Supplementary Information: Liberals and Conservatives Rely on Very Similar Sets of Foundations When Comparing Moral Violations *

Jack BlumenauUniversity College LondonBenjamin E LauderdaleUniversity College London

Contents

Aı	Moral Violation Vignettes	2
A2	Moral Foundations Questionannire	7
A3	Most and least severe violations	8
A4	Variation in moral judgements by covariate	11
A5	Gender-based treatment effects	13
A6	Ethics	14
	A6 .1 Introductory screen text	15
	A6.2 Debriefing text	16
A7	Tables of estimates	17
A8	Moral Foundation Questionnaire Experiment	22
	A8 .1 Survey Prompts	22

^{*}This version: March 02, 2024

A1 Moral Violation Vignettes

UK text	US alternative		
Authority			
A girl/boy ignoring her/his father's orders by taking the car after her/his curfew.			
A girl/boy repeatedly interrupting her/his teacher as he explains a new concept.			
A girl/boy turning up the TV as her/his father talks about his military service.			
A group of women/men having a long and loud conversation during church.			
A player publicly yelling at her/his football coach during a game.	A player publicly yelling at her/his soccer coach during a game.		
A star player ignoring her/his coach's order to come off the pitch during a game.	A star player ignoring her/his coach's order to come to the bench during a game.		
A student stating that her/his professor is a fool during an afternoon class.			
A teaching assistant talking back to the teacher she/he is assisting in the classrom.			
A teenage girl/boy coming home late and ignoring her/his parents' strict curfew.			
A woman/man secretly watching sport on her/his mobile phone during church.	A woman/man secretly watching sports on her/his cell phone during church.		
A woman/man talking loudly and interrupting the mayor's speech to the public.			
A woman/man turning her/his back and walking away while her/his boss questions her/his work.			
An employee trying to undermine all of her/his boss' ideas in front of others.			
An intern disobeying an order to dress professionally and comb her/his hair.			
Care			
A girl/boy laughing at another student forgetting her/his lines at a school play.			
A girl/boy laughing when she/he realizes her/his friend's dad is the cleaner.			
A girl/boy making fun of her/his brother for getting dumped by his girl/boyfriend.			
A girl/boy placing a drawing pin sticking up on the chair of another student.	A girl/boy placing a thumbtack sticking up on the chair of another student.		
A girl/boy saying that another girl/boy is too ugly to be in the class photo.			
A girl/boy setting a series of traps to kill stray cats in her/his neighborhood.			
A girl/boy telling a boy that his older brother is much more attractive than him.			

UK text	US alternative
A girl/boy telling a woman/man that she/he looks just like her/his overweight bulldog.	
A girl/boy telling her/his classmate that she/he looks like she/he has gained weight.	
A girl/boy throwing rocks at cows that are grazing in the local field.	
A teacher hitting her/his student's hand with a ruler for falling asleep in class.	
A teenage girl/boy chuckling at an amputee she/he passes by.	
A teenage girl/boy openly staring at a disfigured woman/man as she/he walks past.	
A woman/man clearly avoiding sitting next to an obese woman/man on the bus.	
A woman/man commenting out loud about how fat another woman/man looks in her/his jeans.	
A woman/man lashing her/his pony with a whip for breaking loose from its pen.	
A woman/man laughing as she/he passes by a cancer patient with a bald head.	
A woman/man laughing at a disabled co-worker while at an office party.	
A woman/man leaving her/his dog outside in the rain after it dug in the rubbish.	A woman/man leaving her/his dog outside in the rain after it dug in the trash.
A woman/man loudly telling her/his husband that the dinner he cooked tastes awful.	
A woman/man quickly canceling a blind date as soon as she/he sees the man.	
A woman/man spanking her/his child with a spatula for getting bad grades in school.	
A woman/man swerving her/his car in order to intentionally run over a squirrel.	
A woman/man telling a man that his painting looks like it was done by children.	
A woman/man throwing her/his cat across the room for scratching the furniture.	
A zoo trainer jabbing a dolphin to get it to entertain her/his customers.	
Fairness	
A girl/boy skipping to the front of the queue because her/his friend is an employee.	A girl/boy skipping to the front of the line because her/his friend is an employee.
A judge taking on a criminal case although she/he is friends with the defendant.	
A politician using public money to build an extension on her/his home.	A politician using federal tax dollars to build an extension on her/his home.

A professor giving a bad grade to a student just because she/he dislikes him.A referee intentionally making bad decisions that help her/his favoured team win.A referee intentionally making bad decisions that help her/his favoured team win.A referee intentionally making bad calls that help her/his favoured team win.A student copying her/his classmate's answer she/heet on an exam.A tenant bribing her/his landlord to be the first to get her/his flat repainted.A tenant bribing her/his landlord to be the first to get her/his flat repainted.A tenant bribing her/his landlord to be the first to get her/his apartment repainted.A woman/man cheating in a card game while playing with a group of strangers.A woman/man lying about the number of paid days off she/he has taken from work.A woman/man lying about the number of vacation days she/he has taken at work.A woman/man playing football pretending to be seriously fouled by an opposing player.A woman/man playing soccer pretending to be seriously fouled by an opposing player.
A student copying her/his classmate's answer she/heet on an exam. A tenant bribing her/his landlord to be the first to get her/his flat repainted. A woman/man cheating in a card game while playing with a group of strangers. A woman/man lying about the number of paid days off she/he has taken from work. A woman/man lying about the number of vacation days she/he has taken at work.
A tenant bribing her/his landlord to be the first to get her/his flat repainted.A tenant bribing her/his landlord to be the first to get her/his apartment repainted.A woman/man cheating in a card game while playing with a group of strangers.A woman/man lying about the number of paid days off she/he has taken from work.A woman/man lying about the number of vacation days she/he has taken at work.
A woman/man cheating in a card game while playing with a group of strangers. A woman/man lying about the number of paid days off she/he has taken from work. A woman/man lying about the number of vacation days she/he has taken at work.
A woman/man lying about the number of paid days off she/he has taken from work. A woman/man lying about the number of vacation days she/he has taken at work.
A woman/man playing football pretending to be seriously fouled by an opposing player A woman/man playing soccer pretending to be seriously fouled by an opposing player
A woman man playing locted pretending to be seriously loued by an opposing player.
A woman/man taking a shortcut on a running course during a race in order to win.
An employee lying about how many hours she/he worked during the week.
Loyalty
A British film star saying she/he agrees with a foreign dictator's denunciation of the UK. An American movie star saying she/he agrees with a foreign dictator's denunciation of the US
A British woman/man telling foreigners that the UK is an evil force in the world. An American woman/man telling foreigners that the US is an evil force in the world.
A UK swimmer cheering as a Chinese foe beats her/his teammate to win the gold. A US swimmer cheering as a Chinese foe beats her/his teammate to win the gold.
A coach celebrating with the opposing team's players who just won the game against her/his team.
A former UK Army General saying publicly she/he would never buy any UK product. A former US General saying publicly she/he would never buy any American product.
A former politician publicly giving up her/his citizenship to the UK. A former politician publicly giving up her/his citizenship to the US.
A local politician saying that the neighboring town is much better than her/his town.
A teacher publicly saying she/he hopes another school wins a competition.
A woman/man leaving her/his family business to go work for their main competitor.
A woman/man secretly voting against her/his husband in a local talent competition.
An employee joking with competitors about how badly her/his company did last year.
The UK Ambassador joking in America about how stupid she/he thinks the British are. The US Ambassador joking in Great Britain about how stupid she/he thinks Americans are.
The head girl/boy saying that her/his rival school is a better school. The class president saying that her/his rival college is a better school.

UK text	US alternative
Sanctity	
A drunk elderly woman/man offering to have oral sex with anyone in the bar.	
A single woman/man ordering an inflatable sex doll that looks like her/his assistant.	
A small group of religious women/men eating the flesh of their naturally deceased members.	
A woman/man having sex with a frozen chicken before cooking it for dinner.	
A woman/man in a bar offering sex to anyone who buys her/him a drink.	
A woman/man in a bar using her/his phone to watch people having sex with animals.	
A woman/man marrying her/his first cousin in an elaborate wedding.	
A woman/man searching through the rubbish to find men's discarded underwear.	A woman/man searching through the trash to find men's discarded underwear.
An employee at a morgue eating her/his pepperoni pizza off of a dead body.	

A2 Moral Foundations Questionannire

Item	Foundation
Judgment	
If I were a soldier and disagreed with my commanding officer's orders, I would obey anyway because that is my duty.	Authority
Men and women each have different roles to play in society.	Authority
Respect for authority is something all children need to learn.	Authority
Compassion for those who are suffering is the most crucial virtue.	Care
It can never be right to kill a human being.	Care
One of the worst things a person could do is hurt a defenseless animal.	Care
I think it's morally wrong that rich children inherit a lot of money while poor children inherit nothing.	Fairness
Justice is the most important requirement for a society.	Fairness
When the government makes laws, the number one principle should be ensuring that everyone is treated fairly.	Fairness
I am proud of my country's history.	Loyalty
It is more important to be a team player than to express oneself.	Loyalty
People should be loyal to their family members, even when they have done something wrong.	Loyalty
Chastity is an important and valuable virtue.	Sanctity
I would call some acts wrong on the grounds that they are unnatural.	Sanctity
People should not do things that are disgusting, even if no one is harmed.	Sanctity
Relevance	
Whether or not an action caused chaos or disorder	Authority
Whether or not someone conformed to the traditions of society	Authority
Whether or not someone showed a lack of respect for authority	Authority
Whether or not someone cared for someone weak or vulnerable	Care
Whether or not someone suffered emotionally	Care
Whether or not someone was cruel	Care
Whether or not some people were treated differently from others	Fairness
Whether or not someone acted unfairly	Fairness
Whether or not someone was denied his or her rights	Fairness
Whether or not someone did something to betray his or her group	Loyalty
Whether or not someone showed a lack of loyalty	Loyalty
Whether or not someone's action showed love for his or her country	Loyalty
Whether or not someone acted in a way that God would approve of	Sanctity
Whether or not someone did something disgusting	Sanctity
Whether or not someone violated standards of purity and decency	Sanctity

A3 Most and least severe violations

Inspection of these tables reveals some interesting patterns about the sources of within-foundation variation in violation severity. For instance, the most severe instances of violations of the care foundation tend to contain examples of physical harm (hitting a child; whipping a pony; attacking cats), while care violations that focus on emotional harm (e.g. criticizing someone's work; casting doubt on a person's appearance) tend to be perceived as less severe. That our respondents appear to make a distinction between physical and emotional forms of harm is consistent with other research showing that moral violations involving bodily harm elicit distinct reactions (Heekeren et al., 2005; Clifford et al., 2015). Similarly, respondents appear to object more to scenarios in which a person demonstrates a lack of loyalty to their country than to scenarios in which they exhibit a lack of loyalty towards their family, school, or employer.

Table 3: Most severe violations of each foundation, by country

UK	US
Care	
A girl/boy setting a series of traps to kill stray cats in her/his neighborhood.	A girl/boy setting a series of traps to kill stray cats in her/his neighborhood.
A woman/man laughing at a disabled co-worker while at an office party.	A woman/man laughing at a disabled co-worker while at an office party.
A woman/man throwing her/his cat across the room for scratching the furniture.	A woman/man throwing her/his cat across the room for scratching the furniture.
A girl/boy throwing rocks at cows that are grazing in the local field.	A woman/man laughing as she/he passes by a cancer patient with a bald head.
Fairness	
A judge taking on a criminal case although she/he is friends with the defendant.	A judge taking on a criminal case although she/he is friends with the defendant.
A politician using public money to build an extension on her/his home.	A politician using federal tax dollars to build an extension on her/his home.
A professor giving a bad grade to a student just because she/he dislikes him.	A professor giving a bad grade to a student just because she/he dislikes him.
A referee intentionally making bad decisions that help her/his favoured team win.	A referee intentionally making bad calls that help her/his favoured team win.
Authority	
An employee trying to undermine all of her/his boss' ideas in front of others.	A girl/boy ignoring her/his father's orders by taking the car after her/his curfew.
A girl/boy ignoring her/his father's orders by taking the car after her/his curfew.	An employee trying to undermine all of her/his boss' ideas in front of others.
A woman/man talking loudly and interrupting the mayor's speech to the public.	A woman/man talking loudly and interrupting the mayor's speech to the public.
A woman/man turning her/his back and walking away while her/his boss questions her/his work.	A woman/man turning her/his back and walking away while her/his boss questions her/his wo
Loyalty	
A British woman/man telling foreigners that the UK is an evil force in the world.	The US Ambassador joking in Great Britain about how stupid she/he thinks Americans are.
The UK Ambassador joking in America about how stupid she/he thinks the British are.	An American movie star saying she/he agrees with a foreign dictator's denunciation of the US.
A British film star saying she/he agrees with a foreign dictator's denunciation of the UK.	An American woman/man telling foreigners that the US is an evil force in the world.
A former UK Army General saying publicly she/he would never buy any UK product.	A former US General saying publicly she/he would never buy any American product.
Sanctity	
A woman/man in a bar using her/his phone to watch people having sex with animals.	A small group of religious women/men eating the flesh of their naturally deceased members.
A small group of religious women/men eating the flesh of their naturally deceased members.	A woman/man in a bar using her/his phone to watch people having sex with animals.
An employee at a morgue eating her/his pepperoni pizza off of a dead body.	A woman/man having sex with a frozen chicken before cooking it for dinner.
A woman/man having sex with a frozen chicken before cooking it for dinner.	An employee at a morgue eating her/his pepperoni pizza off of a dead body.

Table 4: Least severe violations of each foundation, by country

UK	US
Care	
A girl/boy telling a boy that his older brother is much more attractive than him.	A girl/boy making fun of her/his brother for getting dumped by his girl/boyfriend.
A woman/man telling a man that his painting looks like it was done by children.	A girl/boy telling a boy that his older brother is much more attractive than him.
A girl/boy making fun of her/his brother for getting dumped by his girl/boyfriend.	A woman/man telling a man that his painting looks like it was done by children.
A woman/man quickly canceling a blind date as soon as she/he sees the man.	A girl/boy telling her/his classmate that she/he looks like she/he has gained weight.
Fairness	
A girl/boy skipping to the front of the queue because her/his friend is an employee.	A woman/man lying about the number of vacation days she/he has taken at work.
A woman/man playing football pretending to be seriously fouled by an opposing player.	A girl/boy skipping to the front of the line because her/his friend is an employee.
A woman/man cheating in a card game while playing with a group of strangers.	A woman/man playing soccer pretending to be seriously fouled by an opposing player.
A tenant bribing her/his landlord to be the first to get her/his flat repainted.	A woman/man cheating in a card game while playing with a group of strangers.
Authority	
A woman/man secretly watching sport on her/his mobile phone during church.	A woman/man secretly watching sports on her/his cell phone during church.
An intern disobeying an order to dress professionally and comb her/his hair.	An intern disobeying an order to dress professionally and comb her/his hair.
A player publicly yelling at her/his football coach during a game.	A student stating that her/his professor is a fool during an afternoon class.
A star player ignoring her/his coach's order to come off the pitch during a game.	A player publicly yelling at her/his soccer coach during a game.
Loyalty	
The head girl/boy saying that her/his rival school is a better school.	The class president saying that her/his rival college is a better school.
A woman/man secretly voting against her/his husband in a local talent competition.	A woman/man secretly voting against her/his husband in a local talent competition.

A teacher publicly saying she/he hopes another school wins a competition.

Sanctity

A single woman/man ordering an inflatable sex doll that looks like her/his assistant. A woman/man marrying her/his first cousin in an elaborate wedding. A woman/man searching through the rubbish to find men's discarded underwear. A woman/man in a bar offering sex to anyone who buys her/him a drink.

A former politician publicly giving up her/his citizenship to the UK.

A single woman/man ordering an inflatable sex doll that looks like her/his assistant. A woman/man searching through the trash to find men's discarded underwear. A woman/man in a bar offering sex to anyone who buys her/him a drink. A drunk elderly woman/man offering to have oral sex with anyone in the bar.

An employee joking with competitors about how badly her/his company did last year.

A local politician saying that the neighboring town is much better than her/his town.

A4 Variation in moral judgements by covariate

Do respondents' other characteristics, beyond ideology, explain variation in their moral judgments? One of the central conclusions of research based on the MFQ is that morality is pluralistic and that there is significant heterogeneity in peoples' expressed moral beliefs both within and across cultures (Graham et al., 2011). In addition to the ideological differences discussed throughout this paper, peoples' moral intuitions may therefore vary predictably as a function of other covariates. To investigate this idea, we use the same correlated strength model described above to analyse the similarities in moral judgment between respondents of different ages, education levels, genders, races and incomes. We again find large differences between the MFV and MFQ versions of our experiment. Table 5 reports the correlation in judgments of the moral foundation violations (MFV) from our original experiment, and the correlation in judgments of the moral foundation questionnaire (MFQ) items from our follow-up experiment, across different binary covariate groupings of US respondents.¹ Looking across all the covariates we find a consistent pattern: the correlation in judgments of specific moral violations is almost always higher (often significantly) than the correlation in judgments of the relevance of the MFQ items. We find, for instance, that while those under 35 and over 65 largely agree on the relative severity of different moral transgressions (0.88), they are substantially less likely to agree on the relative importance of different MFQ items to their moral thinking (0.54). The same pattern - of lower correlation in judgments of the MFQ than MFV items - is found in relation to education, race, past vote, and gender. In general, while respondent demographics allow us to predict variation in the endorsement of abstract moral principles, there is very little disagreement across different groups of respondents when people make judgments of concrete moral violations.

¹We also find very similar results for the MFV correlations in the UK. Male v. Female = 0.98; 18-35 v. 65+ = 0.94; Post-graduate v. Secondary Education = 0.93; A v. E social grade = 0.95. We also find that evaluations of violation severity between respondents from the UK and respondents from the US correlate at 0.97.

Covariate	ovariate Levels		MFQ (US)	
Ideology	Strong lib v. Strong con	0.82	0.05	
Ideology	Strong no v. Strong con	(0.91, 0.69)	(0.54, -0.43)	
Past vote	Biden v. Trump	0.95	0.42	
Tast vote	Diden v. Hump	(0.98, 0.91)	(0.72, 0.04)	
Age	18-35 v. 65+	0.88	0.54	
nge	10 59 1. 091	(0.94, 0.79)	(0.8, 0.16)	
Education	No HS v. Post-grad	0.69	0.67	
Daucation	rto no v. rost gruu	(0.88, 0.47)	(0.91, 0.27)	
Race	White v. Black	0.95	0.71	
1400		(0.99, 0.88)	(0.91, 0.38)	
Gender	Male v. Female	0.97	0.85	
		(0.99, 0.95)	(0.95, 0.69)	
Income	Under \$40k v. \$80k+	0.97	0.97	
		(1, 0.93)	(1, 0.91)	

Table 5: Correlation in evaluations of MFV and MFQ items, by covariate (US respondents).

Note:

Table shows the correlation in judgments of moral foundation violations (MFV) and moral foundation questionnaire (MFQ) items for binary covariate groupings of US respondents.

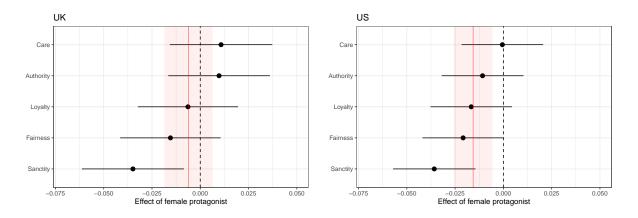


Figure 1: The figure shows the effect of a female protagonist on the probability of a violation being selected as "worse". Negative values indicate that violations describing actions by women are selected as "worse" less often than those describing actions by men.

A5 Gender-based treatment effects

We include two versions of each violation described in Clifford et al. (2015) in our experiment: one in which the person committing the moral violation is a man, one where it is a woman. In this section we analyse whether the gender of the protagonist affects perceptions of the severity of these violations.

In figure 1 we plot the results from two regressions – one using the UK sample and one using the US sample – in which we stack the data such that we have two observations for each pairwise comparison, and an outcome variable that is coded 1 if a given violation was selected as "worse" in the comparison, o if the other violation was selected as worse, and o.5 if they were considered to be "about the same". We then regress this outcome on a binary indicator which measures whether the protagonist in the violation was a woman, rather than a man. We also interact this indicator with dummy variables which capture the foundation to which a given violation applies, allowing us to assess whether these gender effects vary according to violation type.

Figure 1 depicts the marginal effect of the female protagonist treatment for each of the five foundations, alongside 95% confidence intervals. The red line represents the average (across foundation) effect of the female protagonist treatment, with 95% confidence bands shaded also in red. The figure shows that, on average, respondents are somewhat less likely to select violations perpetrated by women as "worse", but this effect is only significantly distinguishable from zero in the US data, and the effect is small in magnitude.

Decomposing these effects by foundation reveals that it is especially with regard to the sanctity foundation that violations by women that are perceived to be less severe than violations perpetrated by men. In both the UK and US data, the treatment effect of a female protagonist is negative and significantly different from zero. This suggests that while the sanctity violations are considered by our respondents to be among the most severe moral wrongs we include in our experiment (as evidenced by the findings in the main text), such transgressions are considered somewhat less objectionable when committed by women than by men.

Finally, we also investigated whether these effects vary according to the gender of the *respondents*. We might expect, for instance, that female respondents are likely to select moral violations by female protagonists as "worse" less often than male respondents. However, in both the UK and US data we find that respondent-gender-by-violator-gender interactions are insignificant. This suggests that perceptions of violation severity are not strongly conditioned by gender, either of the people described in the vignettes, or of the respondents making the comparisons.

A6 Ethics

Our study received ethical review before it was fielded by the [institution redacted for peer review] Research Ethics panel (project id: [redacted]).

Some of the vignettes that we used in the survey were unpleasant and potentially sensitive, as they describe situations that are intended to demonstrate violations of moral norms. In particular, a number of the "sanctity" violations describe situations that are sexual in nature. We minimized the potential for distress to respondents by including an introductory screen for the survey which explained that the respondents will engage in a task which involves making judgments on situations that many people will find objectionable or immoral (see below). We also gave respondents the opportunity to opt out at this stage and provided an email address which they could use to contact the study's authors should they have any complaints or concerns. We also provided a short debriefing screen which sets our study in context (see below).

A6.1 Introductory screen text

Respondents were shown the following text before they were shown our survey questions:

"The next 6 questions are being asked on behalf of [redacted for peer review] and [redacted for peer review] who are academics from [redacted for peer review]. They are conducting research on public views about morality. This study has been subject to ethical review by the [redacted for peer review] panel (project id: [redacted for peer review]).

Your responses to any of these questions will be used to conduct academic research in this area leading to the publication of research articles, books, or reports, and may form part of data sets that are made publicly available for further scholarly purposes. Your responses will be completely anonymous to the [redacted for peer review] researchers and any other people to whom they may release such data sets.

This project aims to investigate the different types of actions that people deem to be morally wrong. People from a wide variety of backgrounds take different views on what is wrong and this study will help us to understand how these important issues vary across the [UK/US] population.

Some of the questions on this survey include tasks that involves making judgments on situations that people may find objectionable or immoral. You are free to opt-out of this survey now or at any point during the survey, without penalty. If you would like to ask questions or raise any concerns about this part of the survey, please contact [redacted for peer review]. You are free to not answer any questions if you do not wish to.

YouGov will provide the [redacted for peer review] research team with a set of nonidentifiable demographic and attitudinal variables - age, gender, education, marital status, region, political attitudes, and past vote history.

Because the data collected from this study is anonymous, in that the researchers will not have access to identifiable data, it will not be possible for you to withdraw consent for your participation after the survey has been completed. On completion of the project, the anonymised data will be archived with an industry-standard data repository with clear data preservation and security procedures."

Respondents were then asked "Do you consent to participate in this survey?", and those clicking "No" were removed from the data collection.

A6.2 Debriefing text

We included a screen after the survey with the following text which aims to put our study in context:

"Thank you for your participation in this survey. The questions you just answered were part of a study by researchers at [redacted for peer review] who are interested in the different types of actions that people deem to be morally wrong. People from a wide variety of backgrounds take different views on what is wrong and this study will help us to understand how these important issues vary across the [UK/US] population."

A7 Tables of estimates

Foundation	MFV (UK)	MFV (US)	MFQ (US)	
Loyalty	-0.76 (0.34, -2.08)	· · · · ·		
Authority	-0.75	-0.45	-0.02	
	(0.36, -2.00)	(0.20, -1.13)	(0.42, -0.45)	
Fairness	0.25	0.22	0.22	
	(1.42, -0.97)	(0.95, -0.43)	(0.69, -0.16)	
Care	0.58	0.26	0.20	
	(1.77, -0.62)	(0.93, -0.35)	(0.68, -0.21)	
Sanctity	0.73	0.41	-0.18	
	(1.94, -0.52)	(1.23, -0.24)	(0.23, -0.64)	

Table 6: Estimates of $\mu_{f(j)}$ from equations 1 and 2

Foundation	Strongly left	Left	Slightly left	Moderate	Slightly right	Right	Strongly right
Care	0.67	0.61	0.51	0.33	0.28	0.20	0.13
Gare	(1.06, 0.31)	(0.89, 0.33)	(0.71, 0.32)	(0.33, 0.33)	(0.49, 0.09)	(0.48, -0.08)	(0.52, -0.28)
Fairness	0.16	0.18	0.11	0.00	0.09	0.07	0.03
1 411 11035	(0.53, -0.18)	(0.44, -0.06)	(0.32, -0.08)	(0.00, 0.00)	(0.31, -0.11)	(0.36, -0.21)	(0.44, -0.40)
Authority	-1.22	-1.16	-1.12	-1.03	-0.87	-0.99	-1.04
nuthority	(-0.87, -1.60)	(-0.90, -1.43)	(-0.93, -1.32)	(-1.03, -1.03)	(-0.66, -1.06)	(-0.71, -1.25)	(-0.67, -1.43)
Loyalty	-1.14	-1.12	-1.14	-0.95	-1.01	-0.89	-0.78
Loyarty	(-0.77, -1.52)	(-0.88, -1.38)	(-0.95, -1.35)	(-0.95, -0.95)	(-0.83, -1.22)	(-0.61, -1.17)	(-0.34, -1.16)
Sanctity	0.51	0.46	0.62	0.63	0.50	0.61	0.65
	(0.87, 0.14)	(0.72, 0.19)	(0.82, 0.40)	(0.63, 0.63)	(0.69, 0.26)	(0.89, 0.32)	(1.05, 0.26)

Table 7: Estimates of $\mu_f + \gamma_{f,p}$ from equation 5 (UK, MFV)

Foundation	Strongly left	Left	Slightly left	Moderate	Slightly right	Right	Strongly right
Care	0.44	0.33	0.19	0.01	0.01	-0.05	-0.08
	(0.70, 0.19)	(0.55, 0.13)	(0.36, 0.03)	(0.01, 0.01)	(0.19, -0.16)	(0.16, -0.24)	(0.17, -0.32)
Fairness	0.23	0.08	0.08	0.00	0.03	0.09	0.12
	(0.50, 0.01)	(0.29, -0.11)	(0.25, -0.09)	(0.00, 0.00)	(0.20, -0.13)	(0.29, -0.10)	(0.36, -0.11)
Authority	-0.86	-0.79	-0.67	-0.57	-0.60	-0.65	-0.59
	(-0.62, -1.11)	(-0.59, -1.00)	(-0.50, -0.83)	(-0.57, -0.57)	(-0.42, -0.75)	(-0.45, -0.84)	(-0.36, -0.81)
Loyalty	-0.88	-0.75	-0.67	-0.63	-0.64	-0.62	-0.62
Loyarty	(-0.64, -1.13)	(-0.54, -0.97)	(-0.50, -0.83)	(-0.63, -0.63)	(-0.49, -0.79)	(-0.42, -0.81)	(-0.38, -0.86)
Sanctity	0.23	0.28	0.21	0.32	0.33	0.37	0.31
	(0.48, -0.02)	(0.50, 0.08)	(0.39, 0.03)	(0.32, 0.32)	(0.49, 0.17)	(0.57, 0.17)	(0.54, 0.06)

Table 8: Estimates of $\mu_f + \gamma_{f,p}$ from equation 5 (US, MFV)

Foundation	Strongly liberal	Liberal	Slightly liberal	Moderate	Slightly conservative	Conservative	Strongly conservative
Care	0.60	0.21	0.12	-0.05	-0.03	-0.20	-0.33
	(0.97, 0.25)	(0.50, -0.10)	(0.35, -0.11)	(-0.05, -0.05)	(0.23, -0.27)	(0.10, -0.50)	(0.08, -0.71)
Fairness	0.54	0.34	0.09	0.00	-0.07	-0.24	-0.28
	(0.92, 0.17)	(0.64, 0.05)	(0.34, -0.15)	(0.00, 0.00)	(0.18, -0.32)	(0.06, -0.53)	(0.10, -0.65)
Authority	-0.72	-0.49	-0.25	-0.22	-0.07	0.01	-0.18
	(-0.36, -1.07)	(-0.19, -0.78)	(0.00, -0.48)	(-0.22, -0.22)	(0.18, -0.32)	(0.33, -0.31)	(0.20, -0.55)
Loyalty	-0.86	-0.69	-0.67	-0.48	-0.51	-0.46	-0.42
	(-0.49, -1.21)	(-0.40, -0.99)	(-0.44, -0.90)	(-0.48, -0.48)	(-0.27, -0.76)	(-0.15, -0.76)	(-0.04, -0.78)
Sanctity	-0.81	-0.62	-0.53	-0.49	-0.55	-0.33	-0.02
	(-0.46, -1.16)	(-0.32, -0.92)	(-0.27, -0.78)	(-0.49, -0.49)	(-0.30, -0.81)	(-0.01, -0.62)	(0.37, -0.39)

Table 9: Estimates of $\mu_f + \gamma_{f,p}$ from equation 5 (US, MFQ)

A8 Moral Foundation Questionnaire Experiment

A8.1 Survey Prompts

YouGov

Please read the following two sentences and indicate which you agree with more.

Respect for authority is something all children need to learn. It is more important to be a team player than to express oneself.						
I agree or disagree with these equally						

Figure 2: MFQ Experiment – "judgment" prompt.

YouGov

When you decide whether something is right or wrong, which of the following is more relevant to your thinking?

\bigcirc	Whether or not someone showed a lack of loyalty Whether or not someone did something disgusting	$\Big)$				
\bigcirc	Both are equally relevant or irrelevant					



Figure 3: MFQ Experiment – "relevance" prompt.

References

- Clifford, Scott, Vijeth Iyengar, Roberto Cabeza and Walter Sinnott-Armstrong. 2015. "Moral foundations vignettes: A standardized stimulus database of scenarios based on moral foundations theory." *Behavior research methods* 47(4):1178–1198.
- Graham, Jesse, Brian A Nosek, Jonathan Haidt, Ravi Iyer, Spassena Koleva and Peter H Ditto. 2011. "Mapping the moral domain." *Journal of personality and social psychology* 101(2):366.
- Heekeren, Hauke R, Isabell Wartenburger, Helge Schmidt, Kristin Prehn, Hans-Peter Schwintowski and Arno Villringer. 2005. "Influence of bodily harm on neural correlates of semantic and moral decision-making." *Neuroimage* 24(3):887–897.