

The Effects of Norms on Support for the Decolonization of Cultural Symbols in Canada

by

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Abstract

Social justice efforts can benefit from the involvement of allies who think, feel, and act to support positive change. Social norms may signal growing support for positive change and may persuade further support for a cause. I examined the effects of social norms on reactions toward the removal of colonial statues from public spaces. Specifically, I examined static-norm messages, which describe the proportion of people who hold an attitude, and dynamic-norm messages, which add that the proportion is increasing. Using an online survey platform, I randomly assigned 255 non-Indigenous university students to one of three conditions: no-norm, static-norm, or dynamic-norm. All participants first read a passage describing how John A. Macdonald was involved in residential schools. At the end of the passage, both static and dynamic-norm participants also learned the proportion of people in Canada who support removing John A. Macdonald statues from public spaces. Dynamic-norm participants read that the proportion is increasing. After reading the passage, all participants completed measures of empathy, political solidarity, behavioral intentions, and their attitude toward statue removal. I also collected self-reported political orientation for context. I evaluated the pattern of effects with a one-way ANOVA, mediation, and path analysis. I expected participants in both norm conditions would report higher empathy, political solidarity, behavioral intentions, and attitude toward statue removal than no-norm participants. I also anticipated that dynamic-norm participants would report higher scores than static-norm participants. Finally, I expected that empathy and/or political solidarity would mediate the effects of norms on behavioral intentions. I found limited evidence to support these objectives and some backlash effects. Attitudinal support increased after removing outliers, some of whom identified as strongly right-wing. Additionally, right-wing leaning participants reported lower support when they read one of the norm messages.

These participants may have actively resisted the norm appeal. My results highlight the need to tailor messaging to political ideologies and to avoid such resistance.

Keywords: dynamic-norms, static-norms, empathy, political solidarity, behavioral intentions, Indigenous

Positionality Statement

I am a White presenting Metis, Polish, Ukrainian, and British woman, trained in Western science and research. I use the word Metis sans l'accent aigu (without the accent over the 'e') to acknowledge my Scottish and Cree Metis roots, who likely did not speak French or Michif. As a researcher, I am committed to improving the well-being of Indigenous communities on Turtle Island. I work toward that commitment by investigating how to encourage non-Indigenous people in Canada to adopt reconciliatory feelings and behaviors. I believe that this is possible and imperative. I acknowledge that my positionality alters the way I frame my research and interpret my results.

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The Effects of Norms on Support for the Decolonization of Cultural Symbols in Canada

On April 26, 2022, a statue in the historic district of Kyiv was toppled, symbolizing the end of a friendship between Ukraine and Russia (Tondo & Koshiw, 2022). Onlookers gathered in the square, chanting “Glory to Ukraine, glory to the heroes, glory to the nation of Ukraine.” The removal team planned to melt the bronze into a new symbol of Ukrainian sovereignty, marking a symbolic disconnection from Russia. The war likely made statue removal a priority for Ukraine (Sklokina, 2024). Perhaps many Ukrainian people considered what statues represent, that statues are used to honor people, events, or allegiances. Sometimes statues also represent a nation itself or the nation’s values and beliefs. When the friendship between two nations ended, public statues representing the value of that friendship were no longer honorable. Ukraine did what many nations and societies do: Their people updated, replaced, and removed statues in support of the nationhood of Ukraine.

For many nations, including Ukraine, public opinion changes on how to represent their nation through statues. What happens if the statue represents someone who is remembered for both honorable and dishonorable actions—do those actions represent the nation’s values? Public opinion is still not united around people like John A. Macdonald, Canada’s first Prime Minister. Some people in Canada might consider him the “father of confederation,” while others depict him as the “architect of residential schools¹” (Carleton, 2022; Shayegh et al., 2025). Statues of John A. Macdonald scattered across the country may particularly affect Indigenous people in Canada. Many people in Canada call for their removal from public spaces (Canseco, 2022;

¹ I did not capitalize “residential schools” as this can be seen as a sign of respect and these institutions are not deserving of any honorary treatment (EagleWoman, 2023; Linden, 2020).

Shayegh et al., 2025). However, support for statue removal is divided across Canada, but there may be strategies to increase such support.

If public symbols reach a wide audience, increasing support for their removal may require an intervention that is persuasive to many people. I looked for a strategy that aimed to persuade many people to change their behavior to support a social cause, like removing John A. Macdonald statues. I chose to investigate one such strategy of norm messaging. Social norms are unspoken rules and policies that govern society and socially acceptable behavior (Goldstein et al., 2008; Sparkman & Walton, 2017; Tankard & Paluck, 2016). When these messages are shared, they can be persuasive to wide audiences (e.g., Berger, 2021). However, norms have increased healthy habits or sustainability behaviors, but it is uncertain if they can increase support for a social group's cause (Berger, 2021; Cialdini & Jacobson, 2021; Schorn, 2024; Sparkman & Walton, 2017). I used an experimental manipulation to test whether norms increase support for an Indigenous cause of removing statues of John A. Macdonald. I also examined whether social norms presented to non-Indigenous participants increased feelings of and intentions to support an Indigenous cause compared to a no-norm condition.

Additionally, I considered the type of norm, as certain norms may be more effective at increasing support for a social cause. In particular, dynamic-norms or messages about how people are changing seem to be more effective at changing behavior compared to static-norms or messages about people at a point in time (Graupensperger et al., 2021; Sparkman & Walton, 2017, 2019). So, not only did I want to test the efficacy of social norms, but I wanted to test which norms may be more effective. I created three conditions where participants read a passage that included a static-norm message, a dynamic-norm message, or a no-normative message. Participants then reported their empathy felt for Indigenous people, political solidarity with their

cause, behavioral intentions to support an Indigenous initiative, and attitude toward removing statues of John A. Macdonald.

When I assessed group differences, I expected participants in the norm conditions compared to the no-norm condition to report more empathy, political solidarity, behavioral intentions, and attitude toward the issue. I also expected participants in the dynamic-norm condition to report higher scores compared to the static-norm condition. When examining mediation, I expected that norms would have positive direct effects on empathy, political solidarity, and behavioral intentions. I expected that norms may increase political solidarity through empathy, and that norms may increase behavioral intentions through empathy, and/or political solidarity. Even without any interventions, public opinion on John A. Macdonald statues may be changing, and reviewing the historical context may inform why some of these changes are occurring.

Commemorating a Colonizer

A growing understanding of John A. Macdonald's history may help explain the ongoing shift in public opinion. John A. Macdonald was key to creating federal policies aimed at assimilating Indigenous people into Canadian society (Truth and Reconciliation Commission of Canada, 2015a). Colonial policies such as residential schools and the sixties scoop legally removed Indigenous children from their families, placing them in the care of Christian churches or non-Indigenous homes (Truth and Reconciliation Commission, 2015). John A. Macdonald argued that residential schools were necessary in settling newly formed Canada. During a debate session, John A. MacDonald (1883) argued that residential schools would make Indigenous children less "savage" and that "[Indigenous] children should be withdrawn as much as possible from the parental influence..." Residential schools severed cultural and familial ties, ultimately

resulting in mass loss of life. John A. Macdonald is commemorated in statues for being Canada's first Prime Minister, but these statues gloss over his involvement in harming Indigenous people. These statues serve as a reminder of Canada's history and are not innocuous lumps of metal.

Public opinion is divided on addressing these statutes. Many Indigenous people call for the removal, replacement, or displacement of statues (Benjoe, 2020; Canadian Broadcasting Corporation [CBC], 2023; Gilmore, 2021; Stanley, 2020). Some in the Indigenous community feel that statues are "...painful reminder[s] of the trauma Indigenous families face" (Gilmore, 2021). Among non-Indigenous communities, public discourse remains unsettled over how to address statues and symbols commemorating John A. Macdonald (CBC, 2023). Some view their removal as excessive political correctness, driven by a small but influential group of "liberal elites" (Shayegh et al., 2025). From this perspective, figures like Macdonald are seen as being unfairly judged by contemporary values, and such actions are perceived as an imposition on shared public heritage. Another common narrative frames statue removal as an act of "erasing history" (Shayegh et al., 2025)—a view that conflates commemoration with historical record, and that may resonate with traditionalist ideology. Nonetheless, some of these statues have already been removed by various means. Some statues were removed or vandalized through collective action, some were quietly removed by local governments, while some were hidden by plywood (Belouizdad, 2024; CBC, 2023). One statue in Toronto was covered in May 2020, but as of July 2025 it was uncovered (Neilsen, 2025), highlighting how people in Canada are still debating whether to remove or maintain statues.

While debates continue across Canada about the fate of John A. Macdonald statues, Indigenous people urgently need support to recover from a colonial legacy. Removing statues updates what is perceived as an acceptable Canadian value and aids reconciliation efforts.

Indigenous people remain undervalued in Canada and continue to endure the consequences of colonial policies. Indigenous people continue to experience a lower quality of life compared to non-Indigenous people. Many Indigenous communities regularly lack clean drinking water (Mascarenhas, 2016), face greater food insecurity (Robin et al., 2022), and experience homelessness or inadequate housing (First Nations Regional Health Survey, 2012; Motz & Currie, 2019; Shapiro et al., 2021). Indigenous people in Canada have higher rates of diabetes, arthritis, and a higher infant mortality rate (Public Health Agency of Canada, 2018b). Updating statues might be one step towards meaningful change.

Support Needs to be Widespread

Indigenous people in Canada are about 5% of the total adult population (Government of Canada, 2023). It is unlikely that such a small portion of the population would recover from colonization alone. To gain momentum, non-Indigenous people must support Indigenous causes. Support for a cause can grow when people who do not belong to the group being harmed (i.e., outgroup members) endorse a cause that does not benefit their group directly. For example, non-Indigenous people might be more willing to rename a street or remove a statue if they think other non-Indigenous people also endorse those ideas (Czopp & Monteith, 2003; Kaiser & Miller, 2001; Mallett et al., 2008; Yeung et al., 2014). If outgroup members have greater social and economic power, their support for another group's cause can influence widespread change (Mallett et al., 2008; Scholz, 2008). Non-Indigenous people's support for change might be increased by feelings of political solidarity and behavioral intentions to support Indigenous causes, which might act through empathy. For my thesis, I considered political solidarity as: 1) allyship with Indigenous people, 2) a connection to Indigenous causes, and 3) a commitment to work with Indigenous people (Neufeld et al., 2019).

Increasing Political Solidarity

Education about an outgroup and their experiences can increase political solidarity. Neufeld and colleagues (2022) used critical historical knowledge to increase feelings of political solidarity toward an Indigenous cause. Non-Indigenous participants reported increased political solidarity towards Indigenous people after reading about how historic harms like residential schools caused the current systemic inequalities. Participants may have made a connection with history and its present-day impact on Indigenous people, resulting in higher political solidarity. Knowledge of current systemic racism also increases political solidarity (Efimoff, 2022). In this study, non-Indigenous participants watched an educational video about the systemic inequities within the child welfare system toward Indigenous families in Canada. Participants who watched the educational video on systemic racism reported significantly higher political solidarity compared to participants who did not watch any educational video. Additionally, if knowledge of systemic racism was combined with knowledge of individual racism, this yielded significantly higher political solidarity compared to education videos describing residential schools and the child welfare system. Both critical historical knowledge and systemic racism increased political solidarity. I will expand upon this and examine whether norms are also associated with increased feelings of political solidarity. Feelings of support may not be sufficient as widespread social change requires people to act on those feelings or behavioral intent to change.

Increasing Behavioral Intentions

Feelings of political solidarity need to translate into actions; one step towards behavior change is intending to change. Classic behavioral experiments suggest that the pressure to conform induces behavioral change. People conform when they change how they think or what they do to align with the apparent majority (Asch, 1956). A series of experiments in the 1950s

asked participants to complete a simple perceptual task—select the correct line (Asch, 1956). In the presence of a confederate who would intentionally select an incorrect line, around 75% of participants also selected the incorrect line. Participants said they conformed because they wanted to avoid disagreeing with the confederate, doubted their accuracy, feared public incompetence, and feared group disapproval. The pressure to conform even to contradictory norms may motivate behavioral intent to change. But does the pressure to conform apply to social justice issues? That is, are people sensitive to social pressure to conform with efforts to resolve systemic racism? Participants in the Asch experiments conformed to the norm in part to avoid social conflict. However, I do not want to encourage participants to avoid social conflict. In fact, I want to encourage participants to approach social issues to resolve them. Thus, I examined other methods to encourage willful behavioral intention change.

Another way to explain behavioral change is the theory of reasoned action (Fishbein & Ajzen, 2010). The theory of reasoned action posits that an individual's specific attitude toward performing the behavior predicts the behavior. Fishbein and Ajzen (2010) highlight that general attitudes are not strong predictors of behavior. Attitudes must also be specific to that behavior. Attitudes are influenced by “subjective norms,” or perceptions of what others might think about the behavior. Behavioral intentions that appear socially desirable may incur more support from outgroup members. Thus, the behavioral intentions I aim to increase would be specific to certain behaviors and appear subjectively normative. The theory of reasoned action explains why some behavior changes occur, and there are additional ways to leverage behavioral intentions.

Education can also be used to try to increase behavioral intentions. A meta-analysis of 65 studies investigated how education on diversity influenced behavioral intentions and found a small increase in behavioral intentions with diversity training ($d = .15$; Kalinoski et al., 2013).

Another meta-analysis of 260 studies across 40 years found that education had a moderate effect on behavioral intentions and skills acquisition ($g = .48$; Bezrukova et al., 2016). Efimoff and Starzyk (2023) conducted two longitudinal studies using educational interventions to increase behavioral intentions and behavioral support over time. Education had a direct effect on behavioral intentions, and education had indirect effects on behavior through behavioral intentions. They also investigated whether there was a more effective type of educational intervention: historical and current harms against Indigenous people, individual racism, and systemic racism. Participants who learned about systemic racism reported higher behavioral intentions. But do behavioral intentions translate into actual behavior change?

Results are mixed on whether behavioral intentions predict behavioral change. Efimoff and Starzyk (2023) also tracked participants' online behavior after measuring behavioral intentions. They offered an option to sign up for a mini-series of racism education videos, then tracked whether participants signed up and whether participants clicked the links to watch the mini-series. Participants who reported greater behavioral intentions were more likely to sign up for the mini-series; however, the same participants were no more likely to click on the links to watch the mini-series. Participants showed limited behavioral change when they reported higher behavioral intentions. Yet, this is some support that behavioral intentions may be a predictor of behavioral change. I included behavioral intentions in my model, but I was also interested in the psychological process of behavior change; one step in this process may be emotional.

Political Solidarity Increases through Empathy

Collective emotions like empathy might be part of the psychological process of increasing political solidarity and behavioral intentions. Collective emotions might be a motivator for supporting a social cause, as they tend to associate with support for socially

disadvantaged groups (Agostini & van Zomeren, 2021; Batson, 2023; Smith et al., 2002) and political solidarity (Fontaine, 2023; Neufeld et al., 2022). Empathy is commonly investigated for its associations with prosocial outcomes (Batson, 2023; Stocks et al., 2009; Yin & Wang, 2023). In Canada, knowledge of critical historical items about systemic discrimination was associated with increased empathy and political solidarity (Neufeld et al., 2022). Neufeld and colleagues (2022) also experimentally manipulated historical knowledge and found that non-Indigenous participants who learned about systemic discrimination reported higher empathy and political solidarity. I expected that higher empathy would also lead to higher political solidarity and behavioral intention scores in the current work. That is, participants who reported higher empathy toward Indigenous people would also report higher political solidarity and behavioral intentions. Thus far, I have reviewed mostly how education can increase political solidarity and behavioral intentions directly and through feelings of empathy. For my thesis, I tested whether norms increase empathy, political solidarity, and behavioral intentions because this is untested yet might complement education interventions.

Dynamic Norms

Although social norms can increase conformity, framing them as a growing trend can encourage behavior change. Compared to static-norms, dynamic-norms might be more effective because they might instill a desire *not to be left behind*. Social norms can influence group cohesiveness and political solidarity (Cialdini & Jacobson, 2021). Social norms have increased energy conservation (Schultz et al., 2007), water conservation (Lede et al., 2019), healthier eating habits (Robinson et al., 2014), and reduced binge drinking (Graupensperger et al., 2021; Neighbors et al., 2004). Social norms have been tested on many environmental and personal

behaviors, but fewer studies have examined how social norms can impact feelings and behaviors of support for social change.

Social norms can increase intergroup egalitarianism or a belief that others should be treated equally (Schuster et al., 2022). When workers in human resources read dynamic and static-norms, they increased salary offers to women or increased egalitarian behavior. However, when human resource workers read educational facts about the gender gap, salary offers did not increase. Social norms were more effective at increasing egalitarian behavior compared to education. The norm not only increased salary offers but reduced offers to men, triggering a gender bias reversal. In another study, Monheim and Ratcliff (2021) created posters with norm messages about accepting transgender people using the restroom that aligned with their identity. Cisgender college students who read supportive transgender messages reported greater acceptance of transgender people. This messaging did not appear to change cisgender students' attitudes, as their levels of transphobia remained the same as before. Although the students' attitudes did not change, norms may still be effective in encouraging feelings and intentions of support.

Sparkman and Walton (2019) investigated whether norms could encourage an outgroup of men to identify more strongly as feminists. Men read normative statements about other men identifying as feminists. In the dynamic-norm condition, participants read that men were increasing their feminist identities compared to the past. In the static-norm condition, participants read that a third of men identified as feminists. Men identified more as feminists in the dynamic-norm condition compared to the static-norm condition. In other words, men identified as being a feminist when they perceived that it was compatible with their own identity or when they believed being a feminist was important to others. If dynamic-norms can encourage men to align

their beliefs with an outgroup (women), then dynamic-norms might increase identification with another group's cause and possibly political solidarity.

Social norms, however, do not always encourage behavioral change. Schuster and colleagues (2022) proposed that when a norm promoting egalitarianism conveys that most people already endorse it, participants may perceive that the issue is resolved and lack motivation to change their behavior. Static-norms are more susceptible to demotivating behavior change, as it is uncertain what proportion of support is most motivating (Förster et al., 2005). However, previous studies have suggested using dynamic-norms to protect against this demotivating effect. Thus, I compared a static-norm to a dynamic-norm to examine whether one type of norm is more impactful than the other.

Regardless of whether they are static or dynamic, norms can be more impactful when they rely on credible sources (Tang et al., 2021). To lower my risk of a backfire effect, I used factual information for my norm statements. Although information about support for public statue removal is limited (Kielbiski, 2022; McHutchion, 2022; Shayegh et al., 2025; Stanley, 2020), I found a few polling articles asking people in Canada about support for statue removal. I selected a poll that asked non-Indigenous people if they supported removing John A. Macdonald statues from public spaces (Canseco, 2022). Both polls and research suggested that nearly a third of Canadians support statue removal (Canseco, 2022; Shayegh et al., 2025). I chose to use the same proportion of people calculated in the polling information.

This Study

In this study, I tested whether dynamic-norms increase empathy, political solidarity, behavioral intentions, and attitude toward statue removal. I described Macdonald's connection to creating residential schools in a passage (Public Health Agency of Canada, 2018a; Truth and

Reconciliation Commission of Canada, 2015b), as I wanted people to have a basic understanding of the issue. This seemed necessary given that many people in Canada cannot identify John A. Macdonald as Canada's first Prime Minister (Leger, 2022). The passage ended with either a static or dynamic-norm statement or with no-norm at all. To test if norms increase support and which norms generate more support, I randomly assigned participants to one of three conditions: no-norm (i.e., control), static-norm, and dynamic-norm. Participants in the no-norm condition read the passage, which contained no social norm messaging. Participants in the static-norm condition read the static-norm statement about the proportion of people in Canada who want to remove public statues of John A. Macdonald. Participants in the dynamic-norm condition read the dynamic-norm statement about how the proportion of people in Canada who want to remove public statues of John A. Macdonald is increasing. After the passage, participants completed the measures of empathy, political solidarity, behavioral intentions, and their attitude toward statue removal. I examined group differences, as well as whether empathy and political solidarity explained the relationship between norms and behavioral intentions. Lastly, I evaluated whether certain paths better explained the effects on behavioral intentions compared to other paths.

Hypotheses

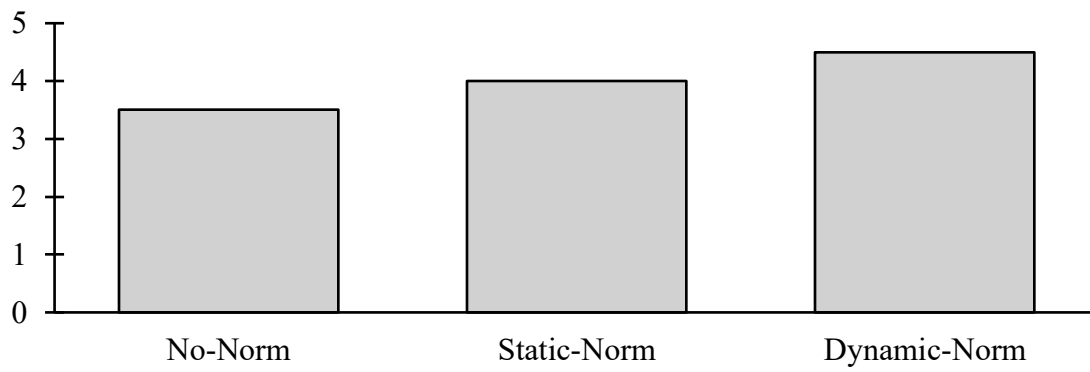
I pre-registered the study on the Open Science Framework (https://osf.io/uq6dh/?view_only=528c8cafb34446068ef8852a2bd193c3). I decided to test my hypotheses with three different models, which I have reported in separate tables and figures for clarity (see Tables 1-4).

I conducted a between-subjects, one-way ANOVA and followed up with pairwise comparisons to test for significant differences in empathy, political solidarity, behavioral intention, and attitude toward the issue scores across three conditions (no-norm, static, and

dynamic; as depicted in Figure 1). I expected empathy, political solidarity, behavioral intention, and attitude scores to significantly differ across the conditions (no-norm, static, or dynamic) summarized in Table 1.

Figure 1

Expected Pattern of ANOVA Results.



Note. Y-axis values could range from 1 to 5 for empathy, political solidarity, behavioral intentions, and attitude toward the issue. I expected the above pattern to "hold for all four variables and that the absolute values would be lower for behavioral intentions than the other three. I completed pairwise comparisons for each set of outcome measures.

Table 1*Analysis of Variance Hypotheses*

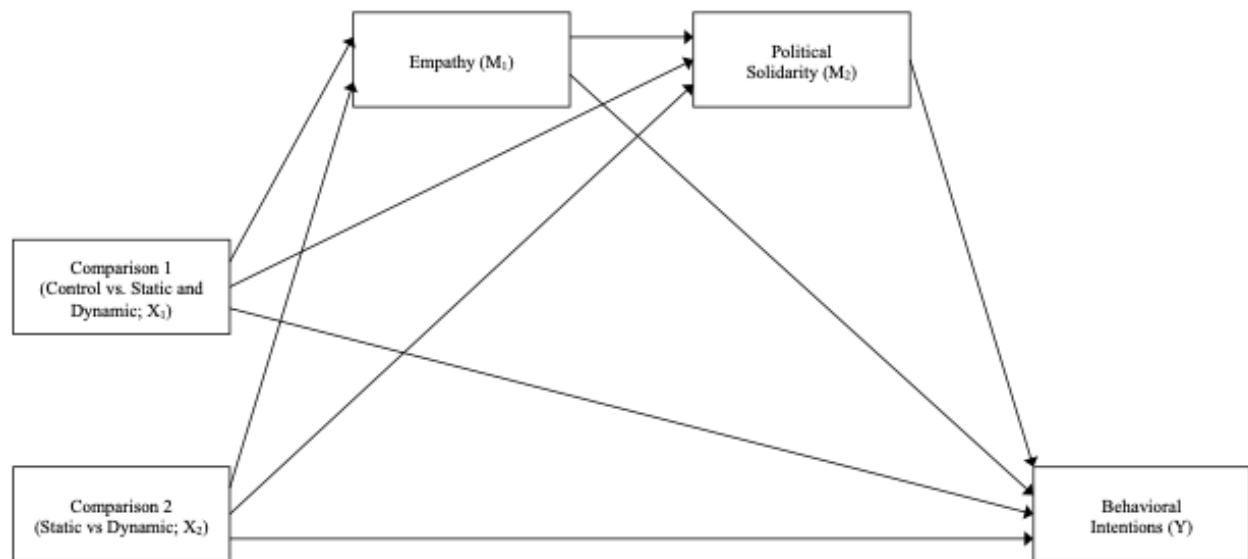
Number	Hypothesis
H1	All dependent variables would positively correlate.
H2	Significant Omnibus effect.
H3	Compared to no-norm, static-norm would report higher:
H3a	Empathy
H3b	Political solidarity
H3c	Behavioral intentions
H3d	Attitude toward the issue
H4	Compared to no-norm, dynamic-norm would report higher:
H4a	Empathy
H4b	Political solidarity
H4c	Behavioral intentions
H4d	Attitude toward the issue
H5	Compared to static-norm, dynamic-norm would report higher:
H5a	Empathy
H5b	Political solidarity
H5c	Behavioral intentions
H5d	Attitude toward the issue

For the mediation analysis, I represented the effects of my norm manipulation using Helmert coding. Comparison 1 represented the mean effect of the no-norm condition compared to the mean of both norms. This comparison tested whether norms are more effective at increasing support compared to no-norms. Comparison 2 represented the mean effect of the static-norm condition compared to the dynamic-norm condition. This comparison aimed to understand whether dynamic-norms are more effective at increasing support compared to static-norms. To further explore these relationships, I compared conditions separately, so I compared the no-norm to the static-norm, the no-norm to the dynamic-norm, and the static-norm to the dynamic-norm. I did not include attitude toward the issue in these models because it is a one-

item measure, and its placement came after behavioral intentions. However, if conceptualized, this variable would be an antecedent of behavioral intentions. In my main mediation analysis, the two exogenous predictors would be two comparisons among my conditions. I conducted mediation analyses on three models: a fully specified model (H6–H11b from Table 2; Figure 2), a partially mediated model (H12–H17b from Table 3; Figure 3), and a fully mediated model (H18–H23b from Table 4; Figure 4).

Figure 2

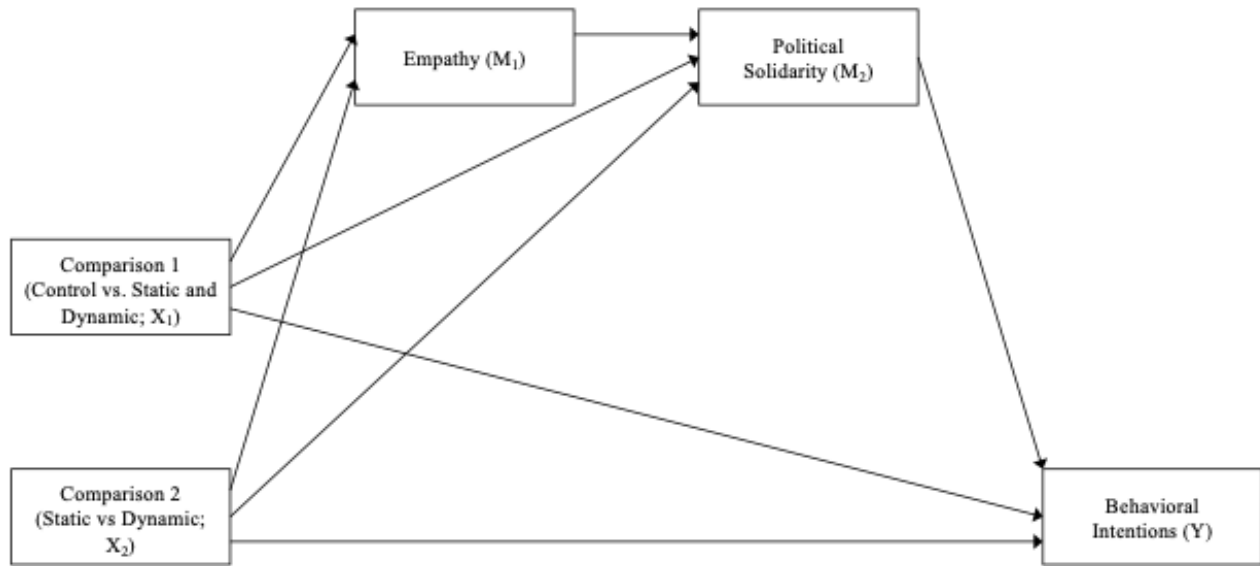
Fully Specified Mediation Model.



Note. I expected all direct and indirect effects to be positive.

Table 2*Hypotheses for the Fully Specified Model*

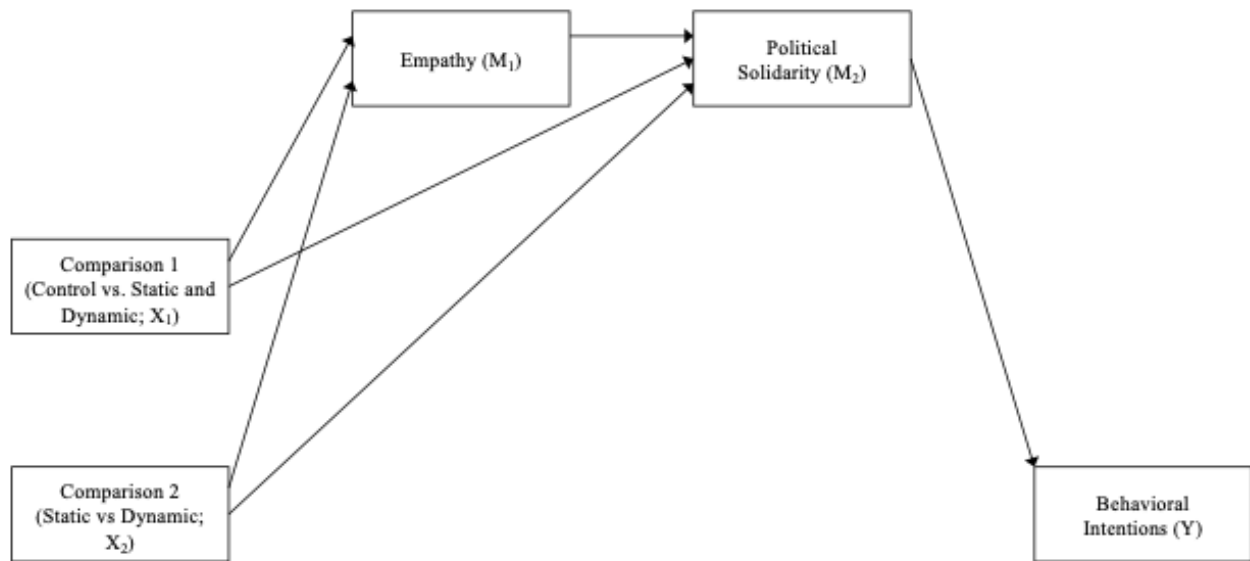
Number	Hypothesis
H6a	Comparison 1 would positively predict empathy.
H6b	Comparison 2 would positively predict empathy.
H6c	Comparison 1 would positively predict political solidarity.
H6d	Comparison 2 would positively predict political solidarity.
H6e	Comparison 1 would positively predict behavioral intentions.
H6f	Comparison 2 would positively predict behavioral intentions.
H7a	Empathy would positively predict political solidarity.
H7b	Empathy would positively predict behavioral intentions.
H8	Political solidarity would positively predict behavioral intentions.
H9a	The indirect effects of Comparison 1 on political solidarity through empathy would be positive and significant.
H9b	The indirect effects of Comparison 2 on political solidarity through empathy would be positive and significant.
H9a	The indirect effects of Comparison 1 on behavioral intentions through empathy would be positive and significant.
H9b	The indirect effects of Comparison 2 on behavioral intentions through empathy would be positive and significant.
H10a	The indirect effects of Comparison 1 on behavioral intentions through political solidarity would be positive and significant.
H10b	The indirect effects of Comparison 2 on behavioral intentions through political solidarity would be positive and significant.
H11a	The indirect effects of Comparison 1 on behavioral intentions through empathy then political solidarity would be positive and significant.
H11b	The indirect effects of Comparison 2 on behavioral intentions through empathy then political solidarity would be positive and significant.

Figure 3*Partially Mediated Model.*

Note. I expected all direct and indirect effects to be positive. I removed the direct effect from empathy to behavioral intentions in this model.

Table 3*Hypotheses for the Partially Mediated Model*

Number	Hypothesis
H12a	Comparison 1 would positively predict empathy.
H12b	Comparison 2 would positively predict empathy.
H12c	Comparison 1 would positively predict political solidarity.
H12d	Comparison 2 would positively predict political solidarity.
H12e	Comparison 1 would positively predict behavioral intentions.
H12f	Comparison 2 would positively predict behavioral intentions.
H13	Empathy would positively predict political solidarity.
H14	Political solidarity would positively predict behavioral intentions
H15a	The indirect effects of Comparison 1 on political solidarity through empathy would be positive and significant.
H15b	The indirect effects of Comparison 2 on political solidarity through empathy would be positive and significant.
H16a	The indirect effects of Comparison 1 on behavioral intentions through political solidarity would be positive and significant.
H16b	The indirect effects of Comparison 2 on behavioral intentions through political solidarity would be positive and significant.
H17a	The indirect effects of Comparison 1 on behavioral intentions through empathy then political solidarity would be positive and significant.
H17b	The indirect effects of Comparison 2 on behavioral intentions through empathy then political solidarity would be positive and significant.

Figure 4*Alternative Fully Mediated Model.*

Note. I expected all direct and indirect effects to be positive. I removed the direct effect from empathy to behavioral intentions and the direct effects from the comparisons to behavioral intentions in this model.

Table 4*Hypotheses for the Fully Mediated Model*

Number	Hypothesis
H18a	Comparison 1 would positively predict empathy.
H18b	Comparison 2 would positively predict empathy.
H18c	Comparison 1 would positively predict political solidarity.
H18d	Comparison 2 would positively predict political solidarity.
H19	Empathy would positively predict political solidarity.
H20	Political solidarity would positively predict behavioral intentions.
H21a	The indirect effects of Comparison 1 on political solidarity through empathy would be positive and significant.
H21b	The indirect effects of Comparison 2 on political solidarity through empathy would be positive and significant.
H22a	The indirect effects of Comparison 1 on behavioral intentions through political solidarity would be positive and significant.
H22b	The indirect effects of Comparison 2 on behavioral intentions through political solidarity would be positive and significant.
H23a	The indirect effects of Comparison 1 on behavioral intentions through empathy then political solidarity would be positive and significant.
H23b	The indirect effects of Comparison 2 on behavioral intentions through empathy then political solidarity would be positive and significant.

Method**Participants**

Undergraduate students were eligible to participate if they were 18 years or older, Canadian citizens by birth or naturalization, and currently living in Canada. I excluded these participants because I was testing social norms in a Canadian context, which would not account for social norms that non-Canadian citizens have been immersed in. Participants who identified as Indigenous were ineligible for this study. I excluded participants who reported at least one Indigenous ethnicity to focus this study on increasing the social support of outgroup members and to eliminate ingroup favoritism responses (Hamley et al., 2020). I excluded participants for various other reasons, namely, those who indicated they did not respond honestly, withdrew their

consent, did not consent to me using their partial data, or opted to leave the survey before the manipulation. I also excluded duplicate participants and retained their responses if they completed the manipulation and composite variables. I excluded duplicate responses if the participant was exposed to the manipulation statement twice before responding to the dependent measures, as this double exposure would introduce a confound. I excluded participants who spent $> |2.5|$ standard deviations to complete the survey, and participants who failed the manipulation checks. I excluded $n = 81$ participants for various reasons, detailed further in the results section.

I recruited 336 participants and retained 255 for the main analyses. My sample size was based on past findings and a GPower analysis. Sparkman and Walton (2019) found an effect size of $d = .29$ when they compared a dynamic and static-norm, and an effect size of $d = .25$ when they compared the static-norm and no-norm conditions. In specifying the GPower analysis, I specified an “ANOVA: Fixed effect, omnibus, one-way” model and estimated $d = .25$. I also set alpha to .05 and power to .95. GPower indicated I should recruit 252 participants. I added extra participants to account for attrition and to protect against type II errors.

Procedure

I recruited participants from the University of Manitoba SONA participant pool, which offers credit to first-year psychology students in exchange for survey responses. Eligible participants reviewed the information and consent form. I asked participants if they were willing to complete the survey honestly and without taking breaks; if not, I then asked whether they wanted to exit the survey and return to it later. Next, participants read instructions to reduce socially desirable responses. I then asked all participants to read a historical passage about the role that John A. Macdonald, Canada’s first Prime Minister, had in the residential school system,

which I explain in more detail later. I programmed Qualtrics to randomly assign participants to one of three norm conditions: a no-norm condition, a static-norm condition, or a dynamic-norm condition. Participants randomly assigned to the no-norm condition were asked to read a historical passage and then proceed to the dependent measures. I asked participants randomly assigned to the static or dynamic-norm conditions to read a manipulation statement after reading the same historical passage. Next, I reminded participants about the group and the issue that my questions were asking about. Then, participants completed the dependent measures of empathy, political solidarity, behavioral intentions, behavioral intentions effort, and attitude toward the issue. Following the dependent measures, participants completed a social desirability measure, demographic questions, a political orientation measure, and quality control questions. Lastly, participants read the debriefing and exited the survey.

Materials

Commitment to Respond Conscientiously

I asked all participants to agree to complete the survey conscientiously. I asked participants if they were willing to carefully read the materials and if they could focus on the study now (Clifford & Jerit, 2015, 2016). Participants responded “yes” or “no,” and I excluded participants who responded “yes” to wanting to exit the survey.

Instructions to Decrease Socially Desirable Responding

Participants read the following paragraph to encourage honest responses:

Thank you so much for agreeing to take part in this study!

This research takes a lot of time and is part of my master’s thesis. Before you start the survey, I just want to say one important thing: **There are no right or wrong answers to the questions you’ll see.** So, please respond honestly. If some questions make you feel

uncomfortable, keep in mind that people have good and bad things to say about many things. **Remember that I will keep your responses confidential.**

Passage Explaining a Colonial Symbol

All participants read the half-page passage describing how John A. Macdonald, Canada's first Prime Minister, supported residential schools, knowing they were underfunded and led to fatalities (see Appendix A). I decided that all participants should read this passage to ensure that participants in all conditions have some basic understanding of the issue. One consequence of this procedural choice is that participants in all groups may have responded more positively compared to not reading a passage because even brief educational interventions can increase political solidarity (Efimoff & Starzyk, 2023; Neufeld et al., 2022). However, I deemed this passage necessary, given that attitudes predict behavior better when people provide ratings of something they have some knowledge of (Ajzen, 1991; Ajzen et al., 2011). I then randomly assigned participants using Qualtrics to one of the three conditions.

No-Norm Condition. Participants assigned to the no-norm condition read the passage explaining the colonial symbol and advanced directly to the dependent measures.

Static-Norm Condition. Participants assigned to the static-norm condition read a statement about the proportion of people in Canada expressing support for removing statues of Canada's first Prime Minister at one point in time (i.e., I showed no trends). On a separate page, this statement read:

Some people in Canada think statues of John A. Macdonald, Canada's first Prime Minister, should be removed from public view. Specifically, a national 2022 poll shows that 32% of people in Canada think statues of John A. Macdonald, Canada's first Prime Minister, should be removed from public view.

Like the manipulation statement in Sparkman and Walton's study 3 (2019), I asked participants an open-ended question, "Why do you think this is?" I did not analyze the responses to the open-ended question; this was to encourage reflection on the manipulation statement. See full statements in Appendix B.

Dynamic-Norm Condition. Participants assigned to the dynamic-norm condition read a statement about the proportion of people in Canada expressing support for removing statues of Canada's first Prime Minister as an increasing trend. On a separate page, this statement read:

The number of people in Canada who think statues of John A. Macdonald, Canada's first Prime Minister, should be removed from public view is increasing. National polls show that this is because some people in Canada who did not support statue removal have changed and now do. Now over 32% of people in Canada think statues of John A.

Macdonald, Canada's first Prime Minister, should be removed from public view.

I asked participants an open-ended question, "Why do you think this is?" Again, I did not analyze the responses to the open-ended question; this is to encourage reflection on the manipulation statement (Appendix B).

I used Helmert coding to compare the three categorical variables. Helmert coding allowed me to compare each level of my categorical variables (i.e., the norm conditions) to the mean of subsequent levels in the mediation models (Hayes, 2018; Hayes & Preacher, 2014; Table 5). I chose this Helmert coding over dummy coding or indicator coding to preserve ordinal categories.

Table 5*Helmert Codes to Compare Conditions*

Variable	No-Norm	Static-Norm	Dynamic-Norm
Comparison 1	-2/3	1/3	1/3
Comparison 2	0	-1/2	1/2

Statement of Issue and Group

I restated the issue and the social group I wanted participants to consider for the remainder of the survey. Participants read:

For the next few pages, you will answer questions about another group and an issue the group cares about – their “cause.” It is ok if you do not agree with the group or the issue/cause.

The group you will answer questions about is **Indigenous people**.

The issue/cause you will reflect on is the **removal of public statues of John A. Macdonald**.

I repeated the issue and group before each dependent measure.

Measures

Dependent measures used a five-point Likert-type scale unless otherwise specified, with the following anchors: 1 (*strongly disagree*), 2 (*disagree*), 3 (*neither agree nor disagree*), 4 (*agree*), and 5 (*strongly agree*), except for the empathy measure, as I explain below. Participants did not see the numbers, but I used the numbers to code responses and later calculated composite scores for each measure. I also randomized the order of items displayed. I created a composite score for each multi-item scale by calculating the mean.

Empathy

I measured feelings of empathy using Batson et al.'s (1997) measure by asking participants how much they felt “sympathetic,” “softhearted,” “warm,” “compassionate,” “tender,” and “moved”. Participants read the following instructions: “Using the scale below, please indicate the extent that you are feeling each of the following right now when you think about Indigenous peoples’ experiences within Canada.” I measured empathy with a six-item scale (Batson et al., 1997). Participants rated the extent to which they felt each item on a five-point Likert scale with the anchors 1 (*not at all*), 2 (*slightly*), 3 (*somewhat*), 4 (*very much*), and 5 (*extremely*). Fontaine (2023) found these items demonstrated excellent internal consistency (mean $\alpha = .93$). Higher scores indicated greater feelings of empathy toward Indigenous people.

Political Solidarity

I measured participants’ levels of political solidarity with Indigenous peoples in Canada using the nine-item Political Solidarity Measure (Neufeld et al., 2019). The original validation study showed that the Political Solidarity Measure is positively associated with collective action intentions and unassociated with theoretically irrelevant constructs, namely impression management and personal acquaintance; stable over three to six months; and internally consistent ($\alpha = .92$; Neufeld et al., 2019).

The Political Solidarity Measure consists of three subscales: allyship, cause connection, and social change commitment. Each subscale has three items, and I showed each subscale on a separate page. The original item wording follows Table 12 in Neufeld et al. (2019) for items 1–3, 7, and 9. I adjusted the wording for items 4, 5, 6, and 8 to make them more concise. Participants responded to a five-point Likert scale about their feelings of political solidarity toward public statue removal. Higher scores indicated higher levels of political solidarity.

Behavioral Intentions

I measured the participants' behavioral intentions with 10 items, co-developed by members of the Social Justice Laboratory this year (Starzyk et al., 2024). Participants read:

There are many ways to support removing public statues of John A. Macdonald. I have listed a few ways below and will provide some information on how you could take such action later, in case that might be helpful. For now, please let us know what you intend to do—in the next year.

Participants responded to items on a five-point Likert scale about behavioral intentions to support statue removals.² I assessed the factor structure of the 10 items using a factor analysis. I will go into further detail about these decisions in the results. With the items I retained, I calculated a composite of behavioral intentions by taking the mean of the remaining items, with higher scores indicating greater behavioral intentions to participate in an Indigenous cause. To assess the internal consistency of this scale, I calculated omega values.

To test the convergent validity of this newly developed measure, the Social Justice Laboratory also co-created a behavioral intentions effort measure. It included the same 10 items and asked participants how easy or difficult they thought each of the behaviors would be to complete. Participants rated items on a five-point Likert scale. I included the behavioral intentions effort measure to validate the recently created behavioral intentions measure and factor structure. I did not use the behavioral intentions effort measure in the main analyses.

Attitude Toward the Issue

I also asked participants to indicate their attitude toward the issue of public statue removal (Sparkman & Walton, 2019). I asked participants to indicate how much they agreed with

² I am not disclosing items in the thesis as I will assess the measure in a separate project. I do not want items released into the public domain until they are published.

the statement on a five-point Likert scale, “Statues of John A. Macdonald should be removed from public view.”

Social Desirability

To account for possible artificially positive responses, I measured social desirability. Participants responded “true” or “false” to 13 items (Crowne & Marlowe, 1960; Reynolds, 1982). I scored the items (5, 7, 9, 10, and 13) one point for each “*true*” response. I scored the items (1, 2, 3, 4, 6, 8, 11, and 12) one point for each “*false*” response. I took the sum for each participant of a score of 0-13, with higher scores indicating more socially desirable responding. Participants with especially high scores may have obtained them by exaggerating their desirable qualities and minimizing their undesirable ones.

Demographic Measures

Following the main measures, I asked participants to complete six demographic items adapted from the 2021 Canadian Census (Statistics Canada, 2022). I asked participants to report their age in years, current gender (Cameron & Stinson, 2019), and ethnic/racial background (Statistics Canada, 2022). I asked participants about their Canadian status and if they currently live in Canada. I also asked participants about their annual household income. Some demographics are known to be correlated with psychological results; thus, the American Psychological Association (APA 7th) recommends collecting at least basic demographics to understand the generalizability of each study’s findings (Trafimow et al., 2023).

Political Orientation

At the end of the demographic items, I included a measure of political orientation. Political solidarity can negatively correlate with right-wing political orientation, meaning that increased political solidarity is associated with more left-leaning orientations (Neufeld et al.,

2019). Thus, to help explain trends within my data, I asked participants about their political orientation using Pratto et al.'s (1994) political orientation measure. Participants indicated their stance on three social issues. Responses ranged from 1 (*very left-wing*), 2 (*left-wing*), 3 (*slightly left-wing*), 4 (*middle of the road*), 5 (*slightly right-wing*), 6 (*right-wing*), and 7 (*very right-wing*). Higher scores indicated stronger right-wing political orientation.

Quality Control Questions

After completing the demographic items, I asked participants two quality control questions and two to three manipulation check questions (Appendix C). For a quality control check, I asked participants to respond “yes” or “no” to two questions about completing the survey honestly and without taking a break. For a manipulation check, I asked participants to respond “yes” or “no” to two to three items. For the first item, I asked whether they read a passage about John A. Macdonald and residential schools. For the second, I asked participants if they read a statement about a percentage of people in Canada who support public statue removal. If participants responded yes to the second item, I asked participants a third question. For the third item, I asked if they read a statement that the percentage of people in Canada who support public statue removal is increasing. I excluded participants in the no-norm condition who indicated that they did not read a passage about John A. Macdonald and residential schools. I excluded participants in the static-norm condition who indicated they did not read about a percentage of people who support statue removal. Finally, I excluded participants in the dynamic-norm condition who indicated they did not read that support for statue removal is increasing.

Analytic Strategy

I screened data for my eligibility criteria, quality control checks, and manipulation checks. I completed a missing data analysis by calculating the proportion of missing responses and following that with a Little MCAR test to inform how I would handle missing data. I determined the number of univariate outliers present by calculating the standardized z -scores that were greater than $|2.5|$. I used the Mahalanobis distance to assess multivariate outliers and compared these distances to a Chi-square distribution with two degrees of freedom, and considered p -values $< .001$ as outliers. I assessed composite variables for normality. I took the ratio of skewness and kurtosis compared to their standard errors, where I considered ratios greater than $|2|$ to be non-normally distributed. I used Levene's test to examine homogeneity of variances across my conditions; for this index, a nonsignificant p -value indicates homogeneity. I visually examined scatterplots to assess linearity. I examined standardized residual plots for signs of homoscedasticity. I also assessed multicollinearity with VIF and Tolerance values. I considered there would be no issue with multicollinearity if VIF was less than 5, and tolerance values $> .10$ (Kim, 2019). I used Spearman's rho correlations between variables if they were non-normally distributed, to examine bivariate associations. For the newly created behavioral intentions measure, I assessed the factor structure using an exploratory factor analysis with an oblimin rotation and maximum likelihood extraction. I decided to retain items that showed $> .70$ factor loadings and considered removing items with $< .70$. I compared variance and assessed for lower variance values compared to other items. I also assessed the commonality values to be less than 1.5. I detail the exact decisions I made with the factor analysis in the results.

To examine whether norms increased feelings and intentions of support, I used a one-way between-subjects ANOVA to test for mean differences in norms on empathy, political solidarity,

behavioral intentions, and attitude toward the issue. I also used mediation analysis and Helmert coding to explore whether the effects on behavioral intentions were mediated by empathy and/or political solidarity. I conducted a path analysis to investigate whether dynamic or static-norms are more effective at increasing feelings and intentions of support. I used SPSS (version 30) with the PROCESS macro (Hayes, 2018) and RStudio with the *nanian* and *lavaan* packages.

I used the standard $p < .05$ criteria for determining statistical significance of correlations and mediation effects. As p -values can be problematic and do not indicate the size of an effect, I focused on interpreting measures of effect size. Although it is common practice to use Cohen's (1988) recommendations to interpret effect sizes, I used Lovakov and Agadullina's (2021) updated guidelines (small: $d = .15$, medium: $d = .36$, large: $d = .65$) based on their meta-analysis of social psychology studies. I also reported and interpreted 95% confidence intervals. I used Gignac and Szodorai's (2016) recommendations to interpret correlation effect size (small: $r = .1$, medium: $r = .2$, large: $r = .3$). Additionally, I interpreted beta coefficients and 95% confidence intervals for mediation effects. I reported the variance accounted for (R -squared values).

Results

Data Screening

I computed total scores for all composite variables using the screened data (see Table 6 for reliability statistics; all values were greater than .70). Before exclusions, 336 participants completed the survey. There were no participants who reported their age as younger than 18. I excluded participants who reported being a non-Canadian citizen by birth or naturalization ($n = 2$), not currently residing in Canada ($n = 6$), and identified as Indigenous ($n = 6$). Originally, I intended to exclude participants who indicated that they did not take a break or answer honestly. Many participants indicated that they took a break from the survey, and although this was a

threat to the validity of my manipulation, I would have lost much of the sample size ($n = 34$) and subsequent statistical power. I decided that the greater threat to validity was dishonest responses. I excluded those who indicated that they did not respond honestly ($n = 3$), withdrew their consent ($n = 23$), did not consent to me using their partial data ($n = 14$), or opted to leave the survey before the manipulation ($n = 2$). I also excluded duplicate participants ($n = 5$), those who spent $> |2.5|$ standard deviations to complete the survey ($n = 3$), and participants who failed the manipulation checks ($n = 31$). Participants could be excluded for multiple reasons, and I had a total of $n = 81$ exclusions, which left a total sample of $N = 255$.

A small proportion of my data was missing from the sample (i.e., $< 1\%$ missing), meaning missing data may have a minimal effect on the results (Enders & Bandalos, 2001). I then assessed missing data for a detectable pattern of missingness. First, I visualized the raw data for consistent missingness (e.g., responses to one item are consistently missing; Enders, 2022). Visually, I did not detect a consistent pattern of missing data. Since there was no visual pattern of missingness, I assessed the missingness using a Little MCAR test. This test assumes the data is missing completely at random, where a high p-value suggests that no systematic relationship with the missing values. The Little MCAR test was non-significant ($p = .72$), so I assumed my data was missing at random (MAR) as missing completely at random is less realistic (Enders, 2022). From this finding, I assumed my data was MAR, and I used Maximum Likelihood Estimation to identify the population parameters most likely responsible for the sample data and log transform scores to calculate the value of missing values.

After screening data for exclusions and outliers, I found outliers for empathy ($n = 7$), political solidarity ($n = 4$), and behavioral intentions ($n = 8$). Notably, all outliers were for extremely low scores, indicating lower feelings of empathy, political solidarity, and behavioral

intentions. Political orientation also had 5 outliers for extreme right-wing political orientation scores. Seventeen participants had extreme outliers in at least one measure, and five participants had extreme outliers for more than one measure. Outliers made up close to ~3% of my total sample, potentially influencing the results (Meyers et al., 2017). Additionally, outliers in political ideology might shape outcomes of politically polarized topics (Kalmoe, 2020). To address the influence of outliers, I repeated my analyses with and without outliers to account for the potential influence of extreme responses. My sample was $N = 234$ without outliers and exclusions. To address the concern that outliers would influence my results, I will review one key difference and summarize the rest in the supplemental materials. I used the Mahalanobis distance compared to a Chi-square distribution to assess for multivariate outliers, and I found none of them.

Table 6*Correlations Among Variables*

Variable	EMP	PSM	BI	ATT	SD	PO
Empathy (EMP)	.92	.67**	.66**	.50**	.05	-.30**
Political Solidarity Measure (PSM)		.90	.72**	.62**	.05	-.39**
Behavioral Intentions (BI)			.91	.53**	.10	-.33**
Attitude Toward Issue (ATT)				--	-.02	-.38**
Social Desirability (SD)					.70	.15*
Political Orientation (PO)						.87

Note. I used Spearman's rho correlations to account for non-normally distributed measures. Internal consistency omega for composite variables is in italics on the diagonal. There is no internal consistency value for the attitude toward the issue measure, as it consisted of a single item. The sample size for all variables was $N = 255$ except political orientation, which was $N = 250$. ** $p < .01$ (2-tailed) and * $p < .05$ (2-tailed).

I assessed composite variables for normality. All composites showed moderate non-normal distributions based on their higher skewness ratios (Table 7; West et al., 1995). Levene's test returned all $p > .05$, indicating homogeneity of variances across my conditions. I visually examined scatterplots to assess linearity, which appeared to be linear. I examined standardized residual plots for signs of homoscedasticity, which appeared to be so. I also assessed multicollinearity with VIF and Tolerance values. VIF values were below 5 for each measure, and Tolerance values were all greater than .70, indicating no issues with multicollinearity.

I conducted Spearman rho correlations between variables to investigate for any bivariate associations. These correlations uncovered a small negative correlation between political orientation and the no-norm condition, but political orientation was not associated with the static or dynamic-norm conditions.

Table 7*Descriptive Statistics of Composite Variables*

Variable	Range	Skew	SE_{Skew}	Kurtosis	$SE_{\text{Kurt.}}$
Empathy	1-5	-.57	.15	.35	.30
Political Solidarity Measure	1.33-5	-.39	.15	.04	.30
Behavioral Intentions	1-5	-.64	.15	.40	.30
Attitude Toward the Issue	1-5	-.61	.15	-.02	.30

Note. $N = 255$ for all conditions. All variables are not normally distributed; the ratios of skew and by their standard error $> |2|$, variables were not kurtotic based on this criterion.

Participants

Participants primarily reported their ethnicity/race as White ($n = 155$, 61%). Of these participants, 141 (55%) only selected White as their ethnicity/race. There were 105 (41%) who I coded as racialized and, of these participants, 39 (15%) were Filipino, 20 (8%) were South Asian, 19 (8%) were Black, 7 (3%) were Latin American, 7 (3%) were West Asian, 6 (2%) were Arab, 6 (2%) were Southeast Asian, 5 (2%) were Chinese, 4 (2%) were Korean, and 11 (4%) were identified with other backgrounds such as specific areas of Africa or Jewish. Genders had similar proportions across the three norm conditions (Table 8).

Table 8*Participant Demographics*

Variable	Total $N = 255$	No-Norm $n = 85$	Static-Norm $n = 87$	Dynamic-Norm $n = 83$
Age	19.98 (5.10)	21.04 (7.73)	19.16 (2.75)	19.74 (3.11)
Gender				
Women	154 (60%)	55 (65%)	52 (60%)	47 (57%)
Men	95 (37%)	27 (32%)	33 (38%)	35 (42%)
Other	6 (2%)	3 (4%)	2 (2%)	1 (1%)
Income				
\$0-\$49,999	42 (17%)	16 (19%)	17 (20%)	14 (17%)
\$50,000-\$99,999	73 (29%)	30 (35%)	24 (28%)	28 (34%)

\$100,000- \$149,999	42 (17%)	16 (19%)	15 (17%)	12 (15%)
\$150,000- \$199,999	35 (14%)	8 (9%)	11 (13%)	16 (19%)
\$200,000- \$250,000	29 (11%)	10 (12%)	10 (12%)	9 (11%)
Status in Canada				
Citizen at birth	183 (72%)	59 (69%)	66 (76%)	58 (70%)
Citizen by naturalization	72 (28%)	26 (31%)	21 (24%)	25 (30%)

Note. I reported age as $M(SD)$. Income, gender, and Canadian status are reported as a proportion (%). Percentages may not equal 100% because of rounding or declining to respond.

Behavioral Intentions Composite

I refined the behavioral intentions measure to eight items by completing parallel and exploratory factor analyses. Bartlett's Test of Sphericity was significant, $\chi^2(45) = 2263.08$, $p < .01$, indicating sufficient correlations for factor extraction. The Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy was .93, suggesting that the data were highly suitable for factor analysis (Kaiser, 1974). A parallel analysis suggested two factors. I conducted an exploratory factor analysis using Maximum Likelihood Estimation, which indicated a two-factor solution. I used a direct oblimin rotation with $\delta = 0$ to allow correlation between factors, as I would theoretically expect for behavioral intentions. Items loaded onto two correlated factors (see Table 9), explaining 65% of the total variance.

Table 9*Standardized Factor Loadings for the Behavioral Intentions Measure*

Item	Factor 1	Factor 2
Item 8	.87	.08
Item 6	.85	.05
Item 1	.77	.08
Item 10	.67	.16
Item 4	.61	.19
Item 9	.09	.97
Item 7	.01	.78
Item 3	.08	.69
Item 2	.19	.64
Item 5	.28	.55

Note. I used an exploratory factor analysis for a two-factor solution with Maximum Likelihood estimation and an oblimin rotation, $\delta = 0$. I dropped bolded items from the final measure.

I examined factor loadings where the lowest values might indicate possible cross-loading or overlap of the factors. Three items had factor loadings $< .70$, so I considered these for possible cross-loading. I chose to drop items 2 and 4 from my final behavioral intention measure. I removed item 4 because it showed higher cross-loading, variance, and commonality values compared to other items. I chose to remove item 2 over item 5 because item 2 was longer and more complex, even though it had a marginally higher factor loading and performed similarly to item 5. I interpreted Factor 1 as “More Effortful,” while I interpreted Factor 2 as “Less Effortful,” Behavioral Intentions. The correlation between the two factors was .71, suggesting a high overlap in their construct domains. The final model fit indices improved when I removed the two items. When I retained all 10 items, model fit indices were: CFI = .98, RMSEA = .07 (95% CI .05, .09), SRMR = .02. When I removed the two items, model fit improved: CFI = .99, RMSEA = .07 (95% CI .04, .10), SRMR = .02.

Main Analyses

I had three main objectives in this study. First, to test whether social norms increase empathy, political solidarity, behavioral intentions, or attitude toward an Indigenous cause. Second, to examine whether dynamic-norms produce stronger feelings of empathy, political solidarity, behavioral intentions, and attitude toward the issue compared to static-norms. Third, I wanted to assess whether empathy or political solidarity mediated the relationship between norms and behavioral intentions.

Correlations

My first hypothesis (refer to Table 1) was that all dependent variables would positively correlate, which was fully supported (see Table 6 for correlations). Empathy, political solidarity, and behavioral intentions significantly and positively correlated with each other as expected, which aligned with prior evidence (see Efimoff, 2022; Neufeld et al., 2022). Additionally, attitude toward the issue was positively associated with empathy, political solidarity, and behavioral intentions. I did not pre-register hypotheses for social desirability and political orientation. Social desirability recorded overly positive responses, and political orientation provided context for my sample. I expected that social desirability would not be associated with other variables, which it was not, except for a positive association with political orientation. I expected political orientation to be negatively associated with all variables. It was negatively correlated with empathy, political solidarity, behavioral intentions, and attitude toward the issue, but positively associated with social desirability.

Analysis of Variance (ANOVA)

I used a one-way ANOVA to test whether there was a significant difference in empathy, political solidarity, behavioral intentions, and attitude toward the issue across the three

conditions. I hypothesized that there would be a significant omnibus effect for each of the variables (H2). Across the three conditions, there was no significant mean difference in empathy, political solidarity, behavioral intentions, and attitude toward the issue (Table 10).

Pairwise comparisons were also not significantly different and did not lend support for my next several hypotheses. There was no difference in dependent variables between the no-norm and the static-norm conditions (H3a-d), between the no-norm and the dynamic-norm conditions (H4a-d), and between the static-norm and the dynamic-norm conditions (H5a-d). However, when I removed outliers, attitude toward the issue significantly differed across conditions $F(2, 231) = 4.42, p = .01$. Attitude toward the issue increased in the dynamic condition ($M = 3.99, SD = .11$) compared to the control condition ($M = 3.53, SD = .11$), with a mean difference of .46.

I also tested whether social desirability and political orientation differed across conditions. Social desirability did not, but political orientation significantly differed across conditions (Table 10). This was an unexpected variation. Typically, political orientation is considered an individual difference, where a short-term manipulation is unlikely to influence responses (Pratto et al., 1994; Zwicker et al., 2020) and thus is measured near the end of the survey, as I did. However, I could not rule out political orientation as a confound because the manipulation may have influenced how participants reported their orientations. Political orientations were reported significantly more right-wing in the static-norm condition compared to the no-norm condition, more right-wing in the dynamic-norm condition compared to the no-norm, and there was no significant difference between the static and dynamic-norm conditions. I continue to explore these potential effects in the exploratory analyses.

Table 10*One-Way ANOVA for Dependent Variables by Condition*

Measure	Condition						ANOVA		
	No-Norm (<i>n</i> = 85)		Static (<i>n</i> = 87)		Dynamic (<i>n</i> = 83)		<i>F</i> (2, 252)	<i>p</i>	η^2_p
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Empathy	3.48 _a	0.86	3.49 _a	0.90	3.30 _a	0.91	1.12	.33	.01
Political Solidarity Measure	3.51 _a	0.66	3.55 _a	0.71	3.52 _a	0.74	0.08	.92	< .01
Behavioral Intentions	3.23 _a	0.85	3.32 _a	0.77	3.13 _a	0.90	1.06	.35	.01
Attitude Toward Issue	3.52 _a	1.10	3.66 _a	1.02	3.80 _a	1.06	1.44	.24	.01
Political Orientation	3.37 _a	1.31	3.78 _b	1.23	3.85 _{bc}	1.26	3.42*	.03	.03
Social Desirability	6.04 _a	2.89	6.48 _a	2.88	6.25 _a	2.93	0.51	.60	<.01

Note. Means in each row with the same subscript do not significantly differ from each other ($p = .05$). * $p < .05$ (2-tailed)

Mediation Analysis

I continued with the mediation analysis even though the ANOVA results did not show a significant difference in means across conditions for the dependent variables. The mediation analysis allowed me to assess both direct and indirect effects between variables, even though the ANOVA yielded null findings. For the mediation analysis, I focused on two comparisons: Comparison 1 tested whether norms are more effective at increasing support compared to no-norms, and Comparison 2 tested whether dynamic-norms are more effective at increasing support compared to static-norms. I used these two comparisons in three mediation models, a fully specified model (H6–H11b from Table 2; Figure 2), a partially mediated model (H12–H17b from Table 3; Figure 3), and a fully mediated model (H18–H23b from Table 4; Figure 4).

Fully Specified Model. For the fully specified model (Table 11), Comparisons 1 or 2 were not directly related to the empathy, political solidarity, or behavioral intentions. As hypothesized, empathy had a medium direct effect on political solidarity, and empathy had a small direct effect on behavioral intentions, supporting H7a and H7b, respectively. Political solidarity also had a medium direct effect on behavioral intentions, lending evidence to H8. However, I was mostly interested in the effect of norms within the model, of which the direct effects from norms were non-significant. Additionally, the total effects were not significant, further suggesting that social norms did not have a meaningful overall impact on behavioral intentions or the mediators of empathy and political solidarity. Lastly, Comparisons 1 and 2 were also not indirectly related to political solidarity or behavioral intentions through empathy by any combination of mediators (see Table 11 for full findings).

Table 11*Mediation Analysis for the Fully Specified Model*

Antecedent	Consequent	Direct Effects					
		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI	<i>R</i> ²
Comparison 1 (<i>X</i> ₁)	Empathy (<i>M</i> ₁)	-.08	.12	-0.71	.48	-.32, .15	.01
	Political Solidarity (<i>M</i> ₂)	.08	.07	1.15	.25	-.05, .20	.51
	Behavioral Intentions (<i>Y</i>)	.00	.07	0.01	.99	-.13, .14	.63
Comparison 2 (<i>X</i> ₂)	Empathy (<i>M</i> ₁)	-.18	.14	-1.33	.19	-.45, .09	.01
	Political Solidarity (<i>M</i> ₂)	.07	.08	0.97	.33	-.08, .22	.51
	Behavioral Intentions (<i>Y</i>)	-.11	.08	-1.42	.16	-.27, .04	.63
Empathy (<i>M</i> ₁)	Political Solidarity (<i>M</i> ₂)	.57	.03	16.30	< .01	.50, .64	.51
	Behavioral Intentions (<i>Y</i>)	.31	.05	5.98	< .01	.21, .42	.63
Political Solidarity (<i>M</i> ₂)	Behavioral Intentions (<i>Y</i>)	.63	.07	9.45	< .01	.50, .76	.63
Total effect							
Comparison 1 (<i>X</i> ₁)	Behavioral Intentions (<i>Y</i>)	-.01	.11	-0.08	.94	-.23, .21	.01
Comparison 2 (<i>X</i> ₂)	Behavioral Intentions (<i>Y</i>)	-.19	.13	-1.45	.15	-.44, .07	.01
Indirect effects							
		Effect	Boot <i>SE</i>	95% CI			
Comparison 1 (<i>X</i> ₁)	EMP → BI	-.03	.04	-.10, .04			
	EMP → PS	-.05	.07	-.18, .08			
	PS → BI	.05	.04	-.03, .13			
	EMP → PS → BI	-.03	.04	-.11, .05			
Comparison 2 (<i>X</i> ₂)	EMP → BI	-.06	.05	-.16, .02			
	EMP → PS	-.10	.08	-.26, .05			
	PS → BI	.05	.05	-.05, .15			
	EMP → PS → BI	-.06	.05	-.17, .03			

Note. *N* = 255. Comparison 1 = no-norm vs both norms, comparison 2 = static norm vs dynamic norm. EMP = empathy, PS = political solidarity, BI = behavioral intentions, *b* = unstandardized beta, *SE* = standard error for the unstandardized beta, 95% CI = 95% confidence interval for the unstandardized beta. 5,000 bootstraps.

Partially Mediated Model. For the partially mediated model (Table 12), I found similar results to the fully specified model. Two direct effects were significant. Empathy had a medium direct effect on political solidarity, supporting H13, and political solidarity had a large direct effect on behavioral intentions, supporting H14. One direct effect of comparison 2 on behavioural intentions was approaching significance, $p = .06$; this had a small effect size that was in the opposite direction I had proposed. I am not confident enough that it was a true effect, as my sample was well-powered. The total effects of the partially mediated model were also non-significant, suggesting that social norms did not have a meaningful overall impact on behavioral intentions or the mediators of empathy and political solidarity. As with the fully specified model, comparisons 1 and 2 were also not indirectly related to political solidarity or behavioral intentions through empathy by any combination of mediators (see Table 12).

Table 12*Mediation Analysis for the Partially Mediated Model*

Antecedent	Consequent	Direct Effects					
		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI	<i>R</i> ²
Comparison 1 (<i>X</i> ₁)	Empathy (<i>M</i> ₁)	-.08	.12	-0.71	.48	-.32, .15	.01
	Political Solidarity (<i>M</i> ₂)	.08	.07	1.15	.25	-.05, .20	.51
	Behavioral Intentions (<i>Y</i>)	-.03	.07	-0.46	.65	-.18, .11	.58
Comparison 2 (<i>X</i> ₂)	Empathy (<i>M</i> ₁)	-.18	.14	-1.33	.19	-.45, .09	.01
	Political Solidarity (<i>M</i> ₂)	.07	.08	0.97	.33	-.08, .22	.51
	Behavioral Intentions (<i>Y</i>)	-.16	.08	-1.91	.06	-.33, .01	.58
Empathy (<i>M</i> ₁)	Political Solidarity (<i>M</i> ₂)	.57	.03	16.30	< .01	.50, .64	.51
	Behavioral Intentions (<i>Y</i>)	.31	.05	5.98	< .01	.21, .42	.58
Political Solidarity (<i>M</i> ₂)	Behavioral Intentions (<i>Y</i>)	.91	.05	18.48	< .01	.81, 1.01	.58
Total effect							
Comparison 1 (<i>X</i> ₁)	Behavioral Intentions (<i>Y</i>)	-.03	.07	-0.46	.65	-.18, .11	.01
Comparison 2 (<i>X</i> ₂)	Behavioral Intentions (<i>Y</i>)	-.16	.08	-1.91	.06	-.33, .01	.01
Indirect effects							
		Effect	Boot <i>SE</i>	95% CI			
Comparison 1 (<i>X</i> ₁)	EMP → PS	-.05	.07	-.18, .08			
	PS → BI	.07	.06	-.04, .18			
	EMP → PS → BI	-.04	.06	-.16, .07			
Comparison 2 (<i>X</i> ₂)	EMP → PS	-.10	.08	-.26, .05			
	PS → BI	.07	.07	-.07, .21			
	EMP → PS → BI	-.09	.07	-.24, .04			

Note. *N* = 255. Comparison 1 = no-norm vs both norms, comparison 2 = static norm vs dynamic norm. EMP = empathy, PS = political solidarity, BI = behavioral intentions, *b* = unstandardized beta, *SE* = standard error for the unstandardized beta, 95% CI = 95% confidence interval for the unstandardized beta. 5,000 bootstraps.

Fully Mediated Model. For the fully mediated model (Table 13), I found nearly identical results to the previous two models. Two direct effects were significant. Empathy had a medium direct effect on political solidarity, supporting H19, and political solidarity had a large direct effect on behavioral intentions, supporting H20. The total and indirect effects of the fully mediated model were also non-significant (see Table 13).

Table 13*Mediation Analysis for the Fully Mediated Model*

Antecedent	Consequent	Direct Effects					
		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	95% CI	<i>R</i> ²
Comparison 1 (<i>X</i> ₁)	Empathy (<i>M</i> ₁)	-.08	.12	-0.71	.48	-.32, .15	.01
	Political Solidarity (<i>M</i> ₂)	.08	.07	1.15	.25	-.05, .20	.51
Comparison 2 (<i>X</i> ₂)	Empathy (<i>M</i> ₁)	-.18	.14	-1.33	.19	-.45, .09	.01
	Political Solidarity (<i>M</i> ₂)	.07	.08	0.97	.33	-.08, .22	.51
Empathy (<i>M</i> ₁)	Political Solidarity (<i>M</i> ₂)	.57	.03	16.30	< .01	.50, .64	.51
Political Solidarity (<i>M</i> ₂)	Behavioral Intentions (<i>Y</i>)	.91	.05	18.44	< .01	.81, 1.01	.57
		Total effect					
Comparison 1 (<i>X</i> ₁)	Behavioral Intentions (<i>Y</i>)	-.03	.07	-0.46	.65	-.18, .11	
Comparison 2 (<i>X</i> ₂)	Behavioral Intentions (<i>Y</i>)	-.16	.08	-1.91	.06	-.33, .01	
		Indirect effects					
		Effect	Boot <i>SE</i>	95% CI			
Comparison 1 (<i>X</i> ₁)	EMP → PS	-.05	.07	-.18, .08			
	PS → BI	.07	.06	-.04, .18			
	EMP → PS → BI	-.04	.06	-.16, .07			
Comparison 2 (<i>X</i> ₂)	EMP → PS	-.10	.08	-.26, .05			
	PS → BI	.07	.07	-.07, .21			
	EMP → PS → BI	-.09	.07	-.24, .04			

Note. *N* = 255. Comparison 1 = no-norm vs both norms, comparison 2 = static norm vs dynamic norm. EMP = empathy, PS = political solidarity, BI = behavioral intentions, *b* = unstandardized beta, *SE* = standard error for the unstandardized beta, 95% CI = 95% confidence interval for the unstandardized beta. 5,000 bootstraps.

Separate Condition Mediation Comparisons

I also ran the norm conditions separately in the mediation models using the three model comparisons: fully specified, partially mediated, and fully mediated. I compared no-norm vs. static-norm, no-norm vs. dynamic-norm, and static vs. dynamic-norm in each of these three models. Results did not differ greatly from the results above, and I focused on key changes I observed.

When I compared the no-norm condition to the static-norm condition ($n = 172$), empathy had a medium direct effect on political solidarity, $b = .58$, $SE = .04$, $t = 14.21$, $p < .01$, and on behavioural intentions, $b = .26$, $SE = .07$, $t = 3.95$, $p < .01$. Political solidarity had a medium direct effect on behavioral intentions, $b = .64$, $SE = .08$, $t = 7.58$, $p < .01$. The direct effect of empathy on political solidarity was the same across the three models. When I removed the path from empathy to behavioral intentions for the partially mediated model and the fully mediated model, the direct effect from political solidarity to behavioral intentions strengthened, $b = .89$, $SE = .06$, $t = 14.91$, $p < .01$.

When I compared the no-norm condition to the dynamic-norm condition ($n = 168$), empathy had a medium direct effect on political solidarity, $b = .56$, $SE = .04$, $t = 12.96$, $p < .01$, and on behavioural intentions, $b = .35$, $SE = .07$, $t = 5.15$, $p < .01$. Political solidarity had a medium direct effect on behavioral intentions, $b = .63$, $SE = .09$, $t = 7.35$, $p < .01$. The direct effect of empathy on political solidarity was the same across the three models. When I removed the path from empathy to behavioral intentions for the partially mediated model and the fully mediated model, the direct effect from political solidarity to behavioral intentions strengthened, $b = .94$, $SE = .06$, $t = 14.55$, $p < .01$.

When I compared the static-norm condition to the dynamic-norm condition ($n = 170$), empathy had a medium direct effect on political solidarity, $b = .56$, $SE = .04$, $t = 12.83$, $p < .01$, and on behavioural intentions, $b = .33$, $SE = .06$, $t = 5.154$, $p < .01$. Political solidarity had a medium direct effect on behavioral intentions, $b = .61$, $SE = .07$, $t = 8.30$, $p < .01$. The direct effect of empathy on political solidarity was the same across the three models. For the partially mediated model, the comparison of static-norm and dynamic-norm conditions had a small direct effect on behavioral intentions, $b = -.16$, $SE = .08$, $t = -1.98$, $p = .05$. For the partially mediated model and the fully mediated model, the direct effect from political solidarity to behavioral intentions strengthened, $b = .87$, $SE = .06$, $t = 15.76$, $p < .01$. All other direct and indirect effects were non-significant.

Path Analysis

Like the mediation models, there were direct effects from empathy to political solidarity, $\beta = .57$, $SE = .04$, $z = 16.43$, $p < .01$, and from empathy to behavioral intentions, $\beta = .31$, $SE = .05$, $z = 6.04$, $p < .01$. There was a direct effect from political solidarity on behavioral intentions, $\beta = .63$, $SE = .07$, $z = 9.55$, $p < .01$. The indirect effects were non-significant. Model fit indices for the fully specified model were: CFI = 1.00, RMSEA = .00 (95% CI .00, .00), SRMR = .00.

I considered a refined model by removing the least significant direct effect between comparison 1 and behavioral intentions, $p = .99$. The refined model showed a direct effect from comparison 2 to behavioral intentions that neared significance, $\beta = -.16$, $SE = .08$, $z = -1.92$, $p = .06$. However, the model fit indices did not improve for this model: CFI = .93, RMSEA = .25 (95% CI .18, .33), SRMR = .04. Based on these model fits, I did not refine my model further.

Exploratory Analyses

I completed exploratory analyses, as per my pre-registration, to further examine the relationships between norms and empathy, political solidarity, behavioral intentions, and attitude toward the issue. However, political orientation unexpectedly varied across conditions, so I wanted to explore these effects within my sample. I considered two possibilities. First, political orientation could be a mediator of norms on empathy, political solidarity, or behavioral intentions. Second, political orientation could be a confound in my sample. To test if political orientation is a confound, I would control for its effects as a covariate. However, including political orientation as a covariate violates the assumption that the variable is independent across conditions. With this in mind, I focused on political orientation as a mediator and have included the covariate results in the supplementary materials.

To test if political orientation mediated the effects between norms and dependent variables, I used Model 4 in PROCESS (Hayes, 2018). I specified political orientation as the sole mediator and ran separate models with empathy, political orientation, and behavioral intentions as the outcome of Y. I retained the Helmert coded comparisons as used before with a sample of $N = 250$. No-norms compared to both norms had a medium direct positive effect on political orientation, $b = .44$, $SE = .17$, $t = 2.60$, $p < .01$ (for each separate model). Political orientation had a small negative direct effect on empathy, $b = -.22$, $SE = .04$, $t = -5.05$, $p < .01$. The indirect effect of no-norms compared to both norms on empathy through political orientation was significant, $b = -.09$, $SE = .04$, 95% CI $-.18$, $-.02$. Political orientation had a small negative direct effect on political solidarity, $b = -.24$, $SE = .03$, $t = -7.32$, $p < .01$. The indirect effect of no-norms compared to both norms on political solidarity through political orientation was significant, $b = -.10$, $SE = .04$, 95% CI $-.19$, $-.03$. Political orientation had a small negative direct effect on

behavioral intentions, $b = -.24$, $SE = .04$, $t = -6.21$, $p < .01$. The indirect effect of no-norms compared to both norms on behavioral intentions through political orientation was significant, $b = -.11$, $SE = .04$, 95% CI $-.20$, $-.03$. Total effects of norm comparisons on empathy were not significant for each separate model.

Discussion

I had three main objectives in this thesis. First, I wanted to understand whether norms could increase empathy, political solidarity, behavioral intentions, or toward an issue of statue removal. Second, I assessed whether dynamic-norms compared to static-norms evoked stronger feelings and intentions of support. Third, I examined the process of effects and whether empathy or political solidarity mediated the relationship between norms and behavioral intentions.

Summary of Findings

Results of the ANOVA were not significant for most variables except the attitude toward the issue. When I removed outliers, the main effect of norms showed an increase in attitude toward the issue. This means that when I removed extreme responses (i.e., outliers), there was an increase in support for statue removal. Recall that extreme responses included extreme right-wing orientations. Political orientation significantly differed across conditions, with higher orientation scores in either norm condition compared to the no-norm condition. This meant that participants in the static or dynamic norm conditions might have been primed to report greater right-wing orientations compared to those in the no-norm condition.

The results of the mediation analysis and path analysis were largely consistent. Comparing the no-norm condition to both the norm conditions was not directly or indirectly related to any of the variables. I found the same when I compared the static-norm condition to the dynamic-norm condition. In the partially mediated model, one direct effect of comparison 2

on behavioural intentions was approaching significance (see back to Table 12); this had a small effect size that was in the opposite direction I had proposed. I am not confident enough that it was a true effect. If this were a true effect, it would suggest there was a small backlash effect of the dynamic-norm on behavioral intentions.

In the mediation models, empathy, political solidarity, and behavioral intentions related to each other as I had expected. However, I was mostly interested in the effect of norms within these models. The direct effects, the total effects, and the indirect effects of norms for each model were non-significant. When I included political orientation as a mediator of empathy, political solidarity, and behavioral intentions, several effects emerged in the opposite direction I had anticipated. In each of the three mediation models, there was a medium direct positive effect of no-norms vs. both norms on political orientation. This echoed the results of the ANOVA, suggesting that participants in the norm conditions reported more right-leaning political orientations. There were also small direct negative effects of political orientation on empathy, political solidarity, and behavioral intentions. This suggests that participants who reported right-leaning political orientations reported lower empathy, political solidarity, and behavioral intentions.

I found minimal support for one of my three main objectives, and I found evidence of a backlash effect when I included political orientation as a mediator. For the first objective, norms on average were not associated with increased empathy, political solidarity, or behavioral intentions. Norms only increased attitude toward statue removal when I removed right-wing responders. I did not uncover support for my second objective, which was to test whether dynamic-norms compared to static-norms were associated with greater feelings and intentions of support. Third, I investigated the process in which these effects occurred, but instead found

evidence of backlash effects. Static and dynamic-norms compared to no-norms were associated with right-wing political orientation, and right-wing political orientation was associated with lower empathy, political solidarity, and behavioral intentions. Participants who reported stronger right-wing political orientations might have been reactant to the norms and reported even lower empathy, political solidarity, behavioral intentions, and attitude toward the issue than in the no-norm condition.

Politicized Norms

Overall, my findings highlight the importance of accounting for political orientations within norm messages. Indigenous people and their causes continue to be politicized topics. Right-wing conservatives are not commonly supporters of Indigenous causes (see Neufeld et al., 2019). Notably, I found a small correlation between right-wing political orientation and social desirability. It may be that more right-leaning participants responded more socially desirably. However, despite this, right-wing orientations were still directly associated with lower feelings and intentions of support for an Indigenous cause. When I removed outliers or strongly right-wing participants, the remaining participants believed statues should be removed. If norms are to be used for a social justice cause, the messages themselves may need to account for the political identities of the audience to be effective. A norm message aimed to boost support for an Indigenous cause may be more effective amongst those with left-wing to moderate political orientations.

One possible explanation for the backfire effects I observed was that right-wing participants were reactant to the norm message. Psychological reactance can be incited if a person feels pressured or manipulated, and a person may actively resist the appeal (Schorn, 2024). Conservatives can be more reactant than liberals to messages that emphasize the

“seriousness” of an issue like climate change (Chan & Lin, 2022), possibly because they perceive manipulating language. It is possible that my message felt manipulative, causing participants to reject the norm message (e.g., Richter et al., 2018). This may have been especially true for right-leaning participants, as often these individuals value system stability, whereas left-leaning participants may be more likely to promote social change (Becker, 2020; Cakanlar & White, 2023). Conservatives might see the social change in support for removing statues as a symbolic threat that “erases history” of Canada, the nation they value (Shayegh et al., 2025). My norm message emphasized statue removal and may have been perceived as manipulative, and/or threatening to a valued nationalistic symbol.

Individuals who identify with different parts of political continuums may respond to norm messaging differently. Both left-leaning liberals and right-leaning conservatives can be persuaded by strong moral convictions (Cakanlar & White, 2023). Conservatives tend to favor structured narratives and clear accountability. Conservatives also show greater conformity, especially in front of a liberal audience, and have a shared identity, which may be motivated by a desire for social approval (Kaikati et al., 2017). However, if conservatives encounter a polarizing topic, they will not conform to norms as political identity seems to override conformity. Whereas liberals may not be as influenced by the audience or identity (Kaikati et al., 2017). Liberals tend to be more responsive to messages of social justice and those that promote progressive change (Cakanlar & White, 2023). My results suggest that a politicized norm message may require accounting for political ideology to increase support amongst multiple political orientations.

Norms for a Social Cause

Although the norm topic I chose was politicized, I chose this norm to test if it could increase social support, as it is not well covered in the norm literature. The norm messages I

tested did not encourage a vast change in support for statue removal. However, there may yet be adjustments to these norms that might increase support for a social cause. My norm statements used a similar proportion of people supporting an issue to other studies (I used 32%), like in Study 3 of Sparkman and Walton's (2019) article, which used 35%. However, other studies have found that lower proportions may be too low to be effective at promoting behavior change. Authors who did not have success with norms using smaller proportions suspected that messages were superficially absorbed or misinterpreted (Aldoh et al., 2021). A norm message of the minority could be offering permission to act aligned with the majority rather than persuading toward change (Berger, 2021; Richter et al., 2018). Sometimes minority norms can even backfire as they signal that the behavior was uncommon and reinforced that the majority do not participate (Mortensen et al., 2019). Social norms might need to use larger proportions to encourage widespread behavior change. Widespread behavior change may have social tipping points or small initial changes in a social system that lead to accelerating change (Berger, 2021). These tipping points require regular norm reminders and require a greater proportion of the social group engaging in behavior change (closer to half). For my norm, I chose the most recent information available, which was a poll from 2022 suggesting a third of people in Canada would support statue removal (Canseco, 2022). However, there was information that showed closer to 52% of people would support removing statues of John A. Macdonald (Bricker & Jones, 2021). The more generous proportion of support was recorded after news broke about mass unmarked graves alongside former residential schools. It may be that support for statue removal reduced by 2022, as news of mass graves was less salient. Using a smaller proportion may have made my norm message less effective.

Another consideration for the norm message was whether to make it an elimination norm (i.e., supporting complete statue removal) or to make it a reduction norm (i.e., relocate the statue to a museum, limit view of the statue, etc.). Reduction norms appear to encourage greater behavior change compared to elimination norms (Sparkman et al., 2021). Using a reduction norm might have been more persuasive to people who were concerned about “erasing history” by removing a statue completely. I wanted to evoke a larger opinion change and thus chose the more exaggerated choice of statue removal rather than moving it elsewhere. However, this choice may not have had the intended effect.

It may be that social norms act through other cognitive or emotional processes, which I did not measure. Current literature has investigated how norms might act through processes such as identification, perceptions of importance, and perceptions of personal ability (Sparkman & Walton, 2019). Specifically, norms may promote behavior change when respondents view norms as aligned with their identity, perceive the new behavior as valued by others, and believe the change is within their capacity. Future investigations might account for these mediators. Additionally, using a multi-item measure for attitude toward the issue may help explain these processes and would be better suited for mediation analysis. There are several mediators that may help explain how social norms might produce behavior change.

Strengths and Limitations

Key strengths of my study included my sample, experimental design, and the construction of my manipulation. I had a well-powered study. My a priori analysis suggested recruiting $N = 252$ to detect small effects of $d = .25$. My final sample size exceeded this sample requirement at $N = 255$ after data screening. I also used random assignment of participants in the three conditions, which eliminated a whole host of potential confounds and systematic errors. I

also used several strategies to make my norm message more persuasive. I used real data to promote transparency of my norm message. Transparency avoids deception in norm studies to reduce backfire effects (e.g., Tang et al., 2021). I also used a dynamic and injunctive norm message (Graupensperger et al., 2021; Schorn, 2024; Sparkman & Walton, 2019). Dynamic norms signal that change is already happening, while injunctive norms convey approval of the message (e.g., “people in Canada support statue removal”). When messages emphasize social approval, they appear more effective compared to descriptive norms (De Groot et al., 2013). Dynamic-injunctive norm style norms may lower the perceived risk of changing behavior (Zino et al., 2022). I embedded these strategies to strengthen my norm message.

A few limitations arose with my study. I collected data from a Canadian university sample shortly after news broke that the United States President announced substantial tariffs on Canadian traded goods, which were expected to have severe consequences on the Canadian economy (Government of Canada, Department of Finance, 2025). Responses in Canada focused on boosting nationalistic solidarity (Moscrop, 2025). Group members tend to cooperate when there are outgroup threats (Barclay & Benard, 2020). People in Canada may have taken a greater interest in the well-being of other Canadians to rebuke the hostility from the United States president. The unintended consequence was that I collected data when participants may have felt more protective of Canada’s “father of confederation.” These world events may have reduced the overall impact of my norm statements openly criticized a Canadian symbol.

The historical portion of my passage may have presented another limitation. I decided to include critical historical knowledge in the passage so participants had a basic understanding of the issue. However, exposing participants to critical historical knowledge, such as my passage, is a manipulation in itself (see Efimoff & Starzyk, 2023; Neufeld et al., 2022) and increases

empathy, political solidarity, and behavioral intentions. I may not have detected the effects of norms because any effects may have been statistically washed out by the effects of knowledge. It may be possible to examine the effect of knowledge with norms by adding an empty control.

Additionally, the historical knowledge might have exacerbated uncomfortable reminders of residential schools. Message fatigue can cause desensitization, and messages may become less persuasive (Keating & Skurka, 2024). Canadians have been repeatedly exposed to the emotional details of residential schools, unmarked graves, and the federal government's involvement in these affairs (Hobson, 2023), and some participants may have been less responsive to a reminder of these topics.

Finally, another limitation of my study is that I completed it online. Even though it is common practice to complete studies online, there is a growing concern about careless responding and using language learning models like ChatGPT to complete open-ended answers. I did not analyze open-ended responses, but AI may be setting an unhelpful precedent of quick and superficial responding. I used several strategies to screen for careless responding, but these strategies require constant updates, and even so, will likely remain imperfect.

Theoretical and Applied Implications

Norms may be useful in a variety of contexts and may extend beyond increasing behaviors that may be more intrinsically motivating. Previous work has focused on increasing sustainability behaviors or personal health behaviors. These behaviors have direct and sometimes indirect benefits (i.e., "*conserving water is good for the planet I live on.*") to the audience. However, I may have tentative evidence that norms may encourage support of an outgroup cause. There may be hope that further refining such norm messages may yield stronger support. My results are significant because they suggest that norms may encourage support for an

Indigenous cause if they are framed carefully. If not framed carefully, this support might vanish and even be resisted. Social norms have not been widely used to encourage outgroup support. It may be that norms are useful for more than personal behavior change.

Future Research

Future research might consider the use of social tipping points, reduction norms, avoiding psychological reactance, and adapting messages for political ideology. Future work might investigate whether larger proportions of support depicted in norms induce a social tipping point and accelerate support for an issue. Further research might examine whether norms might be more efficacious framed as a reduction rather than an elimination in social change. The effects of psychological reactance might be tested by promoting autonomy within the norm message. Norms messages might also be presented without preemptive knowledge. It may be that norms operate with or without background knowledge to inform the support of an issue. Norms might also account for the political ideology of participants and might include values across the range of ideologies. There may be more work to investigate how norms can be more nonpartisan. Norms might cross partisan lines, which may become increasingly useful in facing political polarization. Social justice movements often aim to grow support for their cause, but typically are successful on one side of the political spectrum. Social norms are messages aimed at encouraging group cohesion and may help people to work together.

Conclusion

My thesis examines public support for removing colonial statues, which is a culturally and politically relevant issue. For Indigenous communities, this process is part of broader efforts to decolonize public spaces and recognize historical injustices. Statues linked to colonial violence remain controversial; however, their removal can help create more respectful and

inclusive environments, especially for residential school survivors. Statue removal is more than a symbolic gesture; it is a formal acknowledgement of colonial harms and social healing.

The findings highlight the nuanced role of normative messaging in shaping public support. Contrary to expectations, norms did not consistently increase empathy, political solidarity, or behavioral intentions across the sample. I also did not find evidence that dynamic-norms outperformed static-norms in increasing support for statue removal. Norms did, however, increase attitudinal support when right-wing respondents were excluded, suggesting norms only increased left-wing to moderate participant support.

Notably, the study uncovered evidence of a backlash effect. Both static and dynamic norms were associated with norm resistance. This was particularly among right-leaning participants who reported lower levels of empathy, political solidarity, and behavioral intentions than those in the no-norm condition. This resistance underscores the importance of considering political identity as a potential moderator in normative appeals.

Taken together, these findings highlight the complexity of mobilizing support for initiatives such as statue removal, particularly within ideologically diverse populations. They underscore the need for more sophisticated, context-sensitive strategies in public messaging—strategies that affirm the importance of symbolic change for marginalized communities without inadvertently reinforcing resistance among others.

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Appendix A

Passage Explaining a Colonial Symbol

The first Canadian Prime Minister knew residential schools caused children's deaths.

From 1828 to 1996, governments of Canada and partnering religious institutions removed Indigenous children, some as young as four years old, from their families and communities to attend “residential schools.” The experience of attending the schools was typically traumatic because the adults in charge often physically, emotionally, and/or sexually abused the children, many of whom only saw their families yearly.

As early as the 1890s, John A. Macdonald, Canada's first Prime Minister, knew that residential schools harmed Indigenous children but still supported them and helped expand them.

John A. Macdonald even helped expand residential schools, though he knew that children who attended residential schools were more likely to get sick and die in the schools than their home communities. Why? An 1879 government report warned him and others that “the children at schools under contract do not, as a rule, get sufficient quantity of food.”

John A. Macdonald also knew—and hoped—that residential schools would isolate children from their families, communities, and culture. He said,

“When the school is on the reserve, the child lives with its parents, who are savages, and though he may learn to read and write, his habits and training mode of thought are Indian. He is simply a savage who can read and write. It has been strongly impressed upon myself... that Indian children should be withdrawn as much as possible from the parental influence....”

To make this more likely, the government intentionally built residential schools away from children's communities, and the children who attended them often went home only once a year. Sometimes, residential school staff kept children who misbehaved from going home.

Today, many statues of John A. Macdonald exist across the country.

Appendix B

Manipulation Statements

Static-Norm Condition

Some people in Canada think statues of John A. Macdonald, Canada's first Prime Minister, should be removed from public view.

In a 2022 national poll, **32% of people in Canada said statues** of John A. Macdonald, Canada's first Prime Minister, **should be removed from public view**.

Why do you think this is?

Dynamic Norm Condition

The number of people in Canada who think statues of John A. Macdonald, Canada's first Prime Minister, should be removed from public view **is increasing**.

National polls show that this is because some people in Canada who did not support statue removal **have changed and now do**.

Now, **over 32% of people in Canada** think statues of John A. Macdonald, Canada's first Prime Minister, **should be removed from public view**.

Why do you think this is?

Appendix C

Quality Control Questions

Finally, I have a few questions about your experience. Please answer the following questions honestly. Remember that your answer would not affect the credit you would receive for taking part in this study.

Did you complete this study honestly?

No

Yes

Did you complete this study without taking a break?

No

Yes

Did you read a passage describing the role John A. Macdonald had in residential schools?

No

Yes

Manipulation check 2.

Did you read a passage that said 32% of people support removing statues of John A. Macdonald?

No

Yes

Manipulation check 3.

Did that passage say the number of people who support removing statues of John A. Macdonald is **increasing**?

No

Yes