Online Appendix:

Change My View

Do Moral Appeals Facilitate Compromise?

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Appendix A Basic Rules on the Subreddit ChangeMyView

Below is a summary of the set of rules to participate in discussions on /r/ChangeMyView as described in April 2018. The current rules can be viewed at https://www.reddit.com/r/changemyview/wiki/rules

Rules for submission of new discussion posts:

- A Explain the reasoning behind your view, not just what that view is (500+ characters required).
- B You must personally hold the view and demonstrate that you are open to it changing.
- C Submission titles must adequately sum up your view and include "CMV:" at the beginning.
- D Posts cannot express a neutral stance, carry a risk of personal endangerment, be self-promotional, or discuss this subreddit (visit r/ideasforcmv instead).
- E Only post if you are willing to have a conversation with those who reply to you, and are available to start doing so within 3 hours of posting.

Rules for commenting in existing discussions:

- 1 Direct responses to a CMV post must challenge at least one aspect of OPs stated view (however minor), or ask a clarifying question.
- 2 Don't be rude or hostile to other users.
- 3 Refrain from accusing OP or anyone else of being unwilling to change their view.
- 4 Award a delta if you've acknowledged a change in your view. Do not use deltas for any other purpose.
- 5 Comments must contribute meaningfully to the conversation.

Appendix B Moral Foundations Dictionary

Sources:

Graham, Jesse, Jonathan Haidt, and Brian A. Nosek. 2009. "Liberals and Conservatives Rely on Different Sets of Moral Foundations." *Journal of Personality and Social Psychology* 96 (5): 1029–1046, as well as http://www.moralfoundations.org/

Note:

Terms with (*) indicate that the word stem rather than the exact word was matched in the open-ended survey responses.

Care

amity, benefit*, care, caring, compassion*, defen*, empath*, guard*, peace*, preserve, protect*, safe*, secur*, shelter, shield, sympath*, abandon*, abuse*, annihilate*, attack*, brutal*, cruel*, crush*, damag*, destroy, detriment*, endanger*, exploit, exploited, exploiting, exploits, fight*, harm*, hurt*, impair, kill, killed, killer*, killing, kills, ravage, ruin*, spurn, stomp, suffer*, violen*, war, warl*, warring, wars, wound*

Fairness

balance*, constant, egalitar*, equable, equal*, equity, equivalent, evenness, fair, fair-*, fairly, fairmind*, fairness, fairplay, homologous, honest*, impartial*, justice, justifi*, justness, reasonable, reciproc*, rights, tolerant, unbias*, unprejudice*, bias*, bigot*, discriminat*, dishonest, disproportion*, dissociate, exclud*, exclusion, favoritism, inequitable, injust*, preference, prejud*, segregat*, unequal*, unfair*, unjust*, unscrupulous

Loyalty

ally, cadre, cliqu*, cohort, collectiv*, communal, commune*, communis*, communit*, comrad*, devot*, familial, families, family, fellow*, group, guild, homeland*, insider, joint, loyal*, member, nation*, patriot*, segregat*, solidarity, together, unison, unite*, abandon*, apostasy, apostate, betray*, deceiv*, deserted, deserter*, deserting, disloyal*, enem*, foreign*, immigra*, imposter, individual*, jilt*, miscreant, renegade, sequester, spy, terroris*, traitor*, treacher*, treason*

Authority

abide, allegian*, authorit*, bourgeoisie, caste*, class, command, complian*, comply, control, defer, defere*, duti*, duty, father*, hierarch*, honor*, law, lawful*, leader*, legal*, loyal*, mother, mothering, motherl*, mothers, obedien*, obey*, order*, permission, permit, position, preserve, rank*, respect, respected, respectful*, respects, revere*, serve, status*, submi*, supremacy, tradition*, venerat*, agitat*, alienate, apostasy, apostate, betray*, defector, defian*, defy*, denounce, deserted, deserter*, deserting, disloyal*, disobe*, disrespect*, dissent*, dissident, heretic*, illegal*, insubordinat*, insurgent, lawless*, mutinous, nonconformist, obstruct, oppose, protest, rebel*, refuse, remonstrate, riot*, sediti*, subver*, traitor*, treacher*, treason*, unfaithful

Sanctity

abstemiousness, abstention, abstinen*, austerity, celiba*, chast*, church*, clean*, decen*, holiness, holy, immaculate, innocent, integrity, limpid, maiden, modesty, piety, pious, preserve, pristine, pure*, purity, refined, sacred*, saint*, steril*, unadulterated, upright, virgin, virginal, virginity, virgins, virtuous, wholesome*, adulter*, apostasy, apostate, blemish, contagio*, debase*, debauche*, defile*, deprav*, desecrat*, dirt*, disease*, disgust*, exploit, exploitat*, exploited, exploiting, exploits, filth*, gross, heretic*, impiety, impious, indecen*, intemperate, lax, lewd*, obscen*, pervert, profan*, profligate, promiscu*, prostitut*, repuls*, ruin*, sick*, sin, sinful*, sinned, sinner*, sinning, sins, slut*, stain*, taint*, tarnish*, tramp, trashy, unchaste, unclean*, wanton, whore, wicked*, wretched*

General Morality

bad, blameless, canon, character, commendable, correct, decen*, doctrine, ethic*, evil, exemplary, good, goodness, honest*, ideal*, immoral*, indecen*, integrity, laudable, lawful*, legal*, lesson, moral*, noble, offend*, offensive*, piety, pious, praiseworthy, principle*, proper, righteous*, transgress*, upright, upstanding, value*, wholesome*, wicked*, worth*, wretched*, wrong*

Appendix C Distribution of Moral Foundation Proportions in Paired Data

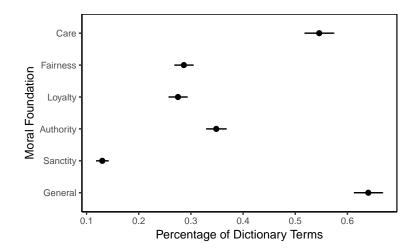


Figure 1: Moral Foundations in Paired Data: Average percentage of dictionary terms relative to the total number of words in each original post starting a discussion (including 95% confidence intervals). Compared to the figure in the main text, this plot only includes opening statements that are part of the matched pair selection to analyze persuasive arguments.

Appendix D Structural Topic Model Results

I Original Posts

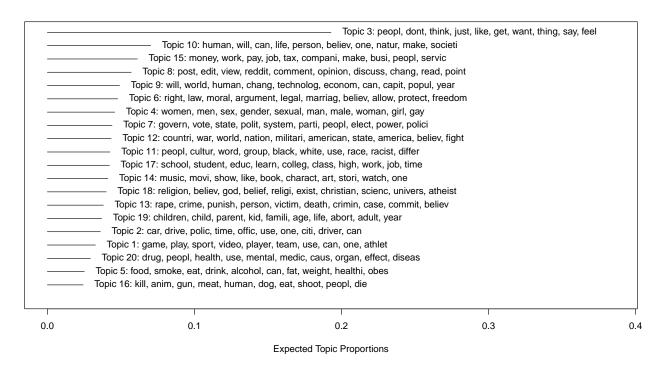


Figure 2: Average topic proportions in opening statements on /r/ChangeMyView/ based on a structural topic model with 20 topics (c.f., Roberts et al., 2014). The plot additionally displays the ten most likely terms associated with each respective topic.

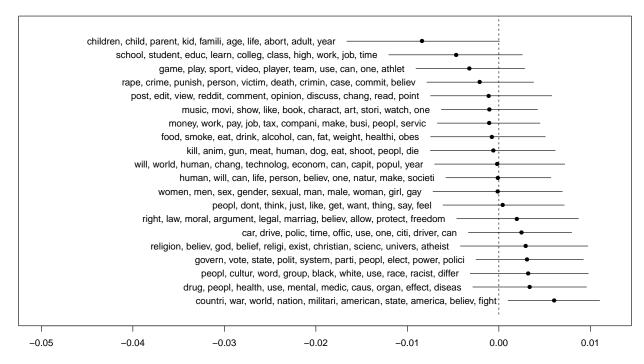


Figure 3: Differences in topic proportions between opening statements on /r/ChangeMyView/ that resulted in opinion change (Δ awarded) versus not (including 95% confidence intervals). Estimates are based on the structural topic model described in the previous figure. Positive values indicate higher topic prevalence among discussions that resulted in opinion change and vice versa. Labels are based on the ten highest probability terms related to the topic.

II Responses Challenging the OP

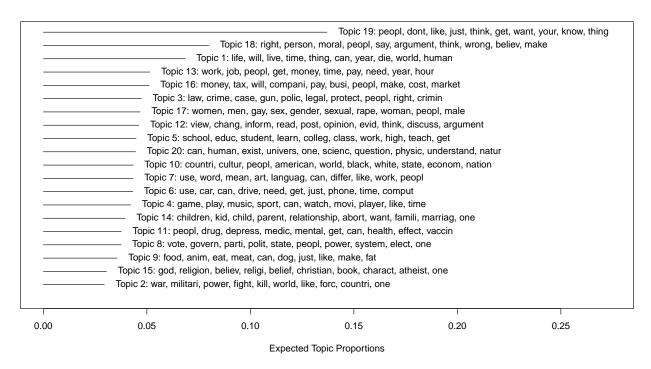


Figure 4: Average topic proportions in posts challenging the OP on /r/ChangeMyView/ based on a structural topic model with 20 topics (c.f., Roberts et al., 2014). The plot additionally displays the ten most likely terms associated with each respective topic.

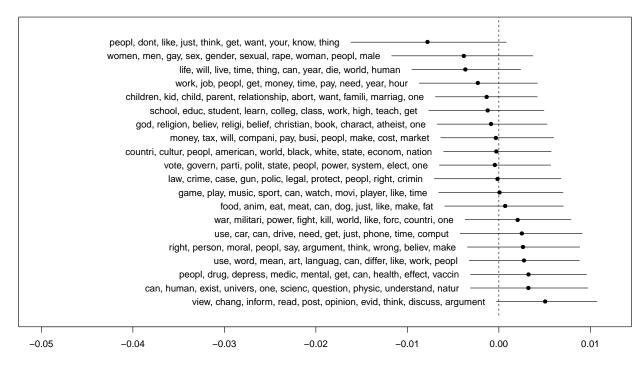


Figure 5: Differences in topic proportions between persuasive and non-persuasive responses challenging the OP (including 95% confidence intervals). Estimates are based on the structural topic model described in the previous figure. Positive values indicate higher topic prevalence among posts that received a Δ by the OP and vice versa. Labels are based on the ten highest probability terms related to the topic.

Appendix E Tables of Model Estimates

Table 1: Logit models predicting argument persuasiveness as a function of moral word use (measured via MFT dictionary proportions). Positive coefficients indicate higher probability of changing the OPs' mind (Δ awarded). Standard errors (clustered by discussion thread) in parentheses. Estimates are used for Figure $\ref{eq:table_scale}$ in the main text.

Variable	Full Response Path	Root Response	Truncated Root Response
Care	-0.004	-0.009	-0.007
	(0.025)	(0.023)	(0.023)
Fairness	-0.029	-0.024	-0.032
	(0.036)	(0.033)	(0.031)
Loyalty	0.005	0.017	0.018
	(0.035)	(0.033)	(0.03)
Authority	0.003	-0.005	0.009
	(0.03)	(0.028)	(0.027)
Sanctity	-0.033	-0.005	-0.022
	(0.047)	(0.046)	(0.044)
General	-0.010	-0.010	-0.004
	(0.024)	(0.023)	(0.022)
Intercept	0.018	0.015	0.009
	(0.024)	(0.023)	(0.022)
N	6304	6304	6304
Log-Likelihood	-4369	-4369	-4369

Table 2: Logit models predicting argument persuasiveness as a function of moral congruence with OPs' opening statements (measured via cosine similarity in MFT dictionary results). Positive coefficients indicate higher probability of changing the OPs' mind (Δ awarded). Standard errors (clustered by discussion thread) in parentheses. Estimates are used for Figure $\ref{eq:congruence}$ in the main text.

Variable	Full Response Path	Root Response	Truncated Root Response
Moral Congruence	0.290	0.188	0.019
	(0.056)	(0.056)	(0.054)
Intercept	-0.147	-0.092	-0.008
	(0.028)	(0.027)	(0.024)
N	6304	6304	6304
Log-Likelihood	-4361	-4366	-4370

References

Graham, Jesse, Jonathan Haidt, and Brian A. Nosek. 2009. "Liberals and Conservatives Rely on Different Sets of Moral Foundations." *Journal of Personality and Social Psychology* 96 (5): 1029–1046.

Roberts, Margaret E., Brandon M. Stewart, Dustin Tingley, Christopher Lucas, Jetson Leder-Luis, Shana Kushner Gadarian, Bethany Albertson, and David G. Rand. 2014. "Structural Topic Models for Open-Ended Survey Responses." *American Journal of Political Science* 58 (4): 1064–1082.