**Method**

***Participants***

A total of 505 undergraduate students 18 years of age or older at the University of Missouri participated in this study. Participants were recruited through an online survey platform and were offered psychology course credit in exchange for their participation. Our final sample consisted of White (77%), Black (5.3%), Hispanic (6.7%), Asian (5.1%), and Native American (0.39%) students, additionally, a total of 12 students chose ‘other’ (2.4%) and 9 chose ‘prefer not to say’ (1.8%). For measurements of gender, 321 participants (63.6%) chose ‘Female’, 169 (33.5%) chose ‘Male’, 7 (1.4%) chose ‘Gender Variant or Nonconforming’, and 8 (1.6%) chose ‘prefer not to say’. Our participants ranged in age from 18 to 39 years old (*M* = 18.9, *SD* = 1.99).

***Materials and Procedure***

The Institutional Review Board at the University of Missouri reviewed and approved all submitted materials for Study 1. (put text before here that we are doing a survey, since it can’t be here, make clear that this study was on social consensus, utilizing a survey, just so that they’re not lost. For example, use the last paragraph before the study 1 method section in the PLOS 1 paper as guide for formatting and content) We can also have a brief overview sentence, instead of all the headings and details.

To manipulate the perception of social consensus, participants were first measured pre-intervention on their support for four polarized issues. This was assessed by asking the participants how strongly they agreed or disagreed with statements representing highly polarized issues (e.g., “Capital Punishment (the Death Penalty) is necessary in America). Next, participants were asked to estimate how strongly the general American public (in 2018) agreed or disagreed with those same statements representing highly polarized issues. The change in levels of support for the polarized issues from pre-intervention to post-intervention is our dependent variable (DV). (consider deleting this paragraph or moving it, this should have entirely just the intervention itself – set it up w/ the social consensus manipulation ahead of time, we measured it pre-post, and the difference score captures our measure of change of support.)

After completing the first part of the study, participants were then randomized into a ‘high social consensus’ or ‘low social consensus’ condition. The condition (high or low social consensus) that our participants are assigned to, is our independent variable (IV). In both conditions, participants were given feedback consisting of the base rate of support that the general American public (in 2018) had for the four highly polarized issues. Participants in the ‘high social consensus’ condition saw results that were manipulated to be 20% higher than the true base rate. Likewise, participants in our ‘low social consensus’ condition saw results that were manipulated to be 20% lower than the true base rate (e.g., if the base rate is 65% of Americans agree that the Death Penalty is necessary in the US, the high condition would see 85% agree, and the low condition would see 45% agree). We directly manipulated ostensibly ‘truthful’ information because we wanted to leverage the real effects of perceptions of actual social consensus towards contemporary issues.

Next, participants were asked to rate how ‘surprised’ they were at the results for the (manipulated) survey of the 2018 American public. Afterwards, they were asked to estimate how strongly they believed the general American public of today (not 2018) agreed or disagreed with the same statements. Participants were then measured post-intervention on how strongly they agreed or disagreed with statements representing highly polarized issues. Finally, participants completed a number of individual difference measures and provided demographic information. (put this in the bottom area, since measures of surprise are measures!, perhaps segregated as ‘primary outcome’, instead of individual differences.

***Measures***

Participant support levels for each ‘highly polarized issue’ were captured as continuous variables ranging from strong disagreement (0) to strong agreement (100) with the following statements: “Greenhouse gas emissions generated by human activity has and will continue to change Earth's climate” (*Climate Change*), “The US government needs to implement Universal Health Care because basic population needs are not being met.” (*Universal Healthcare*), “Capital Punishment (the Death Penalty) is necessary in the US” (*Death Penalty*), and “Slavery, forced labor, and human trafficking are violations of human rights.” (*Slavery*). The same measure was also used for participants assessing support of these issues by the American public, both in 2018 and in current day.

Individual differences in deontological and utilitarian orientation were measured using the Ethical Standards of Judgement Questionnaire (ESJQ) developed by Love, Salinas, and Rotman (2020). Six items measure deontological orientation (e.g., “Solutions to ethical problems are usually black and white”) and six items measure utilitarian orientation (e.g., “When people disagree over ethical matters, I strive for workable compromises”). Participant agreement with these statements was measured with 5-point Likert scales ranging from ‘Strongly Disagree’ (1) to ‘Strongly Agree’ (5). Each six-item subscale showed satisfactory internal consistencies with Cronbach’s α of .783 (deontology) and .750 (utilitarianism).

Individual differences in health literacy were measured using the Single Item Health Literacy Screener (SILS) developed by Morris, MacLean, Chew, and Littenberg (2006). Health literacy is measured by self-reported confidence with medical forms (e.g., “How confident are you filling out medical forms by yourself?”). Confidence is measured with a 5-point Likert scale ranging from ‘Never’ (1) to ‘Always’ (5).

Individual differences in Numeracy were measured using two tools. Subjective numeracy was measured using the Subjective Numeracy Scale (SNS) developed by Zikmund-Fisher, Smith, Ubel, and Fagerlin (2007). Four items measure cognitive abilities (e.g., “How good are you at working with fractions”), rated with 5-point Likert scales ranging from ‘Not at all good’ (1) to ‘Extremely good’ (5). An additional four items measure preference for numeric information (e.g., “When reading the newspaper, how helpful do you find tables and graphs that are parts of a story?”), rated with 5-point Likert scales such as ‘Not at all helpful’ (1) to ‘Extremely helpful’ (5). Objective numeracy was measured using a number line estimation task adapted from Sigler, Thompson, and Schneider (2011). This task consisted of placing a total of 20 fractions (e.g., 1/19, 1/7, 3/8, 11/14, 17/4, 9/2, etc.) in the correct place, on a number line ranging from 0-1 or 0-5. Performance was rated as total percent absolute error accumulated across all fractions, defined as: (|Answer - Correct Answer|) / Numerical Range.

***Power and Statistical Analysis***

We originally planned to recruit approximately 180 participants. This minimum sample size was determined a-priori using G-power 3.1.9.7 with the following parameters: seeking the difference between two independent means (two groups), an effect size of .5, an alpha of .05, and a power of .95, for a linear multiple regression. The four highly polarized beliefs that were surveyed (climate change, death penalty, support for UHC, slavery) were all treated as continuous variables. We examined the effects of experimental condition (high or low social consensus) and individual differences (deontological and utilitarian orientation, health literacy, multiple measures of numeracy) on our outcome measure. We examined the main effect, as well as interactions between deontology and utilitarianism with our experimental conditions for our predictors. All tests were conducted in R and considered statistically significant when P <.05.

***Study 1 Hypothesis:***

Hypothesis 1: The social consensus manipulation will result in different levels of support for the highly polarized issues positively related to the social consensus manipulation, such that high levels of social consensus result in increased support.

Hypothesis 2: Individual differences in Utilitarian orientation (H2a) and Deontological orientation (H2b) will result in different levels of support for the highly polarized issues.

For our results, say, we tested hypothesis 1 with X and Y – the results of which indicate X and Y about hypothesis 1. To test hypothesis 2, we did x and y and blah blah.

Merge hypothesis 2 and 3 into one (h2 a and b) Make