

## "Is Water a Human Right?": Priming Water as a Human Right Increases Support for Government Action

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[See table of contents](#)

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Article abstract

Many First Nations homes in Canada do not have adequate water services. This issue is unlikely to be resolved without public pressure on the government. Thus, we investigated one strategy to increase non-Indigenous Canadians' support for government action: framing water as a human right. Informed by a partnership with Indigenous community members and multidisciplinary collaborators, we conducted seven experiments that sampled non-Indigenous Canadian community members (N = 584) and university undergraduates (N = 274). Overall, framing water as a human right increased public support, relative to control conditions. Further, the human rights frame indirectly increased support for government action through increases in perceived suffering (physical and financial) and empathy. We discuss policy implications and end with a call for action.

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# “Is Water a Human Right?": Priming Water as a Human Right Increases Support for Government Action

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# “Is Water a Human Right?”: Priming Water as a Human Right Increases Support for Government Action

## Abstract

Many First Nations homes in Canada do not have adequate water services. This issue is unlikely to be resolved without public pressure on the government. Thus, we investigated one strategy to increase non-Indigenous Canadians' support for government action: framing water as a human right. Informed by a partnership with Indigenous community members and multidisciplinary collaborators, we conducted seven experiments that sampled non-Indigenous Canadian community members ( $N = 584$ ) and university undergraduates ( $N = 274$ ). Overall, framing water as a human right increased public support, relative to control conditions. Further, the human rights frame indirectly increased support for government action through increases in perceived suffering (physical and financial) and empathy. We discuss policy implications and end with a call for action.

## Keywords

Human rights, support for government action, empathy, suffering

## Author Note

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## **"Is Water a Human Right?": Priming Water as a Human Right Increases Support for Government Action**

In 2010, the United Nations (2010) General Assembly declared that all people should have water and sanitation services<sup>1</sup> that are sufficient, safe, acceptable, physically accessible, and affordable (see also Busby, 2016). Soon after, in a report commissioned by the Government of Canada sampling 97% of First Nations,<sup>2</sup> Indigenous consulting firm Neegan Burnside (2011) reported that 73% of water systems and 65% of wastewater systems had deficiencies that posed a medium or high risk to water quality that may lead to health, safety, or environmental issues. The firm also reported that 1,880 homes (1.5%) had no water service, and 1,777 homes (2%) had no wastewater service. Relatedly, over 117 communities (approximately 18%) were under a boil water advisory, some for more than a decade, because the water was unsafe (Troian, 2011). After visiting several northern Manitoba communities, a journalist reported that residents without water in their homes had to haul it in buckets from a communal tap or nearby lake. They would do so even in the winter, when the lake is frozen and temperatures dip below -30°C (-22°F; Fallding, 2010a). People who hauled water in this way sometimes had only 15 L of clean water a day (Fallding, 2010b), far below the standard recommended by the World Health Organization of 50 L per person per day (as cited in United Nations Human Rights Council, 2010). Thus, while Canada is resource rich in water and many Canadians take turning on a tap or flushing a toilet for granted, First Nations have historically had less access to water and wastewater services, or they have had services that are less safe to use (Human Rights Watch, 2016). Further, while communities remain without safe water services, multinational beverage companies such as Nestlé extract millions of litres of water daily from Indigenous territories (Shimo, 2018). In effect, the human right to water has been commodified while weak public infrastructure persists (Pacheco-Vega, 2019). In this context, in 2010, the Water Advocacy Group came together to understand how to solve the problem of inadequate and uncertain water and wastewater services on First Nations.

### **The Water Advocacy Group**

The Water Advocacy Group's overarching goal was to increase the capacity of First Nations and their allies to advocate for access to clean running water, what one Elder called "the most precious gift." Organized through the Centre for Human Rights Research at the University of Manitoba, this group was a multidisciplinary Indigenous and non-Indigenous research partnership that included academics, other professionals, community members, and organizational partners. The principal organizational partner was the Assembly of Manitoba Chiefs. Others, in alphabetical order, were Amnesty International Canada, Brock University, the Centre for Indigenous Environmental Resources, Manitoba Keewatinowi Okimakanak, the Public Interest Law Centre, and the University of Winnipeg. Individual communities also partnered for some projects.

The partnership worked collaboratively, valued academic, traditional, and experiential knowledges, and translated the findings to academic and non-academic audiences. Members co-developed a successful Social Sciences and Humanities Research Council Partnership Development Grant and research

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<sup>1</sup> We use the terms sanitation and wastewater interchangeably.

<sup>2</sup> First Nations is one of three superordinate categories of Indigenous Peoples in Canada; the other two are Métis and Inuit. There is much diversity within these categories.

strategies for three research clusters: legal, including international law (Busby, 2016) and Anishinaabe water law (Craft, 2014); economic (O’Gorman & Penner, 2018); and public engagement (Bonnycastle, 2015; Neufeld et al., 2019). Cluster leads met or emailed several times each year, exchanging knowledges and providing feedback on projects, and once a year Elders, academics, and community partners co-presented at a conference on the topic. All clusters also co-presented at an international conference (Starzyk, 2016) and collaborated on knowledge mobilization, such as through a webinar hosted by the First Nations Health and Social Secretariat of Manitoba (Starzyk & Fontaine, 2017).

In this article, we report some of the public engagement research cluster findings. As decided by our partners, our goal was to co-develop an evidence-based public advocacy strategy to increase non-Indigenous Canadians’ support for government action to provide clean running water and wastewater services to all First Nations. We also wanted our strategy to be acceptable to First Nations Peoples and relatively easy and flexible for the average person to use, as we describe later. For more information about how our research team came to be, see Neufeld et al. (2019). Toward these goals, we investigated whether framing water as a human right might increase non-Indigenous Canadians’ support for providing clean running water to all First Nations.

### **Contributions of Other Clusters and Our Partners**

The work of all clusters and community partners informed our focus on water as a human right. We first began to think about this approach when, in 2010, the Assembly of Manitoba Chiefs described their postcard campaign. The postcard featured a child and asked, “Water is a human right. Do you have running water? I don’t ... and I live in Canada, and I need your help” (Assembly of Manitoba Chiefs, 2010, p. 1).

What we learned through consultations with two First Nations communities in Manitoba also affirmed studying the human right frame. Considering our own social locations as community outsiders, and the need to ensure First Nations’ priorities are met and lived realities are represented ethically (Liamputtong, 2011; Pacheco-Vega & Parizeau, 2018), we travelled to St. Theresa’s Point First Nation to learn what our research should focus on. Katherine Starzyk and journalist Helen Fallding met with Chief and Council, participated in a call-in radio program with residents who voiced their opinions, and visited with community members. From this consultation, we learned how our research might be useful to First Nations and the importance of not stigmatizing communities in the process. With this community perspective and following discussions among more than 30 Water Advocacy Group members, all clusters started to develop research programs that could translate into practical strategies to address the issue of clean running water in First Nations communities. Later, team members from our public engagement (Katelin Neufeld and Colin Bonnycastle) and economics (Melanie O’Gorman) clusters travelled to Nisichiwayasihk Cree Nation, located in northern Manitoba, to get feedback on a few possible strategies, one of which would emphasize water as a human right. They met with Chief and Council and the Public Works Director, and they conducted two focus groups, one with health representatives and another with other community members. The issues facing this community were very different than that of St. Theresa’s Point,<sup>3</sup> but residents here also favoured framing water as a

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<sup>3</sup> There is a great deal of diversity in the specific challenges that First Nations face in water and wastewater services.

human right. Additionally, residents said we should emphasize—in a way that is not stigmatizing—that not having access to or having to worry about the safety of water and wastewater services causes suffering. We were humbled by the resilience and warmth of these communities.

We acknowledge that there were many more communities we could have consulted with, and that was our original intention, but further trips became unfeasible because of timing. Fortunately, we were also able to exchange information with others who did complimentary work, such as Human Rights Watch (2016), and get feedback on our approach from community members in our yearly conference.

Today, those familiar with Canadian politics may wonder if this research is still relevant. Sadly, a decade since the United Nations Declaration on the Rights of Indigenous Peoples, we believe the answer is yes.

### **Yes, It's 2021, and Water is Still a Concern**

On March 22, 2016, the Government of Canada, led by Prime Minister Justin Trudeau and the Liberal Party, announced a commitment to end boil water advisories by March 2021. To date, 98 boil water advisories have been lifted. Thus, this government has made progress; certainly, more than past governments have on this issue. Yet, dozens of communities continue to have boil water advisories (Indigenous Services Canada, 2021). Further, the COVID-19 pandemic has halted water infrastructure construction in several First Nations. On one hand, doing so protects the communities against potential transmission from outsiders, but, on the other hand, it renders them more vulnerable to the virus by making hand washing more difficult (Allen, 2020). In December 2020, the Liberal government confirmed it will not fulfill its promise to end boil water advisories in all First Nations communities (Stefanovich, 2020).

Others have argued that, as a benchmark for success, ending boil water advisories is “woefully inadequate” (McClean, 2019). They have suggested that the standard for water and wastewater services in First Nations should be equivalent to the rest of Canada. A coalition of First Nations has come together to sue the Government of Canada for failing to achieve this standard (Chatta, 2019).<sup>4</sup> We now proceed to an overview of our experimental studies, hypotheses, and theoretical rationale.

### **Overview of Experimental Studies**

To assess the effects of framing water as a human right, we conducted seven experimental studies with national community samples of non-Indigenous Canadian adults ( $N = 584$ ) and university students ( $N = 274$ ; Appendices A and B of the Online Supplemental Materials [OSM] detail the study and participant characteristics, respectively). We sampled only non-Indigenous participants at our Indigenous partners' request. Others in our public engagement cluster conducted complementary qualitative work, including interviews with non-Indigenous participants that informed our experimental work (Neufeld et al., 2019), and a photovoice project with Indigenous participants (Bonnycastle, 2015).

We chose the experimental method so that we could understand whether framing water as a human right increases support for government action. This method involved randomly assigning participants to one

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<sup>4</sup> Members of the Water Advocacy Group provided advice to this group based on our research.

of two experimental groups or “conditions,” meaning participants had an equal chance of being in either condition. Half of the participants were in the control condition, which serves as a baseline, and the other half of the participants were in the human right condition; we detail these conditions below. Importantly, if any differences in support emerged between these groups, we could attribute these differences to our frame because random assignment typically ensures groups are equivalent in all respects and thereby excludes alternative explanations.

In designing our human right frame, we considered how our organizational partners and others might use the results in advocacy work. It is often easier to get big effects with big interventions, but our experience is that, given practical constraints of time, money, and other resources, it is often more useful to develop advocacy frames that are easy to use and flexible. Our goal was to develop frames that can be embedded in any kind of media, advertising, or conversation. For these reasons, we chose to frame water as a human right through a question or brief two-sentence statement. Across all experiments, participants in the human right condition started by reading the human right frame. After, they read a brief description of the issue. In contrast, control participants read the description first—without the human right frame. After they read the brief description, all participants completed self-report questions about their attitudes toward the issue. Some questions asked about support for federal government action (our main dependent variable). Other questions aimed to understand whether the human right frame may be effective in increasing support for equitable water and wastewater standards in First Nations. As we describe in more detail below, we included perceived suffering and empathy as possible mediators or explanations of why the human right frame would increase support for government action.

We describe two of our seven experimental studies in detail to showcase our methods and main findings. Study 1 demonstrates the effects of the human right frame on non-Indigenous participants’ attitudes. Study 2 demonstrates that this frame is effective because it leads people to judge the situation as causing more suffering and, in response, they feel more empathy. We then use an internal meta-analysis to statistically summarize findings of seven experimental studies (Cumming, 2012; 2014); included in this seven are the first two studies we have just described. In taking this approach, we assessed the average effect of our manipulation across the studies. Relative to presenting each study individually, this method is more parsimonious, statistically powerful (because of the increased sample size for analysis), precise, and transparent (because we aggregate the results across all the studies we conducted; Cumming, 2008, 2012, 2014; Rosenthal, 1979; Ueno et al., 2016). In all but one of the experimental studies, we also assessed the efficacy of other approaches.<sup>5</sup> To isolate the effects of the human right frame in this article, we excluded any participants exposed to those other experimental approaches. Ethics boards of the University of Manitoba (UM) and the University of Winnipeg (UW) approved this research. The protocols were #P2013:064 for Study 1 (UM); P2015:009 for Study 2 (UM); #P2016:123-4 (UM) and #04294 (UW) for the other studies in the meta-analysis.

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<sup>5</sup> In two studies, we manipulated whether participants considered how affected community members might suffer because of the state of water and wastewater services. In another study, we manipulated who participants thought about when they considered the effects of not having access to water and wastewater services. In addition to the control condition, we randomly assigned participants into conditions where they were to think of either children or elderly community members.

Below we first describe our hypotheses and the rationale for them. We then describe the first two experimental studies. Next, we include a meta-analysis of the results of all the studies we conducted in which we used the human right frame. Finally, we conclude with a general discussion.

### Hypotheses and Rationale

We hypothesized the human right frame would increase support for federal government action (Hypothesis 1) for several reasons. First, people tend to support human rights. There are country-to-country variations and individual differences, but people tend to support the diverse human rights that the United Nations has identified (McFarland, 2015; Scruggs, 2018). Second, relatively brief educational interventions have increased both knowledge of and support for human rights (see for example Stellmacher & Sommer, 2008). Though such research has not assessed the efficacy of a question or brief statement, the idea of a brief intervention is consistent with our approach. Third, there is widespread public consensus in Canada that access to water is a human right:<sup>6</sup> In a large national survey, 96% of respondents agreed the government should guarantee water as a human right (Trudeau Foundation, 2010). Any "water as a human right" frame should therefore typically remind people of an opinion they already agree with. Fourth, advocates frequently use the human right frame to increase public support for issues. Thus, there seems to be consensus among those "on the ground" that this approach is effective, though few social psychological studies have examined how to increase support for human rights (Carriere, 2019a) or the effect of human right frames generally (for notable exceptions, see Carriere, 2019b; Djupe et al., 2014, 2016; Shnabel et al., 2016). Specifically, there is a "lack of psychological research focusing on right to water and individuals' commitment to defend it" (Mazzoni et al., 2015, p. 316). Indeed, we believe this is the first empirical research to assess whether framing water as a human right may increase public support for addressing that right.

We had several hypotheses about the relationships among the human right frame, suffering, empathy, and support for federal government action. Specifically, we hypothesized participants exposed to the human right frame (vs. control) would perceive more suffering among people in First Nations communities affected by the issue (Hypothesis 2). As people tend to believe water is a human right, they should agree that water is a basic ingredient for a good life. Indeed, we cannot think of a human right so fundamental to life. Given this special "human right" status, participants primed with the idea that water is a human right, who then also learn that the right is not met, should judge the situation as more harmful—that is, as causing more suffering. Further, though people can react to injustice in several ways, there is a motivation to eliminate it when people are able to (Lerner & Simmons, 1966; Starzyk & Ross, 2008). They are more likely to do so when they perceive the harmed group continues to suffer and they can do something about it. This is also true for those who do not primarily stand to benefit from the action; that is, outgroup members. For example, Starzyk and Ross (2008) assessed non-Blacks' support for government action to compensate members of a once vibrant Black community called Africville. In 1962, this community was forcibly relocated by the City of Halifax (Clairmont & Magill, 1999). Participants who thought the outgroup members were still suffering were more supportive of government action.

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<sup>6</sup> For other perspectives on the consequences of framing water as a human right, see Sultana and Loftus (2012).



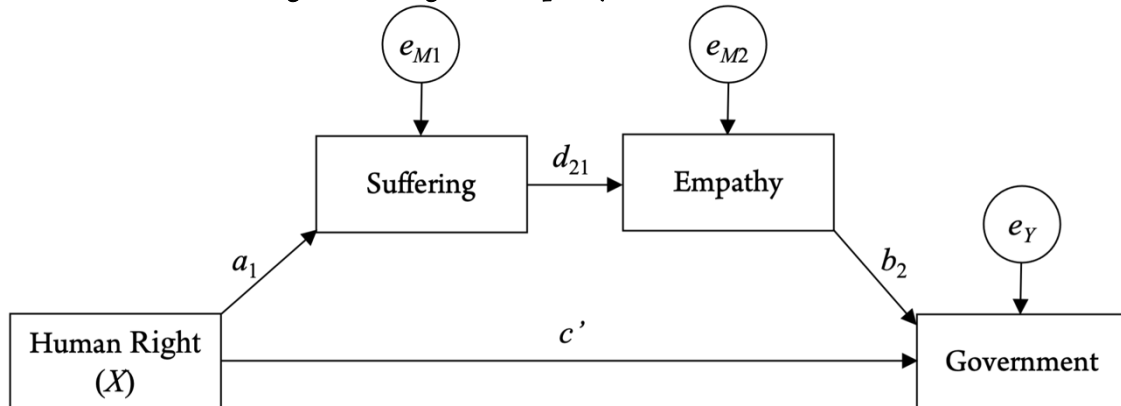
We also hypothesized that perceptions of suffering should positively predict feelings of empathy toward people on First Nations affected by the issue (Hypothesis 3); we did not examine the role of trait empathy. People who endorse human rights also tend to feel more empathy (McFarland, 2010; McFarland & Matthews, 2005; McFarland et al., 2012), but more importantly experimental evidence demonstrates that perceptions of suffering can cause feelings of empathy. For example, in experiments by Starzyk and Ross (2008), participants who thought the outgroup members were still suffering experienced more empathy.

As well, we hypothesized that feelings of empathy would drive support for government action (Hypothesis 4). The argument for this is simple: Empathy is a very good predictor of prosocial behaviour (Amato, 1986; Batson et al., 1981, 1987). Empathy is powerful because it is an emotion that binds people together and motivates those who may have nothing to gain from acting to ease the suffering of others. In support, Starzyk and Ross (2008) also found sympathy (a component of empathy) was one explanation for the effect of perceived suffering on support for government reparations for former Africville residents. Empathy has also predicted Israelis' support for humanitarian aid for Palestinians (Roth et al., 2017), psychology students' support for employment equity for education students (Harth et al., 2008), and greater tolerance of stigmatized outgroups such as murderers (Batson et al., 1997, 2002; for a review, see Batson & Ahmad, 2009; Stephan & Finlay, 1999).

Most importantly, as Figure 1 illustrates, we hypothesized the human right frame would have a significant indirect effect on support for federal government action in the following way: Framing water as a human right increases a people's perceptions of suffering within First Nations that do not have clean running water, which leads to greater empathy and greater support for government action to provide clean running water to all First Nations (Hypothesis 5). Thus, we expected this frame would be effective because it would increase perceptions of suffering and, in turn, feelings of empathy, which consistently drive support for action on social issues. We conceptualized perceived suffering and empathy as sequential mediators. Note that this path of course does not preclude the validity of other possible indirect paths.

Finally, we also explored whether certain types of suffering might be more effective in increasing empathy and support. We chose three types of suffering that are documented consequences of not having clean running water and wastewater services in First Nations (Bharadwaj & Bradford, 2018; Bradford et al., 2016; Fallding, 2010c; O'Gorman & Penner, 2018): physical suffering (e.g., waterborne illness, skin rashes), psychological suffering (e.g., stigma, stress), and financial suffering (e.g., the increased costs of paying for bottled or trucked water, missing work because of water-related illness or having to haul water). We hypothesized that people would be most easily able to imagine how not having clean running water and sanitation services would cause physical suffering, and therefore expected that perceived physical suffering would be effective in generating empathy and support (Hypothesis 6). We did not, however, have predictions about whether psychological suffering and financial suffering would also be effective: We were not confident that participants would agree that these are consequences of not having access to or having threatened water and wastewater services.

**Figure 1. Sequential Mediation Model of Effects of the Human Right Frame on Support for Government Action Through Suffering and Empathy**



*Note.*  $X$  is the independent variable;  $Y$  is the dependent variable;  $M_1$  and  $M_2$  = mediators 1 and 2, respectively.  $a_1$ ,  $b_2$ ,  $d_{21}$  = direct pathways;  $c'$  refers to the indirect pathway;  $e_{M1}$ ,  $e_{M2}$ , and  $e_Y$  = errors in estimation for the first mediator, the second mediator, and the dependent variable, respectively.

### Study 1: Effects on Attitudes and Action Intentions in a Community Sample

In Study 1 we conducted an experiment to test whether framing water as a human right affects reactions toward the issue. Reflecting our goal to create a brief and portable intervention, we primed the idea that water is a human right with the question, "Should, or should not, the 'right to clean water' be guaranteed as a human right for all Canadians?" Community participants answered this question at the beginning of our survey if they were in the human right condition and after the dependent variables if they were in the control condition. Our dependent variables were support for federal government action on the issue and intentions to take personal action. We thought our frame may affect intentions to act because prior research suggests a link between the endorsement of human rights and intentions to act in a way that protects them (Cohrs et al., 2007). For example, Hertel et al. (2009) found that people are willing to pay more for ethically produced products if they endorse human rights.

#### Participants

Participants were 372 non-Indigenous community respondents (50% men, 50% women) from across Canada. They ranged in age from 18 to 84 years (the average age was 43.38 years) and typically identified "White" as their ethnicity (84%; see OSM Appendix B for more details). We recruited this sample through Qualtrics Panels, a survey panel provider, in July 2014.

#### Procedure

Qualtrics invited panel participants to the online study through an email link. On accessing the website, participants first read an information and consent form. Those who agreed to participate were then randomly assigned by the Qualtrics platform to either the human right condition or the control condition. Consequently, any participant had an equal chance of being in either condition; the two

groups would be equivalent except for what experimental condition they were in, and the human right frame would be the cause of any differences in support for government action or personal intentions to act. We asked human right frame participants to first consider the following question:

The term “human right” refers to rights and freedoms that everyone in society is entitled to and are guaranteed under the law. Should, or should not, the “right to clean water” be guaranteed as a human right for all Canadians?

The possible response options were “yes, it should” and “no, it should not.” After, human right frame participants read a brief passage describing the issue and answered questions about their support for government action and personal intentions to act. In contrast, control participants answered the human right frame question after reading the passage and answering questions about support and intentions to act. The human right frame and control groups therefore only varied in the order in which participants completed the questions.

## Materials

### *Passage Describing the Issue*

We included this passage so that participants would know some basic facts about the situation and the subsequent questions would make sense:

In 2011, Minister of Aboriginal Affairs and Northern Development John Duncan released the findings of *The National Assessment of First Nations' Water and Wastewater Systems*. Describing the state of household running water and wastewater (sanitation, sewage) services across 97% of First Nations (571 of 589) in Canada, this report is the largest and most rigorous assessment of its kind ever conducted in Canada. According to the report, about 39% of water and 14% of wastewater systems in First Nations communities have major deficiencies. Today, approximately 3,000 First Nations homes do not have indoor plumbing for drinking water, bathing, laundry, dishes, or toilets.

### *Support for Government Action*

We asked participants to self-report the extent to which they agreed or disagreed with two statements: (a) “The government should provide running water and wastewater services to all First Nations homes,” and (b) “The government should provide running water and wastewater services to First Nations homes comparable to that available in non-First Nation communities.” Possible response options were 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*. We represent support for government action as the mean agreement with these two statements (Spearman’s  $r = .74$ ). Support for government action scores could therefore range from 1 to 7.

### ***Interest in Taking Personal Action***

We presented participants with an opportunity to take seven actions. Participants read, "Learning about First Nations water and wastewater issues may have made you interested to learn or do more about the issue." Stating we would provide more information on how to take such actions at the end of the study, we then asked participants to indicate which (if any) of the following actions they would like to take: (a) read a newspaper article describing the issue, (b) sign an online petition, (c) raise awareness: email a petition link to friends, (d) raise awareness: share a petition link on Facebook, (e) raise awareness: speak to a family member or friend about the issue, (f) write a letter to the government, and (g) attend a public rally. We presented these actions in random order. Participants could choose any combination of the seven options. We coded unchosen actions as 0 and chosen actions as 1 and computed a total number of chosen options, meaning total scores could range from 0 to 7. In doing so, we created a dependent variable that gauged peoples' intentions to take these sorts of actions, which also represent actions our partners hope people may take and those common in the collective action literature (van Zomeren et al., 2008).<sup>7</sup>

## **Results**

### ***Preliminary Analyses***

OSM Appendix C contains the descriptive statistics. As per OSM Appendix D, participants in the two conditions were equivalent in gender, age, and ethnic majority or minority status. Thus, random assignment was successful across these indices.

### ***Effects of the Human Right Frame***

The human right frame affected many of the dependent variables. Compared to the control group, participants in the human right condition more strongly agreed that the government should take action to provide clean water and wastewater services to all First Nations ( $M_{\text{Control}} = 5.50$ ,  $SD = 1.61$ , vs.  $M_{\text{Human Right}} = 5.83$ ,  $SD = 1.57$ ),  $t(370) = 2.02$ ,  $p = .045$ , 95% CI [0.01, 0.66], Cohen's  $d = 0.21$ ). To determine the effects of the frame on participants' overall interest in acting (see Table 1), we conducted a Poisson regression.<sup>8</sup> Relative to the control condition, the human right frame increased the number of actions participants were interested in taking by 32%. To determine the degree to which the human right frame increased participants' interest in taking each action, we conducted a series of log-binomial models in which the experimental condition was the independent variable, and each action was the dependent variable; we report the risk ratios from these models in Table 1. The risk ratios indicate that the human right frame did not impact participants' interest to "read a newspaper article," likely because interest in this was so high and this action is so easy to take, but it did affect participants' intentions to take the remaining, more effortful actions. Relative to the control condition, the human right frame increased participants' interest to "sign an online petition" by 20%, "email a petition link to friends" by 95%, "share

<sup>7</sup> To honor our instructions and encourage more action on the issue, we provided participants with information on how to take each action at the end of the study.

<sup>8</sup> This regression method is appropriate when data are counts.

a petition link on Facebook” by 126%, “speak to a family member or friend about the issue” by 77%, “write a letter to the government” by 64%, and “attend a public rally” by 122%.

**Table 1. Study 1: Effects of the Human Right Frame on Interest in Acting Items**

| Outcome                          | Observed response |                | Absolute difference | Control vs. human right comparison |              |
|----------------------------------|-------------------|----------------|---------------------|------------------------------------|--------------|
|                                  | Control           | Human right    |                     | Relative risk                      | 95% CI       |
| Number of Actions <sup>a</sup>   | 1.40<br>(1.15)    | 1.85<br>(1.60) | --                  | 1.32                               | [1.12, 1.55] |
| Specific Actions <sup>b</sup>    |                   |                |                     |                                    |              |
| Read newspaper article           | 62.6              | 60.0           | -2.6                | 0.96                               | [0.82, 1.13] |
| Sign online petition             | 34.2              | 41.1           | +6.9                | 1.20                               | [0.92, 1.56] |
| Email petition to friends        | 7.5               | 14.6           | +7.1                | 1.95*                              | [1.06, 3.60] |
| Share petition on Facebook       | 9.1               | 20.5           | +11.4               | 2.26*                              | [1.32, 3.86] |
| Speak to family or friend        | 12.8              | 22.7           | +9.9                | 1.77*                              | [1.12, 2.80] |
| Write a letter to the government | 8.6               | 14.1           | +5.5                | 1.64                               | [0.91, 2.96] |
| Attend a public rally            | 5.3               | 11.9           | +6.6                | 2.22*                              | [1.08, 4.57] |

*Note.* Participants indicated the actions they would like to take by selecting the options they were interested in.

<sup>a</sup>Values are  $M(SD)$ . Model is a Poisson regression, where the total score on the number of actions participants were willing to take was regressed onto the experimental condition (0 = control; 1 = human right frame). The relative risk estimate is the incidence rate ratio. The likelihood ratio test for the Poisson model was 1.11, suggesting that a Poisson distribution was a better fit for the data than a negative binomial distribution.

<sup>b</sup>Values are percentage of respondents who indicated they would take this action. Models are log-binomial regressions, where each action was regressed onto the experimental condition. The relative risk estimate is the risk ratio.

\*  $p < .05$ .

## Discussion

We experimentally varied whether participants thought about water as a human right before or after they indicated their support for government action and interest in taking personal action. This subtle frame had relatively consistent effects: Those primed with the human right frame (vs. not) supported government action significantly more and were also more likely to want to take personal action. These effects are noteworthy because this strategy nudged already high support for government action even higher and motivated interest in taking effortful or public actions. For example, only 5% in the control condition said they would attend a public rally compared to 12% in the human right condition. If such intentions translate to action, asking this question has the potential to lead to over double the attendance at public rallies. Thus, this flexible, portable, and subtle approach has potential to spark positive real-world consequences. Future research should seek to replicate these effects on intentions and extend them to behaviour.

### Study 2: The Mediating Roles of Perceived Suffering and Empathy in a Student Sample

Study 2 was an experiment that tested why the human right frame increased support for government action in a student sample. As we describe earlier, we expected this frame would be effective because it would increase perceptions of suffering and, in turn, feelings of empathy, which consistently drive support for action on social issues. Thus, we conceptualized perceived suffering and empathy as sequential mediators. We also explored the effect of type of perceived suffering—physical, financial, or psychological. Although we expected physical suffering would be effective, we did not have hypotheses regarding the other types of suffering. Though we could readily imagine the economic and psychological consequences of such a situation, we were not sure participants could as well.

## Participants

In winter 2015, 69 non-Indigenous university students from a university located in Winnipeg, Manitoba, completed this study in exchange for partial credit in an introductory psychology course. Our analyses, including for demographic information (see OSM Appendix B), are based on 68 participants (one participant asked us to exclude their data). Participants in this final sample were 18.96 years old on average ( $SD = 1.65$ ). More than half identified as women (57.4%) and as White (57.4%).

## Procedure

After providing consent, participants read the passage from Study 1 describing the issue. We framed the issue as a human right with two sentences: Above the paragraph, we added the title, "Is Water a Human Right?" and, below the paragraph, we added the rhetorical question, "Ask yourself: Is access to water and wastewater services a human right?" Thus, in this study participants did not answer the question as participants did in Study 1. Control condition participants only read the paragraph—they did not see a title or rhetorical question. After, all participants completed the following dependent measures.

## Measures

Except where noted, as in Study 1, the response options were: 1 = *strongly disagree*, 2 = *disagree*, 3 = *slightly disagree*, 4 = *neutral*, 5 = *slightly agree*, 6 = *agree*, and 7 = *strongly agree*.

### ***Support for Government Action***

We asked participants to self-report their agreement with the statement, “The Government should ensure First Nations communities have access to clean running water.” This question is different than the questions we used in Study 1, but conceptually similar. How we assessed support varied slightly like this across studies. An advantage of varying the support questions is that we unintentionally assessed the generalizability of the effects across different support questions. A disadvantage is that the averages for these questions are not directly comparable.

### ***Perceived Suffering***

Participants rated their agreement with three statements that began with “First Nations without access to water and wastewater services are suffering...” and respectively ended with “physically,” “psychologically,” or “financially.” We analyzed these items individually.

### ***Empathy***

Participants reported their empathy for First Nations without clean running water and sanitation services by indicating the extent to which they felt six emotions (e.g., “compassionate”; Batson et al., 1997) on a 7-point scale with three labelled response options (1 = *not at all*, 4 = *somewhat*, and 7 = *extremely*). As the items were highly internally consistent (Cronbach’s  $\alpha = .91$ ), we took their mean score to create a composite that could range from 1 to 7.

## **Results**

### ***Preliminary Analyses***

All variables positively correlated, and the effect sizes were moderate to large (Cohen, 1988). As per Appendix D, participants in the two conditions were equivalent in gender, age, and ethnic majority or minority status. Thus, random assignment was successful (see OSM Appendix E for descriptive statistics and correlations).

### ***Effects of the Human Right Frame***

As *t*-test results in Table 2 indicate, this frame had a positive and statistically significant effect on perceived physical suffering. The effect was also positive, but not significant, for the remaining variables. As measured by Cohen’s *d*, the effect size for physical suffering was 0.49 whereas the median effect size for all variables was 0.25; this median effect size is similar to the 0.21 effect size for support for government action in Study 1.

**Table 2. Study 2: Effects of the Human Right Frame**

| Measure                       | Condition |               |             |               | Comparisons           |               |                  |
|-------------------------------|-----------|---------------|-------------|---------------|-----------------------|---------------|------------------|
|                               | Control   |               | Human right |               | <i>t</i> <sup>a</sup> | 95% CI        | Cohen's <i>d</i> |
|                               | <i>M</i>  | ( <i>SD</i> ) | <i>M</i>    | ( <i>SD</i> ) |                       |               |                  |
| Support for government action | 6.20      | (0.99)        | 6.52        | (0.67)        | 1.53                  | [0.10, 0.73]  | 0.37             |
| Physical suffering            | 5.59      | (1.02)        | 6.06        | (0.90)        | 2.01*                 | [0.003, 0.94] | 0.49             |
| Psychological suffering       | 5.09      | (1.49)        | 5.45        | (1.37)        | 1.05                  | [-0.33, 1.06] | 0.25             |
| Financial suffering           | 4.91      | (1.83)        | 5.15        | (1.58)        | 0.57                  | [0.60, 1.08]  | 0.14             |
| Empathy                       | 4.34      | (1.13)        | 4.85        | (1.40)        | 1.67                  | [0.10, 1.14]  | 0.40             |

*Note.* <sup>a</sup>For the control condition,  $n = 35$  for all measures. For the human right condition,  $n = 33$  for support and empathy;  $n = 34$  for the suffering items.

\*  $p < .05$

### ***Mediation Analyses with Suffering and Empathy***

Using PROCESS 3.0 (Hayes, 2018), a SPSS macro for testing mediation, we assessed whether the human right frame had an indirect effect on support for government action through perceived suffering and empathy. That is, this pathway: human right frame  $\rightarrow$  greater perceived suffering  $\rightarrow$  greater empathy  $\rightarrow$  greater support for government action. In each analysis, we specified the human right frame as the independent variable ( $X$ ), one type of perceived suffering (either physical, psychological, or financial) as the first mediator ( $M_1$ ), empathy as the second mediator ( $M_2$ ), and support for government action as the dependent variable ( $Y$ ). As per recommendations, we requested 10,000 percentile bootstrapped samples to estimate our effects. Figure 1, above, illustrates this model and OSM Appendix F provides the full results.

The human right frame had an indirect effect on support through physical suffering and empathy: Framing water as a human right led participants to support government action more because they perceived more physical suffering due to the lack of clean running water, which led them to feel empathy for those without water, and this feeling motivated support (partially standardized  $\beta = 0.04$ ,  $SE = 0.02$ , 95% CI [0.003, 0.09]). In contrast, the human right frame did not indirectly affect support through financial suffering and empathy (partially standardized  $\beta = 0.01$ ,  $SE = 0.03$ , 95% CI [-0.04, 0.07]) or through psychological suffering and empathy (partially standardized  $\beta = 0.03$ ,  $SE = 0.03$ , 95% CI [-0.02, 0.10]).



## Discussion

The direct effect of the human right frame on non-Indigenous Canadians' support for government action was positive and similar in effect size to what we report in Study 1. This effect was not statistically significant, likely due to the smaller sample size of this study. As expected, however, the hypothesized indirect effect of the human right frame was significant for physical suffering and empathy. In comparison, this effect was still positive, but weaker and not significant for financial and psychological suffering and empathy.

## Internal Meta-Analyses

To determine the aggregate effect of the human right frame on support for government action, we meta-analyzed the seven experimental studies in which we investigated the effects of the human right frame versus a control condition on support for government action. In four of these experimental studies, we assessed perceived suffering and empathy as potential sequential mediators by including a set of meta-analyses of these indirect effects. The internal meta-analyses include all the relevant studies we conducted. OSM Appendix A summarizes these study characteristics. Given the differences among the studies, including the frame specifics and the samples, we used random effects models (Viechtbauer, 2010).

## Participants

Across the seven experimental studies, the total number of respondents was 858 non-Indigenous Canadian citizens. Qualtrics Panels recruited and compensated participants in Studies 1, 6, and 7 ( $N=584$ ). We recruited the remaining participants ( $N=274$ ) through the undergraduate psychology participation pools at two universities in Winnipeg, Manitoba. Participants received partial course credit. OSM Appendix B provides demographic information.

## Method

All studies were online experimental surveys that began with informed consent and ended with a debriefing, though what followed consent differed across studies. Study 1 and 2 descriptions are above. For Studies 3 to 5, we followed the same procedure as Study 2. In Studies 6 and 7, participants in the human right condition first completed a thought-listing task titled, "Is Water a Human Right?" The instructions prompted them to list their thoughts about whether access to water and wastewater services is a human right. In comparison, control condition participants did not complete this task. Next, participants read the passage describing the issue and then completed the dependent measures (see OSM Appendix G for the text of each frame).<sup>9</sup>

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<sup>9</sup> Some studies included other experimental interventions not relevant to our research questions (e.g., testing the effects of a Canadian values frame). We only report the results from participants who did not complete additional experimental interventions (i.e., they were in the control condition). The sample sizes we report for each study are therefore smaller than the sample sizes we collected for each study.

## Measures

OSM Appendix A summarizes the meta-analyzed measures in each experimental study.

### *Support for Government Action*

Across studies, we assessed support for government action with variants of four items that we created.<sup>10</sup> Response options ranged from 1 = *strongly disagree* to 7 = *strongly agree*; we labelled each point.

### *Perceived Suffering*

In Studies 2, 5, 6, and 7, participants completed the measure we describe in Study 2. In Studies 5 to 7, however, we used the word "emotionally" instead of "psychologically."

### *Empathy*

In Studies 2, 5, 6, and 7, participants reported their empathy for affected First Nations using the scale we describe in Study 2.

## Results and Discussion

### *Descriptive Statistics*

OSM Appendix I displays the descriptive statistics across all studies. For all, the average level of support for government action was above the scale midpoint.

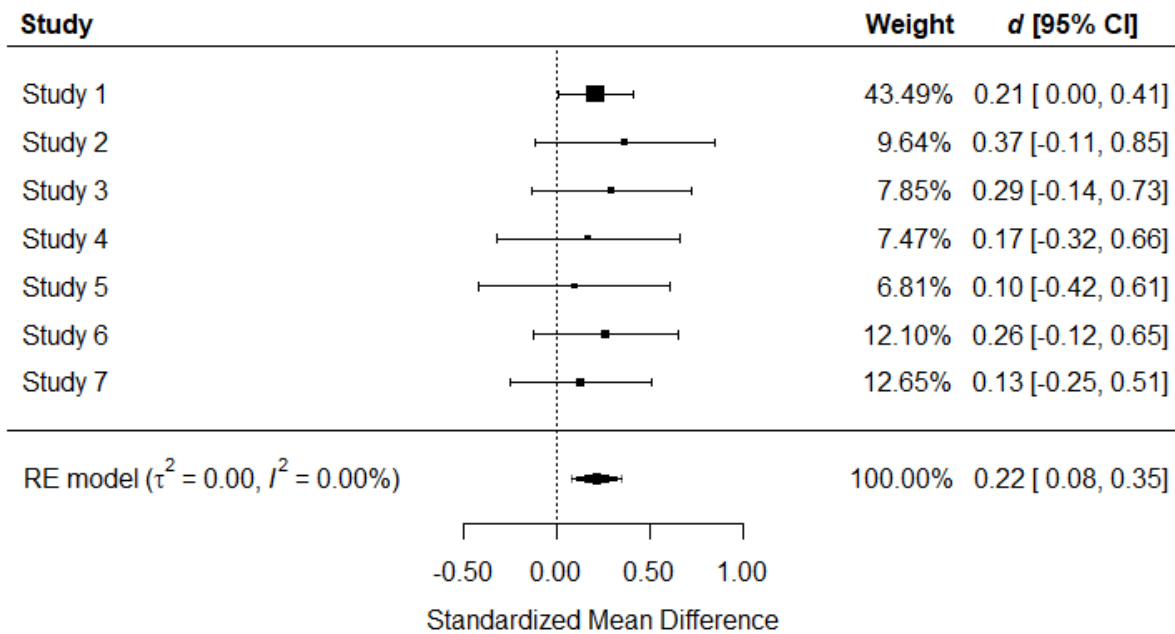
### *Aggregate Effects of the Human Right Frame on Support for Government Action*

To identify the average effect size and statistical significance of the human right frame across all the studies, we conducted a meta-analysis with the metafor package (Viechtbauer, 2010) in R (R Core Team, 2017). We weighted studies by sample size and used the restricted maximum likelihood estimator to estimate between-study variance ( $\tau^2$ ) and the average standardized mean difference (Cohen's  $d$ ). Table 3 provides the data we analyzed, and Figure 2 is a forest plot of the results. The findings support our hypothesis: Relative to the control condition, the human right frame increased support for government action to provide clean running water and wastewater services to First Nations,  $d = 0.22$ ,  $SE = 0.07$ , 95% CI [0.08, 0.35],  $p < .01$ . This difference is small by Cohen's (1988) conventions, but statistically significant. The effects were quite homogenous across studies (between-study variance:  $\tau^2 = 0.00$ ,  $SE = 0.02$ ; percentage of total variation due to heterogeneity:  $I^2 = 0.00\%$ ).

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<sup>10</sup> In some of the studies, we assessed support for government action with other items not listed in OSM Appendix A (see OSM Appendix H for all items in all studies). Upon reflection, we decided the additional items do not assess support but instead assess other constructs such as moral outrage or prejudice. For this reason, we excluded these items in our analyses.

**Figure 2. Forest Plot for the Internal Meta-Analysis of the Direct Effects of the Human Right Frame on Support for Government Action**



*Note.* The plotted bars represent 95% confidence intervals. The squares and polygon represent weighted effect sizes (Cohen’s *d*).

**Table 3. Effects of the Human Right Frame on Support for Government Action Across Experimental Studies**

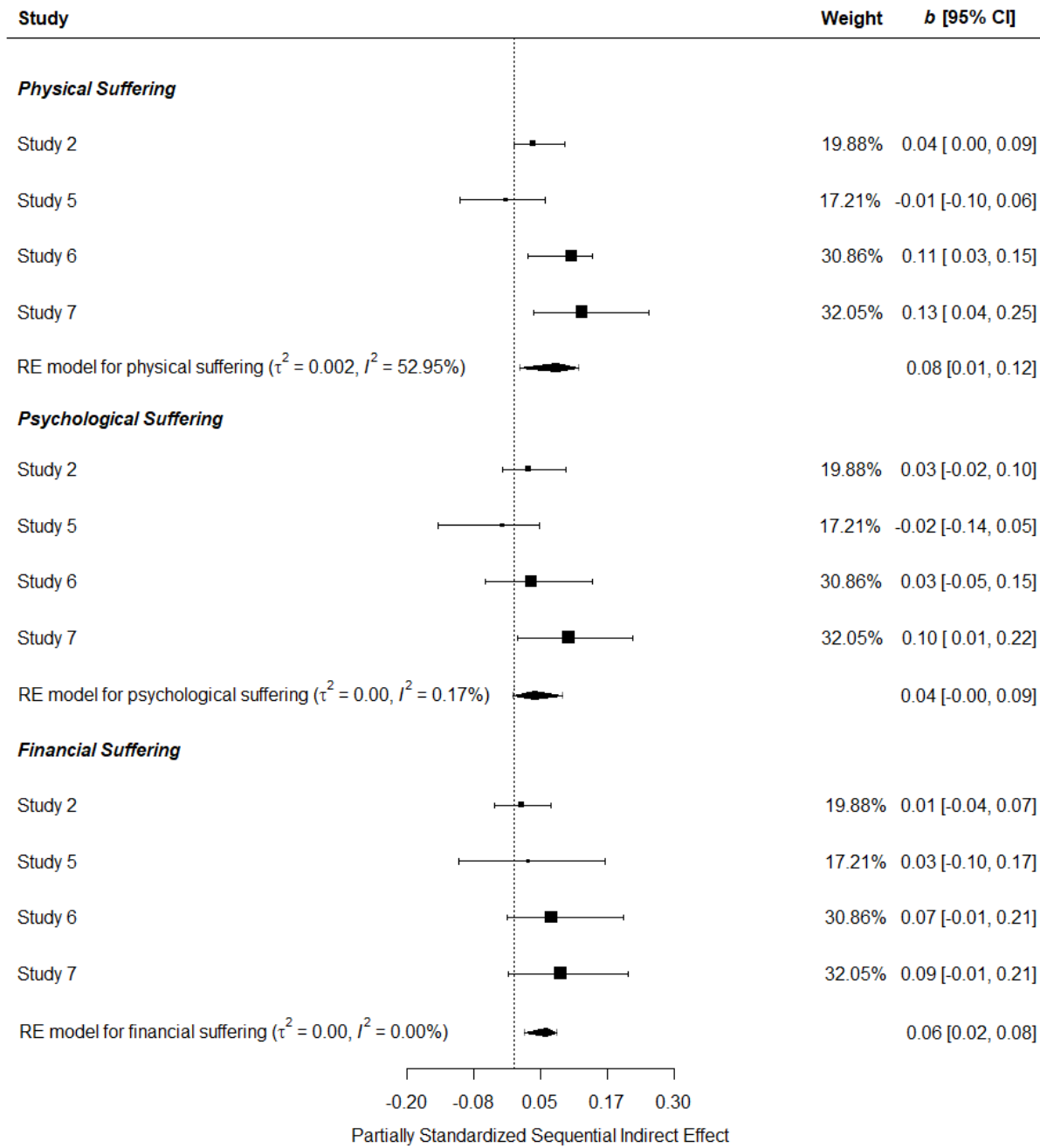
| Study | Condition |                        |             |                        |
|-------|-----------|------------------------|-------------|------------------------|
|       | Control   |                        | Human Right |                        |
|       | <i>N</i>  | <i>M</i> ( <i>SD</i> ) | <i>N</i>    | <i>M</i> ( <i>SD</i> ) |
| 1     | 187       | 5.50 (1.61)            | 185         | 5.83 (1.57)            |
| 2     | 35        | 6.20 (0.99)            | 33          | 6.52 (0.67)            |
| 3     | 40        | 5.40 (1.19)            | 43          | 5.73 (1.05)            |
| 4     | 30        | 5.18 (1.44)            | 34          | 5.41 (1.24)            |
| 5     | 29        | 5.55 (1.27)            | 29          | 5.67 (1.20)            |
| 6     | 54        | 5.42 (1.96)            | 50          | 5.89 (1.56)            |
| 7     | 52        | 5.56 (1.71)            | 56          | 5.79 (1.84)            |

### *Aggregate Mediating Roles of Suffering and Empathy*

We hypothesized that the human right frame would indirectly increase support for government action through increasing perceptions of suffering and consequently empathy. We also explored whether the type of suffering (physical, psychological, or financial) mattered. Across the four experimental studies that contained these potential mediators, following the same procedure from Study 2, we used the PROCESS macro (Version 3.4; Hayes, 2018) to obtain the partially standardized indirect effects of interest, once for each type of suffering, using 10,000 bootstrapped samples (percentile method). Next, using the metafor (Viechtbauer, 2010) and boot (Canty & Ripley, 2019; Davison & Hinkley, 1997) packages in R (R Core Team, 2017), we conducted three internal meta-analyses. All examined the hypothesized mediational chain, but each examined a different type of suffering. We weighted studies by sample size and used the restricted maximum likelihood estimator to estimate between-study variance ( $\tau^2$ ) and the average sequential indirect effect size ( $b$ ); we requested 10,000 bootstraps (percentile method) for the point estimate confidence interval. Figure 3 provides forest plots of the results.

Across the four studies, the aggregate sequential indirect effect of physical suffering and empathy helped explain the relationship between the human right frame and increased support for government action,  $b = 0.08$ ,  $SE = 0.03$ , bootstrapped 95% CI [0.01, 0.12],  $p = .02$ . There was minimal between-study variance,  $\tau^2 = 0.002$ ,  $SE = 0.003$ , with a moderate (approximately half) amount of the variability of between-study effect sizes caused by chance,  $I^2 = 52.95\%$ . Likewise, there was a small aggregate sequential indirect effect of the human right frame on increased support for government action via financial suffering and empathy,  $b = 0.06$ ,  $SE = 0.03$ , bootstrapped 95% CI [0.02, 0.08],  $p = .04$ ; the between-study variance was minimal,  $\tau^2 = 0.00$ ,  $SE = 0.002$ , as was the percentage of total variation in study effects due to heterogeneity rather than chance,  $I^2 = 0.00\%$ . There was relatively weaker meta-analytic evidence for a sequential indirect effect of the human right frame on support through psychological suffering and empathy,  $b = 0.04$ ,  $SE = 0.03$ , bootstrapped 95% CI [-0.002, 0.09],  $p = .08$ . Again, both the between-study variance,  $\tau^2 = 0.00$ ,  $SE = 0.002$ , and percentage of total variation in study effects due to heterogeneity rather than chance,  $I^2 = 0.17\%$ , were minimal.

**Figure 3. Forest Plot for the Internal Meta-Analysis of the Indirect Effects of the Human Right Frame on Support for Government Action Through Suffering and Empathy**



*Note.* The plotted bars represent 95% confidence intervals. The squares and polygons represent weighted effect sizes (partially standardized sequential indirect effects).

## General Discussion

The goal of this research was to investigate whether and why framing water as a human right could increase non-Indigenous Canadians' support for government action to provide clean running water and wastewater services to all First Nations. Although participant support was already high ( $M_s = 5.30\text{--}6.35$  on a 7-point scale), simply having participants reflect on whether water is a human right increased their support for government action. Given that the effect emerged across diverse samples of community members and students, as well as variants of the support measure and human right frame, the effect appears to be reliable. Importantly, the human right frame did not only impact attitudes: In Study 1, exposure to the human right frame also increased participants' interest in taking actions—ones our Indigenous partners hoped non-Indigenous peoples would engage in. Our internal meta-analyses also provided evidence for explanations of the relationship between the human right frame and support for government action. When people thought about water as a human right, they were more supportive of government action because they perceived greater physical suffering among First Nations peoples and thus felt more empathy for them. The same pattern also emerged for financial suffering. Both effects were small and statistically significant. A similar but non-significant pattern emerged for psychological suffering.

## Implications

This research contributes to the growing body of literature and practice on support for human rights. To our knowledge, this is the first work to show that merely asking people to consider whether water is a human right can influence their attitudes and behavioural intentions regarding water rights. We aim to provide strategies that may increase public engagement to address water access so these same principles may be promoted in support of Indigenous Peoples in Canada and others experiencing ongoing violation of their rights.

A related strength of this work is the frame's simplicity and real-world utility. As a quick internet search will reveal, advocates commonly use the question, "Is water a human right?," in their messages, likely because it is short and simple. Unlike in-depth informational interventions, which are of course valuable for different reasons, this frame can be easily used in newspaper headlines and social media posts or be printed on items such as stickers and t-shirts. The frame is also easy for people to use in everyday conversations. As the Canadian government continues to invest in providing water infrastructure to First Nations, embedding the human right frame within their announcements may help to increase public support and "buy-in" of their actions.

Other theoretical and applied contributions stem from our novel investigation into the roles of three types of suffering (financial, physical, and emotional). On a methodological note, these findings suggest that because not all forms of outgroup suffering are perceived equally, researchers should separately measure specific types of suffering when they exist. These findings also complement prior work demonstrating the link between perceiving that a group continues to suffer from a past harm (i.e., *privity*) and support for addressing that harm. It is possible that using the human right frame alongside descriptions of physical and financial suffering may further boost support beyond the levels observed here; however, care must be taken to not make the suffering seem impossible to address (Starzyk & Ross, 2008).

## Limitations and Directions for Future Research

We hypothesized a causal relationship between the three types of perceived outgroup suffering and support for government action. However, we did not experimentally vary these mediator variables. The relationship reported here is correlational and is thus a limitation of this work; future work should address this limitation.

In addition to perceived outgroup suffering and empathy for an outgroup, it is likely that there exist other mechanisms that contribute to the effect of the human right frame on support for government action, particularly given the small indirect effect sizes observed. Two candidate mechanisms are lowered reactance (Brehm, 1966; Steindl et al., 2015) and cognitive dissonance (Bruneau et al., 2018; Drolet, 2018; Festinger, 1962). We drew on these literatures when creating our human right frame, all versions of which allowed participants to decide for themselves whether water is a human right. We did not state that water was a human right, nor did we explicitly try to convince them of this fact. This choice was an intentional one: We reasoned that having people come up with their own answer to whether water is a human right, relative to these more forceful approaches, might promote supportive responding by minimizing defensiveness and having them act in alignment with their assumed values of human right. As we did not directly compare the effects of our frame with more assertive or persuasive ones, we encourage others to test these theoretical propositions in the future. To do so would also have important applied implications, as advocacy campaigns often assert that their cause is a human right (e.g., “Water is a human right”; Assembly of Manitoba Chiefs, 2010).

Although framing water as a human right garnered support for government action from non-Indigenous participants in the current research, we do not purport that this strategy will always be effective. Some demographic characteristics may be relevant. Consistent with this, Starzyk et al. (2019) found that racial majority (i.e., White) participants are less likely to support reparations for Indigenous Peoples in Canada than are non-Indigenous racial minority participants in Canada. As well, we would expect that the human right frame would be less effective or perhaps backfire when people feel psychologically threatened (for a review, see Carriere, 2019a); testing the power of the human right frame in conjunction with psychological threat would be a valuable next step. For instance, in the context of support for water rights, the water as a human right frame might be less effective when people feel that water is scarce, and thus experience realistic threats to water security (Stephan et al., 1999). Researchers could experimentally induce this threat with (real or ostensible) information about increasing water scarcity, or the threat could be naturally occurring in places facing water scarcity or states of emergency. The human right frame might also be less effective under conditions of system threat (Jost et al., 2010; Kay et al., 2009). To test this proposition, researchers could use existing experimental inductions of system threat (for a review, see Friesen et al., 2019). Alternatively, researchers could induce system threat by explicitly framing the matter as a human rights *violation caused by the government* (Shnabel et al., 2016). The rights violation frame might be especially threatening to racial majority outgroup members who are not impacted by the injustice, perhaps because it suggests that their group is failing others. In partial support, prior work has found that perceptions of rights violations positively associated with activism for ingroup issues (Mazzoni et al., 2015), whereas the rights violation frame (relative to distress frames or no frames) decreased support for a minority outgroup issue (Shnabel et al., 2016). Given the inherent priorities of our Water Advocacy Group, we only tested the human right strategy in

the context of water rights; future work may wish to investigate whether this strategy is effective for both positive and negative human rights, as well as other rights, such as Indigenous rights.

We recognize our research focused on support for *government action* to provide *access* to safe water, which some argue is an inherent shortcoming in traditional human rights approaches to water security (see Jepson et al., 2020). This focus was decided through consultations with our Indigenous partners and Indigenous community members. However, other forms of direct action taken by non-state actors are also important (Meehan, 2020), as is promoting holistic views of water rights that recognize cultural and ecological issues associated with water insecurity (Jepson, 2014; Jepson et al., 2017). Future research should examine the implications of the water as a human right frame for other forms of action including those that address cultural and ecological issues.

Finally, at the request of our Indigenous partners, we limited our sample to non-Indigenous participants. They felt (and we, the authors, agreed) it was important to focus on shifting the attitudes of non-Indigenous peoples, as they represent a large section of the population and public opinion can influence government action (Herle, 2007; Page & Shapiro, 1983). We collectively assumed that Indigenous Peoples would have quite strong support for government action, rendering the human right frame either less effective or perhaps ineffective for Indigenous Peoples, relative to the non-Indigenous participants we sampled here. Nonetheless, a consequence of this sampling decision is that we could not assess these possibilities, which represent an important direction for future work.

### **A Call to Action**

Given the severe consequences of not having access to potable water, we would be remiss without ending on a call for action. We first speak to those who directly influence and enact policies to ensure equal access to potable water, such as elected officials responsible for onboarding these services. It is essential to work in partnership with those who do not have access to potable water. In many cases, true partnership was likely a pathway to success that was absent in previous attempts to “fix” these problems. Each affected community has its own characteristics (e.g., population size and density, available training, governing structure, motivations and attitudes toward change, differing features of the terrain) that could influence the ultimate success of any specific action; likely, the community will know these features best. Working alongside community members will help to ensure that the characteristics unique to each community are acknowledged and implemented by water infrastructure experts as part of planning the solution; what works well for one community may not work for another. In Canada, it is necessary to implement the United Nations Declaration of Rights of Indigenous Peoples and the Truth and Reconciliation Commission of Canada’s Calls to Action. Those who have less direct influence on systems capable of changing water infrastructure also have a role to play. Through in-person or online conversations, they may tell others about the lack of clean running water in First Nations (or other relevant contexts) while asking the question, “Is water a human right?” In these ways, we may work toward a world wherein the human right to water—the “most precious gift”—is fulfilled.



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## Appendix A

### Summary of Internally Meta-Analyzed Study Characteristics

| Study | Data collected | Sample    | N   | Retained support items   | Mediators   |
|-------|----------------|-----------|-----|--|---|
| 1     | 2014 Summer    | Community | 372 | 1a. The Government should provide running water and wastewater services to all First Nations homes.<br>2. The Government should provide running water and wastewater services to First Nations homes comparable to that available in non-First Nation communities.       | --  |
| 2     | 2015 Winter    | Students  | 68  | 3. The Government should ensure First Nations communities have access to clean running water.  | Physical suffering<br>Psychological suffering<br>Financial suffering<br>Empathy |
| 3     | 2015 Winter    | Students  | 84  | 3. The Government should ensure First Nations communities have access to clean running water.<br>4. Providing clean running water to First Nations communities should be one of Canada's top priorities.   | --  |
| 4     | 2015 Spring    | Students  | 64  | 3. The Government should ensure First Nations communities have access to clean running water.<br>4. Providing clean running water to First Nations communities should be one of Canada's top priorities.   | --  |
| 5     | 2016 Winter    | Students  | 58  | 1b. The Government should provide clean, running water and wastewater services to all First Nations homes even if its costly.<br>4. Providing clean, running water and wastewater services to First Nations communities should be one of Canada's top priorities.        | Physical suffering<br>Emotional suffering<br>Financial suffering<br>Empathy     |
| 6     | 2016 Fall      | Community | 104 | 1c. The Government should provide clean, running water and wastewater services to all First Nations homes.<br>1d. The Government should provide running water and wastewater services to First Nations homes comparable to that available in non-Indigenous communities. | Physical suffering<br>Emotional suffering<br>Financial suffering<br>Empathy     |
| 7     | 2016 Fall      | Community | 108 | 1c. The Government should provide clean, running water and wastewater services to all First Nations homes.<br>1d. The Government should provide running water and wastewater services to First Nations homes comparable to that available in non-Indigenous communities. | Physical suffering<br>Emotional suffering<br>Financial suffering<br>Empathy     |

*Note.* The *N* for each study is the final *N* after excluding participants for reasons we provide in the participants section.



**Appendix B**

**Participant Demographics Across Studies**

| Variable   | Study    |      |          |      |          |      |          |      |          |      |          |     |          |      |
|--|----------|------|----------|------|----------|------|----------|------|----------|------|----------|-----|----------|------|
|  | 1        |      | 2        |      | 3        |      | 4        |      | 5        |      | 6        |     | 7        |      |
|  | <i>n</i> | %    | <i>n</i> | %    | <i>n</i> | %    | <i>n</i> | %    | <i>n</i> | %    | <i>n</i> | %   | <i>n</i> | %    |
| Gender Identity                                      |          |      |          |      |          |      |          |      |          |      |          |     |          |      |
| Male   | 193      | 51.9 | 29       | 42.6 | 20       | 23.8 | 32       | 50   | 22       | 37.9 | 52       | 50  | 51       | 47.2 |
| Female   | 178      | 47.8 | 39       | 57.4 | 64       | 76.2 | 30       | 46.9 | 36       | 62.1 | 52       | 50  | 57       | 52.8 |
| Missing  | 1        | 0.3  |          |      |          |      | 2        | 3.1  |          |      |          |     |          |      |
| Ethnicity  |          |      |          |      |          |      |          |      |          |      |          |     |          |      |
| Arab (e.g., Egyptian, Kuwaiti, Libyan)               | 2        | 0.5  | 1        | 1.5  |          |      |          |      |          |      |          |     | 1        | 0.9  |
| Black (e.g., African, Nigerian, Somali)              | 9        | 2.4  | 4        | 5.9  | 3        | 3.6  | 2        | 3.1  | 2        | 3.4  | 3        | 2.9 | 4        | 3.7  |
| Chinese  | 14       | 3.8  | 3        | 4.4  | 1        | 1.2  | 1        | 1.6  | 5        | 8.6  | 3        | 2.9 | 4        |      |
| Filipino   | 5        | 1.3  | 8        | 11.8 | 13       | 15.5 | 5        | 7.8  | 5        | 8.6  | 2        | 1.9 | 1        | 0.9  |
| Japanese   | 3        | 0.8  |          |      |          |      |          |      |          |      |          |     |          |      |
| Korean   | 1        | 0.3  |          |      |          |      |          |      |          |      |          |     | 1        |      |
| Latin American (e.g., Chilean, Costa Rican, Mexican) | 1        | 0.3  | 1        | 1.5  | 1        | 1.2  | 2        | 3.1  | 1        | 1.7  | 1        | 1.0 |          | 0.9  |
| South Asian (e.g., Bangladeshi, Punjabi, Sri Lankan) | 11       | 3.0  | 7        | 10.3 | 4        | 4.8  | 3        | 4.7  |          |      | 2        | 1.9 | 1        | 0.9  |

**Participant Demographics Across Studies (continued)**

| Variable   | Study    |           |          |           |          |           |          |           |          |           |          |           |          |           |
|--|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|
|  | 1        |           | 2        |           | 3        |           | 4        |           | 5        |           | 6        |           | 7        |           |
|  | <i>n</i> | %         | <i>n</i> | %         | <i>n</i> | %         | <i>n</i> | %         | <i>n</i> | %         | <i>n</i> | %         | <i>n</i> | %         |
| Southeast Asian<br>(e.g., Vietnamese,<br>Cambodian,<br>Malaysian, Laotian) | 4        | 1.1       | 3        | 4.4       |          |           |          |           | 1        | 1.7       |          |           | 1        | 0.9       |
| West Asian<br>(e.g., Afghan,<br>Assyrian, Iranian)                         | 2        | 0.5       |          |           |          |           |          |           |          |           |          |           |          |           |
| White  | 314      | 84.4      | 39       | 57.4      | 59       | 70.2      | 44       | 68.8      | 39       | 67.2      | 87       | 83.7      | 90       | 83.3      |
| Visible racial<br>minority<br>(e.g., Pacific Islander,<br>Guyanese)        |          |           |          |           |          |           |          |           |          |           |          |           | 2        | 1.9       |
| Multiple visible racial<br>minorities                                      |          |           |          |           |          |           |          |           |          |           | 4        | 3.8       | 3        | 2.8       |
| Other  | 6        | 1.6       | 2        | 2.9       | 3        | 3.6       | 7        | 10.9      | 4        | 6.9       | 2        | 1.9       |          |           |
| Missing  |          |           |          |           |          |           |          |           |          |           |          |           |          |           |
|  | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> |
| Age <sup>a</sup>   | 43.39    | 15.16     | 18.96    | 1.65      | 20.12    | 2.27      | 20.91    | 3.32      | 19.26    | 2.57      | 37.29    | 14.05     | 38.65    | 14.73     |

Appendix C

Study 1 Descriptive Statistics and Correlations

| Measure                             | <i>M</i> ( <i>SD</i> ) | Frequency “yes” | Range | Correlations |       |       |       |       |       |       |       |  |
|-------------------------------------|------------------------|-----------------|-------|--------------|-------|-------|-------|-------|-------|-------|-------|--|
|                                     |                        |                 |       | 2            | 3     | 4     | 5     | 6     | 7     | 8     | 9     |  |
| 1. Support for government action    | 5.67 (1.60)            | --              | 1–7   | .33**        | .20** | .19** | .13*  | .17** | .25** | .15** | .07   |  |
| 2. Total number of actions          | 1.62 (1.41)            | --              | 0–7   |              | .34** | .59** | .64** | .58** | .58** | .63** | .48** |  |
| 3. Read newspaper article           | --                     | 228             | 0–1   |              |       | -.08  | .02   | -.03  | -.02  | .07   | .05   |  |
| 4. Sign online petition             | --                     | 140             | 0–1   |              |       |       | .33** | .24** | .19** | .25** | .14** |  |
| 5. Email petition to friends        | --                     | 41              | 0–1   |              |       |       |       | .46** | .31** | .31** | .14** |  |
| 6. Share petition on Facebook       | --                     | 55              | 0–1   |              |       |       |       |       | .28** | .19** | .17** |  |
| 7. Speak to family or friend        | --                     | 66              | 0–1   |              |       |       |       |       |       | .35** | .16** |  |
| 8. Write a letter to the government | --                     | 42              | 0–1   |              |       |       |       |       |       |       | .44** |  |
| 9. Attend a public rally            | --                     | 32              | 0–1   |              |       |       |       |       |       |       |       |  |

Note. \*\*  $p < .001$ .

## Appendix D

### Assessment of Random Assignment to Experimental Conditions

| Study | Gender                |          | Ethnicity<br>(White vs. non-Indigenous<br>ethnic minority) |          | Age      |          |
|-------|-----------------------|----------|--|----------|----------|----------|
|       | <i>X</i> <sup>2</sup> | <i>p</i> | <i>X</i> <sup>2</sup>                                      | <i>p</i> | <i>t</i> | <i>p</i> |
| 1     | 1.41                  | .24      | 0.06   | .81      | -0.18    | .86      |
| 2     | 1.87                  | .39      | 0.42   | .81      | 0.25     | .80      |
| 3     | 4.72                  | .03      | 0.15   | .70      | 0.78     | .44      |
| 4     | 3.14                  | .08      | 0.04   | .84      | 0.14     | .89      |
| 5     | 0.29                  | .59      | 0.70   | .40      | -0.05    | .96      |
| 6     | 1.39                  | .24      | 0.01   | .93      | -0.71    | .48      |
| 7     | 0.36                  | .55      | 3.59   | .06      | 1.50     | .14      |

### Appendix E

#### Study 2 Descriptive Statistics and Correlations

| Variable                         | $M(SD)$     | Range     | 2   | 3   | 4   | 5   |
|----------------------------------|-------------|-----------|-----|-----|-----|-----|
| 1. Support for government action | 6.35 (0.86) | 3.00–7.00 | .52 | .46 | .46 | .58 |
| 2. Physical suffering            | 5.82 (0.98) | 2–7       |     | .72 | .43 | .38 |
| 3. Psychological suffering       | 5.27 (1.43) | 1–7       |     |     | .51 | .50 |
| 4. Financial suffering           | 5.03 (1.71) | 1–7       |     |     |     | .48 |
| 5. Empathy                       | 4.59 (1.29) | 2.00–7.00 |     |     |     |     |

*Note.* All correlations were significant at  $p < .01$ .

**Appendix F**

**Study 2 Sequential Mediation for Support for Government Action**

| Antecedent                     | Consequent   |                       |        |                |   |                                  |        |          |  |                       |                      |          |     |                |       |
|--------------------------------|--|-----------------------|--------|----------------|---|----------------------------------|--------|----------|--|-----------------------|----------------------|----------|-----|----------------|-------|
|                                | M <sub>1</sub> (Suffering)   |                       |        |                | M <sub>2</sub> (Empathy)  |                                  |        |          | Y (Support for government action)  |                       |                      |          |     |                |       |
|                                | <i>B</i>   | <i>SE<sub>B</sub></i> | 95% CI | <i>t</i>       | <i>B</i>  | <i>SE<sub>B</sub></i>            | 95% CI | <i>t</i> | <i>B</i>   | <i>SE<sub>B</sub></i> | 95% CI               | <i>t</i> |     |                |       |
|                                | <i>M<sub>1</sub></i> = Physical suffering                              |                       |        |                |   |                                  |        |          |  |                       |                      |          |     |                |       |
| <i>X</i> (Cond)                | <i>a<sub>1</sub></i>   | 0.24                  | .12    | <0.01,<br>0.47 | 2.01*   | <i>a<sub>2</sub></i>             | .13    | .15      | -0.17,<br>0.43   | .85                   | <i>c'</i>            | <0.01    | .08 | -0.17,<br>0.17 | <0.00 |
| <i>M<sub>1</sub></i>           | —  | —                     | —      | —              | —   | <i>d<sub>21</sub></i>            | .46    | .15      | 0.16,<br>0.77  | 3.00*                 | <i>b<sub>1</sub></i> | 0.31     | .09 | 0.12,<br>0.49  | 3.35* |
| <i>M<sub>2</sub></i> (Empathy) | —  | —                     | —      | —              | —   | —                                | —      | —        | —  | —                     | <i>b<sub>2</sub></i> | 0.28     | .07 | 0.15,<br>0.42  | 4.12* |
| Constant                       | <i>i<sub>M<sub>1</sub></sub></i>                                       | 5.59                  | .16    | 5.26,<br>5.92  | 33.88*  | <i>i<sub>M<sub>2</sub></sub></i> | 1.78   | .89      | 0.01,<br>3.56  | 2.01*                 | <i>i<sub>Y</sub></i> | 3.29     | .50 | 2.28,<br>4.30  | 6.52* |
|                                | <i>R</i> <sup>2</sup> = .06<br><i>F</i> (1, 65) = 4.04, <i>p</i> = .05 |                       |        |                | <i>R</i> <sup>2</sup> = .15<br><i>F</i> (2, 64) = 5.83, <i>p</i> < .001 |                                  |        |          | <i>R</i> <sup>2</sup> = .42<br><i>F</i> (3, 63) = 15.44, <i>p</i> < .001 |                       |                      |          |     |                |       |

**Study 2 Sequential Mediation for Support for Government Action (continued)**

| M <sub>1</sub> = Psychological suffering                               |                                  |          |                       |             |  |  |                                  |                       |        |  |       |                      |                       |        |             |        |
|--|----------------------------------|----------|-----------------------|-------------|--|--|----------------------------------|-----------------------|--------|--|-------|----------------------|-----------------------|--------|-------------|--------|
| Antecedent   |                                  | <i>B</i> | <i>SE<sub>B</sub></i> | 95% CI      | <i>t</i>   |  | <i>B</i>                         | <i>SE<sub>B</sub></i> | 95% CI | <i>t</i>   |       | <i>B</i>             | <i>SE<sub>B</sub></i> | 95% CI | <i>t</i>    |        |
| <i>X</i> (Cond)  | <i>a<sub>1</sub></i>             | .18      | .17                   | -0.17, 0.53 | 1.05   |  | <i>a<sub>2</sub></i>             | 0.16                  | .14    | -0.12, 0.43  | 1.15  | <i>c'</i>            | 0.05                  | .39    | -0.13, 0.22 | 0.53   |
| <i>M<sub>1</sub></i>   | —                                | —        | —                     | —           | —  |  | <i>d<sub>21</sub></i>            | 0.43                  | .10    | 0.24, 0.63   | 4.45* | <i>b<sub>1</sub></i> | 0.14                  | .07    | 0.01, 0.28  | 2.09*  |
| <i>M<sub>2</sub></i> (Empathy)   | —                                | —        | —                     | —           | —  |  | —                                | —                     | —      | —  | —     | <i>b<sub>2</sub></i> | 0.29                  | .08    | 0.13, 0.44  | 3.07*  |
| Constant   | <i>i<sub>M<sub>1</sub></sub></i> | 5.09     | .25                   | 4.60, 5.58  | 20.75*   |  | <i>i<sub>M<sub>2</sub></sub></i> | 2.18                  | .53    | 1.12, 3.24   | 4.12* | <i>i<sub>Y</sub></i> | 4.25                  | .37    | 3.51, 4.99  | 11.51* |
| <i>R</i> <sup>2</sup> = .02<br><i>F</i> (1, 65) = 1.10, <i>p</i> = .30 |                                  |          |                       |             | <i>R</i> <sup>2</sup> = .26<br><i>F</i> (2, 64) = 11.42, <i>p</i> < .001 |  |                                  |                       |        | <i>R</i> <sup>2</sup> = .37<br><i>F</i> (3, 63) = 12.07, <i>p</i> < .001 |       |                      |                       |        |             |        |
| M <sub>1</sub> = Financial suffering                                   |                                  |          |                       |             |  |  |                                  |                       |        |  |       |                      |                       |        |             |        |
| Antecedent   |                                  | <i>B</i> | <i>SE<sub>B</sub></i> | 95% CI      | <i>t</i>   |  | <i>B</i>                         | <i>SE<sub>B</sub></i> | 95% CI | <i>t</i>   |       | <i>B</i>             | <i>SE<sub>B</sub></i> | 95% CI | <i>t</i>    |        |
| <i>X</i> (Cond)  | <i>a<sub>1</sub></i>             | 0.12     | .21                   | -0.30, 0.54 | 0.57   |  | <i>a<sub>2</sub></i>             | 0.20                  | .14    | -0.08, 0.47  | 1.42  | <i>c'</i>            | 0.06                  | .09    | -0.11, 0.23 | 0.66   |
| <i>M<sub>1</sub></i>   | —                                | —        | —                     | —           | —  |  | <i>d<sub>21</sub></i>            | 0.35                  | .08    | 0.19, 0.51   | 4.32* | <i>b<sub>1</sub></i> | 0.13                  | .06    | 0.01, 0.24  | 2.21*  |
| <i>M<sub>2</sub></i> (Empathy)   | —                                | —        | —                     | —           | —  |  | —                                | —                     | —      | —  | —     | <i>b<sub>2</sub></i> | 0.28                  | .08    | 0.13, 0.44  | 3.72*  |
| Constant   | <i>i<sub>M<sub>1</sub></sub></i> | 4.91     | .29                   | 4.32, 5.50  | 16.71*   |  | <i>i<sub>M<sub>2</sub></sub></i> | 2.65                  | .44    | 1.76, 3.54   | 5.96* | <i>i<sub>Y</sub></i> | 4.37                  | .34    | 3.69, 5.05  | 12.87* |
| <i>R</i> <sup>2</sup> = .01<br><i>F</i> (1, 65) = 0.33, <i>p</i> = .57 |                                  |          |                       |             | <i>R</i> <sup>2</sup> = .25<br><i>F</i> (2, 64) = 10.81, <i>p</i> < .001 |  |                                  |                       |        | <i>R</i> <sup>2</sup> = .37<br><i>F</i> (2, 63) = 12.33, <i>p</i> < .001 |       |                      |                       |        |             |        |

Note. \* *p* < .05.

## **Appendix G**

### **Human Rights Manipulations**

#### **Study 1**

##### **Control Condition**

Note: Participants completed the below after the dependent variables.

##### **Human Right Condition**

Is Water a Human Right?

The term "human rights" refers to rights and freedoms that everyone in society is entitled to, and are guaranteed under the law. Should, or should not, the "right to clean water" be guaranteed as a human right for all Canadians?

Yes, it should.

No, it should not.



## Study 2

### Control Condition

In 2012, Minister of Aboriginal Affairs and Northern Development John Duncan released the findings of *The National Assessment of First Nations Water and Wastewater Systems*. Describing the state of household running water and wastewater (sanitation, sewage) services across 97% of Canada's First Nations (571 of 589), this report is the largest and most rigorous assessment of its kind ever conducted in Canada. According to the report, approximately 3,400 homes in Canadian First Nations communities do not have running or wastewater services—that is, any form of indoor water.

### Human Right Condition

Is Water a Human Right?

In 2012, Minister of Aboriginal Affairs and Northern Development John Duncan released the findings of *The National Assessment of First Nations Water and Wastewater Systems*. Describing the state of household running water and wastewater (sanitation, sewage) services across 97% of Canada's First Nations (571 of 589), this report is the largest and most rigorous assessment of its kind ever conducted in Canada. According to the report, approximately 3,400 homes in Canadian First Nations communities do not have running or wastewater services—that is, any form of indoor water.

**Ask yourself:** Is access to water and water waste services a **human right**?

## Studies 3 and 4

### Control Condition

In 2012, Minister of Aboriginal Affairs and Northern Development John Duncan released the findings of *The National Assessment of First Nations' Water and Wastewater Systems*. Describing the state of household running water and wastewater (sanitation, sewage) services across 97% of Canada's First Nations (571 of 589), this report is the largest and most rigorous assessment of its kind ever conducted in Canada.

According to the report, approximately 3,000 homes in Canadian First Nations communities do not have running water or wastewater services—that is, any form of indoor water (i.e., no water to do dishes or laundry and bathe, no toilets).

### Human Right Condition

Is Water a Human Right?

In 2012, Minister of Aboriginal Affairs and Northern Development John Duncan released the findings of *The National Assessment of First Nations' Water and Wastewater Systems*. Describing the state of household running water and wastewater (sanitation, sewage) services across 97% of Canada's First Nations (571 of 589), this report is the largest and most rigorous assessment of its kind ever conducted in Canada.

According to the report, approximately 3,000 homes in Canadian First Nations communities do not have running water or wastewater services—that is, any form of indoor water (i.e., no water to do dishes or laundry and bathe, no toilets).

**Ask yourself:** Is access to water and water waste services a human right?

## Study 5

### Control Condition

[Copyrighted image of older man hauling water from a lake.]

In 2012, Minister of Aboriginal Affairs and Northern Development John Duncan released the findings of The National Assessment of First Nations' Water and Wastewater Systems. Describing the state of household running water and wastewater (sanitation, sewage) services across 97% of Canada's First Nations (571 of 589), this report is the largest and most rigorous assessment of its kind ever conducted in Canada. According to the report, approximately 3,000 homes in Canadian First Nations communities do not have running water or wastewater services—that is, any form of indoor water (i.e., no water to do dishes or laundry and bathe, no toilets). The situation remains the same today in 2016.

### Human Right Condition

Is Water a Human Right?

[Copyrighted image of older man hauling water from a lake.]

In 2012, Minister of Aboriginal Affairs and Northern Development John Duncan released the findings of The National Assessment of First Nations' Water and Wastewater Systems. Describing the state of household running water and wastewater (sanitation, sewage) services across 97% of Canada's First Nations (571 of 589), this report is the largest and most rigorous assessment of its kind ever conducted in Canada. According to the report, approximately 3,000 homes in Canadian First Nations communities do not have running water or wastewater services—that is, any form of indoor water (i.e., no water to do dishes or laundry and bathe, no toilets). The situation remains the same today in 2016.

Ask yourself: Is access to water and water waste services a human right?

## Studies 6 and 7

### Control Condition

Note: Control condition participants did not complete any task.

### Human Right Condition

Is Water a Human Right?

Using the space below, please list your thoughts. Please focus on how access to water and wastewater services is a human right or not. There are no right or wrong answers. Please mark separate points with a number. For example:

1) ...

2) ...

Etc.

You should take approximately five minutes to do this. Once you are finished listing your thoughts, please continue to the next page.

**Appendix H**

**All Items Originally Intended to Assess Support for Government Action**

| Study           | Item   | Item Retained? |
|-----------------|--|----------------|
| Study 1         | The Government should provide running water and wastewater services to all First Nations homes.  | X              |
|                 | The Government should provide running water and wastewater services to First Nations homes comparable to that available in non-Aboriginal communities. | X              |
| Study 2         | The Government should ensure First Nations communities have access to clean running water  | X              |
|                 | The Government has a moral responsibility to provide clean running water to First Nations communities.   |                |
|                 | First Nations communities should do more to take care of themselves  |                |
|                 | The Government should cover the cost of providing clean running water to First Nations communities.  |                |
|                 | I support my tax dollars going to help First Nations communities get clean running water.  |                |
|                 | The Government should be doing more to help First Nations communities.   |                |
| Studies 3 and 4 | The Government should ensure First Nations communities have access to clean running water  | X              |
|                 | The Government has a moral responsibility to provide clean running water to First Nations communities.   |                |
|                 | First Nations communities should do more to take care of themselves  |                |
|                 | The Government should cover the cost of providing clean running water to First Nations communities.  |                |
|                 | I support my tax dollars going to help First Nations communities get clean running water.  |                |
|                 | Providing clean running water to First Nations communities should be one of Canada's top priorities.   | X              |
|                 | The Government should be doing more to help First Nations communities.   |                |

**All Items Originally Intended to Assess Support for Government Action (continued)**

| Study           | Item   | Item Retained? |
|-----------------|--|----------------|
| Study 5         | The Government should provide running water and wastewater services to all First Nations homes.  | X              |
|                 | The Government has a moral responsibility to provide clean water to First Nations communities.   |                |
|                 | Providing clean running water to First Nations communities should be more of a priority for the Government.  | X              |
| Studies 6 and 7 | The Government should provide clean, running water and wastewater services to all First Nations homes.   | X              |
|                 | The Government should provide running water and wastewater services to First Nations homes comparable to that available in non-Aboriginal communities. | X              |
|                 | I support my tax dollars going to help First Nations communities get clean running water.  |                |

## Appendix I

## Descriptive Statistics for Internally Meta-Analyzed Measures

| Dependent Variables           | Study | Reliability | <i>M</i> ( <i>SD</i> ) | Range     |
|-------------------------------|-------|-------------|------------------------|-----------|
| Support for Government Action | 1     | .74         | 5.67 (1.60)            | 1.00–7.00 |
|                               | 2     | .42         | 5.57 (1.12)            | 1.00–7.00 |
|                               | 3     | --          | 6.35 (0.86)            | 3.00–7.00 |
|                               | 4     | .62         | 5.30 (1.33)            | 1.50–7.00 |
|                               | 5     | .85         | 5.61 (1.22)            | 2.00–7.00 |
|                               | 6     | .75         | 5.64 (1.79)            | 1.00–7.00 |
|                               | 7     | .81         | 5.68 (1.77)            | 1.00–7.00 |
| Physical Suffering            | 1     | --          | --                     | --        |
|                               | 2     | --          | 5.82 (0.98)            | 2.00–7.00 |
|                               | 3     | --          | --                     | --        |
|                               | 4     | --          | --                     | --        |
|                               | 5     | --          | 6.12 (0.92)            | 2.00–7.00 |
|                               | 6     | --          | 5.62 (1.46)            | 1.00–7.00 |
|                               | 7     | --          | 5.77 (1.54)            | 1–7       |
| Psychological Suffering       | 1     | --          | --                     | --        |
|                               | 2     | --          | 5.67 (1.48)            | 1.00–7.00 |
|                               | 3     | --          | --                     | --        |
|                               | 4     | --          | --                     | --        |
|                               | 5     | --          | 5.41 (1.24)            | 2.00–7.00 |
|                               | 6     | --          | 5.62 (1.57)            | 1.00–7.00 |
|                               | 7     | --          | 5.70 (1.39)            | 1–7       |

**Descriptive Statistics for Internally Meta-Analyzed Measures (continued)**

| Dependent Variables | Study | Reliability | $M(SD)$     | Range     |
|---------------------|-------|-------------|-------------|-----------|
| Financial Suffering | 1     | --          | --          | --        |
|                     | 2     | --          | 5.03 (1.71) | 1.00–7.00 |
|                     | 3     | --          | --          | --        |
|                     | 4     | --          | --          | --        |
|                     | 5     | --          | 5.47 (1.59) | 1.00–7.00 |
|                     | 6     | --          | 4.98 (1.54) | 1.00–7.00 |
|                     | 7     | --          | 5.23 (1.73) | 1–7       |
| Empathy             | 1     | --          | --          | --        |
|                     | 2     | .91         | 4.59 (1.29) | 2.00–7.00 |
|                     | 3     | --          | --          | --        |
|                     | 4     | --          | --          | --        |
|                     | 5     | .94         | 3.88 (1.19) | 1.00–6.00 |
|                     | 6     | .92         | 4.98(1.54)  | 1.00–7.00 |
|                     | 7     | .91         | 4.72 (1.56) | 1.00–7.00 |

*Note.* The reliability estimate for empathy was Cronbach's alpha; all other reliability estimates were for two-item composites so are Spearman's correlations.