SCRIPT

Why are we looking at polarized beliefs for my dissertation?

In the literature of attitude change and formation, polarized beliefs (i.e. beliefs that are at one extreme or another) are known to be difficult to change

This problem has been increasing, as polarized beliefs rooted in misinformation have contributed significantly to public health crises such as reduction in vaccination due to polarization of vaccination beliefs

The purpose of this dissertation was to empirically test how several different theories from the broader literature of attitude change applies to polarized beliefs specifically, and if we can successfully increase or decrease support for these polarized beliefs.

The two mechanisms we used to do this were Social Consensus and Moral Conviction – which I will define shortly

We can define it as an agreement among members of a society about what is acceptable behavior or belief.

Lets use the classic Asch line experiments from the 50s as an example

People were asked which line on the right matches the one on the left (it’s C), but the twist was, before they answered, actors working for the study would give incorrect answers (either longer or shorter)

This is a very easy task, but the pressure to conform to consensus was so great that over 70% of participants were induced to conform to an incorrect answer.

People can be members of many societies, but the societies that are closer and more integral to one’s identity are those that are most impactful at changing belief (the ‘society’ for the asch experiments were just the people in the room)

there is a long history of evidence that shows its effectiveness

prior literature has shown that social consensus is associated with attitude formation and change for many topics that are currently considered highly polarized, such as climate change, weight discrimination, and racial stereotyping, thus, I believe it is likely to see some effect of empirically testing social consensus on polarized beliefs as a category.

Additionally, it is a relatively low cost and conceptually simple intervention – providing information about consensuses that exist does not require immense resources. Manipulation of social consensus as a way to change polarized belief was the goal of our study 1.

This brings us to the next important element of this dissertation – the concept of moral conviction

Lets define Moral conviction and then provide an example, essentially, it is “the perception that one’s feelings about a given attitude object are based on one’s beliefs about right and wrong”

The people in this first picture are vegan – they’re vegan because of ethical reasons

The people in this second picture are also vegan – they’re vegan because of economic reasons

Both groups of people have support for veganism, but the level of ‘moral conviction’ in these beliefs can differ wildly

For the people in the first picture, they see their attitude towards veganism being based on objective beliefs about what is ethically right or wrong to do. Unsurprisingly, beliefs held with sincere moral conviction are very hard to change.

For the people in the second picture, their attitude towards veganism is entirely based on the pragmatic fact that beans, rice, and other plant-based foods are significantly cheaper and easier to get access to, if the situation they found themselves in were different, it would be relatively easy to have them change this belief.

If we view the space between picture 1 and 2 as a continuum, it naturally follows that if we can reduce moral conviction, we can increase openness to change

Moral conviction is extremely relevant to the dissertation specifically, because in practice, many polarizing beliefs, both for and against, are felt with ‘moral conviction’

Abortion access is a perfect example – some individuals who protest in favor of abortion access view their position has having moral conviction, because from their perspective allowing for an individual to have greater control over health care choices regarding their own body is about what is fundamentally right or wrong.

Likewise, some individuals who protest against abortion access view their position as having moral conviction, because from their perspective abortion is the murder of a child, and they view child murder as unacceptable, from the perspective of what is fundamentally right or wrong.  
  
Beliefs that are viewed with high levels of moral conviction are seen as ‘objectively true’ and ‘universally applicable in all cases’ – conversely, beliefs with low levels of moral conviction are viewed as subjective preferences where legitimate disagreement is acceptable. This perception of subjectivity leads to greater tolerance for differences and willingness to change opinion, which is the goal of the study.

Manipulation of moral conviction as a way to affect polarized belief was the goal for study 2

Furthermore, moral conviction and social consensus are worth studying jointly, as prior literature indicates that they should interact -

High levels of moral conviction ‘inoculate’ individuals from being influenced by social consensus.

Lets go back to an earlier example

The vegan for ethical reasons is going out with their friends to a restaurant, they ended up picking a burger joint

Because they feel that eating meat is ethically wrong, even though they might be feeling some peer pressure, they are resistant to the social consensus, and Do NOT eat a burger!

In contrast, the vegan for economic reasons is going out with the same friends, to the same restaurant, for them, a burger is simply a splurge, something that isn’t the most thrifty, but certainly not something that they have a fundamental ethical opposition to – in this example, the peer pressure works and they end up splurging and buying a burger with their friends.

This theorized relationship has not been empirically tested with direct manipulation of social consensus and moral conviction, which was the goal for our Study 3.

All of that context gets us up to speed with the project timeline and what the goals of our 3 studies were

Can we leverage social consensus to manipulate levels of support for polarized beliefs?

Can we influence polarized belief with social consensus?

Can we increase support for polarized belief using high social consensus?

Can we decrease support for polarized belief using low social consensus?

This was a repeated measures design; I measured support for the polarized topics both before and after the consensus manipulation

Participants were randomized into either a low social consensus condition, or a high social consensus condition

Our participants were 505 psych 1000 students – around 19 years old, mostly female, and mostly white

Our social consensus intervention consisted of participants being given information about what proportion of Americans supported each of the polarized topics.

The four topics we chose were Climate change, capital punishment, universal health care, the topic of slavery, which was present to provide the additional

context of an overwhelming consensus (e.g., slavery is bad)

Ostensibly the results of the survey, we directly manipulated social consensus by increasing or decreasing the proportion of support artificially.

In the low social consensus condition, participants were given values that were 20% lower than current U.S. survey data indicated

in the high social consensus condition, participants were given values that were 20% higher

The outcomes, which were measured both before and after the social consensus intervention, was degree of support for the polarized topics that we assessed.

We measured this by degree of agreement with statements in support of the polarized topics

Support for each topic ranged from 0 (strong disagreement of support) to 100 (strong agreement of support)

Our initial hypothesis was very direct – does manipulation of social consensus affect support for a topic?

Specifically, can we increase support in high social consensus conditions, and can we decrease support in low social consensus conditions?

First, I would like to orient you all to what the graph says

The Y- axis here shows support for the topic, in this case, universal health care

The X-axis shows time, either before or after our intervention

The color coding shows which intervention individuals received, purple for the high social consensus, and black for the low social consensus intervention

The lines that go through the clouds of dots essentially summarize the relationship between condition and time.

Both groups had similar levels of support at baseline – there was also a significant interaction between condition and time, we can see this from how the purple and black lines diverge at time 2. This pattern of significant differences at time 2 between high and low consensus was repeated across all topics

We saw a significant increase for support in our high social consensus condition, indicated by how ‘steep’ the purple slope was, for UHC only, and not any other topics.

We did not see a significant decrease in support in our low social consensus condition, indicated by how steep the black slope was, for any of our topics.

I saw some preliminary evidence that, for some topics, the effect of social consensus is able to change support, primarily through increasing it (did not see significant evidence of decrease)

Something I glossed over however, was how many additional hoops I had to jump through regarding ethics around deception – Even the original ‘asch’ line study explicitly relies on confederates who are willing to lie

In many cases it is not ethically feasible to deceive the public as to what other people around them believe

Study 2 was then launched to look at alternative means for changing polarized beliefs

The first research question was, can we increase moral convictions using moral framings?

I tried two methods, the first – moral responsibility, increases perception of morality by framing the subject using rights, promises, or obligations, that one group or others are expected to uphold the second – moral piggybacking, increases perception of morality for the subject by tying it to concepts that are already agreed upon as moral

The next research question was conversely, can we decrease moral conviction using nonmoral framings?

Likewise, I tried two methods, the first – pragmatic, decrease perceptions of morality by emphasizing economic and practical implementation concerns, the second hedonic framing, decrease perception of moral conviction by emphasizing the direct personal benefits that supporting the topic will result in.

Describing our study design, we had 208 psych 1000 students as participants, and no further demographic information was collected as we were concerned about survey length and had no *a-priori* demographic hypotheses

Participants in our four experimental conditions, highlighted here in green and red, were given four essays – all sharing the same moral framing on four topics chosen, UHC, capital punishment, climate change, and exercise

Participants in the control condition received no experimental materials

Afterwards, all participants were surveyed on their level of moral conviction felt for the issue

Next I will briefly show you some excerpts from these essays on the topic of universal health care

You can see here in the first excerpt, we implemented the moral responsibility framing by emphasizing the obligations the US government entails upon it’s claims of guaranteeing ‘life, liberty and the pursuit of happiness’

In the second excerpt, we use moral piggybacking to tie offering healthcare to the extant moral value of human life, and the inability to exercise the morally relevant ‘right to free speech’ if unhealthy.

In this next excerpt, we show the pragmatic framing, we emphasize some of the practical benefits of implementing UHC, such as longer lifespan and better average health

In the last excerpt, we show the hedonic framing, where we focus on how saving on healthcare expenses benefits you directly, and how fun and stress free it is to not be concerned about healthcare

Our measure of moral conviction is the mean average of 7 items, where the second item is reverse scored

Such that -50 represents strong disagreement that this topic is related to ethical concerns, and 50 represents strong agreement that the topic is related to ethical concerns.

Our initial hypothesis was very direct – can differently moral framings affect moral conviction for a topic?

Specifically, can we increase moral conviction with our moralized framings, and decrease moral conviction with our nonmoral framings?

I am only going to show you the graph for universal health care, but the pattern is the same across all topics we examined.

First, I would like to orient you all to what the graph says, the Y- axis here shows amount of moral conviction for the topic, the X-axis shows what experimental condition the subject was in

The green shading shows the two conditions intended to increase moral conviction, the moral responsibility and moral piggybacking framings, the red shading shows the two conditions intended to decrease moral conviction, the pragmatic and hedonic framing, and the black shading is the control condition.

Each of these is a bar graph, where the mean response is the centermost line, the two next quartiles are the rest of the boxes, and the two ‘whiskers’ are the last two quartiles, with individual dots afterwards as relative ‘outliers’

There was no evidence for **H1**, as our moral piggybacking and moral responsibility groups combined did not have increased moral conviction as compared to the control group

Likewise, there was no support for **H2**, as our pragmatic and hedonic groups combined did not have decreased moral conviction as compared to the control group

While I was not able to find meaningful evidence of the impact of a moral conviction manipulation in a vacuum, prior literature indicates that in theory, there is a relationship between moral conviction and social consensus

It is still eminently possible that there is no detectable ‘main effect’ of our moral conviction manipulation, but that there could be an otherwise significant interaction with the effects of social consensus

Empirically testing this interaction was the impetus for Study 3

STUDY 3

The first research question we wanted to know was how moral conviction moderated the effects of social consensus  
  
can we inoculate from the effects of social consensus by increasing moral conviction, and can we increase the effects of social consensus by decreasing moral conviction

This was a repeated measures design; I measured support for the polarized topics both before and after the two moral and social manipulation

Participants could be randomized into either a moral responsibility framing or pragmatic framing condition, and then could be randomized into either a low or high social consensus condition, resulting in 1 of 4 different combinations

Our participants were 491 psych 1000 students, averaging 18 years old, mostly female, mostly white

I will next show you examples of all the relevant experimental materials for the topic of UHC

First, our participants received the moral conviction manipulation,

Our moral conviction manipulation was very similar as in Study 2, I chose to only use one manipulation intended to decrease moral conviction, the pragmatic framing, and one to increase moral conviction, the moral responsibility framing.

Next, the participants received our social consensus intervention,

The intervention was similar to that used for Study 1, where participants were given falsified consensus information,

20% below US survey data in the low social consensus condition,

and 20% above US survey data in the high social consensus condition

Our outcome measures were jointly, the support for topic measure used in Study 1, and the 7 item aggregate moral conviction measure used in Study 2.

Our first hypothesis was to directly replicate the most promising result from Study 1

Our second hypothesis directly tests the more interesting question, whether or not increasing moral conviction can ‘inoculate’ someone from the effects of social consensus, and whether or not decreasing moral conviction can increase susceptibility to social consensus effects.

First, I would like to orient you all to what the graph says, also, I will only be showing the graphs for universal health care, but the pattern of results is similar for all of the topics

The Y- axis here shows support for the topic,

The X-axis shows time, either before or after our intervention

The color coding shows which intervention individuals received, red for the high social consensus, and blue for the low social consensus intervention, this graph is collapsed across the moral conviction interventions

The lines that go through the clouds of dots essentially summarize the relationship between consensus condition and time.

While there was an increase in support from time 1 to time 2, there was no difference between the high or low social consensus conditions

On this second set of graphs, we’re now examining the interaction between social consensus and moral conviction

To orient you on the graphs, each set of graphs is similar to the graph you saw on the previous page.

The Y –axis shows support for UHC, the X-axis shows time, either before or after the dual interventions.

Color coding here is for which social consensus condition was received, green for high social consensus and orange for low social consensus.

The first set of graphs on the left show all individuals in the moral condition, and the second set of graphs on the right show individuals in the pragmatic condition.

While again, there was an overall increase of support from time 1 to time 2, we did not see an interaction between the effects of social consensus and moral conviction

Notably, here is an example graph that illustrates what it would look like if there was an intervention

If the hypothesized relationship was as expected

In the graphs to the left, the ‘moral condition’ increased moral conviction to the point where there is no effect from the social consensus condition, i.e., an ‘inoculation’ against it’s effects

Likewise, ain the graphs to the right, the pragmatic condition decreased moral conviction such that the social consensus intervention was even more effective, with high social consensus increasing support and low social consensus decreasing support.

There were no main effects of social consensus on support, no significant interactions, but a significant increase in support across all topics – this indicates that there was no differential impact on the interventions, but that the interventions were successful at increasing support as a whole.

Social consensus was indeed able to increase support for at least some topics, and thus is a promising candidate for further investigation

Moral conviction was challenging to manipulate

We were unable to find evidence through our experimentation confirming the theoretical interaction between social consensus and moral conviction

In the future, I would like to investigate more domain specific information on particular polarized topics that I am interested in changing – qualitative research with individuals having polarized belief can bring the research greater specificity

Because we were having significant trouble increasing or decreasing moral conviction, understanding what relevant characteristics of their beliefs are viewed as moral or nonmoral would be provide us useful tools.

Evidence of revealed preferences in the form of actual behavior would be very useful, as our only results came from self-reported surveys

We would like to investigate further alternative social consensus interventions – the one we did, which was cheap and easy to do, still lacked the ‘punch’ of the classic in-person social consensus manipulations, and with the uptake of virtual meeting technology, while it isn’t as good as in-person, there still seems like some space to investigate telepresence/telecommunication based social consensus interventions