

Moral Conviction and Collective Action: The Moderating Role of Hope

Natalie Rosoga

S4271785

Department of Psychology, University of Groningen

PSB3E-BT15: Bachelor Thesis

Group number: 36

Supervisor: Ana Figueiredo Leal

Second Evaluator: Ayca Aksu

In collaboration with: Aliénor de Candolle, Nienke de Ruijter, Felix Paymal, and Sophie A.

Fellows

July 3, 2023

A thesis is an aptitude test for students. The approval of the thesis is proof that the student has sufficient research and reporting skills to graduate, but does not guarantee the quality of the research and the results of the research as such, and the thesis is therefore not necessarily suitable to be used as an academic source to refer to. If you would like to know more about the research discussed in this thesis and any publications based on it, to which you could refer, please contact the supervisor mentioned

Abstract

Human-caused climate change is an international crisis that will affect the lives of everyone across the globe. Though the result of human activities, many people perform environmentally friendly behaviours in the form of collective action participation to reduce the impact of human-caused climate change. The aim of our paper is to examine what motivates people to engage in collective action participation in the context of climate change and whether the perception of hope may moderate the relationship between moral conviction and collective action. Our study was conducted online via Academic Prolific and recruited 249 Americans. The results demonstrated that moral conviction is positively associated with collective action participation and hope is also positively associated with collective action participation; however, there is no significant interaction effect between the two variables. These findings indicate that hope plays a role in the relationship between moral conviction and collective action participation, but more research is necessary to determine the extent of this relationship.

Keywords: moral conviction, collective action participation, hope, climate change

Moral Conviction and Collective Action: The Moderating Role of Hope

Climate change is a phenomenon that will gravely impact everyone across the globe as a consequence of rising sea levels, rainy days becoming hurricanes, the increase in global temperatures, and more. The current dilemma of human-caused climate change is the long-term transformation in temperatures and weather patterns as a result of human activities such as, increased use of fossil fuels, animal agriculture, and consumerism (United Nations, 2021). Contrastingly, many people participate in collective action to make the world a better place despite being effortful. For instance, many individuals in the Netherlands choose to cycle everywhere, countless people are choosing to buy furniture and clothes second-hand, and more and more people are installing solar panels on their houses as a renewable energy source. Climate activism is a form of collective action participation in the setting of climate change in which people across the globe work together to pressure governments and other large corporations to work towards a liveable future (Rosane, 2022). In this research, we aim to better understand what motivates collective action participation in the context of climate change. Particularly, we investigate whether and when moral convictions may drive collective action participation in this context.

Moral Conviction

Moral convictions are strong attitudes people hold about various topics based on one's fundamental belief of what is morally right and wrong, and are expressions of values (Skitka et al., 2005). For instance, "I strongly oppose human-caused climate change because it's a matter of moral principle". According to the domain theory of attitudes, strong attitudes can be grounded in preference, convention, or morality (Skitka, 2010). An attitude grounded in preference is subjective and tolerant of others' opinion, even if they disagree (e.g., "I strongly oppose human-

caused climate change because I feel like it"). An attitude grounded in convention is based on social norms that are culturally appropriate and when violated, are seen as normatively wrong because it goes against what was expected in that particular culture (e.g., "I strongly oppose human-caused climate change because all my friends do"). However, when moral convictions are opposed, they are viewed as essentially wrong or inherently bad (Skitka et al., 2005).

Attitudes ground in moral conviction have specific characteristics. People perceive moral convictions as more universal and objectively true in that they are generalizable in all contexts and are based on fundamental truths about reality (Skitka et al., 2015). Moral convictions are also authority and peer independent, in that they do not rely on rules, but rather what they should be. They are also motivating or obligatory which refers to the notion that people with moral convictions feel morally obliged to act on them which can explain their association with collective action participation. Moral convictions are also resistant to change or social influence and are intolerant to others who hold views that go against their moral convictions (Skitka et al., 2015). For instance, one study by Hornsey et al. (2007) found that when moral convictions were strong, people were very likely to speak out against a crowd, even though they were part of the minority of people that held that moral conviction.

Moral convictions have consequences for individuals, groups, and society. It can predict important social behaviours that drive social change such as voting (Skitka & Bauman, 2008), volunteerism (Kende et al., 2017), and collective action participation (van Zomeren et al., 2011). For instance, when a moral conviction is violated, political engagement can be enhanced in numerous contexts including physician-assisted suicide and the Iraq war (Skitka & Wisneski, 2011). Moral convictions can also lead to violence, which have been shown to be acceptable

when a desired moral outcome is achieved (Skitka et al. 2015). Moral conviction cuts both ways and it can have both positive and negative consequences.

Moral Conviction and Collective Action

Collective action occurs when a group of people work together to reach a common goal and improve their situation (Wright et al., 1990). Some research suggests that moral conviction predicts collective action participation (see Agostini & Van Zomeren, 2021). Particularly, one study by van Zomeren et al. (2011) was interested in Dutch student's reactions to increased tuition fees. The results showed that those who held a moral conviction against the change in tuition fees were more likely to engage in collective action participation through unionising (van Zomeren et al., 2011). In addition, another study that recruited advantaged Hong Kong Chinese participants found that having a moral conviction opposing social inequality influenced collective action tendencies (van Zomeren et al., 2011). Finally, a study by Mazzoni et al. (2013) examined whether Italians' perceived violation of the right to water predicted collective action tendencies and concluded that this was the case.

Moral conviction may lead to collective action participation due to different reasons. Firstly, because people feel morally obliged to act in line with their moral convictions to validate their sense of identity (Van Zomeren et al., 2018). Sense of identity refers to a person's perception of who they are and what they stand for, thus, people will behave in ways that are aligned with their beliefs. In order to maintain their sense of identity, people will engage in collective action only if they have a strong moral conviction (Sabucedo et al., 2018). Secondly, people engage in collective action participation because of a perceived violation of their moral conviction (Pauls et al., 2022). Their willingness to participate in collective action is triggered by a value protection response to defend their violated moral conviction. Lastly, moral conviction is

predictive of collective action participation because people want to be consistent with their attitudes, as is stated by cognitive dissonance theory. Cognitive dissonance theory is based on the idea that an uneasy feeling occurs when an individual's behaviour is not aligned with their beliefs (Festinger, 1957). Therefore, cognitive dissonance theory applies to collective action participation by encouraging individuals to stand by their moral convictions to prevent this uneasy feeling from occurring. One aim of this study is to conceptually replicate the relationship between moral conviction and collective action participation in the context of human-caused climate change.

The Moderating Role of Hope

Although there is substantial evidence showing that moral conviction can predict collective action (e.g., Van Zomeren et al., 2012), we know little about the conditions under which this effect can occur. We propose that hope may make this relationship stronger. Hope is defined as a positive mindset that is derived from a feeling that one can set goals and successfully achieve them while taking into account their circumstance (Synder & Forsyth, 1991). Hope may lead to collective action participation by giving the hopeful person a positive outlook regarding human-caused climate change. According to the appraisal theory of emotion, emotions like hope emerge when an event is considered pertinent and significant to an individual's worries (Cohen-Chen et al., 2018). This enhances the perception of opportunity; thus, the individual is likely to devise a plan to help them reach their goal. For example, a study by Cohen-Chen et al. (2018) found that collective action participation occurred only in a high-hope state and not in a low-hope condition. Also, the hopeful person may be more creative and generate novel ways of solving their problem because they believe that a positive outcome will result (Halperin et al., 2015). A lack of hope would lead to inaction because the person would

expect a negative outcome and therefore not even try to come up with ideas to overcome the issue. In other words, hope leads to collective action participation by framing the concern as a solvable problem (Włodarczyk et al., 2017). Therefore, in this research, we expect that hope is also associated with collective action participation.

Moreover, in this study, we propose that hope would act as a moderator in the relationship between moral conviction and collective action. We already know that moral conviction is associated with collective action as a result of the moral obligation to validate one's sense of identity (Sabucedo et al., 2018), value protection as a response to a violated moral conviction (Pauls et al., 2022) and cognitive dissonance theory (Festinger, 1957). However, we propose that hope would make the relationship between moral conviction and collective action participation stronger because the hopeful person would anticipate a positive outcome. Those that have a moral conviction might inherently be hopeful about improving the issue in mind, and would therefore be more inclined to behave in ways that are in line with their moral convictions through collective action participation. In the context of this study, if one has a strong moral conviction regarding climate change, they would be more likely to engage in collective action if they are hopeful because they view climate change as a solvable problem and expect a positive result.

Hypotheses

The aim of this study is to investigate whether and when moral conviction relates to collective action participation in the context of climate change. Particularly, we focus on whether hope plays a moderating role in this relationship. The first hypothesis is that moral conviction is positively associated with collective action participation. The second hypothesis is that hope is positively associated with collective action participation. The third hypothesis is that hope

moderates the relationship between moral conviction and collective action participation.

Particularly, for people who are highly hopeful, the relationship between moral conviction and collective action participation is stronger. For people who score low on hope, we do not expect an association between moral conviction and collective action participation.

Method

Participants and Design

We recruited 249 American individuals who participated in our online study via Academic Prolific and sampled people who currently reside in the U.S., and are American. As compensation, the participants received 0.75 USD for completing the study. The final sample consisted of 249 American participants (120 female, 126 male, 3 reported other) ranging in age from 18 to 76 years ($M = 38.169$, $SD = 13.693$). One hundred and fifty-five participants reported to be members of the Democratic party, 47 were members of the Republican party, and 47 reported Other. The study had a correlational design in which the independent variable was moral conviction, the dependent variable was collective action participation, and the moderator was hope.

Procedure

The Ethics Committee of the Faculty of Behavioural and Social Sciences at the University of Groningen approved the study. At the beginning of the study, participants' informed consent was obtained. In the first part of the questionnaire, participants were asked to answer several questions about their moral convictions about different societal issues, namely abortion, human-caused climate change, the Afghanistan refugee crisis, and death penalty. We additionally included filler items by asking them about their attitudes towards the

aforementioned issues. The target issue of moral conviction for this paper was human-caused climate change, and the other three issues were used as filler items. In the second part of the study, participants were introduced to two social contexts: the Afghanistan refugee crisis and human-caused climate change. The target issue of interest was climate change, whereas the issue of the Afghanistan refugee crisis was not relevant for the hypothesis of this study. They completed a questionnaire stating their willingness to participate in collective action with regards to human-caused climate change. Next, participants filled out a questionnaire about hope. The study was part of a larger project. As such, they answered other questionnaires that were not relevant for the hypothesis of this study. Finally, participants provided information about their gender, age, and political ideology. At the end of the study, participants were paid, fully debriefed and informed about the purpose of the study.

Measures

Moral Conviction

The scale measuring moral conviction (Skitka et al., 2005, 2017) was adapted for human-caused climate change and included the following items: “How much is your opinion on human-caused climate change: A reflection of your core moral beliefs and convictions?

Connected to your beliefs about fundamental right and wrong? Based on moral principle?”

Participants recorded their responses on a 7-point Likert scale ranging from 1 (*not at all*) to 7

(*very much*). We averaged the items and created a composite score for moral conviction ($\alpha = .97$; $M = 5.036$, $SD = 1.715$).

Collective Action

Collective action was measured using items based on Tausch et al. (2011). Participants reported their willingness to take part in the following actions: “participate in an upcoming protest related to human-made climate change”, “share some information about human-made climate change on my social media”, “change my profile picture on my social media to raise awareness about human-made climate change”, “sign a petition to support legislation to limit the impact and furthering of human-made climate change” and recorded their responses on a 7-point Likert scale ranging from 1 (*not at all*) to 7 (*very much*). We averaged the items and created a composite score for collective action ($\alpha = .89$; $M = 3.834$, $SD = 1.890$).

Hope

The six items included in the survey regarding the moderator hope were taken from the Climate Change Hope Scale (CCHS; Li & Monroe, 2017). The items included from the CCHS were: “I know that there are things that I can do to help solve problems caused by climate change”, “Climate change is so complex that we will not be able to solve problems caused by climate change” (reverse coded), “I believe people will be able to solve problems caused by climate change”, “I am willing to take actions to help solve problems caused by climate change”, “The actions I can take are too small to help solve problems caused by climate change” (reverse coded), and “If everyone works together, we can solve problems caused by climate change”. All of the items were measured on a 5-point Likert scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). We averaged the items and created a composite score for hope ($\alpha = .82$; $M = 3.452$, $SD = 0.782$).

Results

Preliminary Analysis

First, we checked the assumptions for multiple linear regression. The assumption of normality was inspected via a Q-Q plot, which showed that the residuals were normally distributed because they rested along the line (see Figure 1 in the Appendix). Next, we plotted the residuals on a scatterplot and their scattered distribution indicated that the assumption of homoscedasticity is not violated (see Figure 2 in the Appendix). Also, by inspecting the scatterplot, it is apparent that there is a linear relationship between the independent variable, moderator, and dependent variable. The independence of residuals was assessed with the Durbin-Watson test which resulted in a value of 1.955. Finally, there appeared to be no multicollinearity between the variables because all VIF scores were less than four (1.274, 1.192, and 1.075) and tolerance scores were above 0.2 (0.785, 0.839, 0.93).

Table 1 reports the means, standard deviations, and correlations among the study variables. All variables were significantly and positively correlated with each other ($p < .001$) and all analyses were conducted at a .05 significance level.

Table 1

Descriptive Statistics of the Independent Variable, Dependent Variable and Moderator, and Correlations Between Variables

Variable	N	M(SD)	1	2	3
1. Moral Conviction	249	5.036 (1.715)	-	-	-
2. Collective Action	249	3.834 (1.890)	0.468***	-	-
3. Hope	249	3.452 (0.782)	0.399***	0.503***	-

Note: Range Likert scales = 1-7; *** $p < .001$

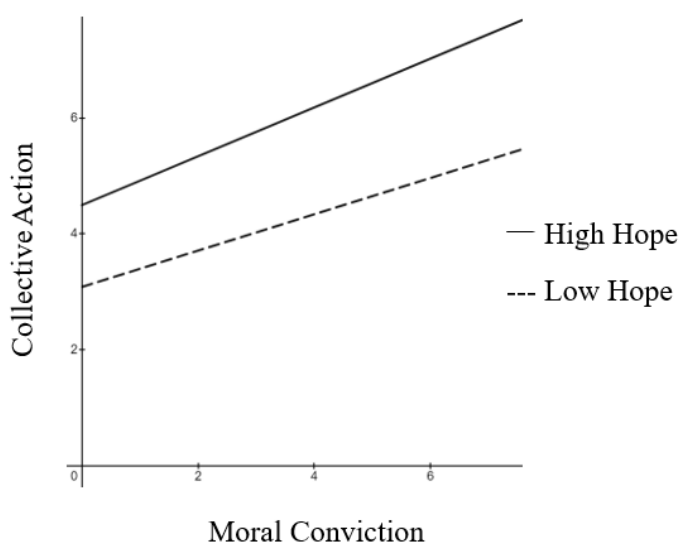
Main Analysis

As the assumptions were not violated, we continued with the multiple linear regression using JASP (JASP Team, 2020). We first centered the independent and moderating variables around a meaningful zero in order to make the results more interpretable. Afterwards, we computed an interaction between our centered moderator and centered independent variable.

For our main analysis, we conducted a multiple linear regression in which we included the centered variables for moral convictions and hope, as well as the computed interaction variable as predictors of collective action. The overall model was significant ($R^2 = .341$, $F(3, 245) = 42.206$, $p < .001$, Cohen's $f^2 = .132$). We found a significant relationship between moral conviction and collective action ($\beta = 0.333$, $t(245) = 5.684$, $p < .001$, 95% $CI [0.240, 0.494]$, $sr^2 = .295$), and a significant relationship between hope and collective action ($\beta = 0.374$, $t(245) = 6.600$, $p < .001$, 95% $CI [0.634, 1.174]$, $sr^2 = .342$). However, we did not find a significant interaction effect ($\beta = 0.056$, $t(245) = 1.038$, $p < .300$, 95% $CI [-0.062, 0.200]$, $sr^2 = .054$). Even though we did not find a significant interaction, we still conducted simple slope analyses to explore the data. We found that moral conviction was significantly associated with collective action for high hope ($\beta = 0.083$, $t(245) = 4.542$, $p < .001$, 95% $CI [0.238, 0.603]$, $sr^2 = .236$), but also for low hope ($\beta = 0.064$, $t(245) = 4.365$, $p < .001$, 95% $CI [0.172, 0.454]$, $sr^2 = .226$), as shown in Figure 3.

Figure 3

Interaction Between Moral Conviction, Collective Action, and Hope (Low and High)



Discussion

The aim of this study is to investigate whether and when moral conviction relates to collective action participation in the context of climate change. Particularly, we focus on whether hope plays a moderating role in this relationship. The first hypothesis is that moral conviction is positively associated with collective action participation. The second hypothesis is that hope is positively associated with collective action participation. The third hypothesis is that hope moderates the relationship between moral conviction and collective action participation. Particularly, for people who are highly hopeful, the relationship between moral conviction and collective action participation is stronger. For people who score low on hope, we do not expect an association between moral conviction and collective action participation.

The results of the study support the first hypothesis and indicate that there is an association between moral conviction and collective action participation, in the context of climate change. There was also support for the second hypothesis in which the results demonstrated an association between hope and collective action participation. In other words, the

more hopeful a person is, the more likely they are to engage in collective action. When assessing for the third hypothesis, the results indicated that there is not a significant interaction effect between moral conviction, hope, and collective action participation. Further analyses showed that the relationship between moral conviction and collective action participation were present for participants scoring high and low on hope, signifying that this relationship does not change as a function of various degrees of hope. Nevertheless, when we plotted the interaction, the lines were non-parallel, meaning that an interaction exists, it is just not statistically significant.

Theoretical Implications

This research has some theoretical implications. First, we found and replicated the association between moral conviction and collective action participation. The association between moral conviction and collective action was expected because there is already a lot of research done that can explain the association (van Zomeren et al., 2011). For instance, moral conviction can predict collective action because people feel obliged to act in ways in line with their moral conviction to authenticate their sense of identity (Van Zomeren et al., 2018). This relationship can also be demonstrated when their moral conviction is challenged (Pauls et al., 2022). Finally, people may stand by their moral conviction via collective action in order to prevent a feeling of dissonance as stated by cognitive dissonance theory (McLeod, 2023). Our findings suggest that the association between moral conviction and collective action are in line with previous research and also extend the theoretical perspective to an additional context: human-caused climate change. In addition, the current research provides us with a theoretical framework regarding the component that must be targeted in order to encourage collective action. Specifically, targeting moral convictions when collective action participation in the

context of climate change is lacking is important to ensure the necessary steps are taken to combat this issue.

Second, we found support for the idea that there is an association between hope and collective action. The association can be illustrated by the notion that hope elicits a positive atmosphere. Hope itself is a positive state of mind that stems from a feeling that one can set goals and attain them while simultaneously considering their current circumstance (Synder & Forsyth, 1991). To add on to that, the appraisal theory of emotion states that emotions like hope are generated when an event is considered important to an individual (Cohen-Chen et al., 2018). Being hopeful about the situation at hand gives the person the perception that they have a chance to change the outcome and will therefore come up with ways to do so. Our results are consistent with preceding theories regarding hope and suggest that those that are hopeful are more likely to engage in collective action participation than those that are less hopeful in the context of human-caused climate change. In other words, the data provides important insights about how people can motivate others to engage in collective action participation to reduce the effects of climate change by merely amplifying hope.

Finally, we found that the relationship between moral conviction and collective action participation does not vary as a function of perceptions of hope. One possible explanation for the insignificant interaction effect could be because those that scored low on hope actually scored above average on the 5-point Likert scale and so there was no interaction effect due to the lack of variance of hope in our sample. Also, because the majority of our sample has a moral conviction about human-caused climate change, they may as a result, report higher levels of hope and in turn, demonstrate no interaction effect. However, the absence of an interaction effect can also be the result of low statistical power which could hide the presence of a moderating effect of hope.

Power is influenced by study design, measurement, and analysis which affects the interaction effect (Aguinis & Gottfredson, 2010). For example, in the current study, most of the participants identified with the Democratic political party which may have meant that our study lacked enough variance to detect an interaction effect because most of the participants had a strong moral conviction about climate change.

Limitations and Future Research

There are a few limitations in our study. Firstly, all of the participants live in the United States and more than half of the sample identify with the Democrat political party, making the results of our study ungeneralizable to other cultures. To improve the generalizability, future research should take into consideration other cultures and control for political orientation. Secondly, the findings we gathered regarding moral conviction, collective action participation and hope are specific to our context of climate change which also places limits on the generalizability of our study. It would be important for future research to attempt to replicate these findings in different contexts such as, abortion, artificial intelligence and more to see if the associations are generalizable. Thirdly, we gathered our data via self-report which can make the data obtained inaccurate by giving participants the ability to respond untruthfully or in ways that are socially desirable. Fourthly, we measured people's intentions to engage in different behaviours which can be problematic because participants may be tempted again to respond in socially desirable ways. Also, measuring intentions is less accurate than recording behaviours because intentions are impossible to verify if one would truly engage in a behaviour or not. Future research should measure participant's actual behaviour instead of intentions to more accurately assess their willingness to engage in collective action participation and acquire better

results. Lastly, the sample size was not large enough which could potentially explain why there was a non-significant interaction.

Conclusion

Human activities contribute intensively to climate change and thus, have a detrimental impact on everyone's lives. The goal of our research is to investigate under which conditions moral conviction relates to collective action participation in the context of climate change. Our research shows that there is a positive association between moral conviction and collective action in the context of climate change and it also demonstrated that hope is positively associated with collective action participation. However, we did not find evidence for the moderating role of hope, but future research should be done to further explore this relationship. Our research replicated other studies' findings regarding the association between moral conviction and collective action with the addition of doing so in another context. The data gathered from our study also provides valuable insights as to how we can collectively lessen the negative impact of human-caused climate change.

References

- Agostini, M., & van Zomeren, M. (2021). Toward a comprehensive and potentially cross-cultural model of why people engage in collective action: A quantitative research synthesis of four motivations and structural constraints. *Psychological Bulletin*, *147*(7), 667–700. <https://doi.org/10.1037/bul0000256>
- Aguinis, H., & Gottfredson, R. K. (2010). Best-practice recommendations for estimating interaction effects using moderated multiple regression. *Journal of Organizational Behavior*, *31*(6), 776–786. <https://doi.org/10.1002/job.686>
- Bandura, A. (2006). *Guide to the construction of self-efficacy scales*. In F. Pajares & T. Urdan (Eds.), *Self-efficacy beliefs of adolescents* (Vol. 5, pp. 307–337). Greenwich, CT: Information Age Publishing.
- Cohen-Chen, S., & Van Zomeren, M. (2018). Yes we can? Group efficacy beliefs predict collective action, but only when hope is high. *Journal of Experimental Social Psychology*, *77*, 50–59. <https://doi.org/10.1016/j.jesp.2018.03.016>
- Cuadrado, E., Taberner, C., & Steinel, W. (2016). Determinants of prosocial behavior in included versus excluded contexts. *Frontiers in Psychology*, *6*.
<https://doi.org/10.3389/fpsyg.2015.02001>
- Davis, M. H. (1980). A multidimensional approach to individual differences in empathy. *JSAS Catalog of Selected Documents in Psychology*, *10*, 85.
- Haugestad, C. a. P., Skauge, A. D., Kunst, J. R., & Power, S. A. (2021). Why do youth participate in climate activism? A mixed-methods investigation of the #FridaysForFuture

climate protests. *Journal of Environmental Psychology*, 76, 101647.

<https://doi.org/10.1016/j.jenvp.2021.101647>

Festinger, L. (1957). A theory of cognitive dissonance. Stanford University Press.

Halperin, E., & Sharvit, K. (2015). *The Social Psychology of Intractable Conflicts: Celebrating the Legacy of Daniel Bar-Tal, Volume I*. Springer.

Hornsey, M. J., Smith, J. R., & Begg, D. (2007). Effects of norms among those with moral conviction: Counter-conformity emerges on intentions but not behaviors. *Social Influence*, 2(4), 244–268. <https://doi.org/10.1080/15534510701476500>

Kende, A., Lantos, N. A., Belinszky, A., Csaba, S., & Lukács, Z. A. (2017). The politicized motivations of volunteers in the refugee crisis: Intergroup helping as the means to achieve social change. *Journal of Social and Political Psychology*, 5(1), 260–281. <https://doi.org/10.5964/jspp.v5i1.642>

Li, C., & Monroe, M. C. (2017). Development and validation of the Climate Change Hope Scale for high school students. *Environment and Behavior*, 50(4), 454–479. <https://doi.org/10.1177/0013916517708325>

Mazzoni, D., van Zomeren, M., & Cicognani, E. (2013). The motivating role of perceived right violation and efficacy beliefs in identification with the Italian Water Movement. *Political Psychology*, 36(3), 315–330. <https://doi.org/10.1111/pops.12101>

Pauls, I. L., Shuman, E., Zomeren, M., Saguy, T., & Halperin, E. (2022). Does crossing a moral line justify collective means? explaining how a perceived moral violation triggers

normative and nonnormative forms of collective action. *European Journal of Social Psychology*, 52(1), 105–123. <https://doi.org/10.1002/ejsp.2818>

Rimal, R. N., & Yilma, H. (2022). Descriptive, Injunctive, and Collective Norms: An Expansion of the Theory of Normative Social Behavior (TNSB). *Health Communication*, 37(13), 1573–1580. <https://doi.org/10.1080/10410236.2021.1902108>

Rosane, O. (2022). *How to save the world: Everything you need to know about climate activism*. EcoWatch. <https://www.ecowatch.com/climate-activism-guide-2655772029.html>

Sabucedo, J.-M., Dono, M., Alzate, M., & Seoane, G. (2018). The importance of protesters' morals: Moral obligation as a key variable to understand collective action. *Frontiers in Psychology*, 9. <https://doi.org/10.3389/fpsyg.2018.00418>

Skitka, L. J., & Bauman, C. W. (2008). Moral conviction and political engagement. *Political Psychology*, 29(1), 29–54. <https://doi.org/10.1111/j.1467-9221.2007.00611>.

Skitka, L. J., Bauman, C. W., & Sargis, E. G. (2005). Moral conviction: Another contributor to attitude strength or something more? *Journal of Personality and Social Psychology*, 88(6), 895–917. <https://doi.org/10.1037/0022-3514.88.6.895>

Skitka, L. J. (2010). The psychology of moral conviction. *Social and Personality Psychology Compass*, 4(4), 267–281. <https://doi.org/10.1111/j.1751-9004.2010.00254>

Skitka, L. J., Hanson, B. E., Morgan, G. S., & Wisneski, D. C. (2021). The Psychology of Moral Conviction. *Annual Review of Psychology*, 72(1), 347–366. <https://doi.org/10.1146/annurev-psych-063020-030612>

- Skitka, L. J., Hanson, B. E., & Wisneski, D. C. (2017). Utopian hopes or dystopian fears? Exploring the motivational underpinnings of moralized political engagement. *Personality and Social Psychology Bulletin*, 43(2), 177-190.
<https://doi.org/10.1177/0146167216678858>
- Skitka, L. J., Washburn, A. N., & Carsel, T. S. (2015). The psychological foundations and consequences of moral conviction. *Current Opinion in Psychology*, 6, 41–44.
<https://doi.org/10.1016/j.copsy.2015.03.025>
- Skitka, L. J., & Wisneski, D. C. (2011). Moral conviction and emotion. *Emotion Review*, 3(3), 328–330. <https://doi.org/10.1177/1754073911402374>
- Snyder, C. R., & Forsyth, D. R. (1991). *Handbook of social and clinical psychology : the health perspective* (Ser. Pergamon general psychology series, 162). Pergamon Press.
- Tausch, N., Becker, J. C., Spears, R., Christ, O., Saab, R., Singh, P., & Siddiqui, R. N. (2011). Explaining radical group behavior: Developing emotion and efficacy routes to normative and nonnormative collective actions. *Journal of Personality and Social Psychology*, 101(1), 129. <https://doi.org/10.1037/a0022728>
- Van Valkengoed, A. M., Steg, L., & Perlaviciute, G. (2021). Development and validation of a climate change perceptions scale. *Journal of Environmental Psychology*, 76, 101652.
<https://doi.org/10.1016/j.jenvp.2021.101652>
- Van Zomeren, M., Pauls, I. L., & Cohen-Chen, S. (2019). Is hope good for motivating collective action in the context of climate change? Differentiating hope's emotion- and problem-focused coping functions. *Global Environmental Change-Human and Policy Dimensions*, 58, 101915. <https://doi.org/10.1016/j.gloenvcha.2019.04.003>

- Van Zomeren, M., Kutlaca, M., & Turner-Zwinkels, F. (2018). Integrating who “we” are with what “we” (will not) stand for: A further extension of the *social identity model of collective action*. *European Review of Social Psychology*, *29*(1), 122–160.
<https://doi.org/10.1080/10463283.2018.1479347>
- Van Zomeren, M., Postmes, T., & Spears, R. (2011). The return of moral motivation in predicting collective action against collective disadvantage. *Revista de Psicología Social*, *26*(2), 163–176. <https://doi.org/10.1174/021347411795448956>
- Van Zomeren, M., Postmes, T., & Spears, R. (2012). On conviction’s collective consequences: Integrating moral conviction with the social identity model of collective action. *British Journal of Social Psychology*, *51*(1), 52–71. <https://doi.org/10.1111/j.2044-8309.2010.02000>
- Van Zomeren, M., Postmes, T., Spears, R., & Bettache, K. (2011). Can moral convictions motivate the advantaged to challenge social inequality? *Group Processes & Intergroup Relations*, *14*(5), 735–753. <https://doi.org/10.1177/1368430210395637>
- Włodarczyk, A., Basabe, N., Páez, D., & Zumeta, L. (2017). Hope and anger as mediators between collective action frames and participation in collective mobilization: The case of 15-M. *Journal of Social and Political Psychology*, *5*(1), 200–223.
<https://doi.org/10.5964/jspp.v5i1.471>
- Wright, S. C., Taylor, D. M., & Moghaddam, F. M. (1990). Responding to membership in a disadvantaged group: From acceptance to collective protest. *Journal of Personality and Social Psychology*, *58*(6), 994–1003. <https://doi.org/10.1037/0022-3514.58.6.994>

United Nations. 2021. *What Is Climate Change?* / *United Nations*.

<https://www.un.org/en/climatechange/what-is-climate-change>

Appendix

Figure 1

Normality of Residuals

Q-Q Plot Standardized Residuals

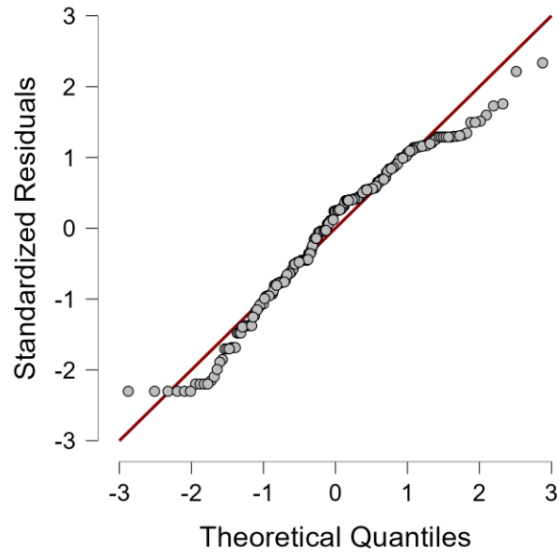


Figure 2

Homoscedasticity of Residuals

Residuals vs. Predicted

