward the European Union, all of which were measured at Wave 1, were also entered into the model to control for the potential confounding effects. Full wordings and descriptive statistics for these measures are available in Supplementary Appendix III (available at <https://osf.io/wp75r>). Zero-order correlations between main measures are reported in Table 1.

Results

RQ1 asks whether changing survey question wording with partisan cues could induce different responses. We performed a series of *t*-tests to examine the effects of our experimental manipulations. As shown in Table 2, depicting the foreign trade disputes as either "Trump's trade war" or "the trade war" did not yield significant differences in participants' reported attitudes toward the trade disputes. Similarly, directing the trade war against either China or the European Union did not seem to influence participants' reported attitude either.

However, we did observe significant attitudinal differences induced by wording variations among participants who scored below average in the foreign trade knowledge test ($t = 3.05, p < .01$). In other words, the *Trump* cue in the question significantly changed the attitude of the participants who were relatively uninformed about foreign trade and therefore presumably more vulnerable to the wording manipulation, as RQ2 suggested.

Table 2. T-Test Results Comparing the Attitude Toward the Foreign Trade Disputes by Experimental Conditions and Knowledge Levels.

Group	Wording condition			Country condition		
	<i>M (SD)</i>		<i>t</i> -Test	<i>M (SD)</i>		<i>t</i> -Test
	No Trump	Trump		China	European Union	
Overall	0.49 (0.29)	0.47 (0.32)	1.17	0.47 (0.32)	0.49 (0.29)	-0.65
Actual foreign trade knowledge—High	0.45 (0.30)	0.47 (0.34)	-0.67	0.45 (0.34)	0.48 (0.31)	-0.72
Actual foreign trade knowledge— Low	0.56 (0.27)	0.46 (0.27)	3.05**	0.51 (0.28)	0.51 (0.26)	0.04
Perceived foreign trade knowledge—High	0.46 (0.27)	0.44 (0.31)	0.83	0.44 (0.31)	0.46 (0.27)	-0.34
Perceived foreign trade knowledge—Low	0.52 (0.31)	0.49 (0.32)	0.78	0.50 (0.32)	0.51 (0.31)	-0.48
Democrats	0.36 (0.27)	0.28 (0.27)	2.53*	0.29 (0.27)	0.35 (0.28)	-1.59
Independents	0.46 (0.25)	0.42 (0.28)	0.77	0.44 (0.28)	0.45 (0.25)	-0.18
Republicans	0.66 (0.27)	0.69 (0.26)	-0.93	0.70 (0.27)	0.65 (0.26)	1.49

Note. Respondents who received a score above mean in the foreign trade knowledge test were categorized as High in actual foreign trade knowledge; those who received a score below mean were categorized as Low in actual foreign trade knowledge. Respondents who reported a score above mean when asked about their self-perceived foreign trade knowledge were categorized as High in perceived foreign trade knowledge; those who reported a score below mean were categorized as Low in perceived foreign trade knowledge.

* $p < .05$; ** $p < .01$; *** $p < .001$.

To better parse this mechanism, we performed a stepwise ordinary least square (OLS) regression analysis to examine whether the impact of question wording variations on participants' reported attitudes toward the trade disputes is dependent on their perceived and actual topical knowledge. The results were reported in Table 3. We found a significant interaction effect between the wording condition and the level of participants' actual foreign trade knowledge ($b = .21, p < .01$), which suggests that the impact of question wording variation was moderated by participants' actual topically relevant knowledge.

As demonstrated in the left panel of Figure 1, the question wording variation produced the greatest attitudinal difference for the group of participants who were most uninformed about international trade. With the increase in their actual foreign trade knowledge, the attitudes of participants in different experimental groups started to assimilate. For those participants who received a perfect score from the foreign trade knowledge test, there was essentially no difference in their attitudes toward the trade war no matter whether a *Trump* label was associated with it or not.

Table 3. OLS Regression Models on the Attitude Toward the Foreign Trade Disputes.

	Model 1	Model 2	Model 3	Model 4
Age	.00 (.00)	.00 (.00)	.00 (.00)	.00 (.00)
Sex (female = 0; male = 1)	.08 (.03) **	.05 (.02) *	.05 (.02) *	.04 (.02) *
Education	-.02 (.06)	-.05 (.05)	-.05 (.05)	-.04 (.05)
Household income	.00 (.00)	.00 (.00)	.00 (.00)	.00 (.00)
Preexisting belief about foreign trade	-.20 (.08) *	-.17 (.07) *	-.17 (.07) *	-.17 (.07) *
Attitude toward China	-.08 (.06)	-.03 (.05)	-.03 (.05)	-.03 (.05)
Attitude toward the European Union	-.29 (.08) ***	-.17 (.07) *	-.16 (.07) *	-.16 (.07) *
Partisanship (Strong Democrat to Strong Republican)		.39 (.03) ***	.40 (.03) ***	.41 (.05) ***
Perceived foreign trade knowledge		-.14 (.03) ***	-.14 (.03) ***	-.17 (.06) **
Actual foreign trade knowledge		-.13 (.05) **	-.13 (.05) **	-.20 (.07) **
Country condition (China = 0; European Union = 1)			.00 (.02)	.07 (.08)
Wording condition (The trade war = 0; Trump's trade war = 1)			-.03 (.02)	-.25 (.08) **
Partisanship × Country condition				-.09 (.06)
Perceived knowledge × Country condition				.01 (.07)
Actual knowledge × Country condition				-.04 (.08)
Partisanship × Wording condition				.09 (.06)
Perceived knowledge × Wording condition				.05 (.07)
Actual knowledge × Wording condition				.21 (.08) **
R^2_{Adjusted}	.07	.31	.31	.33
Change in R^2_{Adjusted}		.24	.00	.02
F for change in R^2_{Adjusted}		68.14 ***	0.77	2.31 *

Note. Unstandardized betas are reported; numbers in parentheses are standard errors.

* $p < .05$; ** $p < .01$; *** $p < .001$.

At the same time, perceived knowledge did not produce a similar moderating effect on the association between wording variations and participants' reported attitudes. As shown in the right panel of Figure 1, the attitudinal difference between conditions did not differ across different levels of perceived foreign trade knowledge, which further supported our speculation that it was actual knowledge, rather than perceived knowledge that helped individuals recognize the identicalness of different labels attached with the same issue and therefore offer more similar responses.

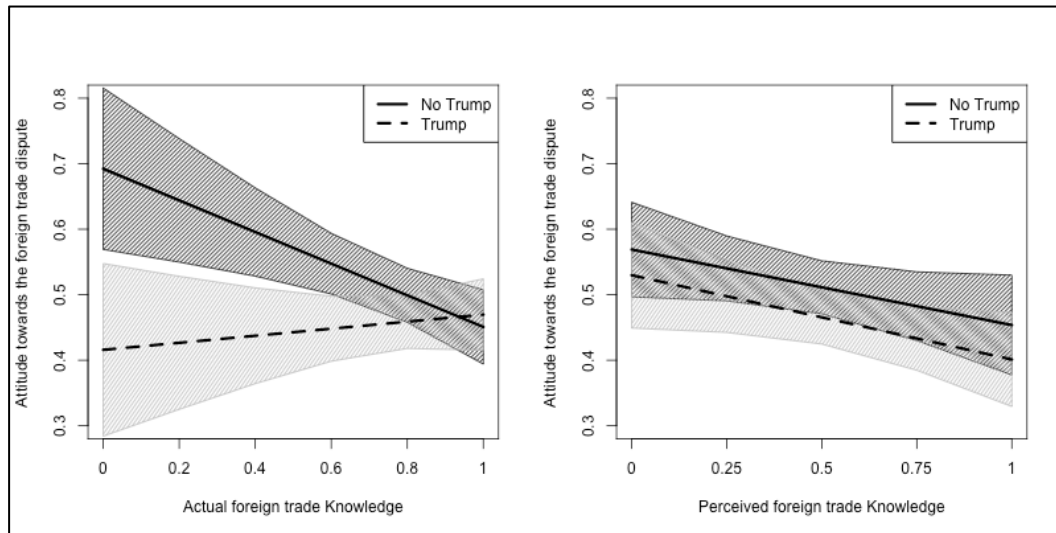


Figure 1. Predicting the attitude toward the trade war with foreign trade knowledge $\times$ question wording variation (Wording condition: The trade war vs. Trump's trade war).

To answer RQ3, we looked into the interaction effect between partisanship and experimental manipulations. We did not find significant interaction effects between participants' partisanship and either of the experimental conditions. As shown in Figure 2, regardless of whether the trade disputes were depicted as against China or the European Union, or attached with a *Trump* label or not, the impact of question wording changes did not seem to vary across participants with different partisan identities.

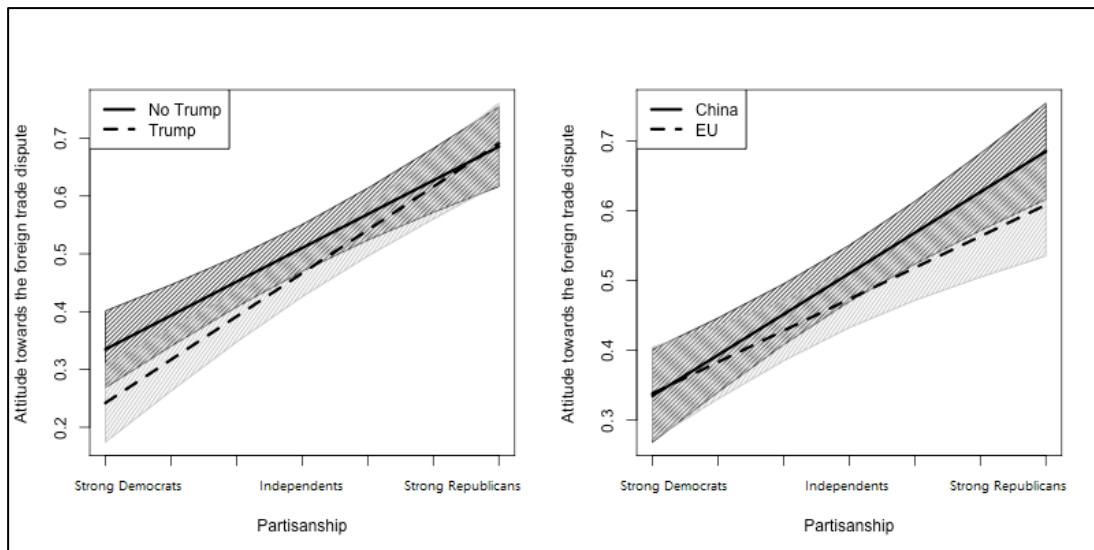


Figure 2. Predicting the attitude toward the foreign trade disputes with partisanship $\times$ question wording variations.

Discussion

Using a two-way factorial experimental design, the current study examined the effect of question wording variations on survey responses in the context of the foreign trade disputes of the United States. We found that “Trump’s trade war” was significantly less favorable than “the trade war,” but only among participants who were relatively ignorant of tariffs and foreign trade issues. The gap between the *Trump* and *No Trump* conditions in terms of participants’ reported attitudes toward the trade war was the largest among those who were most uninformed about international trade. However, the increase in actual topical knowledge closed the attitudinal gap. For participants who received a perfect score in the foreign trade knowledge test, the presence or absence of the *Trump* cue did not make a difference. Meanwhile, perceived topical knowledge did not have a similar moderating effect. Moreover, the attitudinal gap between supports for “the trade war” and “Trump’s trade war” did not significantly differ across participants of different partisan groups.

Understanding the effect of survey question wording and its mechanism is essential for social science researchers to solicit more accurate and genuine responses. Previous studies have found the survey question wording effect in a wide range of contexts including marriage equality (Husser & Fernandez, 2016), climate change (Schuldt et al., 2011, 2017), and healthcare reform (Newport, 2013). The current study adds another line of evidence to this body of literature by showing the effect of question wording variation on public support for foreign trade policy.

Considering the enormous number of controversies and negativities surrounding President Trump and his constant lower approval ratings compared to past presidents (Bycoffe, Mehta, & Silver, 2021), one might suspect that a simple *Trump* cue could trigger a more negative evaluation on the foreign trade policy because participants found the policy associated with him less favorable, as past issue framing studies suggested (Stalans, 2012). The effect that we found, however, was not universal but conditional. Participants with high foreign trade knowledge were essentially immune to the influence of wording variations, presumably because they knew the substance of the policy regardless of whether a *Trump* cue was associated with it or not. The attitudes of those unknowledgeable participants, in contrast, were easily swayed by the question wording changes. This effect is robust regardless of the foreign political entity—China or the European Union—against which the trade war was directed.

Interestingly, we did not see any significant interaction effect between question wording variation and partisanship as some prior studies identified (e.g., Husser & Fernandez, 2016; Villar & Krosnick, 2011). One plausible explanation might be that, whereas presumably the *Trump* cue should reduce Democrats’ support while increasing Republicans’ support for the trade war, Republicans might have already developed a very high level of support for the trade war that is more consistent with their ideology. The *Trump* cue was therefore not able to further drive up their preference on trade protectionism because of the ceiling effect.

More importantly, our findings call attention to the significant and unique role of actual topical knowledge in moderating question wording effect. As prior studies have warned, little efforts were invested in unpacking the role of nonpolitical and specialized knowledge in political communication studies (e.g.,

Andrews, Clawson, Gramig, & Raymond, 2017; Zaller, 1992). In the current study, we specifically measured participants' knowledge of international trade. As we expected, actual topical knowledge significantly mitigated the differences in survey responses attributed to labelling changes. For the most informed participants in terms of the knowledge on foreign trade, their attitudes toward "Trump's trade war" and "the trade war" were essentially the same.

Our findings contrast with the moderating effect of topical knowledge in Bullock and Vedlitz's (2017) study, where participants reported a high level of perceived knowledge of hydraulic fracturing were found to be more vulnerable to the labelling change. We argue that this difference can be attributed to distinct choices of the measurement of topical knowledge. Although Bullock and Vedlitz (2017) examined *perceived* topical knowledge, we included both *perceived* and *actual* topical knowledge in our analysis and found that it was the *actual* topical knowledge that mitigated the question wording effect. The actual knowledge that individuals have about a certain topic help them recognize the identicalness of different descriptions referring to the same issue, and subsequently facilitated them to offer more similar responses, which is not a role that can be conceptually or practically substituted by either general education attainment or perceived topical knowledge.

Our findings about the role of actual topical knowledge have major theoretical and methodological implications. The seemingly large gap between the levels of support for the trade war became negligible among participants who were best informed about the issue. We argue that for specialized issues such as foreign trade policy, what matters is the actual topical knowledge that is pertinent to the object of opinion rather than a proxy for knowledge, such as education or knowledge measured in a more generic way, such as political knowledge. As one possesses more knowledge of a specific topic, they are more likely to know that using different labels to describe the same issue, such as substituting "Obamacare" for "Affordable Care Act," is no more than wordplay. Therefore, even if different wordings/descriptions were applied in different opinion polls and surveys researching public opinion on a given issue, the attitude of a well-informed public should be less likely affected. Whereas a fully informed public is probably nothing more than a fantasy, future research should apply techniques such as statistical simulation or experimental intervention to estimate the susceptibility of individuals with different levels of actual topical knowledge to further validate the mechanism that the current study identified and to gauge what a better-informed public opinion would be like.

In addition, we argue that the adoption of perceived knowledge in this context might not be appropriate as it might function in the exact opposite direction. Scholars have long identified a discrepancy between perceived knowledge and actual knowledge, which was coined as the "illusion of knowing," where people often overestimated what they knew (Glenberg, Wilkinson, & Epstein, 1982; Park, Gardner, & Thukral, 1988). The Dunning-Kruger effect suggested that those who reported a high level of perceived knowledge might actually be less knowledgeable as their lack of knowledge prevented themselves from recognizing their own ignorance (Dunning, 2011; Kruger & Dunning, 1999). In fact, our data did find a significantly negative correlation between participants' actual foreign trade knowledge and the knowledge that they perceived themselves to have ($r = -.10, p < .001$). This failure in the self-assessment of knowledge has been found to impede problem solving (Metcalf, 1986), hinder information processing (Radecki & Jaccard, 1995), perpetuate existing attitudes (Schäfer, 2020), and lead to inertness and assertiveness

without a rational basis (Park, 2001). Whereas it is certainly beyond the scope of this study to investigate the underlying mechanisms of how these two types of knowledge conditioned the association between question wording variations and reported attitudinal differences, we call on future researchers to systematically examine and parse out differing impacts of actual knowledge and perceived knowledge and to cautiously determine whether perceived knowledge is the appropriate measure to be applied.

Finally, for survey methodologists, when assessing the public opinion of policy issues that are beyond the everyday experience of an average citizen, providing some contextual information might help solicit a more accurate response. Based on our findings, survey question wording effect can be mitigated by actual topical knowledge. Although researchers cannot assume that the general public possesses sufficiently nuanced understanding of the issues under investigation, providing some background information can potentially inform those who are less knowledgeable. Meanwhile, when the situation allows, researchers should consider informing the participants about some of the alternative terms referring to the same issue or policy to more accurately gauge the climate of public opinion.

Every research has its limitations, and our study is no exception. First, we investigated only one issue in the survey experiment. To reveal more nuances of the role of actual topical knowledge and partisanship on the question wording effect, we suggest that future researchers should study a multitude of issues with different levels of visibility and divisiveness to provide more empirical evidence and insights. Second, our measurement for the actual knowledge on foreign trade was by no means comprehensive. With a limited number of questions, the measurement could capture only some aspects of foreign trade knowledge, and some participants' actual understanding of the issue might not be well reflected. Future research should build more comprehensive tests to measure individuals' actual topical knowledge to better ascertain the role of it. Third, to be comparable to Bullock and Vedlitz's (2017) analysis, the current study used one single question to measure self-perceived knowledge, which might not be the most ideal way to capture this concept. Future research should consider using different and/or multiple questions to increase validity and reliability of the measurement. Fourth, with a nonprobability sample, the result was not intended to be, nor should it be interpreted as, generalizable to a larger population.

To sum up, we provided empirical evidence of survey question wording effect in the context of foreign trade policy, in particular the moderating effect of actual topical knowledge in the relationship between question wording and survey responses. Researchers should be cautious when assessing public opinion when the issue of interest could be referred to in multiple ways and better provide respondents with some topical information to solicit a more genuine response.

References

- Abadi, M. (2017, October 19). Republicans say "death tax" while Democrats say "estate tax"—and there's a fascinating reason why. *Business Insider*. Retrieved from <https://www.businessinsider.com/death-tax-or-estate-tax-2017-10>

- Andrews, A. C., Clawson, R. A., Gramig, B. M., & Raymond, L. (2017). Finding the right value: Framing effects on domain experts. *Political Psychology, 38*(2), 261–278. doi:10.1111/pops.12339
- Arceneaux, K. (2008). Can partisan cues diminish democratic accountability? *Political Behavior, 30*(2), 139–160. doi:10.1007/s11109-007-9044-7
- Bartels, L. M. (1996). Uninformed votes: Information effects in presidential elections. *American Journal of Political Science, 40*(1), 194–230. doi:10.2307/2111700
- Bullock, J. B., & Vedlitz, A. (2017). Emphasis framing and the role of perceived knowledge: A survey experiment. *Review of Policy Research, 34*(4), 485–503. doi:10.1111/ropr.12231
- Bycoffe, A., Mehta, D., & Silver, N. (2021, January 20). How (un)popular is Donald Trump? *FiveThirtyEight*. Retrieved from <https://projects.fivethirtyeight.com/trump-approval-ratings/>
- Chaiken, S. (1980). Heuristic versus systematic information processing and the use of source versus message cues in persuasion. *Journal of Personality and Social Psychology, 39*(5), 752–766. doi:10.1037/0022-3514.39.5.752
- Chong, D., & Druckman, J. N. (2007). Framing theory. *Annual Review of Political Science, 10*(1), 103–126. doi:10.1146/annurev.polisci.10.072805.103054
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and discontent* (pp. 206–261). New York, NY: Free Press of Glencoe.
- Delli Carpini, M. X., & Keeter, S. (1996). *What Americans know about politics and why it matters*. New Haven, CT: Yale University Press.
- Dunning, D. (2011). The Dunning-Kruger effect: On being ignorant of one's own ignorance. In J. M. Olson & M. P. Zanna (Eds.), *Advances in experimental social psychology* (Vol. 44, pp. 247–296). Cambridge, MA: Academic Press.
- Flores, A. R. (2015). Examining variation in surveying attitudes on same-sex marriage: A meta-analysis. *Public Opinion Quarterly, 79*(2), 580–593. doi:10.1093/poq/nfv017
- Galston, W. A. (2001). Political knowledge, political engagement, and civic education. *Annual Review of Political Science, 4*, 217–234. doi:10.1146/annurev.polisci.4.1.217
- Gilens, M. (2001). Political ignorance and collective policy preferences. *American Political Science Review, 95*(2), 379–396. doi:10.1017/S0003055401002222
- Glenberg, A. M., Wilkinson, A. C., & Epstein, W. (1982). The illusion of knowing: Failure in the self-assessment of comprehension. *Memory & Cognition, 10*(6), 597–602. doi:10.3758/BF03202442

- Goren, P., Federico, C. M., & Kittilson, M. C. (2009). Source cues, partisan identities, and political value expression. *American Journal of Political Science*, 53(4), 805–820. doi:10.1111/j.1540-5907.2009.00402.x
- Hippler, H.-J., & Schwarz, N. (1986). Not forbidding isn't allowing: The cognitive basis of the forbid–allow asymmetry. *Public Opinion Quarterly*, 50(1), 87–96. doi:10.1086/268961
- Holl, K., Niederdeppe, J., & Schuldt, J. P. (2018). Does question wording predict support for the Affordable Care Act? An analysis of polling during the implementation period, 2010–2016. *Health Communication*, 33(7), 816–823. doi:10.1080/10410236.2017.1315676
- Holler, M., Hoelzl, E., Kirchler, E., Leder, S., & Mannetti, L. (2008). Framing of information on the use of public finances, regulatory fit of recipients and tax compliance. *Journal of Economic Psychology*, 29(4), 597–611. doi:10.1016/j.joep.2008.01.001
- Husser, J. A., & Fernandez, K. E. (2016). Gay marriage tends to be more popular than same-sex marriage. *Survey Practice*, 9(4), 1–8. doi:10.29115/SP-2016-0024
- Iyengar, S. (1990). Framing responsibility for political issues: The case of poverty. *Political Behavior*, 12(1), 19–40. doi:10.1007/BF00992330
- Kirchler, E. (1998). Differential representations of taxes: Analysis of free associations and judgments of five employment groups. *The Journal of Socio-Economics*, 27(1), 117–131. doi:10.1016/S1053-5357(99)80080-8
- Kruger, J., & Dunning, D. (1999). Unskilled and unaware of it: How difficulties in recognizing one's own incompetence lead to inflated self-assessments. *Journal of Personality and Social Psychology*, 77(6), 1121–1134. doi:10.1037/0022-3514.77.6.1121
- Lauter, D., & Kaiman, J. (2018, March 22). Trump's China tariffs get bipartisan support, reflecting widespread U.S. disillusionment with Beijing. *Los Angeles Times*. Retrieved from <https://www.latimes.com/politics/la-na-pol-trump-china-tariffs-20180322-story.html>
- Manchester, J. (2018, October 3). Analyst says US is most divided since Civil War. *The Hill*. Retrieved from <https://thehill.com/hilltv/what-americas-thinking/409718-analyst-says-the-us-is-the-most-divided-since-the-civil-war>
- Merolla, J. L., Stephenson, L. B., & Zechmeister, E. J. (2016). Deciding correctly: Variance in the effective use of party cues. In A. Blais, J. F. Laslier, & K. Van der Straeten (Eds.), *Voting experiments* (pp. 19–42). New York, NY: Springer.

- Metcalfe, J. (1986). Feeling of knowing in memory and problem solving. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 12(2), 288–294. doi:10.1037/0278-7393.12.2.288
- Mondak, J. J. (1993). Source cues and policy approval: The cognitive dynamics of public support for the Reagan agenda. *American Journal of Political Science*, 37(1), 186–212. doi:10.2307/2111529
- Nelson, T. E., Oxley, Z. M., & Clawson, R. A. (1997). Toward a psychology of framing effects. *Political Behavior*, 19(3), 221–246. doi:10.1023/A:1024834831093
- Neuman, S., & Romo, V. (2020, January 16). Senate OKs North American Trade Deal to replace NAFTA, giving Trump a much-needed win. *NPR*. Retrieved from <https://www.npr.org/2020/01/16/796901909/senate-oks-north-american-trade-deal-to-replace-nafta-giving-trump-a-much-needed>
- Newport, F. (2013, November 20). What's in a name? Affordable Care Act vs. Obamacare. *Gallup*. Retrieved from <https://news.gallup.com/opinion/polling-matters/169541/name-affordable-care-act-obamacare.aspx>
- Nicholson, S. P. (2012). Polarizing cues. *American Journal of Political Science*, 56(1), 52–66. doi:10.1111/j.1540-5907.2011.00541.x
- Page, B. I., & Shapiro, R. Y. (1992). *The rational public: Fifty years of trends in Americans' policy preferences*. Chicago, IL: The University of Chicago Press.
- Park, C. W., Gardner, M. P., & Thukral, V. K. (1988). Self-perceived knowledge: Some effects on information processing for a choice task. *American Journal of Psychology*, 101(3), 401–424. doi:10.2307/1423087
- Park, C.-Y. (2001). News media exposure and self-perceived knowledge: The illusion of knowing. *International Journal of Public Opinion Research*, 13(4), 419–425. doi:10.1093/ijpor/13.4.419
- Popkin, S. L., & Dimock, M. A. (1999). Political knowledge and citizen competence. In S. L. Elkin & K. E. Soltan (Eds.), *Citizen competence and democratic institutions* (pp. 117–146). University Park: Pennsylvania State University Press.
- Pramuk, J. (2019, April 9). Bernie Sanders unveils trade platform challenging Trump's China policy. *CNBC*. Retrieved from <https://www.cnbc.com/2019/04/29/bernie-sanders-challenges-donald-trumps-china-trade-policy.html>
- Radecki, C. M., & Jaccard, J. (1995). Perceptions of knowledge, actual knowledge, and information search behavior. *Journal of Experimental Social Psychology*, 31(2), 107–138. doi:10.1006/jesp.1995.1006

- Rasinski, K. A. (1988). *The effect of question wording on public support for government spending: General Social Survey methodological report No. 54*. National Opinion Research Center. Retrieved from <https://gss.norc.org/Documents/reports/methodological-reports/MR054.pdf>
- Rugg, D. (1941). Experiments in wording questions: II. *Public Opinion Quarterly*, 5(1), 91–92. doi:10.1086/265467
- Schäfer, S. (2020). Illusion of knowledge through Facebook news? Effects of snack news in a news feed on perceived knowledge, attitude strength, and willingness for discussions. *Computers in Human Behavior*, 103, 1–12. doi:10.1016/j.chb.2019.08.031
- Schuldt, J. P., Enns, P. K., & Cavaliere, V. (2017). Does the label really matter? Evidence that the US public continues to doubt “global warming” more than “climate change.” *Climate Change*, 143(1–2), 271–280. doi:10.1007/s10584-017-1993-1
- Schuldt, J. P., Konrath, S. H., & Schwarz, N. (2011). “Global warming” or “climate change”? Whether the planet is warming depends on question wording. *Public Opinion Quarterly*, 75(1), 115–124. doi:10.1093/poq/nfq073
- Schuman, H., & Presser, S. (1977). Question wording as an independent variable in survey analysis. *Sociological Methods & Research*, 6(2), 151–170. doi:10.1177/004912417700600202
- Schwarz, N. (1999). Self-reports: How the questions shape the answers. *American Psychologist*, 54(2), 93–105. doi:10.1037/0003-066X.54.2.93
- Smith, T. W. (1987). That which we call welfare by any other name would smell sweeter: An analysis of the impact of question wording on response patterns. *Public Opinion Quarterly*, 51(1), 75–83. doi:10.1086/269015
- Stalans, L. J. (2012). Frames, framing effects, and survey responses. In L. Gideon (Ed.), *Handbook of survey methodology for the social sciences* (pp. 75–90). New York, NY: Springer.
- Thompson, A., & Behsudi, A. (2019, July 29). Warren moves to outflank Trump on trade. *Politico*. Retrieved from <https://www.politico.com/story/2019/07/29/elizabeth-warren-trump-trade-2020-1439186>
- Villar, A., & Krosnick, J. A. (2011). Global warming vs. climate change, taxes vs. prices: Does word choice matter? *Climatic Change*, 105(1–2), 1–12. doi:10.1007/s10584-010-9882-x
- Visser, P. S., Holbrook, A., & Krosnick, J. A. (2008). Knowledge and attitudes. In W. Donsbach & M. W. Traugott (Eds.), *The SAGE handbook of public opinion research* (pp. 127–139). Thousand Oaks, CA: SAGE Publications.
- Zaller, J. R. (1992). *The nature and origins of mass opinion*. Cambridge, UK: Cambridge University Press.