**Method**

Study 2 analyzed the effects of moral conviction manipulation using a between-subjects design. Our measures were collected after the moral conviction intervention, with support for a given highly polarized topic as our main outcome measure. Participants were given a survey, then were randomized into one of four moral conviction manipulations or a control condition. The Institutional Review Board at the University of Missouri reviewed and approved all submitted materials for Study 2.

***Participants***

A total of 125 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. For this study, we did not collect any demographic information.

***Materials and Procedure***

To manipulate the perception of moral conviction, participants were randomized into a ‘moral responsibility’, ‘moral piggybacking’, ‘pragmatic’, ‘hedonic’, or control condition. The condition that our participants are assigned to is our independent variable (IV). In all four intervention conditions, participants were asked to read a brief essay on each of our four highly polarized topics and then complete the outcome measures. Participants in the ‘moral responsibility’ condition were given essays that consisted of language emphasizing moral concepts such as ‘obligation’ or ‘responsibility’, and explicitly emphasizing moral costs and benefits. Participants in the ‘moral piggybacking’ condition were given essays that directly linked the highly polarized topic to another commonly understood moral concept, such as ‘freedom of speech’, ‘justice for all’, or the ‘inherent value of human life’. Participants in the ‘pragmatic’ condition were given essays that directly highlighted the personal economic and rational benefits, such as reduced taxes, increased income, or increased health. Participants in the ‘hedonic’ condition were given essays that emphasized personal enjoyment or pleasure based benefits such as ‘improved mood and health’ or ‘visiting a beautiful beach’. Finally, participants in the control condition were not presented with any essays, and only gave answers to the outcome measures.

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***Measures***

**Primary Outcome.** 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 above measures of support levels were also used by participants to estimate the level of support the American public had for these issues (in 2018 and in 2024). Lastly, participants were asked to rate how ‘surprised’ they were at the results for the (manipulated) survey of the 2018 American public. Surprise was measured with a 5-point Likert scale ranging from ‘Not Surprised’ (1) to ‘Very Surprised’ (5).

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 highly polarized issues, positively correlated with 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.