Based on Denberg 2020

Study 1 Methods

Study Sample

We conducted a stated preference survey of societal views on and personal support of Universal Health Care (UHC), capital punishment, anthropoegenic (human-caused) climate change, and slavery, among students enrolled in a Psychology course at a Midwestern University. Participants were recruited through an online survey platform and were offered course credit in exchange for their participation.

Survey design and development

Development of the survey instrument drew on prior literature on support for universal healthcare, perspectives on deontological and utilitarian moral orientation, as well as prior work on perception of social consensus. Our social consensus manipulation exercise was adapted from work on estimation of social consensus conducted by Kobayashi and colleagues (2018). Our final survey questionnaire directed participants to estimate perceived social consensus on support for different social issues, and then receive artificially high or low feedback on the degree of social consensus which allegedly exists among the population. We presented each participant with the same four social issues (support for UHC, capital punishment, climate change, and slavery); these scenarios were intended to provide variation in social characteristics, such as relative liberal/conservative leaning of issues and recent or past historical relevance. Participants then provided their level of support for our social issues after the social consensus manipulation. Support levels were captured as continuous variables ranging from 0 (strong disagreement) to 100 (strong agreement), with 50 representing relative neutrality. Participants also were measured for their deontological and utilitarian orientation, health literacy, numeracy, as well as demographic information related to gender identity, age, race/ethnicity, and year in school.

Intervention

Randomization of participants to either intervention condition was achieved using a randomization algorithm that guarantees each element was selected approximately equivalent amounts of times. We subjected participants in our intervention groups to a series of preference estimation tasks. Balance was sought between the social issues chosen such that there were a variety of public policy perspectives, both liberal and conservative, presented. Participants in our ‘high’ social consensus condition were given artificially high feedback on the degree to which society agreed on the four aforementioned issues; The feedback was manipulated to be 20% higher than the actual American survey values recorded in the literature. Likewise, participants in our ‘low’ social consensus were given artificially low feedback; feedback was manipulated to be 20% lower than survey values. Participants were prevented from changing their responses in prior answers in the survey.

Statistical analysis

? DO WE EVEN WANT MEASURES?

**Measures**

The primary outcome measure was a single item support for UHC measure, adapted from Shen & Labouff (2013), measured both pre and post-intervention. The scale is comprised of a single item measuring support for UHC, “Our government needs to implement Universal Health Care because basic population needs are not being met”. The capital punishment ("Capital Punishment (the Death Penalty) is necessary in America") and climate change ("Greenhouse gas emissions generated by human activity has and will continue to change Earth's climate") issues were assessed using language taken directly from surveys of American public opinion in 2017 and 2020 (Economist - YouGov poll, 2017; Pew Research Polling, 2020). The measure for the slavery item ("Slavery, forced labor and human trafficking are violations of human rights") was taken from the United Nations – Human Rights Office of the High Commissioner (2021). All four items were measured on a 7 point Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree).

Participants additionally were asked to complete a measure of their baseline deontological and utilitarian orientation. This was assessed using the Ethical Standards of Judgement Questionnaire (Love, 2018). This questionnaire is comprised of two segments, each segment assessing either utilitarian or deontological orientation respectively. Each segment consisted of six items measuring the aforementioned orientation; each item was measured on a 5 point Likert scale from 1 (Strongly Disagree) to 5 (Strongly Agree). Final deontological or utilitarian orientation scores were taken as an average of all six items corresponding to that orientation; see Appendix B for item wording

Several additional measures of health literacy and numeracy were also collected. Health literacy was assessed using the Single Item Health Literacy Screener (Morris, 2006). This item “How confident are you filling out medical forms by yourself?” was measured using a 5 point Likert scale from 1 (Never) to 5 (Always). Our first measure of numeracy was the Subjective Numeracy Scale (Fagerlin, 2007), which consists of 8 items measuring general confidence in using numbers, and preference for numbers over words (e.g., “How good are you at figuring how much a shirt will cost if it is 25% off?”, and “How often do you find numerical information to be useful?”). All items were measured on a 6 point Likert scale. Total scoring for the scale was taken as a simple average of all items, after reverse scoring the 7th item. Our second measure of numeracy was an objective measure, consisting of the number line task developed by Thompson and colleagues (2021). This item consisted of placement of 20 fractions one at a time, at the appropriate place on a number line ranging from 0 to 1, and then placing 20 more fractions, one at a time, on a number line ranging from 0 to 5 (e.g. the relative distance between 2/3, 7/9, 12/13, 4/7, etc.). Performance on this task was measured as precision on the number line estimation as a summation of the percentage of absolute error on all fractional placements. Additionally, there was a free-response question requesting feedback on the exercise they had just completed, both on things they liked, and things they found challenging. Finally, we also measured demographic information, including gender identity, age, race/ethnicity, and year in school.