

# Tired of Politics? Survey Satisficing and Respondent Exposure to Political Content

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**Abstract:** Satisficing is a well-known phenomenon that degrades the quality of survey responses. In this study I examine the effects of exposure to political content on satisficing behavior among survey respondents in the United States. I theorize that American political content, due in part to its affective dimension in the present U.S. context, will deplete respondents' cognitive resources more intensively than content with identical item design from nonpolitical topic domains, leading to increased satisficing. I present the results of two preregistered survey experiments conducted in 2024 on the YouGov (N = 3,600) and Prolific (N = 1,245) platforms. In both studies I experimentally manipulate the topic of question batteries, and measure satisficing through attention checks, timing, and the data quality of downstream question batteries. These studies provide evidence that exposure to political content can increase satisficing behavior among survey respondents. These treatment effects are not augmented or diminished by respondents' levels of political interest. The studies show that researchers should take care in the ordering of their questionnaires when surveys include content that invokes political actors, political parties and ideologies – especially when these questions deal with emotionally charged content rather than purely factual political information.

**Keywords:** Satisficing, attentiveness, surveys, questionnaire design, political methodology

One of the challenges facing survey researchers is *satisficing*, a phenomenon that occurs when otherwise well-meaning respondents experience a depletion of cognitive resources (e.g., Krosnick 1991; Roberts et al. 2019). Respondents experiencing this psychological state often refuse to leave a survey, in part because they feel a sense of social desirability associated with completing the task set before them by the researcher (Sturgis and Brunton-Smith 2023). Instead, fatigued respondents will become intentionally or unintentionally disengaged in the survey task—a phenomenon also referred to as “insufficient effort responding.” They may exhibit *speeding* behavior, in which they rush through a series of responses to finish the task as quickly as possible (e.g., Zhang and Conrad 2020). They may become inattentive, failing to internalize factual details of questions and vignettes (e.g., Anduiza and Galais 2017), or not fully comprehending the instructions of tasks they are being asked to complete (e.g., Hamby and Taylor 2016). Finally, they may skip over items with especially demanding content, resulting in item-level missingness that can interfere with efforts to measure quantities of interest (e.g., Lipps and Monsch 2022). All these respondent behaviors are expected to intensify over the length of a survey task as cognitive resource depletion increases. Altogether, survey satisficing poses a threat to data quality, limiting our ability to draw robust conclusions about attitudes and behaviors even from representative, high-quality survey samples (Berinsky et al. 2014).

Satisficing and respondent attentiveness remain special concerns for online nonprobability survey samples (e.g., Berinsky et al. 2024). Because many online sample participants complete studies for low hourly pay, they face incentives to rapidly complete multiple studies in one work session (e.g., Hillygus et al. 2014; Zhang et al. 2020). These experiences mean online respondents’ cognitive resources are more susceptible to exhaustion on

any given task.<sup>1</sup> In response, much research has investigated how factual manipulation checks (FMCs), mock vignette checks, and other interventions may be deployed to ensure respondent attentiveness (e.g., Berinsky et al. 2024; Kane and Barabas 2019; Kane et al. 2023; Varaine 2023). These items may contain instructions embedded in lengthy text that inform respondents to ignore earlier instructions and select a different response. These and other strategies make up a part of the modern survey scientist’s arsenal in the quest to diagnose and potentially combat survey satisficing in online deployments.

Despite these advances, we still know relatively little about how online panels’ satisficing behavior responds to the *content* of the questionnaires they are tasked with answering (but see Krosnick et al. 1996). In the present study I examine how satisficing behavior in online survey environments is conditioned by exposure to political content. I theorize that exposure to politics is likely to be an especially cognitively taxing domain for respondents to engage, causing satisficing to increase relative to similar survey items with nonpolitical content domains. To study this expectation, I present the results of two pre-registered<sup>2</sup> survey experiments conducted in 2024. These studies contacted nationally representative online nonprobability samples administered by YouGov (N = 3,000, April 2024) and Prolific, Inc. (N = 1,245, August 2024).

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<sup>1</sup> Further concerns about data quality in online surveys include masking respondents’ true locations (e.g., Coppock and McClellan 2019), the use of bots or automation, (e.g., Xu et al. 2022), or even the deployment of large language models to act like human respondents (e.g., Jansen et al. 2023).

<sup>2</sup>Registration information at [redacted for blinded peer review. Note for reviewers: See SI section C for offline copies of the study preregistrations.]

They randomly assigned respondents to experimental treatment conditions featuring series of items with political and nonpolitical content, respectively. The results of these studies show consistent evidence that compared to control conditions, overall satisficing behavior increases by approximately one percentage point on average in response to political content exposure on short question batteries. These average treatment effects are substantively small. Nevertheless, statistically reliable treatment effects observed in response to these modest treatments—a single brief question battery in each study—portend greater consequences for studies that involve long blocks of political questions. This is especially true in conjoint experiments, which require respondents to engage a potentially large number of political scenarios (Bansak et al. 2018; Kane and Costa n.d.). Such increases in satisficing could influence downstream survey response quality, and even disrupt the consistency of respondents' choices in later survey questions (Pocheptsova et al. 2009).

The results also show that satisficing in response to political content is not conditioned by respondents' levels of political engagement, which is a partial reassurance to scholars concerned about the possibility that political interest conditions the accuracy and representativeness of survey responses (e.g., Feezell 2016). In a concluding section, I discuss the meaning of these findings for theories of the survey response and offer practical guidance to researchers hoping to ensure high data quality in their studies.

### ***Political Content and Cognitive Demands***

In the present study, I assert that contemporary U.S.-based survey respondents will exhibit increased levels of satisficing when responding to questionnaires with political (as

opposed to non-political) content. This is because political content places at least two unique cognitive demands on respondents in the present American political context.

First, respondents are expected to confront politics as an especially cognitively demanding topic because American political institutions are complex. It is a well-established finding that cognitive resources can become depleted in response to complex tasks, such as reading difficult text (Britton et al. 1978). For this reason, survey scientists recommend tailoring item design to reduce complexity (e.g., Krosnick et al. 1996; Tourangeau et al. 2000). Recommendations include keeping item text brief, avoiding complex phrasing or terms, providing short and accessible response option text, and breaking up long and monotonous question blocks. American politics, with its strong federalism, intricate checks and balances, and bureaucratic complexity, however, can pose special challenges to respondents' information searches from memory even in response to well-crafted questions (e.g., Houck et al. 2020).

Existing studies have examined how the challenges inherent in parsing political content might influence willingness to respond to surveys in the first place. Individuals who find politics disinteresting or confusing may avoid survey tasks that hint at engagement with political topics, with attendant consequences for the representativeness of samples (e.g., Feezell 2016; Silber et al. 2022). Such observations align with current concerns regarding the sample composition of modern horserace polls (Bailey 2023). Those who respond to polls about candidate favorability and vote intention are likely more politically knowledgeable and politically engaged than the national average, even if sampling has been performed to ensure basic demographic representativeness. Despite these advances, to the author's knowledge, no study has examined how political content influences respondents' behavior once they have accepted the invitation to participate.

## *Emotional Arousal*

Beyond conceptual difficulty, a second potential source of satisficing in response to political content is the highly emotional nature of modern U.S. politics. American partisan politics is conflictual, laden with negative affect, and distressing for many Americans to contemplate (e.g., Krupnikov and Ryan 2022). Even among those who report an enjoyment of politics, the polarized political climate may mean that certain political actors and events can also invoke strong negative emotional states (Mason 2015). Altogether, thinking about politics is likely to invoke a level of *emotional arousal* in many American survey respondents (Renshon et al. 2015).

According to dual process models, affect can serve as a pathway to relatively effortless decision-making and information processing (e.g., Tversky and Kahneman 1974). “Hot” cognitions can lead individuals to form efficient responses to survey items using heuristic shortcuts. However, the engagement of affective considerations *in conjunction* with a cognitively complex task can yield further complications in survey respondents’ efforts to furnish responses to later questions. Research in psychology and communication studies shows that emotional arousal can increase short-term attentiveness and cognitive engagement with a stimulus (Lang et al. 1995). Indeed, much work in political communication research shows that emotional arousal in response to political advertisements can increase attentiveness to ad content, and in turn, the extent to which viewers process the information contained in the ads (e.g., Brady et al. 2020).

If political content drives emotional arousal, politically engaged respondents will likely devote an *increased* volume of cognitive resources to political questions and tasks on surveys.

But after completing these tasks, respondents' earlier arousal will contribute to a lull in attentiveness and effort. Further task performance will be hampered by cognitive resource depletion that has been hastened by the strong emotional reactions experienced in the prior survey block. Combined with the cognitive demands placed on respondents by the complexity of political information, I expect a downstream increase in satisficing behavior on average.

### ***Political Interest and Emotional Arousal***

Because the theorized link between political content exposure and satisficing depends in part upon emotional arousal, it is also likely that those who are more engaged in politics are the most consistently influenced by this phenomenon. It is also likely that political content will cause politically engaged respondents to access more extensive cognitive schema surrounding specific political idea-elements (e.g., Luskin 1990). Thus, despite the ability of politically engaged people to parse politics using a well-developed reserve of political knowledge, they will expend cognitive resources by invoking a wide range of considerations when expressing attitudes and judgments about politics (e.g., Lodge and Hamill 1986).

This assertion accords with a robust literature on the psychology of motivated reasoning, which also explores the affective and cognitive demands of political learning (e.g., Valli et al. 2023; but see Tappin et al. 2021). In this literature, strong partisans are often thought to engage in especially effortful reasoning when preferred (and unfavorable) partisan actors and groups are invoked (van der Linden et al. 2018). Directional motivated reasoning, in contrast with accuracy-driven reasoning, sometimes requires the maintenance of complex logical schema and narratives in order to defend a "partisan preferred-world" interpretation of reality (Bisgaard 2015).

Invocation of partisan actors is especially likely to activate such complex, resource-intensive schema among politically engaged partisans.

For individuals with low levels of political engagement (who are often not strong partisans), exposure to political content is likely to be only marginally more effortful than engagement with other types of content. Those lacking strong feelings about the political parties and political elites will not react to their mention with strong emotional arousal (e.g., Klar and Krupnikov 2022). It is possible, on the other hand, that these respondents will view political tasks as somewhat more cognitively challenging than others, due to the need to focus on the meaning of survey questions that are easily comprehended by those with greater political knowledge. However, the limited information possessed by these respondents may afford them relatively simple cognitive pathways to selecting a response, or to proffering a nonattitude. This may be especially true if respondents are afforded a “Don’t Know” response option, e.g., Graham 2021).

### ***Forms of Political Content***

Political content on surveys can invoke a wide variety of public attitudes, perceptions, and behavioral intentions. This content, as discussed above, can also variously invoke the affective dimension of respondents’ evaluations, or it can remain ambiguously related to the “hot” politics of the present moment. In this study I examine a variety of political content types. One study exposes respondents to factual political knowledge questions that vary according to the degree of anticipated emotional reactions. While some factual knowledge questions about politics might invoke key political institutions, constitutional concepts, or policies, others can



activate the psychology of partisan contestation by mentioning partisan actors and their actions (e.g., CITE). I also expose respondents to questions that ask them to evaluate political actors. These perceptual items differ from knowledge batteries because they ask respondents to express an attitude about a salient individual with associated issue positions, characteristics, and roles in government. Overall, the objective of this strategy is to test a variety of political content types to evaluate the generality of the proposed link between political content (especially affect-laden content) and satisficing behavior.

## **Expectations**

Together, the above assertions yield the following pre-registered research hypotheses:

*H1. Compared to a control condition with no political content, respondents asked questions about political content will be more likely to exhibit satisficing behavior.*

*H2. The effects of political content on satisficing behavior will be conditioned by respondents' levels of political interest.*

Study preregistrations for both Study 1 and Study 2 establish that the present standard for statistical significance of treatment effects is at the  $p < 0.05$  level for two-tailed t-tests. While analysis of individual dependent variable items is illustrative, the primary preregistered hypothesis tests for both Study 1 and Study 2 are tests of an additive dependent variable index described below.

## **Study 1: Design**

On March 29 and April 2, 2024, I reached a sample of N = 3,600 respondents on two waves of daily YouGov omnibus surveys. This nonprobability survey sample conformed to national demographic estimates for age, gender, race/ethnicity, and other basic demography. Panelists' demographic information was captured prior to survey deployment through YouGov's panel management. For more sample information please see Supplementary Information (hereafter SI) Section A.

Study 1 is a simple randomized survey experiment that randomly assigned experimental subjects into one of three treatment groups. Prior to randomization, respondents answered basic questions about their knowledge of politics and political interest. Then, respondents were assigned to one of three potential treatment groups, with each group receiving an item block consisting of three items. These items were designed to be as similar as possible in terms of question length and language. The items varied, however, in terms of the extent and nature of political content included in the items. These variations are described in Table 1, below.

**Table 1. Experimental Treatment Conditions, Study 1**

<b>Control Group: Nonpolitical Content</b>	<b>T1: Political Content</b>	<b>T2: Political Content + Affective Politics</b>
Of the following, which smartphone manufacturer has the largest U.S. market share? (Apple, Samsung, Motorola, Google)	What is the maximum number of terms that U.S. presidents can serve? (One, Two, Three, Four)	How many times was former U.S. president Donald Trump impeached? (Never, once, twice, three times)
What is the largest active U.S. wireless provider network by number of subscribers? (Verizon, T-Mobile, USCellular, AT&T)	How many years is one term of office for a U.S. Senator? (Two years, Four years, Six years, Eight years)	Which political party currently controls the U.S. Senate? (The Republican Party, the Democratic Party, neither party has control, both parties have control)
As you may know, modern wireless communications increasingly rely upon 5G networks to provide service to users.	As you may know, in the United States the national popular vote does not determine who wins the presidential election.	On January 6, 2021, a politician gave a speech in Washington, D.C. that included the following statement: "Our election was so corrupt that in the

What percentage of U.S. consumers actively use 5G-enabled cell phones as of 2024? (Less than 10%, Between 10% and 50%, Between 50% and 90%, More than 90%)	What is the name of the institution through which we determine the winner of U.S. presidential elections? (The electoral college, the electoral bureau, the election poll, the electoral representation)	history of this country we've never seen anything like it." Who spoke these words? (Joe Biden, Donald Trump, Mike Pence, Kamala Harris)
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Measures of satisficing derived from the dependent variable question battery are described below, consistent with the pre-registration (see SI Section C). In all cases, larger values on these measures indicates *greater satisficing* behavior. In the results that follow, all continuous variables are rescaled to [0:1] scales for ease of interpretation of average treatment effects.

1. **Attention check failure:** Incorrect responses to a special question designed to measure attentiveness. This question included a long preamble, but the final instructions in this text asked respondents to select "Other" from a set of responses and to input the word "attentive" into the associated text box. The question was measured on a binary scale, with 1 indicating failure and 0 indicating passage.
2. **Speeding:** Speeding was measured by taking the logged response time (in seconds) for respondents completing the full DV Battery. This measure was then normalized using min-max scaling to take values between [0,1], and reverse-coded, so that higher values indicated faster responses (more propensity for speeding).
3. **Straightlining:** The share of responses to the DV battery that had the identical response selection. This variable was normalized to take values ranging from [0,1] using min-max scaling.

4. An **additive index** of these measures, rescaled to [0,1] for the purposes of comparison.

The additive index is used as the primary indicator for hypothesis tests in the present study.

## **Study 2: Design**

In September of 2024 I reached N = 1,245 respondents using the Prolific survey platform. This sample matched U.S. Census demographics for age, gender, race, and region. Prolific is a low-cost survey panel that uses social media and other web-based recruitment tools to obtain participants in a subject pool. As a platform that has previously been examined in research on respondent attentiveness (e.g., Stagnaro et al. 2024), Prolific provides a valuable comparison to YouGov in which to test the generalizability of the present theory. See SI Section A for further information about the sample of Study 2.

Study 2 participants were first asked a series of demographic questions, including measures of political knowledge, political interest, party identification, and ideological attachments. Respondents were then randomly assigned to one of two experimental treatment groups. In the Control condition, respondents were shown a question block that asked them to rate a series of popular figures on a five-point favorability scale ranging from Strongly Approve to Strongly Disapprove, in random order. The eight figures were drawn from lists of notable celebrities and influencers in pop music, film and television, YouTube and other online platforms, and business. In the Treatment condition, respondents were shown the same favorability rating block for eight highly visible American political figures. Table 2, below, shows these names.

**Table 2. List of Rated Public Figures, Treatment and Control Conditions, Study 2**

<b>Control Condition</b>	<b>Treatment Condition</b>
Timothee Chalamet	Donald Trump
Taylor Swift	Joe Biden
Jeff Bezos	Kamala Harris
MrBeast	J.D. Vance
Zendaya	Nancy Pelosi
Tom Hanks	Mitch McConnell
Beyoncé	Bernie Sanders
Khloe Kardashian	Lauren Boebert

The treatments in Study 2 are therefore identical in design, save for the political/non-political referent of the actors invoked in each rating item. After exposure to this treatment battery, respondents were then asked the same factual manipulation check (FMC) item described above in Study 1. The study continued with a series of four questions about respondents' usage of social media apps, which I rely on to construct a brief straightlining scale. The measures used in the study for straightlining, attention check passage, speeding, and the index are coded in a way that is identical to Study 1.

### **Study 1: Results**

Before reviewing the experimental treatment results in Study 1, one important preliminary consideration is the relative difficulty of the factual question batteries. Because the question design of the items in Study taps factual knowledge, it is possible that the relative availability of these answers in respondents' memory can affect satisficing. More difficult questions are more likely to deplete respondents' cognitive resources. If the political items more challenging than the control condition, the effects of political content will be upwardly biased by question difficulty. The results of the study, however, show that the control condition items were *more* difficult than

the treatment questions. This means that the average treatment effect estimates presented below may be underestimated, rather than overestimated, by an unspecified degree. Below, we see the proportion of respondents in each treatment group that correctly answered each item. The average control score was 42.3%, the average score in T1 was 62.3%, and the average score in T2 was 54.2%. If question difficulty was solely responsible for satisficing, we would expect the control condition to increase satisficing relative to the treatments. These results are presented in Table 2 below.

**Table 3. Proportion of Respondents Correctly Answering Treatment Items, Study 1**

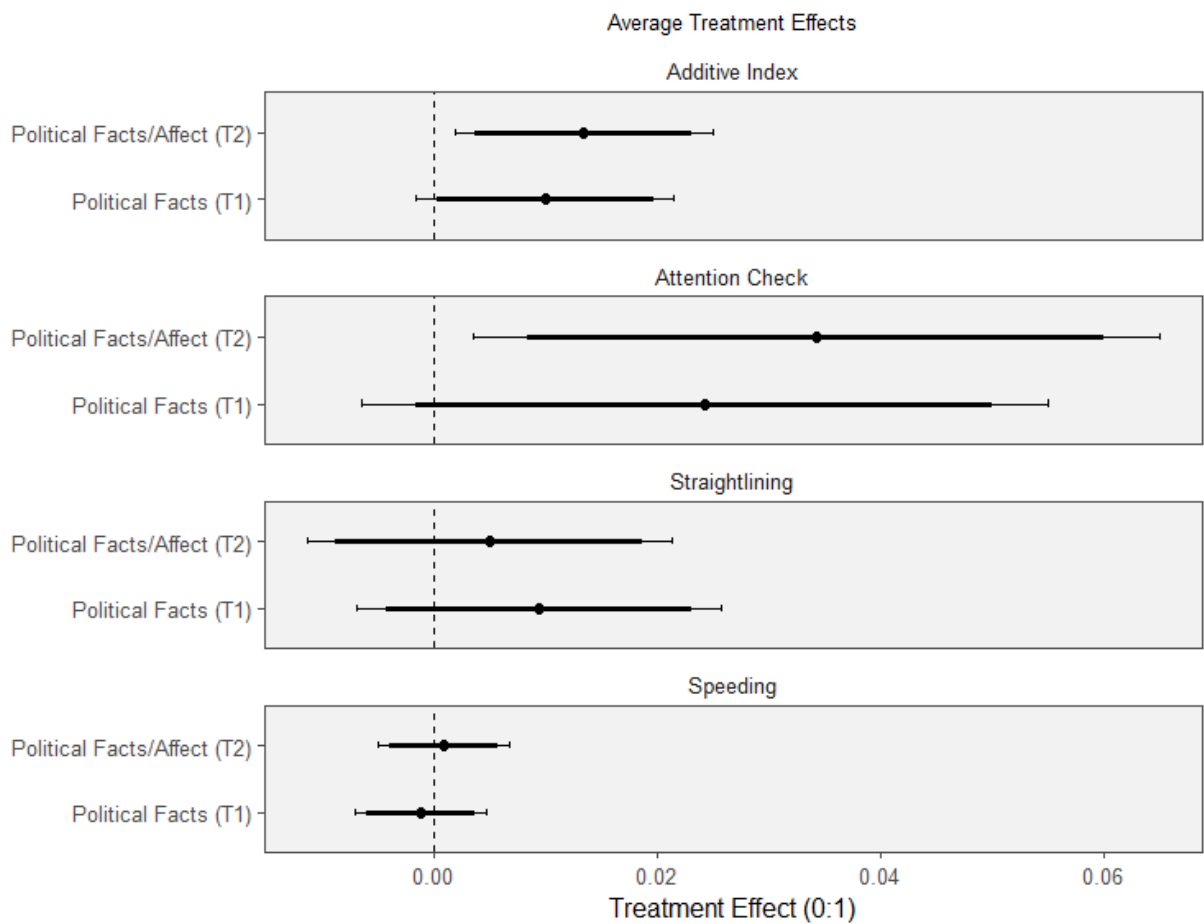
<b>Condition</b>	<b>Control</b>	<b>T1</b>	<b>T2</b>
<b>Item 1</b>	61.2%	74.5%	44.7%
<b>Item 2</b>	27.0%	42.7%	54.6%
<b>Item 3</b>	38.8%	69.7%	63.5%

*Average Treatment Effects, Study 1*

Next, I present the results of experimental treatment exposure on the dependent variable items and their additive index. As seen below in Fig. 1, exposure to the experimental treatments yielded mostly positive average treatment effects, though not all these positive effects obtained at the  $p < 0.05$  level of statistical significance. Among these treatment effects, however, we see little evidence that exposure to the treatments yielded any meaningful increase in downstream speeding behavior. Respondents proceeded through the remainder of the survey at roughly the same rate as they may have in earlier question blocks.

In contrast, average treatment effects for FMC attention check failure show evidence of especially notable increases in response to T2 (the political facts and affect condition). On average, respondents failed the FMC item more than 3.5 percentage points more often in this condition than in the control condition.

**Fig. 1. Average Treatment Effects, Study 1**



*Note: Dashed vertical line indicates control group mean. Thick horizontal bars show 90% Confidence Intervals for treatment estimates; thin horizontal bars show 95% Confidence Intervals.*

The study’s primary hypothesis test for **H1** comes in an examination of the additive index in the top facet of Fig. 1. In this part of the figure, we see evidence of positive treatment effects for both T1 and T2 on the combined outcome. However, while the ATE for Treatment 1 is smaller and does not obtain at the  $p < 0.05$  significance level (T1-Control contrast = 0.01,  $p = 0.09$ ), the ATE for Treatment 2 is 0.013 ( $p = 0.023$ ). Thus, the key test of Study 1 shows reliable evidence that exposure to affect-laden political content, in comparison to a question battery of similar length with nonpolitical content or strictly factual political content, yields a modest but statistically meaningful treatment effect of around 1 percentage point on the additive DV index. This result provides evidence in favor of **H1** specifically in response to Treatment 2.

***Effects of Political Interest***

Evidence in support of **H2**, however, does not obtain in Study 1 for either of the treatment groups. An analysis of treatment effect heterogeneity, performed through inclusion of a simple interactive term in OLS models predicting the DV items, shows no substantive or statistically significant increases in treatment response for politically engaged respondents. Below, in Table 4, I provide the results of these analyses.

**Table 4. OLS Regression Models Predicting Satisficing Behaviors and Their Additive Index, Study 1**

	<i>Dependent variable (0:1):</i>			
	Attention Check	Straightlining	Speeding	Additive Index
T1	0.045 (0.056)	-0.033 (0.029)	0.021 (0.011)	0.005 (0.021)



T2	0.055 (0.056)	-0.011 (0.030)	0.019 (0.011)	0.021 (0.021)
Political Interest (1:4)	-0.017 (0.012)	0.023*** (0.006)	0.002 (0.002)	0.003 (0.004)
T1*Political Interest	-0.007 (0.017)	0.013 (0.009)	-0.007* (0.003)	0.001 (0.006)
T2*Political Interest	-0.006 (0.017)	0.005 (0.009)	-0.006 (0.003)	-0.002 (0.006)
Constant	0.211*** (0.038)	0.464*** (0.020)	0.522*** (0.007)	0.399*** (0.014)
Observations	3,587	3,566	3,570	3,566
R <sup>2</sup>	0.004	0.018	0.002	0.002
Adjusted R <sup>2</sup>	0.003	0.017	0.001	0.0004
Residual Std. Error	0.381 (df = 3581)	0.201 (df = 3560)	0.072 (df = 3564)	0.144 (df = 3560)
F Statistic	2.949* (df = 5; 3581)	13.035*** (df = 5; 3560)	1.672 (df = 5; 3564)	1.320 (df = 5; 3560)

Note:

\* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

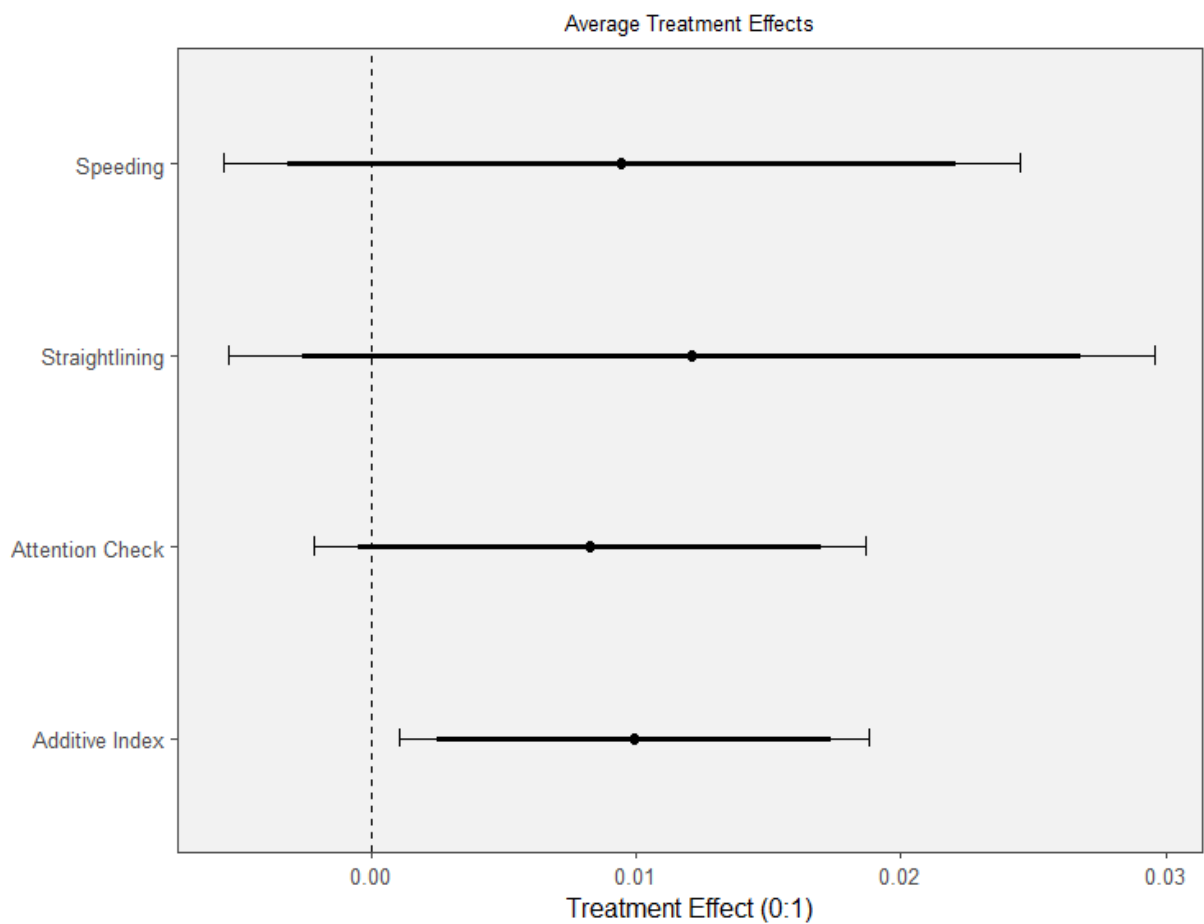
Overall, then, Study 1 shows evidence that in response to political content that invokes an affective response to salient actors and issues, a representative sample of American YouGov survey respondents reliably increases their satisficing behavior (**H1**), but not to a greater or lesser degree according to political interest.

## Study 2: Results

Study 2's results show a pattern that conforms to the results presented in Fig. 1 for both **H1** and **H2**. Below, in Fig. 2, I show the average treatment effects for exposure to the political actor rating scales described above in Table 2. In response to a brief question block asking

respondents to evaluate a series of eight political figures (instead of eight figures from popular culture), we see overall increases in satisficing behaviors on average. Notably, in Study 2, we see positive coefficients for speeding in addition to straightlining and attention check failure, reflecting a slight discrepancy in the results compared to Study 1. However, none of the individual satisficing items' average treatment effects obtain statistical significance at the study's requisite  $p < 0.05$  level.

**Fig. 2. Average Treatment Effects, Study 2**



Note: Dashed vertical line indicates control group mean. Thick horizontal bars show 90% Confidence Intervals for treatment estimates; thin horizontal bars show 95% Confidence Intervals.

Fig. 2 does, however, show that the treatment again has a positive ATE on the additive index of satisficing behaviors. On average, treated respondents exhibited an increase in satisficing of roughly 1 percentage point ( $p = 0.03$ ). This result again shows evidence consistent with **H1**.

While potentially underpowered to reach definitive conclusions, an examination of **H2** again showed little evidence of heterogeneous treatment effects across levels of political interest in Study 2. Using OLS regression models with interaction terms for political interest included on the right-hand side, the results show no significant or substantively meaningful coefficients for this interaction variable. As seen in Table 5, Study 2 again fails to show meaningful evidence to support **H2**.

**Table 5. OLS Regression Models Predicting Satisficing Behaviors and Their Additive Index, Study 2**

	<i>Dependent variable (0:1):</i>			
	Attention Check	Straightlining	Satisficing	Additive Index
Treated	-0.015 (0.020)	-0.025 (0.033)	-0.025 (0.029)	-0.022 (0.017)
Political Interest (1:4)	-0.005 (0.004)	0.013 (0.007)	-0.011 (0.006)	-0.001 (0.004)
Treated * Political Interest	0.008 (0.006)	0.012 (0.010)	0.011 (0.009)	0.010 (0.005)
Constant	0.020 (0.014)	0.472*** (0.024)	0.630*** (0.020)	0.374*** (0.012)

Observations	1,245	1,245	1,245	1,245
R <sup>2</sup>	0.003	0.014	0.004	0.009
Adjusted R <sup>2</sup>	0.001	0.011	0.001	0.007
Residual Std. Error (df = 1241)	0.094	0.156	0.135	0.079
F Statistic (df = 3; 1241)	1.336	5.745***	1.461	3.846**

*Note:* \* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

## Conclusions & Discussion

Taken together, the results of Studies 1 and 2 show evidence that exposure to a short question battery that invokes affect-laden political idea-elements can increase respondents' downstream satisficing behavior. These effects do not seem to be concentrated among those with high or low levels of political interest. While the present studies obtain these findings using relatively brief treatment batteries of just three and eight items, respectively, the fact that **H1** obtained in both studies should give modern practitioners pause. The present study cannot tell us whether exposure to a longer political question battery (instead of a nonpolitical battery) would further exacerbate satisficing. However, the results, combined with a theoretical understanding of satisficing grounded in cognitive resource depletion, are suggestive of this possibility (e.g., Krosnick et al. 1996). What's more, Study 1's design, which invokes less-difficult factual political items than the control condition, means that these specific results may be downwardly biased.

Overall, then, the present results are suggestive of issues that may arise from extensive exposure to political content in surveys. They highlight the need for effective question and block order randomization in political studies, to avoid rapidly decreasing response quality across the survey task. They also suggest that in settings such as conjoint experiments and large omnibus

studies, where political content exposure has a long duration, attentiveness may present a special concern.

Future studies are poised to further explore the possibility that item content can differentially affect respondent effort in downstream survey items. While the present study shows evidence of this phenomenon for political content in the U.S. context, the theoretical assertions should maintain for any content that is particularly likely to spur respondents to experience both affective and cognitive responses to the actors and concepts invoked by questions. This could be true of politics in other country contexts, or topics that are not overtly political but still tap controversial social issues. Altogether, the present study has contributed to our understanding of respondents' engagement with political content. While we continue to learn more about (un)willingness to take political surveys as a function of individuals' attitudes towards politics, this study shows that once a respondent consents to participate in such a study, researchers should remain vigilant regarding the effects of political content on respondent behavior.

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Supplementary Information for:  
Tired of Politics? Survey Satisficing and Respondent Exposure to Political Content

9/17/2024

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## Appendix A. Sample Information

The sample for Study 1 was collected by YouGov through their daily tracking surveys (today.yougov.com/about/panel-methodology). According to the documentation associated with these panels, research panelists with an existing relationship with YouGov are contacted using a quota system to match Census demography matching the most recent American Community Survey (ACS). This panel invitation method considers respondents' age, gender, race, and education levels.

Below, see Table SI1 for sample descriptives.

Table SI1. Descriptive Statistics, 2024 YouGov sample (N=3000)

	Unique	Missing Pct.	Mean	SD	Min	Median	Max
Birth Year	81	0	1979.4	18.7	1930.0	1984.0	2011.0
Nonwhite	2	0	0.3	0.5	0.0	0.0	1.0
Male	2	0	0.5	0.5	0.0	0.0	1.0
Education	6	0	3.6	1.5	1.0	3.0	6.0
Party ID (7 category)	8	3	3.7	2.3	1.0	4.0	7.0
Ideology (5 category)	6	8	3.0	1.1	1.0	3.0	5.0
Would you say you follow what's going on in government and public affairs ...	4	0	3.2	0.9	1.0	3.0	4.0

## Study 2

Study 2 participants were recruited through Prolific Inc.'s online survey participant marketplace tool (www.prolific.co). Prolific provides researchers with access to a large international pool of participants. According to official documentation, this pool of participants was recruited beginning in 2014 via social media, word-of-mouth referrals, and an ongoing referral program (Prolific 2023a). Respondents were recruited to participate in the present study using Prolific's representativeness quota system, which ensures Census demographic balance on age, sex, and ethnicity. According to official documentation, Prolific uses cross stratifying on these variables to create 50 subgroups; these subgroups are filled through participant allocation in a pattern that best approximates Census estimates for those subgroups' density in the U.S. population (Prolific 2023b).

Below, Table SI2 shows basic descriptive statistics for this sample.

Table SI2. Descriptive Statistics, 2024 Prolific Sample

	<b>Unique</b>	<b>Missing Pct.</b>	<b>Mean</b>	<b>SD</b>	<b>Min</b>	<b>Median</b>	<b>Max</b>
Age (7-point Category)	7	0	3.4	1.6	0.0	3.0	6.0
Nonwhite	2	0	0.3	0.4	0.0	0.0	1.0
Male	2	0	0.5	0.5	0.0	0.0	1.0
Education (7-point)	7	1	4.1	1.3	1.0	4.0	6.0
Household Income	7	2	3.2	1.6	1.0	3.0	6.0
Party ID (7-point)	7	0	3.4	1.8	1.0	3.0	7.0
Ideology (5-point)	5	2	2.7	1.1	1.0	3.0	5.0
Political Interest (4-point)	4	0	3.1	0.9	1.0	3.0	4.0

## Appendix B. Model Specifications

Below, I show the model specifications corresponding to Figs. 1 and 2 in the main text. These results show ATE estimates for Study 1 and Study 2, respectively. All models are OLS estimates of 0:1 scales to facilitate comparisons with the continuous Additive Index measure. Results for attention check passage (a binary scale) are robust to binary logistic regression estimation.

Table SI3. OLS Models Predicting Treatment Effects on Satisficing Behaviors, Study 1

	<i>Dependent variable:</i>			
	Attention Check	Straightlining	Speeding	Additive Index
T1	0.024 (0.016)	0.009 (0.008)	-0.001 (0.003)	0.010 (0.006)
T2	0.034* (0.016)	0.005 (0.008)	0.001 (0.003)	0.013* (0.006)
Constant	0.160*** (0.011)	0.536*** (0.006)	0.528*** (0.002)	0.407*** (0.004)
Observations	3,600	3,576	3,580	3,576
R <sup>2</sup>	0.001	0.0004	0.0001	0.002
Adjusted R <sup>2</sup>	0.001	-0.0002	-0.0004	0.001
Residual Std. Error	0.384 (df = 3597)	0.203 (df = 3573)	0.072 (df = 3577)	0.144 (df = 3573)
F Statistic	2.516 (df = 2; 3597)	0.637 (df = 2; 3573)	0.243 (df = 2; 3577)	2.793 (df = 2; 3573)

*Note:*

\* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

Below, Table SI4 provides the same OLS estimates of ATEs for Study 2.

Table SI4. OLS Models Predicting Treatment Effects on Satisficing Behaviors, Study 2

	<i>Dependent variable:</i>			
	Attention Check	Straightlining	Speeding	Additive Index
Treatment	0.008 (0.005)	0.012 (0.009)	0.009 (0.008)	0.010* (0.005)
Constant	0.005 (0.004)	0.513*** (0.006)	0.597*** (0.005)	0.372*** (0.003)
Observations	1,245	1,245	1,245	1,245
R <sup>2</sup>	0.002	0.001	0.001	0.004
Adjusted R <sup>2</sup>	0.001	0.001	0.0004	0.003
Residual Std. Error (df = 1243)	0.094	0.157	0.135	0.080
F Statistic (df = 1; 1243)	2.417	1.840	1.520	4.846*

*Note:*

\* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001

## Appendix C. Ethics and Preregistration Information

Pre-registration was completed at [redacted for review] in March and August 2024, respectively, prior to the collection of any data. Power analyses were performed in conjunction with pre-registration to evaluate the power of each proposed hypothesis. Design and modeling decisions were declared in a way that is in keeping with the final handling of all statistical tests in the main text. Exploratory analyses, which examine partisan subgroup effects, are not included in the pre-registration information.

The survey instrument was approved by the [Redacted for Review] Institutional Review Board (IRB) with a status of Exempt prior to survey deployment. The survey instrument accorded with University guidelines which recommend the per-hour payment for participants exceed the state minimum wage. The survey instrument was designed to accord with the principles of minimal risk to participants, informed consent, and anonymity and confidentiality.



Below is a reproduction of the [redacted for review] preregistrations for both Study 1 and Study 2. Because the preregistration site link may lead to a high likelihood of discerning the author's identity, I provide these offline copies to bypass these concerns.

## **Study Information: Study 1**

### Hypotheses

H1. Compared to a control condition with no political content, respondents asked questions about political content will be more likely to exhibit satisficing behavior. H2. The effects of political content on satisficing behavior will be conditioned by respondents' levels of political interest.

### **Design Plan**

#### Study type

Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

#### Blinding

- For studies that involve human subjects, they will not know the treatment group to which they have been assigned.

Is there any additional blinding in this study?

*No response*

#### Study design

The study is a survey experiment that exposes respondents to one of three sets of survey questions. The control condition (T1) contains three questions asking respondents about the cell phone industry. A "political knowledge" condition (T2) asks three factual questions about politics. An "affective politics" condition (T3) asks three questions about political actors and events that is expected to increase engagement among those with high levels of political interest. Survey question text can be seen in the attachment below.

*No files selected*

#### Randomization

Simple randomization into one of three treatment groups

### **Sampling Plan**

#### Existing Data

Registration prior to creation of data

Explanation of existing data

*No response*

Data collection procedures

In the present study, YouGov will reach a sample of approximately  $N = 3000$  YouGov panelists. These panelists are recruited by YouGov using social media and other advertisements. The panelists will be U.S. based adults. Panelists are paid by YouGov according to their pay schedule, which can be found here <https://today.yougov.com/about/panel>

*No files selected*

Sample size

Approximately  $N = 3,000$

Sample size rationale

Arbitrary constraint: standard YouGov panel allocation size

Stopping rule

n/a, sample size is predetermined by YouGov

## **Variables**

Manipulated variables

See the attached questionnaire for the text of each treatment. All three treatments consist of three knowledge-based survey questions of similar length with the same number of response options.

*No files selected*

Measured variables

Satisficing can be measured in three ways in this study: Passage of an attention check: see the questionnaire. The attention check item asks respondents to write "attentive" into a box instead of selecting from a standard Likert item list. Speeding: Rapid completion of the attention check and any later survey items included by YouGov in the panelists' survey experience Straightlining: Lack of deviation in the response to any later survey items included by YouGov in the panelists' survey experience

*No files selected*

Indices

Satisficing will be ideally measured using three separate measures. If possible, these behaviors may be combined into an additive index which provides a more robust estimate of satisficing

*No files selected*

## **Analysis Plan**

## Statistical models

Statistical analysis will be performed using linear and/or logistic regression: linear regression for items with continuous distributions, and binary logistic regression for items with binary distributions (such as passage of the attention check). Assuming linear regression, the models will take the following form, in R notation: `mod1 <- lm(data = dat, attentive ~ as.factor(treatment))` `mod2 <- lm(data = dat, attentive ~ as.factor(treatment) + pollInt + as.factor(treatment)*pollInt)` Hence, the first model will simply include treatment as a set of dummy variables, while the second model will interact treatment with the measure of political interest described in the attached questionnaire.

*No files selected*

## Transformations

Likert scales may be reversed to ease interpretation, for instance, with 1 recoded as 5 and so forth

## Inference criteria

$p < 0.05$  for two-tailed tests of regression coefficients

## Data exclusion

Because the study is examining satisficing behavior, all data will be included

## Missing data

Listwise deletion

## Exploratory analysis

Further analysis may examine the effects of the treatments on the satisficing behavior of partisans and strong ideologues.

## **Other**

Other

*No response*

## **Study Information: Study 2**

### Hypotheses

H1. Compared to a control condition with no political content, respondents asked questions about political content will be more likely to exhibit satisficing behavior. H2. The effects of political content on satisficing behavior will be conditioned by respondents' levels of political interest.

### **Design Plan**

#### Study type

Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

#### Blinding

- For studies that involve human subjects, they will not know the treatment group to which they have been assigned.

Is there any additional blinding in this study?

*No response*

#### Study design

Random exposure to one of two question batteries asking respondents to evaluate a series of [popular celebrities/political actors].

- [prereg\\_satisficing\\_experiment.docx](#)

#### Randomization

Simple randomization into two experimental groups using the Qualtrics randomizer

### **Sampling Plan**

#### Existing Data

Registration prior to creation of data

Explanation of existing data

No data exist

Data collection procedures

Recruitment via Prolific of N ~ 1000 respondents, with arbitrary stopping rule determined by funding

*No files selected*

Sample size

N ~ 1000 US adults

Sample size rationale

Funding constraints

Stopping rule

Funding constraints

## **Variables**

Manipulated variables

See attached prereg\_satisficing\_experiment to see the manipulation in full text. The control condition asks respondents to rate celebrities like Timothee Chalamet, Taylor Swift, and Jeff Bezos. The treatment condition asks respondents to rate politicians like Joe Biden, Kamala Harris, and Donald Trump.

*No files selected*

Measured variables

Outcome variables: Satisficing can be measured in three ways in this study: Passage of an attention check: see the questionnaire. The attention check item asks respondents to write "attentive" into a box instead of selecting from a standard Likert item list. Speeding: Rapid completion of the attention check and any later survey items, including a political knowledge quiz Straightlining: Lack of deviation in the response to any later survey items included

*No files selected*

Indices

Satisficing will be ideally measured using three separate measures. If possible, these behaviors may be combined into an additive index which provides a more robust estimate of satisficing

*No files selected*

## **Analysis Plan**

Statistical models

Statistical analysis will be performed using linear and/or logistic regression: linear regression for items with continuous distributions, and binary logistic regression for items with binary distributions (such as passage of the attention check). Assuming linear regression, the models

will take the following form, in R notation: `mod1 <- lm(data = dat, attentive ~ as.factor(treatment))` `mod2 <- lm(data = dat, attentive ~ as.factor(treatment) + pollInt + as.factor(treatment)*pollInt)` Hence, the first model will simply include treatment as a set of dummy variables, while the second model will interact treatment with the measure of political interest described in the attached questionnaire.

*No files selected*

Transformations

Likert scales may be reversed to ease interpretation, for instance, with 1 recoded as 5 and so forth. As described above, satisficing will be combined into a single additive index ranging from 0 to 1.

Inference criteria

$p < 0.05$  for one-tailed tests of regression coefficients. Effect sizes will be visualized using 90% and 95% confidence intervals to indicate both one- and two-tailed tests, but inference criterion will be one-tailed test (90% confidence interval).

Data exclusion

Because the study is examining satisficing behavior, all data will be included

Missing data

Listwise deletion

Exploratory analysis

Further analysis may examine the effects of the treatments on the satisficing behavior of partisans and strong ideologues.

**Other**

Other

*No response*

## Appendix D. Partisan Identity and Treatment Effect Heterogeneity

One question of potential interest to readers is the potential for effect heterogeneity beyond levels of political interest (as studied in H2 in the main text). To that end, I pursue an analysis of the potential for partisan subgroup effect heterogeneity on treatment effects in the study. This non-preregistered exploratory analysis is not associated with any hypothesis. Nevertheless, if the results do not show strong evidence of a partisan lean to the treatment effects, we can be assured that the treatments in the study did not uniquely stimulate the affective and cognitive engagement of just one partisan group.

Due to low statistical power in Study 2, I present the results of this heterogeneity analysis for Study 1 only. Results for Study 2 show no evidence of partisan imbalances.

Below, in Table SI5, I show the results of OLS models of treatment effect estimates with interactive effects for party ID group included. In these models, the base category is pure independent (4 on a 7-point PID scale), and PID groups include both leaning and committed Republicans and Democrats, respectively.

Table SI5. OLS Regression Models Predicting Treatment Effects Across Party ID (Including Leaners), Study 1

	<i>Dependent variable:</i>			
	Attention Check (1)	Straightlining (2)	Speeding (3)	Additive Index (4)
T1	0.002 (0.036)	0.005 (0.019)	0.011 (0.007)	0.007 (0.014)
T2	-0.025 (0.036)	0.013 (0.019)	0.011 (0.007)	0.002 (0.013)
Republican	-0.017 (0.030)	0.032* (0.016)	0.006 (0.006)	0.008 (0.011)
Democrat	-0.106*** (0.031)	0.075*** (0.016)	-0.003 (0.006)	-0.010 (0.012)
T1*Republican	0.011	0.005	-0.015	-0.002

	(0.043)	(0.023)	(0.008)	(0.016)
T2*Republican	0.043	-0.014	-0.010	0.004
	(0.043)	(0.023)	(0.008)	(0.016)
T1*Democrat	0.052	0.001	-0.014	0.010
	(0.045)	(0.024)	(0.008)	(0.017)
T2*Democrat	0.111*	-0.007	-0.016	0.026
	(0.044)	(0.023)	(0.008)	(0.017)
Constant	0.205***	0.496***	0.527***	0.407***
	(0.025)	(0.013)	(0.005)	(0.009)
Observations	3,600	3,576	3,580	3,576
R <sup>2</sup>	0.008	0.019	0.007	0.003
Adjusted R <sup>2</sup>	0.006	0.016	0.005	0.001
Residual Std. Error	0.383 (df = 3591)	0.202 (df = 3567)	0.072 (df = 3571)	0.144 (df = 3567)
F Statistic	3.509*** (df = 8; 3591)	8.413*** (df = 8; 3567)	3.214** (df = 8; 3571)	1.467 (df = 8; 3567)

Note:

\* p < 0.05; \*\* p < 0.01; \*\*\* p < 0.001



## Appendix E. Supplementary Information Works Cited

Douglas, B. D., Ewell, P. J., & Brauer, M. (2023). Data quality in online human-subjects research: Comparisons between MTurk, Prolific, CloudResearch, Qualtrics, and SONA. *Plos one*, 18(3), e0279720.

Eyal, P., David, R., Andrew, G., Zak, E., & Ekaterina, D. (2021). Data quality of platforms and panels for online behavioral research. *Behavior Research Methods* 54, 1643-1662

Prolific Inc. (2023a). Representative Samples FAQ. Accessed June 6, 2023. <https://researcher-help.prolific.co/hc/en-gb/articles/360019238413-Representative-samples-FAQ>

Prolific Inc. (2023b). Who are the participants on Prolific? Accessed June 6, 2023. <https://researcher-help.prolific.co/hc/en-gb/articles/360009220833>