Should We Worry About Sponsorship-Induced Bias in Online Political Science Surveys?

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Abstract

Political scientists rely heavily on survey research to gain insights into public attitudes and behaviors. Over the past decade, survey data collection has moved away from personal face-to-face and telephone interviewing towards a model of computer-assisted self-interviewing. A hallmark of many online surveys is the prominent display of the survey's sponsor, most often an academic institution, in the initial consent form and/or on the survey website itself. It is an open question whether these displays of academic survey sponsorship could increase total survey error. We measure the extent to which sponsorship (by a university or marketing firm) affects data quality, including satisficing behavior, demand characteristics, and socially desirable responding. In addition, we examine whether sponsor effects vary depending on the participant's experience with online surveys. Overall, we find no evidence that response quality is affected by survey sponsor or by past survey experience.

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Political scientists, particularly those who use experimental methods, increasingly conduct research using online surveys. This increased reliance on a comparatively new survey format raises important questions about recruitment, respondent engagement, and data quality. A striking feature of much web-based interviews is the prominence of the study's sponsor (often an academic institution), at the start of the interview and often throughout the survey. This prominence is unique to the online format. While telephone polling has historically included a brief introductory message describing the sponsor and face-to-face interviews involve an introductory letter or mention of the research team leading the project, online surveys (and online experiments) typically contain detailed introductory text describing the study, its sponsorship, the name of the principal investigator, and human subjects regulations. In many surveys, the name and logo of the sponsoring academic institution appears in the header of every page of the survey questionnaire. Participants in online studies are therefore shown a much stronger exposure to the sponsor than in other survey modes historically used by political scientists.

While previous research has examined the effect of sponsorship, including academic sponsorship, on response rates (Tourangeau, Presser and Sun 2014), no extant research examines how sponsorship affects response behavior in the online context. If sponsorship effects exist, they could seriously undermine the external validity of findings. Studying sponsorship effects is difficult, however, because participants may be more or less willing to participates in studies from different sponsors, thereby confounding selection effects and response biases. To test whether prominent and repeated reminders of academic research sponsorship changes the behavior of online participants, we conducted an online experiment that randomly assigns sponsorship *after* participants have agreed to respond. Using a variety of measures of data quality, we find minimal influence of sponsorship by either a university or marketing firm, nor any effect of past survey experience on survey data quality. The results give us confidence in the quality of web-based data collection for political science research.

Sponsorship and Branding in Online Research

Relatively recently, conducting a survey required contracting with a survey firm that maintained control over many aspects of the instrument. Today, the growth of online survey tools has "democratized" social and political research, allowing investigators to program and distribute their own surveys on platforms like Mechanical Turk, Qualtrics, Prolific Academic, social media sites, or email listservs, or by contracting with online panels to recruit respondents.

There are three main points at which respondents may learn the sponsor of an online survey: in the recruitment message, the consent form, or the body of the survey itself. When recruiting subjects (for example, from Mechanical Turk), many researchers choose to include their university affiliation in the recruitment text. After opting in, respondents are almost always given at least a brief exposure to the university's name in the text of the consent form required by institutional review boards. Finally, many researcher-designed online surveys feature the university's logo at the top of each page (several examples of this practice can be found in Appendix A). In contrast to this relatively prominent display of sponsorship in online surveys, most telephone interviews name the sponsor only once, at the beginning of the interview (see Appendix A).

Past research suggests that surveys sponsored by academic institutions yield higher response rates than those administered by commercial firms (Fox, Crask and Kim 1988; Jones and Linda 1978). Universities are perceived as being more trustworthy, likeable and having higher authority status than commercial companies, all of which increases the likelihood that a potential respondent will accede to the request (Groves, Cialdini and Couper 1992). Indeed, surveys sponsored by within-state universities garner higher response rates than those sponsored by out-of-state universities (Edwards, Dillman and Smyth 2014). However, the same factors that improve response rates for university-sponsored surveys may also bias results in several ways.

When the survey sponsor is an institution that the respondent likes and respects (such as a university), respondents may be more concerned with social desirability. "Social desirability bias" occurs when respondents misrepresent themselves in order to appear compliant with social norms (Nederhof 2006). For example, social desirability often causes people to over-report voting (Belli

et al. 1996). While the size of the over-report varies by question wording, estimates suggest that it can run as high as 20% (McDonald 2003). In health-related surveys, social desirability can lead people to under-report behaviors like over-eating or drug use. Social desirability biased is reduced in self-administered surveys as compared to telephone or in-person surveys (Kreuter, Preser and Tourangeau 2008). This mode effect suggests that a respondent's sense of who is "listening" to their answers shapes how they respond. Prominent displays of university sponsorship could thus heighten social desirability effects.

Respondents' attitudes towards the survey sponsor might also increase demand characteristics, specifically the "good-subject effect," in which subjects behave in a way that will "help" the researcher (Weber and Cook 1972). For example, when unobtrusively told of an experiment's hypothesis, respondents were significantly more likely to behave in a way that confirmed that hypothesis, and this effect was heightened among respondents who had a positive attitude toward the experimenter (Nichols and Maner 2008).

Finally, university sponsorship might also increase attentiveness and reduce satisficing. Satisficing occurs when respondents expend minimal energy in answering questions. This may include careless reading of response options or a less effortful memory search (Krosnick 1999).

We hypothesize that a survey's sponsor affects respondents' response behavior several ways. In particular, we expect that compared to a no-sponsor control group, the university sponsor will socially desirable responding and demand effects (Nichols and Maner 2008) and will decrease satisficing-type behavior (Krosnick 1991). Similarly, we expect that compared to the control condition, a commercial marketing sponsor will decrease socially desirable responding and demand effects, while increasing satisficing.

Design

There are two challenges to assessing sponsorship effects in surveys. First, the questionnaires must be identical apart from the sponsor so that response behavior is not affected by question or

response wording. Second, sponsorship may affect who is willing to participate in a survey: different sponsors may yield samples that differ in unobserved ways (due to the sponsor's reputation or variations in recruitment techniques). These differences may in turn affect response behavior. Thus a test of sponsorship bias requires a randomized experiment where all respondents complete the same questionnaire only *after* opting in to survey participation.

We recruited 852 respondents from Amazon's Mechanical Turk (MTurk), an online opt-in crowdsourcing platform based in the United States. While MTurk does not demographically reflect the U.S. population as a whole, it does offer two advantages. First, it is a population frequently used by social scientists to field experiments and surveys. Second, MTurk respondents (or "workers") have a wide range of previous experience: while some have taken hundreds of surveys, others have taken only a few. This variation allows us to examine whether response bias varies depending on the respondent's survey experience.

U.S.-based respondents were offered $1.00 of compensation to "Complete a 10-15 minute survey about your attitudes and opinions." The MTurk "requester" (sponsor name that was displayed to potential participants) was "Aarhus Research"[1] and no other information about the study was available to respondents until they agreed to participate in the study.

We additionally employed quota sampling to obtain a sample of respondents stratified by the amount of their experience on MTurk.[2] Each task an MTurk "worker" completes is called a HIT, and we used MTurk's "Qualification Requirements" to create separate survey opportunities (i.e., separate HITs) for workers with varying numbers of completed HITs ($<$100, 100–500, 500–1000, 1000-2000, and $>$2000 HITs).[3] We are therefore able to detect whether any observed effects of sponsorship are moderated by previous task experience, thereby addressing concerns about different response patterns among individuals who participate in many online surveys (Binswanger, Schunk and Toepoel 2013).

[1]This was a new requester account created specifically for this study, so as to mitigate any reputational concerns that might affect who would participate in the study.

[2]See Appendix G for details.

[3]We aimed to recruit 150 workers at each level and an additional 150 in the $>$2000 category given the lack of an upper bound for the number of completed HITs. The final size of each stratum was 150, 164, 157, 106, and 295, respectively.

After agreeing to participate in the survey, respondents were randomly assigned to one of five conditions. In the first (control) condition, the survey was not attributed to any particular sponsor and the survey included no logos or images. In the next two conditions, respondents were told the survey was being conducted by a marketing research firm called "Aarhus Market Research." In one of these conditions (*marketing light*), participants were briefly told the name of the sponsor and then continued with the survey. In the other (*marketing heavy*), participants were also given a longer description of the firm and asked whether they had previously completed any surveys for this firm.[4] In both the heavy and light conditions, respondents saw the logo at the top of each page of the survey.

In the final two conditions, respondents were told that the survey was being conducted by The University of Aarhus and shown a university logo. In one condition (*university light*), respondents were told only the name of the university sponsor, while in the other (*university heavy*), respondents were given a longer description of the university and asked whether they had participated in any research for the university before. The light and heavy versions of our two sponsor treatments are designed to test the conditionality of any effects and to better correspond to real-world survey conditions, in which the extent of exposure to the survey sponsor can vary a great deal.

Data Quality Measures

To measure the influence of sponsorship, we employ four categories of survey and experimental measures: questions likely to evoke socially desirable responding, measures of the "good subject effect," attentiveness measures, and two knowledge batteries that also serve as measures of satisficing. These sets of measures were presented to respondents in random order. See Appendix F for full question wordings.

We implemented four tests of socially desirable responding: self-reported vote history, a "dou-

[4]While this manipulation involves deception, only participants in the marketing conditions were misled about the survey sponsor and these participants were debriefed about the manipulation after completing the study. Given that participants already agreed to participate in the survey (not knowing the sponsor), we felt that this manipulation involved bare minimum risk of harm to participants.

ble list experiment" modified from (Glynn 2013), a "check all that apply" question listing a variety of socially desirable and undesirable items, and self-reported interest in politics and public affairs.

The survey also included an experimental test of the "good subject effect," in which respondents alter their behavior to confirm the researcher's hypothesis after learning the purpose of a study. In this measure, adopted from Nichols and Maner (2008), respondents viewed a sequence of ten pairs of neutral images and were asked to select the image they preferred from each pair. Half of respondents were randomly assigned to receive introductory text telling them that "we believe that when people are choosing between two images that are very much alike, they prefer images on the left." We then compared the number of "left" images selected in this group to the number of "left" images selected in a control group that did not receive the hypothesis explanation.

The third category of measures assessed attentiveness. Respondents read a short excerpt from a news article about politics and were then asked them to write down everything they could remember about the text in an open-ended text box. This task yielded three variables: (1) total time reading, (2) the total number of characters typed, and (3) the total number of correct and incorrect pieces of information recalled.

The final category, assessing satisficing, consisted of ten knowledge questions (both open-ended and true-false) concerning politics and scientific understanding. Every question included an explicit "don't know" option. These questions yielded two measures: the number of correct responses and the number of "don't know" responses. The advantage of using knowledge questions to assess satisficing is that they require a more effortful information search, thereby increasing the temptation to satisfice by selecting the "don't know" option. Finally, we measured effortful responding by asking respondents explicitly if they had used outside help to answer any of the knowledge questions (by using the internet to look up correct answers; see Jensen and Thomsen 2013).

The survey also included basic demographics (sex, race, education, party identification, ideology, and measures of the need for cognition and need to evaluate) and four final questions measuring perceptions of the survey interview. These included: (1) a feeling thermometer measures

of respondents' attitudes toward different types of organizations including universities and market research companies, (2) a measure assessing respondents' perceptions of the quality of the survey compared to others they have responded to, (3) an open-ended measure asking participants how much they felt they should have been paid for participation in the survey, and (4) a yes-no question asking whether respondents would be willing to receive further emails from the investigators. Participants in the marketing conditions were then debriefed.

Results

Demographic characteristics of the 852 participants are available in Appendix C. To assess the impact of sponsorship on our measures of survey response behavior, we employ a series of regressions. Table 1 summarizes the results, which are available in full in Appendix D. For each analysis, one measure of survey responding is regressed on indicators for each of our treatment conditions (with the control group as the baseline), controlling for respondent experience (our blocking factor). We present a joint significance test for group differences across experimental conditions, with the resulting F-statistic and p-value reported for each survey measure. Overall, we find almost no group differences, strongly suggesting that the survey sponsor has a minimal effect on participants' behavior. The effect of sponsorship did not vary by the experience level of the respondent, by the identity of the sponsor (marketing vs. university), or by the intensity of the treatment (exposure the sponsor identity only at the beginning of the survey versus throughout).

TABLE 1 HERE

Respondents in the marketing sponsorship conditions reported lower rates of voting than those in the control group or in the university sponsorship conditions. This is the only significant effect for any the three social desirability measures. Regarding the good-subjects effect, we see a large and positive treatment effect that replicates the results of Nichols and Maner (2008): when told about the researchers' hypothesis, individuals engage in behavior that strongly conforms with that hypothesis. While this effect holds across all conditions, its magnitude is unaffected by the survey

sponsor.

The knowledge and attentiveness measures show that there is no statistically significant effect of sponsorship on respondent engagement. In addition, sponsorship did not affect the rate at which respondents passed the more explicit attention check questions. Respondents with the most MTurk experience (more than 2000 HITs) were slightly less likely to give "don't know" responses to or report cheating on political knowledge questions.[5]

Across all five aspects of respondents' evaluations of the survey experience, sponsorship has no effect. However, more experienced respondents are more likely to agree to receive emails in the future. It is also worth noting that in each of the conditions (including the control condition), respondents were significantly more favorable towards "colleges and universities" than "market research firms," which is in line with previous research suggesting that universities are perceived more positively than other common survey sponsors (Fox, Crask and Kim 1988).

Discussion

The results indicate sponsorship had little effect on socially desirable responding, attentiveness, satisficing, or demand effects. These minimal effects are encouraging given the increasing use of researcher-designed online surveys in political science, although more research is needed to better understand the circumstances under which sponsorship could effect survey error. For example, interactions between the sponsor and the survey topic (such as a university-sponsored survey about student debt) could create more bias than the relatively neutral content in this study. Finally, we caution that while our university and market research firms did not affect response quality, effects may exist for other sponsors, especially those perceived as being partisan or having a distinct agenda (Tourangeau et al. 2009; Presser, Blair and Triplett 1992; Tourangeau, Presser and Sun 2014). These results are positive in that they suggest that adhering to the AAPOR (American Association of Public Opinion Research) ethical standards, which prohibit making "false or

[5]However, very low numbers of respondents reported cheating behavior (32 for the political knowledge items and 13 for the science items).

misleading claims as to a study's sponsorship or purpose," does not compromise survey quality.[6]

Several limitations should be highlighted. First, the sample here leaned liberal-Democratic and had higher levels of education than the U.S. general population. It would be worth examining whether those with low levels of education might respond differently to survey sponsorship. Second, it is possible that the lack of observed effect is due to a weak treatment rather than a true lack of sponsor-induced bias. However, the "treatment" in this survey (the sponsor mentioned in the consent form as well as via a header throughout the survey) is a relatively realistic portrayal of sponsorship in an online context. Thus, while a more prominent display of the sponsor (for example, a video showing a professor giving instructions) might in fact increase bias, such displays are uncommon in most real-world surveys. A similar concern might be raised about the identity of the sponsor ("Aarhus University"), which is likely unfamiliar to most respondents, weakening the treatment. However, because past research suggests that within the academic context, perceived authority/prestige does not affect response rates, we would expect similar results for other university sponsors (Porter and Whitcomb 2003).

A final limitation is the sample itself. Participants recruited via Mechanical Turk are more attentive than other online survey participants (Hauser and Schwarz 2015). This might affect the results in one of two ways: either by heightening the effect of the treatment (because of participants' increased attentiveness to the survey sponsor) or by reducing the magnitude of effects, because subjects are simply less likely to engage in problematic behavior. While the inclusion of respondents' level of MTurk experience mitigates these concerns by testing for differential effects by level of "professionalization," it is still possible that samples that are overall less attentive might respond differently to sponsorship. Overall, these results are encouraging for researchers looking to reduce potential sources of error when conducting online surveys.

[6] AAPOR Code of Ethics, November 2015

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Tables

Table 1: Summary of Effects

Measure	**Test for Group Differences**
Reported Past Voting	$F(4, 709) = 3.09, p \leq 0.02$
Reported Good Behaviors	$F(4, 811) = 0.09, p \leq 0.99$
Political Interest	$F(4, 808) = 0.75, p \leq 0.56$
Good Subjects Behavior	$F(4, 808) = 2.21, p \leq 0.07$
Information Recall (Characters)	$F(4, 811) = 0.78, p \leq 0.54$
Information Recall (Incorrect)	$F(4, 799) = 1.26, p \leq 0.28$
Information Recall (Timing)	$F(4, 811) = 1.18, p \leq 0.32$
Attention Check	$F(4, 804) = 1.70, p \leq 0.15$
Political Knowledge (Total)	$F(4, 532) = 0.77, p \leq 0.55$
Political Knowledge (DKs)	$F(4, 811) = 0.62, p \leq 0.65$
General Knowledge (Total)	$F(4, 811) = 0.63, p \leq 0.64$
General Knowledge (DKs)	$F(4, 811) = 0.80, p \leq 0.52$
Cheating: Political Knowledge	$F(4, 810) = 0.47, p \leq 0.76$
Cheating: General Knowledge	$F(4, 810) = 2.74, p \leq 0.03$
Willing to Receive Email	$F(4, 808) = 1.01, p \leq 0.40$
Survey Rating	$F(4, 805) = 1.31, p \leq 0.26$
Fair Compensation	$F(4, 811) = 0.94, p \leq 0.44$
Evaluation of Universities	$F(4, 720) = 0.08, p \leq 0.99$
Evaluation of Marketing Firms	$F(4, 784) = 2.21, p \leq 0.07$

Cell entries are F-tests for joint hypothesis of differences across experimental conditions from an OLS regression controlling for respondent experience on MTurk. Full results are included in Appendix D.

Appendix A Common Telephone Survey Sponsorship Statements

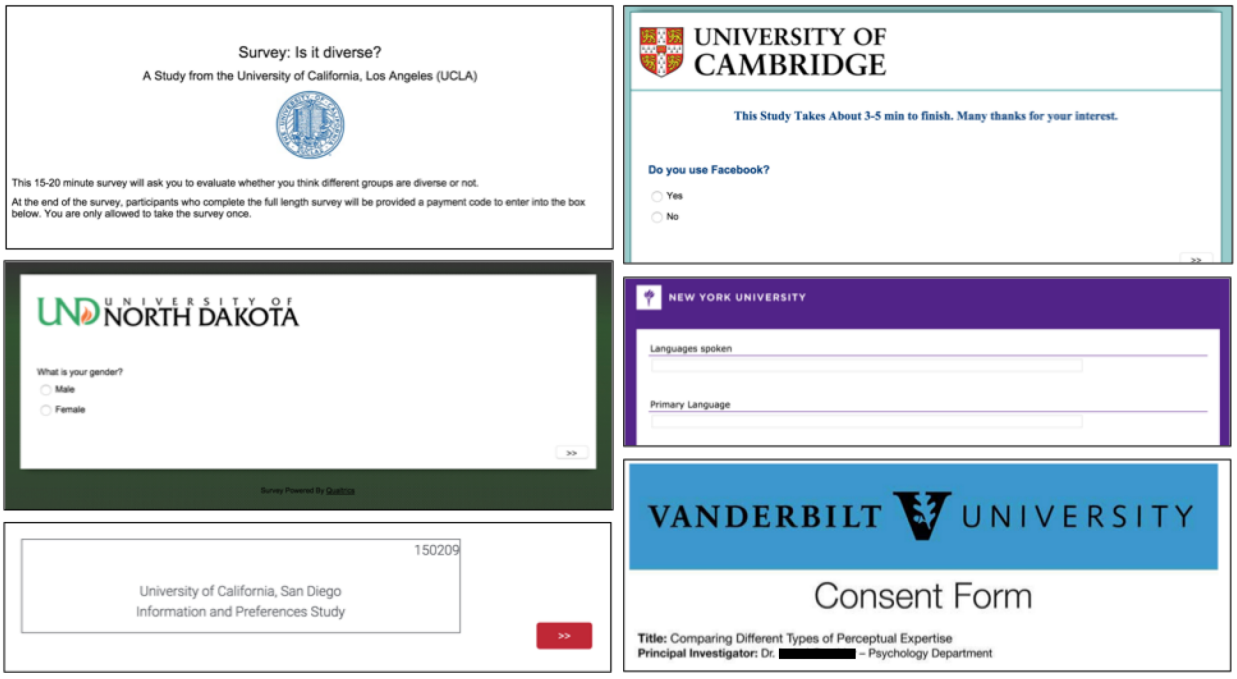
Gallup: Hello, this is NAME, calling for The Gallup Poll. We are doing our latest Gallup Poll and I would like to ask you a few quick questions to see if you qualify.

ABC News/Washington Post: Hello, I'm NAME, calling for the ABC News public opinion poll. We?re not selling anything, just doing an opinion poll on interesting subjects in the news.

CNN: Hello, my name is NAME. I'm calling from ORC International. We're conducting a national survey of people's opinions on subjects of interest to the American Public and would like to have your household participate. We are not selling any products or services. We are only asking your opinions. Your answers will remain confidential.

Kaiser: Hello, I am NAME calling for Princeton Survey Research Associates in Princeton, New Jersey. We're taking an important national survey about some things in the news.

Appendix B Examples of Online Survey Sponsor Displays



Appendix C Descriptive Statistics

We aimed to recruit a total of 850 participants, with some MTurk workers completing partial questionnaires, viewing the questionnaire without completing the associate HIT, or completing multiple partial interviews. While randomization was carried out to prevent any risk of cross-over, we act out of an abundance of caution by including only unique responses ($n = 842$). Of these, 14 were at least partially incomplete leaving us a sample of 828 for whom we have complete interviews (and thus most demographics). This set of respondents whom we can characterize were a diverse group: 51% were men; their mean age was 36 (median was 33); and 82.2% were white or Caucasian, 4.7% were black or African American, and 6.1% were Asian American. All had at least some high school education, 37.6% had four-year university degrees, and 14.6% had post-bachelors training. The sample, typical of MTurk respondents, had a clear liberal-Democratic bias with 52.7% of respondents identifying as Democrats or Democratic-leaning and only 15% identifying as Republicans or Republican-leaning. Similarly, 53.0% identified as liberal while only 13.3% identified as conservative.

Table 2: Summary Statistics: Demographics

Variable	Mean	Std. Dev.	Min.	Max.	N
Age	36	11.4	18	73	824
Female	1.5	0.5	1	2	825
Race	1.4	1.1	1	6	823
Education	5.4	1.2	2	7	825
Party ID (Republican)	3.4	1.7	1	7	823
Ideology (Conservative)	3.4	1.6	1	7	825

Table 3: Summary Statistics: Outcome Measures

Variable	Mean	Std. Dev.	Min.	Max.	N
Reported Past Voting	2.9	1.5	1	5	729
Reported Good Behaviors	0.5	0.2	0	1	839
Political Interest	0.5	0.3	0	1	828
List Experiment A	1.9	0.8	0	4	814
List Experiment B	1.6	0.8	0	4	815
List Experiment A/B	0.4	0.9	-3	3	811
Good Subjects Behavior	5.4	1.7	0	11	826
Information Recall (Characters)	187.1	120.5	0	1167	839
Information Recall (Incorrect)	0.4	0.6	0	4	818
Information Recall (Timing)	55.6	149.6	0	3592.3	834
Political Knowledge (Total)	5.6	0.8	5	9	547
Political Knowledge (DKs)	0.1	0.2	0	1	839
General Knowledge (Total)	5.7	1.7	0	8	839
General Knowledge (DKs)	0.2	0.2	0	0.9	839
Cheating: Political Knowledge	0	0.2	0	1	829
Cheating: General Knowledge	0	0.1	0	1	828
Willing to Receive Email	0.7	0.5	0	1	823
Survey Rating	3.8	0.7	2	5	820
Fair Compensation	1.3	0.6	0.3	5	839
Evaluation of Universities	64.3	25.4	0	99	733
Evaluation of Marketing Firms	43.2	24.5	0	99	799

Appendix D Results Tables

This appendix contains full experimental results for all outcome measures. All results are reported as regression estimates, controlling for HIT experience on MTurk. The results are robust to the exclusion of these controls as well as the additional of other (demographic) controls. Coefficient estimates for each treatment group can be interpreted as the average marginal effect of that treatment on the outcome. In almost all cases, ordinary least squares regression is used. Where the outcome variable is a binary measure, logistic regression is used and the average marginal effects are reported (rather than the original coefficient estimates) to aid interpretation and comparability to the analyses of the other outcome measures.

Table 4: Socially Desirable Responding

	(1) Past Voting	(2) Good Behavior	(3) Political Interest
Marketing (Heavy)	-0.42*	0.00	-0.03
	(0.18)	(0.03)	(0.03)
Marketing (Light)	-0.41*	-0.01	0.00
	(0.17)	(0.03)	(0.03)
University (Heavy)	0.02	0.01	-0.02
	(0.18)	(0.03)	(0.03)
University (Light)	-0.13	0.00	-0.03
	(0.18)	(0.03)	(0.03)
100-500 HITs	0.13	-0.01	-0.03
	(0.19)	(0.03)	(0.03)
500-1000 HITs	-0.02	-0.03	0.02
	(0.19)	(0.03)	(0.03)
1000-2000 HITs	-0.05	-0.03	0.01
	(0.21)	(0.03)	(0.04)
Over 2000 HITs	0.27	-0.05*	0.02
	(0.17)	(0.02)	(0.03)
Constant	3.02***	0.54***	0.52***
	(0.18)	(0.03)	(0.03)
N	718.00	820.00	817.00
rmse	1.50	0.23	0.27

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: List Experiment

	(1) List Experiment 1	(2) List Experiment 2	(3) Within-Subjects
Treatment	0.37**	0.32*	
	(0.12)	(0.13)	
Marketing (Heavy)	0.05	0.09	0.08
	(0.12)	(0.13)	(0.10)
Marketing (Light)	-0.06	-0.01	0.10
	(0.11)	(0.12)	(0.09)
University (Heavy)	0.04	0.03	-0.00
	(0.12)	(0.13)	(0.10)
University (Light)	0.11	0.22	0.00
	(0.12)	(0.13)	(0.10)
Treatment × Marketing (Heavy)	0.22	-0.01	
	(0.16)	(0.18)	
Treatment × Marketing (Light)	0.24	0.01	
	(0.16)	(0.17)	
Treatment × University (Heavy)	0.02	0.05	
	(0.16)	(0.18)	
Treatment × University (Light)	0.07	-0.02	
	(0.17)	(0.18)	
100-500 HITs	-0.01	0.09	0.03
	(0.09)	(0.09)	(0.10)
500-1000 HITs	-0.01	0.02	-0.10
	(0.08)	(0.09)	(0.10)
1000-2000 HITs	-0.01	0.08	-0.10
	(0.10)	(0.10)	(0.11)
Over 2000 HITs	0.03	0.09	-0.10
	(0.08)	(0.08)	(0.09)
Constant	1.64***	1.29***	0.41***
	(0.10)	(0.11)	(0.10)
N	801.00	803.00	799.00
rmse	0.72	0.79	0.86

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 6: Good Subjects Behavior

	(1) Good Subjects
Treatment	-0.94***
	(0.27)
Marketing (Heavy)	0.23
	(0.27)
Marketing (Light)	0.11
	(0.26)
University (Heavy)	0.01
	(0.27)
University (Light)	-0.61*
	(0.28)
Treatment × Marketing (Heavy)	0.06
	(0.38)
Treatment × Marketing (Light)	-0.11
	(0.36)
Treatment × University (Heavy)	0.22
	(0.38)
Treatment × University (Light)	0.60
	(0.39)
100-500 HITs	-0.15
	(0.20)
500-1000 HITs	-0.33
	(0.20)
1000-2000 HITs	-0.05
	(0.22)
Over 2000 HITs	-0.31
	(0.18)
Constant	6.04***
	(0.23)
N	817.00
rmse	1.68

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7: Attention Measures

	(1) Recall (characters)	(2) Recall (characters)	(3) Incorrect Responses	(4) Reading Time
Marketing (Heavy)	-0.39	-1.02	0.02	-27.87
	(13.54)	(12.06)	(0.07)	(17.05)
Marketing (Light)	9.28	3.99	0.03	-28.16
	(12.85)	(11.47)	(0.07)	(16.19)
University (Heavy)	18.29	7.05	0.06	-14.49
	(13.51)	(12.08)	(0.07)	(17.01)
University (Light)	-0.47	-0.71	0.15*	-30.93
	(13.76)	(12.26)	(0.07)	(17.33)
100-500 HITs	-6.72	-6.32	-0.05	-3.23
	(13.93)	(12.41)	(0.08)	(17.54)
500-1000 HITs	-5.91	-5.64	-0.11	11.39
	(13.96)	(12.44)	(0.08)	(17.58)
1000-2000 HITs	3.92	4.37	-0.14	14.35
	(15.68)	(13.97)	(0.09)	(19.75)
Over 2000 HITs	5.51	-4.32	-0.07	15.28
	(12.40)	(11.07)	(0.07)	(15.62)
Constant	184.04***	187.43***	0.40***	68.26***
	(13.26)	(11.82)	(0.07)	(16.70)
N	820.00	817.00	808.00	820.00
rmse	119.69	106.64	0.64	150.74

Standard errors in parentheses

Column 2 excludes extreme outliers (>1000) characters

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 8: Political and Science Knowledge

	(1) Political Knowledge	(2) DKs (Political)	(3) Science Knowledge	(4) DKs (Science)
Marketing (Heavy)	-0.15	0.01	0.01	-0.00
	(0.11)	(0.02)	(0.18)	(0.02)
Marketing (Light)	-0.01	0.01	0.15	-0.02
	(0.11)	(0.02)	(0.17)	(0.02)
University (Heavy)	0.01	-0.01	-0.05	0.01
	(0.11)	(0.02)	(0.18)	(0.02)
University (Light)	-0.01	-0.01	-0.11	0.00
	(0.11)	(0.02)	(0.19)	(0.02)
100-500 HITs	0.11	-0.02	-0.43*	0.02
	(0.12)	(0.02)	(0.19)	(0.02)
500-1000 HITs	-0.18	-0.02	-0.11	-0.01
	(0.11)	(0.02)	(0.19)	(0.02)
1000-2000 HITs	0.19	-0.02	-0.13	0.00
	(0.13)	(0.02)	(0.21)	(0.02)
Over 2000 HITs	-0.18	-0.05**	-0.17	-0.00
	(0.10)	(0.02)	(0.17)	(0.02)
Constant	5.71***	0.13***	5.94***	0.15***
	(0.11)	(0.02)	(0.18)	(0.02)
N	541.00	820.00	820.00	820.00
rmse	0.79	0.17	1.63	0.16

Standard errors in parentheses

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9: Self-Reported Cheating Political and Science Knowledge

	(1) Political Knowledge	(2) Science Knowledge
main		
Marketing (Heavy)	0.55	0.53
	(0.64)	(1.23)
Marketing (Light)	0.32	1.74
	(0.64)	(1.08)
University (Heavy)	0.22	0.00
	(0.69)	(.)
University (Light)	0.75	0.01
	(0.63)	(1.42)
100-500 HITs	-1.02	-0.04
	(0.55)	(0.83)
500-1000 HITs	-0.50	0.00
	(0.47)	(.)
1000-2000 HITs	-1.49	-0.05
	(0.78)	(0.93)
Over 2000 HITs	-1.80**	-0.67
	(0.59)	(0.83)
Constant	-2.78***	-4.54***
	(0.56)	(1.12)
N	819.00	534.00
rmse		

Standard errors in parentheses

Cell entries are average marginal effects calculated from logistic regression estimates

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 10: Respondents' Evaluation of Survey

	(1) Receive email	(2) Survey Rating	(3) Compensation	(4) Universities	(5) Marketing Firms
main					
Marketing (Heavy)	-0.03	-0.05	0.09	-1.26	5.04
	(0.26)	(0.08)	(0.07)	(3.07)	(2.83)
Marketing (Light)	-0.27	-0.03	0.03	-0.89	2.70
	(0.25)	(0.08)	(0.06)	(2.95)	(2.68)
University (Heavy)	-0.39	-0.10	-0.02	-0.41	-1.53
	(0.26)	(0.08)	(0.07)	(3.06)	(2.81)
University (Light)	-0.00	-0.17*	0.05	-1.51	-1.78
	(0.27)	(0.08)	(0.07)	(3.11)	(2.88)
100-500 HITs	0.74**	-0.03	-0.08	-5.70	0.56
	(0.24)	(0.08)	(0.07)	(3.20)	(2.93)
500-1000 HITs	1.44***	-0.12	-0.09	0.66	-0.02
	(0.27)	(0.08)	(0.07)	(3.21)	(2.92)
1000-2000 HITs	1.13***	-0.16	0.06	-1.08	0.26
	(0.29)	(0.09)	(0.08)	(3.54)	(3.25)
Over 2000 HITs	1.11***	-0.21**	0.03	-1.50	-1.33
	(0.22)	(0.07)	(0.06)	(2.83)	(2.59)
Constant	0.16	4.02***	1.27***	66.67***	42.53***
	(0.24)	(0.08)	(0.06)	(3.11)	(2.78)
N	817.00	814.00	820.00	729.00	793.00
rmse		0.70	0.58	25.47	24.48

Standard errors in parentheses

Cell entries in Column 1 are average marginal effects calculated from logistic regression estimates

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix E Sponsorship Treatments

Control Condition

On the following pages, we will ask you some questions. Please click the ">>" button to begin. If you have any questions or there is something you do not understand, please ask.

University Light

On the following pages, we will ask you some questions. Please click the ">>" button to begin. If you have any questions or there is something you do not understand, please ask.

University Heavy

This research study is being run by researchers at the University of Aarhus. Please let us know if you have ever taken a survey for the University of Aarhus before. This will not disqualify you from taking this survey.

- Yes, I have taken a survey for the University of Aarhus before.
- No, I have not taken a survey with the University of Aarhus before.
- I'm not sure.

[PAGE BREAK]

Research Study: Opinions and Attitudes
Principal Investigator: Dr. Thomas J. Leeper, University of Aarhus

You are invited to take part in a research study.

Eligibility

You are being asked to participate in this study because you are 18 years old or older and reside in the United States. There will be a total of 1,000 participants in this study.

Compensation

The survey will take approximately ten minutes. Participants who complete the study will be paid $1.

Purpose and Description of Procedures

The purpose of the study is to learn about attitudes and opinions. During the study, you will be asked to answer questions about your attitudes concerning a number of issues.

Confidentiality

All the information you tell us during the study will be kept strictly confidential, as required by law. Data from this study will be stored on a computer. No identifying information about you will be collected, and your name will not be associated with your answers.

Benefits and Risks

There is minimal risk associated with participating in this research. The results of the research will improve our understanding of opinions but may not benefit you personally. You are being compensated for your time.

Rights

You have the option to not participate in this study. You may close the survey and return the HIT if you do not wish to participate. Your participation in this study is voluntary and you are free to withdraw at any time.

Contact Information

If you have questions, concerns or complaints regarding your participation in this research study or if you have any questions about your rights as a research subject, you can contact Dr. Thomas J. Leeper, thosjleeper@gmail.com. Please click the ">>" button if you understand the above and agree to take part in this research study. If you have any questions or there is something you do not understand, please ask.

Marketing Light

On the following pages, we will ask you some questions. Please click the ">>" button to begin. If you have any questions or there is something you do not understand, please ask.

Marketing Heavy

This research study is being run by researchers at the Aarhus Marketing Research. Please let us know if you have ever taken a survey for Aarhus Marketing Research before. This will not disqualify you from taking this survey.

- Yes, I have taken a survey for Aarhus Marketing Research before.
- No, I have not taken a survey with Aarhus Marketing Research before.
- I'm not sure.

[PAGE BREAK]

Marketing Study: Opinions and Attitudes

You are invited to take part in a marketing study for Aarhus Marketing Research. You must be 18 years or older and reside in the United States to participate. The survey will take approximately ten minutes. Participants who complete the study will be paid $1.

Who we are

Aarhus Marketing Research was founded in 2010 to help companies and brands ensure that they are reaching the best possible audience. We provide strategic insights that allow our clients make confident business decisions.

Contact Information

If you have questions, concerns or complaints regarding your participation in this marketing study, you can contact Thomas J. Leeper, thosjleeper@gmail.com. Please click the ">>" button if you understand the above and agree to take part in this study. If you have any questions or there is something you do not understand, please ask.

Appendix F Complete Questionnaire

We're interested in how many people get out to vote in different elections. Please indicate which of the following recent elections you voted in:

- 2014 (midterm election year)
- 2012 (Presidential election year)
- 2010 (midterm election year)
- 2008 (Presidential election year)
- 2006 (midterm election year)

Which of the following statements describe you? Check all that apply.

- I know the names of both of the Senators from my state.
- I have done volunteer work in the last year.
- I read the newspaper (online or print copy) every day.
- I live in a different city than the one I was born in.
- I go out to eat at least once a week.
- I own a pet.
- I exercise at least three times a week.
- I own a car.
- I have one or more children.
- I have at least 6 alcoholic drinks per week. (10)

Below are five things. Please tell us how many of them you would dislike.

- Listening to music
- Making it legal for two men to marry
- Teaching intelligent design along with evolution in public schools
- Getting a phone call from a telemarketer
- Undocumented immigrants moving into the house next door to you

We do not need to know which ones you would dislike, just how many.

Below are four things. Please tell us how many of them you would dislike.

- Watching movies
- Making it legal for two men to form a civil union
- Teaching creationism along with evolution in public schools
- Being a garbage collector

We do not need to know which ones you would dislike, just how many.

Below are four things. Please tell us how many of them you would dislike.

- Listening to music
- Making it legal for two men to marry
- Teaching intelligent design along with evolution in public schools

- Getting a phone call from a telemarketer

We do not need to know which ones you would dislike, just how many.

Below are five things. Please tell us how many of them you would dislike.

- Watching movies
- Making it legal for two men to form a civil union
- Teaching creationism along with evolution in public schools
- Being a garbage collector
- Undocumented immigrants moving into the house next door to you

We do not need to know which ones you would dislike, just how many.

Control: Next, you will be asked to choose between two images. You will see ten pairs of photographs. For each pair, please select the photograph you prefer.

Treatment: The location of an image on a website can affect how people feel about it. We believe that when people are choosing between two images that are very much alike, they prefer images on the left. Next, you will be asked to choose between two images. We expect that you will be more likely to choose images on the left. You will see ten pairs of photographs. For each pair, please select the photograph you prefer.

Please read the following biographical information about Staci Appel, who ran for Congress in Iowa in 2014.

Staci Appel served in the Iowa Senate as the Assistant Majority Leader from 2007 to 2011 representing the 37th district. Appel was born in Waterloo, Iowa. She grew up in Iowa City, Iowa, and completed her formal education at Iowa City West High School. Appel's husband, Brent R. Appel, serves on the Iowa Supreme Court. The Appels live with their six children in Ackworth, Iowa. Appel served on several committees in the Iowa Senate – the Agriculture committee; the State Government committee; the Ways and Means committee; and the Education committee, where She was vice chair. She also served as vice chair of the Administration and Regulation Appropriations Subcommittee. Appel is pro-choice and supports same-sex marriage. She has stated her support for the Affordable Care Act and would not repeal it. On immigration, she has stated her support for increased border security and a pathway for citizenship for the estimated 11 million undocumented immigrants currently in the United States. On gun rights, Appel has stated that the gun-show loophole should be closed and that background checks should be required wherever a gun is purchased.

Do you think that Staci Appel won or lost?

- Won
- Lost
- Don't know

What is the current unemployment rate?
About what percentage of Americans do you think have a four-year college degree?
How many states have legalized gay marriage?
Please write down everything you can recall about Staci Appel.

How many times can someone be elected the President of the United States?

- Your answer here:
- Don't know

What are the first ten amendments to the U.S. Constitution called?

- Your answer here:
- Don't know

In American politics today, which political party is more conservative: the Democratic Party or the Republican Party?

- Your answer here:
- Don't know

How many years long is the term of office for a United States Senator?

- Your answer here:
- Don't know

Whose responsibility is it to nominate judges to serve on the federal courts?

- Your answer here:
- Don't know

Did you use the internet to find answers for any of the questions on the previous page? (Your answer will not affect your compensation for this study.)

- Yes
- No

Are the following statements true or false?

- It is the father's gene which decides whether the baby is a boy or a girl.
- Antibiotics kill viruses as well as bacteria.
- The universe began with a huge explosion.
- The center of the Earth is very hot.
- The continents on which we live have been moving their location for millions of years and will continue to move in the future.
- All radioactivity is man-made.
- Lasers work by focusing sound waves.
- Electrons are smaller than atoms.

- True

- False
- Don't know

Did you use the internet to find answers for any of the questions on the previous page? (Your answer will not affect your compensation for this study.)

- Yes
- No

Which of the following are animals?

- Dog
- Cat
- Cow
- Turtle
- None of the above

Which of the following are automobile brands?

- Ford
- Chrysler
- BMW
- Lexus
- None of the above

Which of the following are fruits?

- Banana
- Apple
- Orange
- Grapefruit
- None of the above

Which of the following are months in a year?

- December
- April
- August
- July
- None of the above

Which of the following are vegetables?

- Hammer
- Automobile
- Cow
- Book
- None of the above

Which of the following are television channels?

- CBS
- Fox
- NBC
- ABC
- None of the above

- How interested are you in celebrities and entertainment? Please select one of the following.
- How interested are you in politics and public affairs? Please select one of the following.
- How interested are you in online clothes shopping? Please select one of the following.
- How interested are you in agricultural subsidies? Please select "Extremely interested".
- How interested are you in schools and education? Please select one of the following.
- How interested are you in craft beer? Please select one of the following.

- Not at all interested
- Somewhat interested
- Moderately interested
- Very interested
- Extremely interested

Are you male or female?

- Male
- Female

Which of the following do you consider to be your primary racial or ethnic group?

- White or Caucasian
- Black or African American
- Asian American
- Hispanic
- Native American
- Other:

What is your age in years?
What is the last grade or class that you completed in school?

- None, or grade 1-8
- Some high school
- High school (Grade 12 or GED)
- Technical, trade, or vocational school after high school
- Some college
- College graduate
- Post-graduate training or professional schooling after college

Generally speaking, do you consider yourself a Democrat, Independent, or Republican?

- Strong Democrat
- Weak Democrat
- Independent leans Democrat
- Independent
- Independent leans Republican
- Weak Republican
- Strong Republican

Below is a 7-point scale on which the political views that people might hold are arranged from extremely liberal to extremely conservative. Where would you place yourself on this scale?

- Extremely liberal
- Liberal
- Somewhat liberal
- Moderate
- Slightly conservative
- Conservative
- Extremely conservative

Some people like to have responsibility for handling situations that require a lot of thinking, and other people don't like to have responsibility for situations like that. What about you? Do you like having responsibility for handling situations that require a lot of thinking, do you dislike it, or do you neither like nor dislike it?

- Like a lot
- Like somewhat
- Neither like nor dislike
- Dislike somewhat
- Dislike a lot

Some people prefer to solve simple problems instead of complex ones, whereas other people prefer to solve more complex problems. Which type of problem do you prefer to solve: simple or complex?

- Simple
- Complex

Some people have opinions about almost everything; other people have opinions about just some things; and still other people have very few opinions. What about you? Would you say you have opinions about very few things, some things, many things, or almost everything?

- Very few things
- Some things
- Many things
- Almost everything

Compared to the average person, do you have far fewer opinions about whether things are good or bad, somewhat fewer opinions, about the same number of opinions, somewhat more opinions, or far more opinions?

- Far fewer opinions
- Somewhat fewer opinions
- About the same
- Somewhat more opinions
- Far more opinions

Some people say it is important to have firm opinions about lots of things, while other people think it is better to remain neutral on most issues. What about you? Do you think it is better to remain neutral on most issues or to have firm opinions about lots of things?

- Remain neutral
- Firm opinions

Below is a list of organizations and institutions. Please indicate how favorably you feel towards each of them, with 0 being "very unfavorable" and 100 being "very favorable."

- Universities
- Congress
- Market research companies
- Colleges
- Advertising companies
- Hospitals
- Insurance companies

You're almost done! Please take a moment to help us make our survey better by telling us how it compares to other surveys you have taken on Mechanical Turk.

- Far Below Average
- Below Average
- Average
- Above Average
- Far Above Average
- Don't know

You will be paid $1.00 for completing this survey. What do you think a fair compensation would be? In other words, how much money do you think Mechanical Turk workers who take this survey should be paid for their work?

Would you be willing to receive emails from us in the future?

- Yes
- No

Appendix G MTurk Implementation Details

The survey was implemented on MTurk using MTurkR, an R client for the MTurk requester API. Respondents were quota sampled based on experience using QualificationRequirements based on the built-in "NumberApproved" qualification. We restricted the sample to MTurk workers who were located in the United States and had a previous approval rating of 90% or greater. Respondents were randomly assigned to experimental conditions using javascript embedded in the MTurk HIT. We include the MTurkR code needed to produce the quota sampling and the HIT HTML and javascript needed to perform the randomization.

MTurk Replication Code

```
library("MTurkR")

# Use qualification requirements to stratify by HIT experience
gqr <- GenerateQualificationRequirement
## < 100
qual_req1 <- gqr(c("Locale", "Approved", "NumberApproved"),
                 c("==", ">", "<"),
                 c("US", 90, 100), preview = TRUE)
## 100 - 500
qual_req2 <- gqr(c("Locale", "Approved", "NumberApproved", "NumberApproved"),
                 c("==", ">", ">", "<"),
                 c("US", 90, 100, 500), preview = TRUE)
## 500 - 1000
qual_req3 <- gqr(c("Locale", "Approved", "NumberApproved", "NumberApproved"),
                 c("==", ">", ">", "<"),
                 c("US", 90, 500, 1000), preview = TRUE)
## 1000 - 2000
qual_req4 <- gqr(c("Locale", "Approved", "NumberApproved", "NumberApproved"),
                 c("==", ">", ">", "<"),
                 c("US", 90, 1000, 2000), preview = TRUE)
## > 2000
qual_req5 <- gqr(c("Locale", "Approved", "NumberApproved"),
                 c("==", ">", ">"),
                 c("US", 90, 2000), preview = TRUE)

# register HITType
d <- "Complete a 10-15 minute survey about your attitudes and opinions."
k <- "easy, opinions, attitudes, survey, questionnaire, study, answers, questions"
## < 100
hittypeid1 <-
RegisterHITType(title="Short 10-15 Minute Survey",
                description = d,
                reward="1.00",
                duration=seconds(hours=2),
                auto.approval.delay = seconds(days = 5),
                qual.req = qual_req1,
                keywords = k)
## 100 - 500
hittypeid2 <-
RegisterHITType(title="15 Minute Survey",
```

```
                description = d,
                reward="1.00",
                duration=seconds(hours=2),
                auto.approval.delay = seconds(days = 5),
                qual.req = qual_req2,
                keywords = k)
## 500 - 1000
hittypeid3 <-
RegisterHITType(title="Short 10-15 Minute Survey",
                description = d,
                reward="1.00",
                duration=seconds(hours=2),
                auto.approval.delay = seconds(days = 5),
                qual.req = qual_req3,
                keywords = k)
## 1000 - 2000
hittypeid4 <-
RegisterHITType(title="Short 10-15 Minute Survey",
                description = d,
                reward="1.00",
                duration=seconds(hours=2),
                auto.approval.delay = seconds(days = 5),
                qual.req = qual_req4,
                keywords = k)

## > 2000
hittypeid5 <-
RegisterHITType(title="Short 10-15 Minute Survey",
                description = d,
                reward="1.00",
                duration=seconds(hours=2),
                auto.approval.delay = seconds(days = 5),
                qual.req = qual_req5,
                keywords = k)

# question content (same for all levels of experience)
eq <- GenerateHTMLQuestion(file = "mturk.html", frame.height = "600")


# Create HIT
## < 100
hit <- CreateHIT(hit.type = hittypeid1$HITTypeId,
                 question = eq$string,
                 expiration = seconds(days=7),
                 assignments = 150,
                 annotation = "Survey Sponsor Bias Study")
## 100 - 500
hit <- CreateHIT(hit.type = hittypeid2$HITTypeId,
                 question = eq$string,
                 expiration = seconds(days=7),
                 assignments = 150,
                 annotation = "Survey Sponsor Bias Study")
## 500 - 1000
hit <- CreateHIT(hit.type = hittypeid3$HITTypeId,
```

```
                  question = eq$string,
                  expiration = seconds(days=7),
                  assignments = 150,
                  annotation = "Survey Sponsor Bias Study")
## 1000 - 2000
hit <- CreateHIT(hit.type = hittypeid4$HITTypeId,
                  question = eq$string,
                  expiration = seconds(days=7),
                  assignments = 150,
                  annotation = "Survey Sponsor Bias Study")
## > 2000
hit <- CreateHIT(hit.type = hittypeid5$HITTypeId,
                  question = eq$string,
                  expiration = seconds(days=7),
                  assignments = 300,
                  annotation = "Survey Sponsor Bias Study")
```

MTurk HIT HTML File

```
<!doctype html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head>
  <title>MTurk Consent/Recruitment HIT</title>
  <link href='https://fonts.googleapis.com/css?family=Roboto'
      rel='stylesheet' type='text/css'>
  <style>
  p {
    font-size: 1.2em;
    font-family: "Roboto", "Helvetica Neue", Arial, sans-serif;
  }
  </style>
</head>
<body>
  <div style="font-family:sans-serif;margin-top:10%;margin-left:10%;margin-right:10%;">
  <p style="font-weight:bold;text-align:center;font-size:2em;">
    Short 10-15 Minute Survey
  </p>
  <p>This HIT contains a short, 10-15 minute survey about your attitudes and opinions.
     A link to the HIT will become available once you accept the HIT.
     If you do not wish to participate, please do not accept the HIT.
     At the end of the survey, you will be shown a completion code that can be
     copied into the box below to confirm your participation.</p>
    <br />
  <form name='mturk_form' method='post' id='submitform'
     action='https://www.mturk.com/mturk/externalSubmit'>
    <input type='hidden' value='' name='assignmentId' id='assignmentId' />
    <input type='hidden' value='' name='nonrandom' id='nonrandom' />
    <script>
    function turkGetParam( name ) {
        var regexS = "[\?&]"+name+"=([^&#]*)";
        var regex = new RegExp( regexS );
        var tmpURL = fullurl;
        var results = regex.exec( tmpURL );
```

```
    if( results == null ) {
    return "";
    } else {
    return results[1];
    }
  }

  var fullurl = window.location.href;

var assign = turkGetParam('assignmentId');
  var hit = turkGetParam('hitId');
  var worker = turkGetParam('workerId');

if(assign=="ASSIGNMENT_ID_NOT_AVAILABLE")
{
document.write("<p style='font-weight:bold;text-align:center;'>"  +
         "The link is only available once you accept the HIT.</p>");
    }
else
{
var ascii = worker.charCodeAt(worker.length-1);
    var j;
    if (ascii <=57) {
      j = ascii-47;
      }
    else if (ascii <=90) {
      j = ascii-54;
      }
    else {
      j = ascii-60;
      }
    if (j>=1 && j<13) {
      i = 4;
      }
    else if (j>=13 && j<25) {
      i = 3;
      }
    else if (j>=25 && j<37) {
      i = 2;
      }
    else if (j>=37 && j<49) {
      i = 1;
      }
    else if (j>=49 && j<63) {
      i = 0;
      }
    else {
      i = 0;
    }
  var sid = new Array ();
  sid[4] = "SV_8uK1newVzcI8vY1";
  sid[2] = "SV_3gZvsP43xPZX2bX";
  sid[1] = "SV_1YWsoU3D2mFjKdL";
  sid[0] = "SV_6LPZNBGoqenF7lH";
```

```
      sid[3] = "SV_8qRvUisAJTksam9";

      document.getElementById("nonrandom").value = sid[i];
      document.getElementById('assignmentId').value = assign;
      var surveylink = new String("http://aarhus.eu.qualtrics.com/SE/?SID=" + sid[i] +
                                  "&workerId=" + worker + "&assignmentId=" + assign);
      document.write("<p style='font-weight:bold;text-align:center;'><a href=\"" +
                     surveylink +
                     "\" target=\"_blank\">Complete the Survey Here!</a></p><br />");
      document.write("<p>Please enter the completion code from last page of the"
                     " survey here:   <input type='text' id='complete' " +
                     " name='complete' />   <input type='submit' " +
                     "id='submitButton' value='Submit' /></p>");
    }
  </script>
  </form>
  <br />
  <p>Please note that you may see multiple HITs available from us with slightly
  different qualification requirements. You may only complete one of our HITs at
  this time. Thank you for your understanding!</p>
  <br />
  </div>
</body>
</html>
```