

**The Effects of Critical Historical Knowledge and Dibaajimowinan (Storytelling) on
Reactions to Missing and Murdered Indigenous Women, Girls, Two-Spirit Peoples+**

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Abstract

Indigenous women, girls, and 2SLGBTQI+ people in Canada experience disproportionately high rates of violence. In response, Indigenous communities have called for increased education and awareness to address the systemic causes of this violence. Critical historical education is one effective intervention. A complement to such education may be storytelling. In my thesis, I examined the effects of critical historical education and storytelling on non-Indigenous peoples' emotional, attitudinal, and behavioral responses to this issue. I conducted an online experimental survey with non-Indigenous undergraduate students ($N = 499$) to compare these two approaches using a 2 (Critical Historical Knowledge: none, critical historical passage) $\times$ 2 (Storytelling: none, personal story video) factorial design. Participants in the three intervention conditions either read a critical historical passage, watched a video in which a woman described her lived experience, or received both interventions. Participants in a fourth empty control condition only completed the dependent measures of empathy, political solidarity, behavioral intentions, and support for government action. First, I hypothesized that all interventions would outperform the control in eliciting empathy, political solidarity, behavioral intentions, and support for government action. Second, I expected that the effect of each manipulation would be stronger in the presence of the other in eliciting empathy, political solidarity, behavioral intentions, and support for government action. Third, I hypothesized that participants who received one intervention would report similar levels of empathy, political solidarity, behavioral intentions, and support for government action. Finally, I expected that empathy or political solidarity would mediate the effects of the interventions on behavioral intentions. To test these hypotheses, I conducted factorial ANOVAs, pairwise comparisons, and mediation analyses. Both the critical historical passage and the personal story video increased empathy and support for government

action. The critical historical passage also increased political solidarity and behavioral intentions. The interaction of both interventions was not significant for any variable. The critical historical passage indirectly increased behavioral intentions through increases in both empathy and political solidarity. Overall, either intervention positively influenced emotional, attitudinal, and behavioral responses. While acknowledging limitations, I discuss the implications of these findings for historical knowledge and story interventions.

Keywords: critical historical knowledge, story, empathy, solidarity, behavioral intentions, Indigenous

Positionality

My name is Erin Sinclair, and my traditional name is *babaamibattoo mashkode-bizhikwe ishpiming* (Running Buffalo Woman in the Sky). I come from the Crane Clan. I was born and raised in St. Andrews, Manitoba, and I am an urban member of Peguis First Nation. I carry both Anishinaabe and Irish ancestry, and I acknowledge the privileges that come with holding these intersecting identities. I am grateful to my mother, who introduced me to our culture and encouraged this relationship as a source of healing, strength, and guidance. This relationship guides my personal and professional journey and may influence my approach to research. I recognize that my lived experiences, culture, and academic background may shape the way I interpret the findings of this research.

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The Effects of Critical Historical Knowledge and Dibaajimowinan (Storytelling) on Reactions to Missing and Murdered Indigenous Women, Girls, Two-Spirit Peoples+

For centuries, governments of Canada have implemented harmful laws, policies, and systems that have attempted to assimilate Indigenous peoples into Euro-Canadian society (Truth and Reconciliation Commission, 2015). There are many well-documented patterns of historical and contemporary colonization in Canada. The *Indian Act*, residential schools, Indian day schools, the sixties scoop, and the overrepresentation of Indigenous peoples in the criminal justice and child welfare systems are just a few examples (Royal Commission on Aboriginal Peoples, 1996; Truth and Reconciliation Commission, 2015). Such policies have and continue to harm Indigenous people in many ways. In this thesis, I focus on violence toward Indigenous women, girls, and 2SLGBTQI+ (i.e., Two-Spirit, lesbian, gay, bisexual, trans, queer, and intersex), an issue that Indigenous people, communities, organizations, and families of those directly affected by this crisis have long called for action on and increased awareness of (National Inquiry into Missing and Murdered Indigenous Women and Girls, 2019).

How can we make positive social change on this issue? In 2019, the National Inquiry into Missing and Murdered Indigenous Women and Girls, which aimed to raise awareness and tell the story of the acts of violence toward Indigenous women, girls, and 2SLGBTQI+ in Canada, released 231 Calls for Justice. Among them, Call 11.1 urged post-secondary institutions to educate and provide awareness about missing and murdered Indigenous women, girls, and 2SLGBTQI+ and about the root causes that sustain this violence (NIMMIWG, 2019). Education, then, is a critical in answering these neglected Calls for Justice and moving toward reconciliation.

Consistent with these Calls, research from the Social Justice Laboratory (Efimoff & Starzyk, 2023; Neufeld et al., 2019; Neufeld et al., 2022; Starzyk et al., 2024) and elsewhere (Hill & Augoustinos, 2001; Moore-Berg et al., 2022; Salter & Adams, 2016) suggests that critical historical education, or knowledge about long-standing systemic harm in the context of racism and similar systemic forces, increases knowledge of issues, as it should. It can also change how people think, feel, and act toward various marginalized groups; certainly, increases political solidarity, such as how much a person “stands with” an outgroup and their cause, or their commitment to work alongside them to achieve positive social change (Neufeld et al., 2019, 2022). Recently, for example, Starzyk, Efimoff, and colleagues (2024) evaluated the effects of participating in a virtual residential school, reading transcripts of Survivors’ stories, or no exposure, on non-Indigenous students’ responses to Indigenous people. Compared to a control condition, students who participated in the virtual reality experience or read the transcripts reported more empathy, political solidarity, and warmth toward Indigenous people immediately after the intervention. Students who navigated the virtual school also reported more ongoing harm due to residential schools. As Survivors’ stories were central to both conditions (i.e., the audio in the virtual world, the written text in the transcript), and even just reading several pages of a transcript was effective, this study suggests the power of stories. Similarly, Moore-Berg et al. (2022) examined the effects of reading statistically correct information about migrant criminality or watching an emotional video of a reunion between an undocumented mother and child relative to each other, or both. Participants in the combined video and statistical correction condition reported less dehumanization of migrants, greater empathy, and less support for anti-migrant policies. This study suggests that video narratives depicting the suffering of migrants humanized, enhanced empathy, and increased policy support, only if accompanied by statistically

correct information. Could these same effects extend to interventions addressing reactions to missing and murdered Indigenous women, girls, and 2SLGBTQI+? No reports exist in which researchers have compared the effects of critical historical education, storytelling, and their interaction in the context of Indigenous issues. This is the gap I will address.

In my thesis, I compared the effects of a written passage conveying critical historical knowledge and a personal story video about the MMIWG2S+ crisis relative to each other and an empty control condition on empathy, political solidarity, behavioral intentions, and support for government action. To set up this research, I first outline the context and root causes of violence toward Indigenous women, girls, and 2SLGBTQI+.

Harms Toward Indigenous Women, Girls, and 2SLGBTQI+

Indigenous women, girls, and 2SLGBTQI+ have experienced violence for centuries. While this process is rooted in history, the impact of colonization continues to affect Indigenous women, girls, and 2SLGBTQI+. I first provide context surrounding the current situation and statistics on violence toward Indigenous women, girls, and 2SLGBTQI+ below.

The Current Crisis

It is unclear how many Indigenous women and girls have gone missing or have been murdered in Canada (NIMMIWG, 2017). A grassroots initiative, the Native Women's Association of Canada, was the first to identify how many Indigenous women and girls have gone missing or have been murdered in Canada. In their 2010 report, the Native Women's Association of Canada identified 582 Indigenous women and girls as missing or murdered (Native Women's Association of Canada, 2010). Then, in 2013, an Indigenous scholar, Dr. Maryanne Pearce, identified 824 Indigenous women and girls who had gone missing or had been murdered between 1946 and 2013 (Pearce, 2014). This number increased to nearly 1,200

between 1980 and 2012, according to the RCMP's 2014 National Overview (Royal Canadian Mounted Police, 2014). With inconsistencies in how police services track who is Indigenous, who has gone missing or been murdered, and errors in reporting, the real number of Indigenous women and girls who have gone missing or have been murdered is likely to be much higher (NWAC, 2010).

Tragically, Indigenous women and girls are *12 times more likely* to be murdered or missing than any other woman in Canada, and homicide rates are six times higher than for non-Indigenous women (NWAC, 2010; NIMMIWG, 2019; Pearce, 2014; Statistics Canada, 2023). As of 2015, Indigenous women made up 24% of homicide victims, and while homicide rates among non-Indigenous women decreased, the rates of homicide among Indigenous women increased (Statistics Canada, 2017). Here in Manitoba and nearby in Saskatchewan, Indigenous women are 19 times more likely to be murdered or missing than non-Indigenous women (Statistics Canada, 2017). These statistics are especially alarming, considering that Indigenous women in Canada only make up 4% of the female population (Statistics Canada, 2016).

It is important to remember, though, that violence toward Indigenous women, girls and 2SLGBTQI+ extends far beyond “missing or murdered.” These groups are also more likely to experience physical and sexual abuse as well as experience intimate partner violence (Statistics Canada, 2016), are more likely to be the targets of serial killers (Baum & McClearn, 2015) and are vastly overrepresented in the criminal justice system than their non-Indigenous counterparts (Clark, 2019; Greenberg & Thibeault, 2023).

These alarming statistics should encourage Canadians to confront the difficult reality of colonial violence and work toward a shared understanding to address the root causes of violence toward Indigenous women, girls and 2SLGBTQI+. Statistics alone cannot represent, however,

what families and communities experience when a loved one is lost through such violence (NIMMIWG, 2019). Thus, the perspectives, participation, and stories of Indigenous women, girls and 2SLGBTQI+ with lived experiences, including the families of those women and girls, must be amplified to bring awareness and educate non-Indigenous Canadians to address this epidemic that is grounded in Canada's colonial past (NIMMIWG, 2019). For my thesis, I tested the effectiveness of a video intervention featuring a woman describing her experience of having a daughter who went missing to raise awareness among non-Indigenous participants. It is equally important, though, to understand the root causes of violence toward Indigenous women, girls, and 2SLGBTQI+.

The Root Causes of Violence

Colonization is one of the root causes of violence toward Indigenous women, girls, and 2SLGBTQI+ (NWAC, 2010; NIMMIWG, 2019). In the process of colonization, governments of Canada have legislated gender discrimination and enabled violence toward Indigenous women, girls, and 2SLGBTQI+. For example, via the *Indian Act* and policies such as the “marry-out rule,” Indigenous women and their descendants lost their Indian status if they married a non-status person or when their husbands lost their status (NWAC, n.d.; Simon & Clark, 2013). This exclusion was often devastating for First Nations women and their children, tens of thousands of whom could no longer live on reserve or access a myriad of benefits belonging to the reserve (Amnesty, 2004; Gehl, 2000). They lost access to land, housing, health care, and education services, in addition to other treaty benefits, and critically, a vital connection to cultural identity and a sense of belonging (Gehl, 2000; Simon & Clark, 2013). Such women had to move to urban centers, which were, and often still are, gendered and racialized spaces that are often dangerous for Indigenous women (Razack, 2000), especially those with limited access to support (NWAC,

n.d.). As one would expect, this exclusion also had socioeconomic consequences that continue today. For example, Indigenous women and girls (vs. non-Indigenous) are more likely to be poor, unemployed, unhoused, and food insecure; less educated; and given all this, not surprisingly, also less mentally and physically well (Amnesty, 2004; Byrne & Abbott, 2011; NWAC, 2022). Some of these factors are thought to make Indigenous women more vulnerable to family violence (Brownridge, 2008). Colonial efforts, though, have also made 2SLGBTQI+ people more vulnerable to violence.

As a result of colonization, many 2SLGBTQI+ people were forced to hide and devalue their identity and have experienced ongoing unsafety. This is a stark contrast to pre-colonial times, when 2SLGBTQI+ people held important roles within their communities as healers, medicine people, knowledge keepers, and foster parents. This occurred because European colonizers first rejected alternative concepts of gender and then implemented residential schools that forced heteronormative roles onto Indigenous children (Ristock et al., 2019). Unfortunately, there are many harmful consequences of this long-standing, hateful orientation toward 2SLGBTQI+ people. Compared to their heterosexual counterparts, 2SLGBTQI+ people report more traumatic life experiences (i.e., physical and sexual abuse) and poorer well-being (Balsam et al., 2004), likely in part because the harm is ongoing. In a Government of Canada survey, 39% of 2SLGBTQI+ people reported they had experienced violence due to homophobia, transphobia, biphobia, or other forms of discrimination related to sexual orientation, gender identity, or gender expression (Government of Canada, 2023).

Despite such vulnerabilities, Indigenous women, girls, and 2SLGBTQI+ have not felt safe with police and “mounties” (i.e., Royal Canadian Mounted Police) for a very long time (Human Rights Watch, 2013; Palmater, 2016) and for good reasons. For example, beginning in

the 1820s, mounties removed Indigenous children from their homes to attend residential schools (Royal Commission on Aboriginal People, 1996; Truth and Reconciliation Commission of Canada, 2015). And now, Indigenous people and organizations suggest that police are not providing appropriate protection (Amnesty, 2004; Belak, 2012; Human Rights Watch, 2013; Palmater, 2016). When Indigenous (vs. non-Indigenous) people go missing or are murdered, police act more slowly or do not share details about the investigation as they usually do (Amnesty, 2004). Some, though, also fear or mistrust the police (Amnesty, 2004; Palmater, 2016), for reasons such as reports exist that some police have physically and sexually abused Indigenous women and girls (Human Rights Watch, 2013; Palmater, 2016).

In conclusion, then, colonial efforts and mindsets have led Indigenous women, girls, and 2SLGBTQI+ to experience harm for centuries, and the harm continues today. Many systems have contributed, including police and colonial policies. Thus, systems need to change, and individual people can motivate that through political pressure. But how can we make this issue one people care more about? In my thesis, I focused on a critical historical knowledge intervention that explained how colonization, racism, and other systems of power have caused past and present injustices toward Indigenous women, girls, and 2SLGBTQI+. But perhaps we can also increase action on this issue by educating people through storytelling.

Creating Meaning Through Stories

Oral traditions are significant to Indigenous cultures for many reasons. For example, storytelling acts as a repository of Indigenous knowledge, creates a memorable method of knowledge translation for listeners, and aligns with Indigenous worldviews, traditional knowledge, and epistemologies (Cariou, 2022; Datta, 2018). Further, Indigenous culture, language, and traditional ways of life were sustained through storytelling at a time when Indian

agents and missionaries closely monitored and restricted written communication and publications within Indigenous communities (Avison & Meadows, 2000; Truth and Reconciliation Commission of Canada, 2012). Stories are shared according to specific traditions, protocols, rules, and purposes within each Indigenous community (Archibald, 2008). They may include sacred, historical, traditional, testimonials, and personal life experiences (Archibald, 2008). Additionally, some stories may be “owned” by individuals or families, while others may be publicly shared (Archibald, 2008). Through Indigenous storytelling, Indigenous voices are represented in a culturally relevant and respectful way (Rieger et al., 2023). Scholars have advocated for storytelling to be used as a methodology to interpret oral traditions and knowledge that can be applied to more contemporary issues (Archibald, n.d; Nelson & Tsuruda, 2018).

Indigenous scholars emphasize the need to incorporate Indigenous methodologies in research, as researchers primarily use Western research paradigms (Archibald, 2008). For example, Indigenous scholars explain that Western knowledge systems assume a positivist approach, which relies on objectivity and knowledge that can be measured. In contrast, Indigenous researchers welcome subjectivity, relationality, and lived experience as a way of knowing (Archibald, 2008; Kovach, 2021). Thus, using subjective methods in research might be a way to decolonize Western research approaches. Storytelling, as one such method, is not used merely for entertainment purposes. Archibald (2008) described storytelling as a powerful educational and healing tool for the mind, body, spirit, and heart. More recently, researchers have examined these effects within marginalized communities.

The transmission of stories within marginalized groups may be effective in promoting healing and educational outcomes. Recent research supports this idea (Weststrate et al., 2023, 2024). In a mixed-methods study, Weststrate et al. (2023) had LGBTQ+ participants report how

often they experienced storytelling with LGBTQ+ Elders and what lessons they learned through these experiences. LGBTQ+ participants who reported more exposure to storytelling described more feelings of strength, solidarity, and connection to the LGBTQ+ community. As well, participants reported increased self-acceptance and pride in their LGBTQ+ identity. Finally, participants reported that they gained insight into systems of oppression, such as racism, sexism, misogyny, and transphobia, and a stronger motivation to engage in activism and support LGBTQ+ rights. Participants most often heard stories about cultural and historical experiences of adversity and oppression (e.g., the AIDS crisis, police raids), followed by narratives centered on policy and activism (e.g., marriage equality, pride parades). These findings suggest that storytelling can be both healing and educational for members of the same group. Other forms of storytelling, particularly through immersive technology, may produce similar effects when exchanged between ingroup and outgroup members.

Virtual reality is another promising form of critical historical education that may emulate storytelling and improve thoughts, feelings, and helping behaviors toward marginalized groups. Researchers suggest that virtual reality can enhance intergroup relations through its immersive, perspective-taking capabilities (Branham, 2024; Chen & Ibasco, 2023; Chen et al., 2021; Jones & Sommer, 2018; Starzyk et al., 2024; Woolford et al., 2022). For example, Starzyk, Efimoff, and colleagues (2024) found that non-Indigenous participants who navigated a virtual residential school (vs. reading Survivors' transcripts) reported greater empathy, political solidarity, privacy, and warmth toward Indigenous people immediately following the intervention. In another study, Branham (2024) evaluated the effects of watching a virtual reality documentary featuring a Muslim man countering negative stereotypes against a neutral virtual reality stimulus on participants' responses to Muslim people. Participants who watched the virtual reality

documentary (vs. neutral virtual reality stimuli) reported higher feeling thermometer scores, greater empathetic concern, and stronger intentions to donate to support displaced Muslim families. Further, the virtual reality intervention indirectly increased behavioral intentions through empathy, suggesting that the virtual reality documentary positively predicted feelings of empathy, and in turn, positively predicted greater intentions to donate money to a Muslim cause. Finally, Chen and Ibasco (2023) randomly assigned participants to take the perspective of either an ingroup or outgroup member in a virtual reality scenario and rate their feelings and attitudes toward Chinese immigrants. Participants who took the perspective of an outgroup member (vs. an ingroup member) in the virtual reality scenario reported greater empathy, more positive attitudes, and fewer negative stereotypes about Chinese immigrants. These findings suggest that the immersive technology of virtual reality allows users to better understand perspectives other than their own, regardless of the avatar's group membership (Tham et al., 2018). This enhanced perspective-taking may evoke stronger emotional responses and influence behavioral intentions (Branham, 2024; Wang et al., 2023). Given the potential of virtual reality interventions to increase empathy, positive attitudes, and behavioral intentions with marginalized groups, I examined whether a storytelling video could produce similar effects among non-Indigenous participants. Unlike virtual reality, which often relies on digital or animated content, the intervention I chose used real-life footage of an Indigenous mother describing her experience of having a missing daughter.

Across all communities and cultures, people use stories as the foundation of learning and teaching. People share knowledge through stories, and these stories can educate people about the systems we are a part of (Datta, 2018; Iseke, 2013). It is crucial now, more than ever, to educate people about the historical and current harms toward Indigenous peoples in Canada.

Critical Historical Education

Many organizations, government initiatives, and Indigenous communities have emphasized the need to educate non-Indigenous Canadians about both the historical and ongoing harm toward Indigenous peoples (Kairos, 2016; Kairos, 2019; TRC, 2015; Watters, 2015). For example, the Final Report of the Truth and Reconciliation Commission of Canada (2015) identified education as a crucial step toward reconciliation with Indigenous people. As well, the National Inquiry into Missing and Murdered Indigenous Women and Girls (2019) called on post-secondary institutions to provide education on the crisis of missing and murdered Indigenous women, girls, and 2SLGBTQI+, including the root causes of this violence. Thus, these calls highlight the urgent need for educational efforts as a pathway toward reconciliation.

There are likely many reasons for this push for education, but one may be the belief that intergroup relations are more likely to improve if everyone has a valid understanding of historical events. Some theories of reconciliation support this idea (Kelman, 2004, 2008). By “valid understanding,” I mean a critical understanding that members of the victim group and historical records support. By “critical,” I mean that people know more than just the facts; they also know the motivations for things and their ongoing consequences or perceive what scholars call “privity” (Efimoff & Starzyk, 2022; Neufeld et al., 2022; Starzyk & Ross, 2008; Study 2; Starzyk et al., 2024). *Critical historical education* initiatives aim to foster this kind of knowledge (Neufeld et al., 2022). Though all people can benefit from critical historical education, a frequent goal of this approach is to teach history with nuance to bridge what is often a gap in knowledge between symbolic or real historical victim groups and outgroup members. Next, I review recent research on the effectiveness of critical historical education in improving attitudes, emotional responses, and prosocial behavior toward Indigenous peoples and other marginalized groups.

Effects of Critical Historical Education

Critical historical education has been shown to improve knowledge and attitudes toward both Indigenous and other racialized groups. For example, Neufeld et al. (2022) manipulated participants' exposure to historical knowledge by varying the length and depth of processing of a written passage about residential schools. Participants who read a longer (vs. shorter) passage and carefully read the passage (vs. counted the number of words in the passage) reported more empathy toward Indigenous peoples. Further, privity mediated the effects of knowledge of residential schools and empathy, such that the more participants knew about residential schools, the more they believed that Indian residential schools continue to harm Indigenous peoples today. Building on Neufeld et al. (2022), I also examined whether a critical historical intervention could increase empathy toward Indigenous peoples. In addition to Neufeld et al. (2022), I also explored the combined effects of both critical historical knowledge and storytelling on empathy, political solidarity, behavioral intentions, and support for government action. Other studies have found similar outcomes using educational videos on anti-Indigenous racism.

Efimoff and Starzyk (2022) presented participants with video content that included historical and contemporary education about residential schools, child and family services, individual racism, and systemic racism. Participants in the experimental conditions (vs. control) reported more empathy, greater knowledge, and more positive attitudes toward Indigenous peoples. As well, participants in an experimental condition reported stronger intentions to complete behavioral intentions, such as signing up for a mini-series on Indigenous issues (Efimoff & Starzyk, 2022). Like Efimoff and Starzyk (2022), I also assessed the impact of critical historical education videos on empathy, political solidarity, and behavioral intentions, but through a different lens. Rather than presenting participants with factual educational videos, I

used storytelling videos depicting *personal experiences* of harm experienced by Indigenous peoples.

Finally, Hill and Augoustinos (2001) evaluated the effectiveness of an anti-racist education workshop that focused on the history of Indigenous Australians. Participants in the post-workshop assessment (vs. pre-workshop assessment) scored higher on knowledge about Indigenous culture and history and lower on measures of prejudice and negative stereotyping. Participants' knowledge scores also remained significantly higher than baseline at a three-month follow-up (Hill & Augoustinos, 2001). However, this study did not include a control condition, relied on a convenience sample, and had relatively small sample sizes. Unlike the studies above, I included a critical historical education intervention focused on violence toward Indigenous women, girls, and 2SLGBTQI+, an issue excluded from previous critical historical education interventions. Together, this research shows that critical historical education can improve attitudes, empathy, and behavioral intentions toward Indigenous peoples. Similar patterns have been found among other marginalized groups.

Critical historical knowledge can also improve feelings and thoughts toward other groups who experience harm. For instance, Salter and Adams (2016) found that participants who were exposed to historical information about anti-Black racism perceived more racism and support anti-racism policies in the United States. Likewise, Bonam et al. (2019) found that White participants who listened to a brief audio clip about discriminatory housing policies in Black communities (vs. control) acknowledged more systemic anti-Black racism. Perhaps, critical historical education is effective, in part, because people connect emotionally with injustice as they learn about it.

Emotions, Social Change, and Solidarity

People have long recognized the role of emotions in motivating social change. Both positive and negative emotional responses to social injustice can facilitate prosocial or helping behaviors (Fontaine, 2022; Jasper, 1998). For example, negative emotions such as anger, sadness, and guilt have been shown to predict support for social change (Fontaine, 2023; Greenaway et al., 2016; Smith et al., 2002; Swim & Miller, 1999). Participants who felt sad about relationship between Indigenous and non-Indigenous people in the United States reported greater support for change in unequal status relations (Fontaine, 2023; Greenaway et al., 2016). In another study, feelings of guilt among White participants predicted greater support for affirmative action, including compensation due to historical injustices (Fontaine, 2023; Swim & Miller, 1999). Though less studied, positive emotions such as love and hope also predict support for social change (Greenaway et al., 2016; Fontaine, 2023; Tobore, 2020). In one study, participants who felt hopeful reported greater support for social change and expressed stronger behavioral intentions, such as attending a rally (Greenaway et al., 2016). Moreover, participants who felt more hope also believed that they could effect the social change they desired; that is, they felt more “perceived efficacy.” Finally, participants who felt compassionate love were more likely to support prosocial behavior and positive attitudes toward marginalized outgroups, such as immigrants (Fontaine, 2023; Sinclair et al., 2016; Sprecher & Fehr, 2005). In summary, then, various emotions predict support for social change. Another emotion, though, that is neither categorized as positive nor negative, also predicts prosocial behavior.

Empathy, or feeling for another person, is also a good predictor of support for reparations and social justice efforts (Batson & Ahmad, 2009; Batson, 1997, 2023; Woolford et al., 2022). As stated above, participants who were exposed to historical education reported greater empathy

toward Indigenous peoples and other racialized groups (Branham, 2024; Chen & Ibasco, 2023; Chen et al., 2021; Efimoff & Starzyk, 2022; Hill & Augoustinos, 2001; Jones & Sommer, 2018; Neufeld et al., 2022; Starzyk et al., 2024; Woolford et al., 2022). Participants who felt more empathy were also more likely to support government efforts to improve water and wastewater services in First Nations communities in Canada (Starzyk et al., 2021). As well, among members of a “perpetrator group,” feelings of empathy predicted support for making reparation with the “victim group” (Brown & Cehajic, 2008). Empathy for harmed outgroups not only predicts positive attitudes and intergroup relations, but also political solidarity and behavioral intentions more distinctly.

While many emotions promote prosocial behavior, empathy appears to be the most relevant in predicting political solidarity and behavioral intentions. People who feel warm toward others are more likely to feel empathetic concern (Batson, 2023; Efimoff & Starzyk, 2024). Even though outgroup warmth is distinct from political solidarity and behavioral intentions, they typically correlate positively and highly with one another (Efimoff & Starzyk, 2024; Neufeld et al., 2019). Thus, people who feel outgroup warmth are also more likely to feel solidarity with that group and report greater intentions to engage in behaviors that support them (Efimoff & Starzyk, 2024). Given this distinct relationship, I focused on the role of empathy in predicting political solidarity and behavioral intentions.

In summary, critical historical knowledge can improve intergroup relations by increasing empathy, political solidarity, and positive attitudes for harmed groups. People who learn about historical and current injustices may experience many emotions, though empathy is particularly linked to political solidarity and behavioral intentions. Understanding how different methods of historical education, including storytelling interventions, elicit emotional responses, and how

those emotions in turn influence political solidarity and behavioral intentions, may provide insight into how to move forward on the path toward reconciliation.

This Study

I investigated the effects of a typical critical historical knowledge passage and a video of someone describing their personal experience relative to each other and an empty control condition on empathy, political solidarity, behavioral intentions, and support for government action related to missing and murdered Indigenous women, girls and 2SLGBTQI+. I also examined whether feelings of empathy and political solidarity explained the relationship between the education interventions and behavioral intentions. Though critical historical knowledge and personal stories have been shown to improve non-Indigenous peoples' feelings for and solidarity with Indigenous peoples, it is unclear whether these effects extend to the issue of missing and murdered Indigenous women, girls and 2SLGBTQI+ or whether the effect of each manipulation would be stronger in the presence of the other. To address this gap, I compared these two approaches using a 2 (critical historical knowledge: none, critical historical passage) $\times$ 2 (storytelling: none, personal story video) factorial design. I randomly assigned participants to one of four conditions: empty-control, critical historical passage, personal story video, and a combined intervention. Participants in the intervention conditions first read a critical historical passage, watched a brief video in which a woman describes her experience, or both. Participants in a fourth empty control condition only completed the dependent measures of empathy, political solidarity, behavioral intentions, and support for government action. I examined group differences, as well as whether empathy and political solidarity explained the relationship

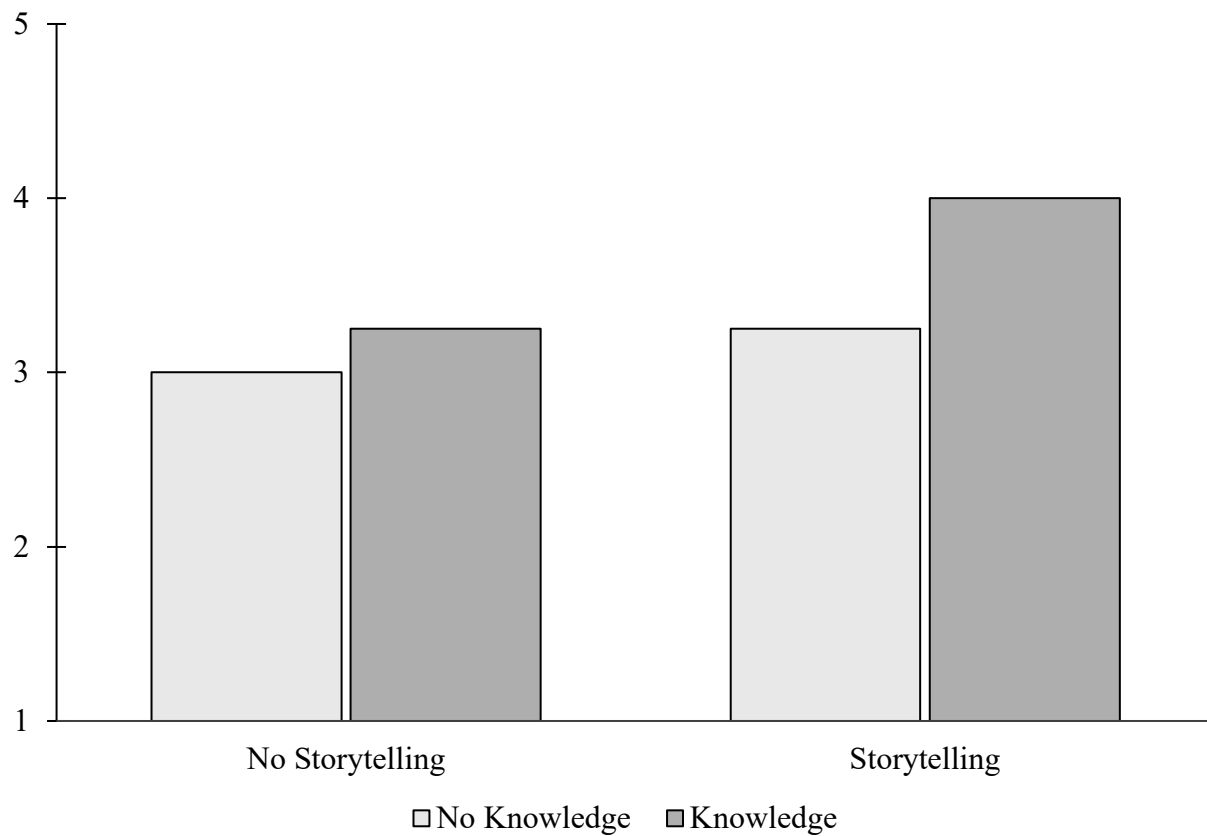
between the interventions and behavioral intentions. Lastly, I assessed whether certain paths better explained the effects of the interventions on behavioral intentions.

Hypotheses

Before conducting this research, I obtained approval from the University of Manitoba's Fort Garry Research Ethics Board (REB1) and pre-registered the study on the Open Science Framework (<https://osf.io/ewjgv>). I had several hypotheses. I conducted a between-subjects, two-way ANOVA and pairwise comparisons to test for mean differences of the interventions on empathy, political solidarity, behavioral intention, and attitudes toward the issue (see Table 1; Figure 1). I then conducted mediation analyses to examine the indirect effects of the interventions on behavioral intentions through empathy and political solidarity with three different mediation models, which I have reported in separate tables and figures (see Tables 2–4; Figures 2–4).

Table 1*Analysis of Variance Hypotheses*

Hypothesis	
#	Prediction
H1.	All dependent variables will positively correlate.
H2.	Compared to empty-control participants, intervention condition participants will report more:
H2a.	Empathy.
H2b.	Political solidarity.
H2c.	Behavioral intentions.
H2d.	Support for government action on the issue.
H3.	Critical Historical Passage and Personal Story Video participants will report equivalent:
H3a.	Empathy.
H3b.	Political solidarity.
H3c.	Behavioral intentions.
H3d.	Support for government action on the issue.
H4.	The effect of each manipulation would be stronger in the presence of the other in eliciting:
H4a.	Empathy.
H4b.	Political solidarity.
H4c.	Behavioral intentions.
H4d.	Support for government action on the issue.

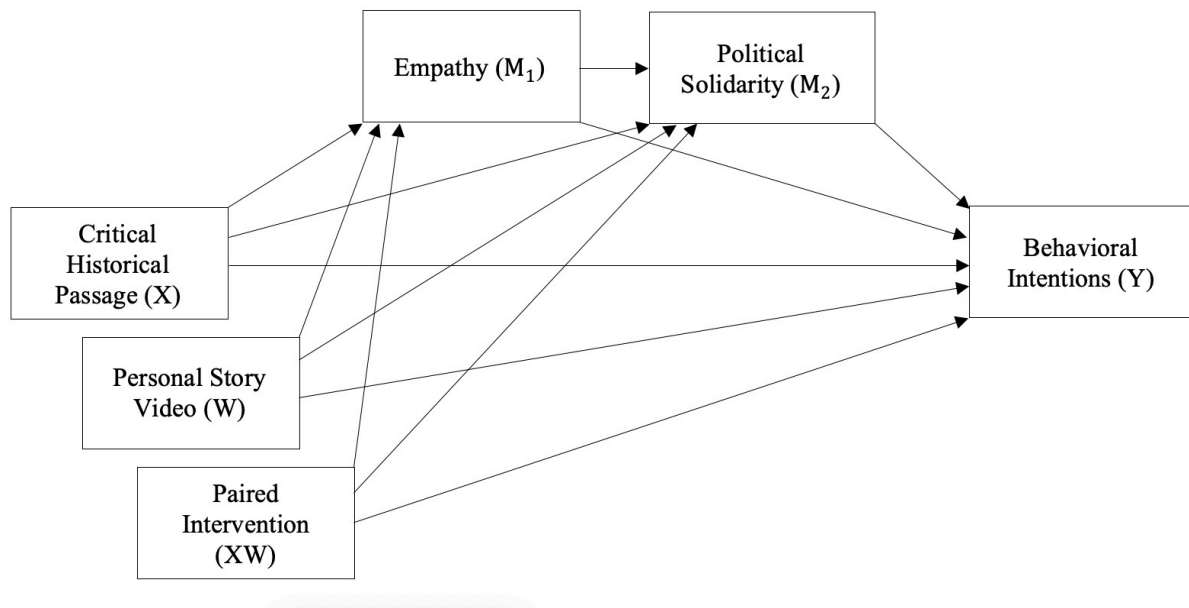
Figure 1*Expected Pattern of Results for Two-way ANOVA*

Note. This graph reflects hypotheses two through four. Y-axis values could range from 1 to 5 for empathy, political solidarity, behavioral intentions, and attitude toward support for government action on the issue. I expected the above pattern for all four variables.

Table 2*Fully Specified Mediation Model Hypotheses*

Hypothesis	
#	Prediction
H5.	The main effects and, less confidently, the interaction will positively predict:
H5a.	Empathy.
H5b.	Political solidarity.
H5c.	Behavioral intentions.
H5d.	Support for government action on the issue.
H6.	Empathy will positively predict:
H6a.	Political solidarity.
H6b.	Behavioral intentions.
H7.	Political solidarity will positively predict behavioral intentions.
H8.	The direct effect of the main effects (H8a–b) and, less confidently, the interaction (H8c) on political solidarity will be positive and significant.
H8a.	The direct effect of the Critical Historical Passage on political solidarity will be positive and significant.
H8b.	The direct effect of the Personal Story Video on political solidarity will be positive and significant.
H8c.	The direct effect of the interaction on political solidarity will be positive and significant.
H9.	The direct effect of the main effects (H9a–b) and, less confidently, the interaction (H9c) on behavioral intentions will be positive and significant.
H9a.	The direct effect of the Critical Historical Passage on behavioral intentions will be positive and significant.
H9b.	The direct effect of the Personal Story Video on behavioral intentions will be positive and significant.
H9c.	The direct effect of the interaction on behavioral intentions will be positive and significant.
H10.	The indirect effects of the main effects and, less confidently, the interaction on political solidarity (H10a–c) and behavioral intentions (H10d–f) through empathy will be positive and significant.
H10a.	The indirect effect of the Critical Historical Passage on political solidarity through empathy will be positive and significant.
H10b.	The indirect effect of the Personal Story Video on political solidarity through empathy will be positive and significant.
H10c.	The indirect effect the interaction on political solidarity through empathy will be positive and significant.
H10d.	The indirect effect of the Critical Historical Passage on behavioral intentions through empathy will be positive and significant.
H10e.	The indirect effect of the Personal Story Video on behavioral intentions through empathy will be positive and significant.
H10f.	The indirect effect of the interaction on behavioral intentions through empathy will be positive and significant.

- H11. The indirect effects of the main effects (H11a–b) and, less confidently, the interaction (H11c) on behavioral intentions through political solidarity will be positive and significant.
 - H11a. The indirect effect of the Critical Historical Passage on behavioral intentions through political solidarity will be positive and significant.
 - H11b. The indirect effect of the Personal Story Video on behavioral intentions through political solidarity will be positive and significant.
 - H11c. The indirect effect the interaction on behavioral intentions through political solidarity will be positive and significant.
 - H12. The indirect effects of the main effects (H12a–b) and, less confidently, the interaction (H12c) on behavioral intentions through empathy then political solidarity will be positive and significant.
 - H12a. The indirect effect of the Critical Historical Passage on behavioral intentions through empathy then political solidarity will be positive and significant.
 - H12b. The indirect effect of the Personal Story Video on behavioral intentions through empathy then political solidarity will be positive and significant.
 - H12c. The indirect effect of the interaction on behavioral intentions through empathy then political solidarity will be positive and significant.
-

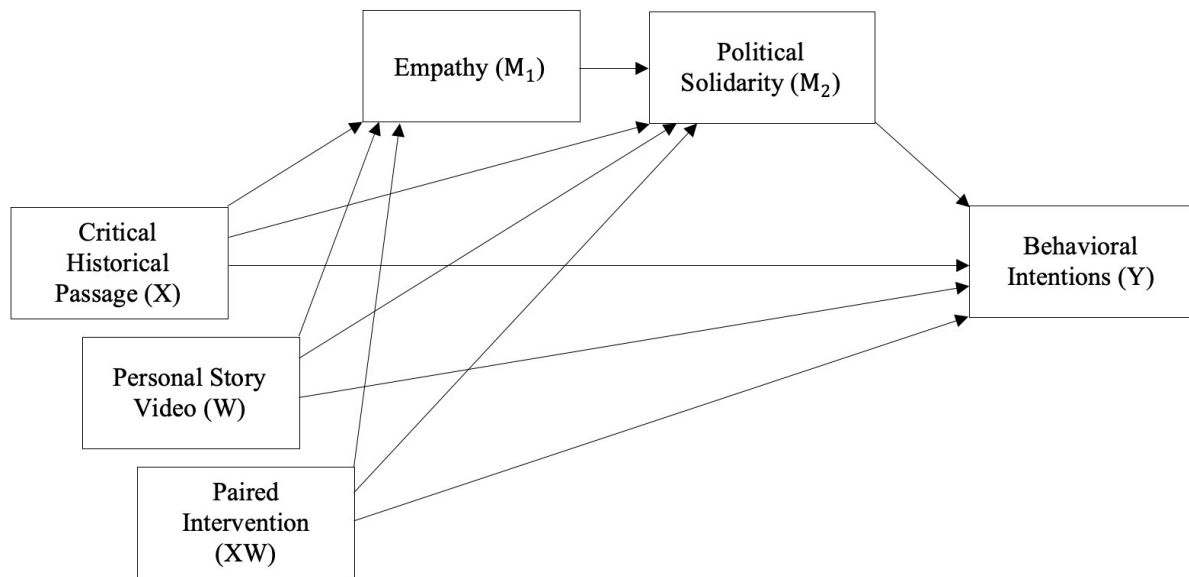
Figure 2*Fully Specified Mediation Model*

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

Table 3*Alternative Partially Mediated Model Hypotheses*

Hypothesis	
#	Prediction
H13.	The main effects and, less confidently, the interaction will positively predict:
H13a.	Empathy.
H13b.	Political solidarity.
H13c.	Behavioral intentions.
H14.	Empathy will positively predict political solidarity.
H15.	Political solidarity will positively predict behavioral intentions.
H16.	The direct effect of the main effects (H16a–b) and, less confidently, the interaction (H16c) on political solidarity will be positive and significant.
H16a.	The direct effect of the Critical Historical Passage on political solidarity will be positive and significant.
H16b.	The direct effect of the Personal Story Video on political solidarity will be positive and significant.
H16c.	The direct effect of the interaction on political solidarity will be positive and significant.
H17.	The direct effect of the main effects (H17a–b) and, less confidently, the interaction (H17c) on behavioral intentions will be positive and significant
H17a.	The direct effect of the Critical Historical Passage on behavioral intentions will be positive and significant.
H17b.	The direct effect of the Personal Story Video on behavioral intentions will be positive and significant.
H17c.	The direct effect of the interaction on behavioral intentions will be positive and significant.
H18.	The indirect effects of the main effects (H18a–b) and, less confidently, the interaction (H18c) on political solidarity through empathy will be positive and significant.
H18a.	The indirect effect of the Critical Historical Passage on political solidarity through empathy will be positive and significant.
H18b.	The indirect effect of the Personal Story Video on political solidarity through empathy will be positive and significant.
H18c.	The indirect effect the interaction on political solidarity through empathy will be positive and significant.
H19.	The indirect effects of the main effects (H19a–b) and, less confidently, the interaction (H19c) on behavioral intentions through political solidarity will be positive and significant
H19a.	The indirect effect of the Critical Historical Passage on behavioral intentions through political solidarity will be positive and significant.
H19b.	The indirect effect of the Personal Story Video on behavioral intentions through political solidarity will be positive and significant.
H19c.	The indirect effect the interaction on behavioral intentions through political solidarity will be positive and significant.

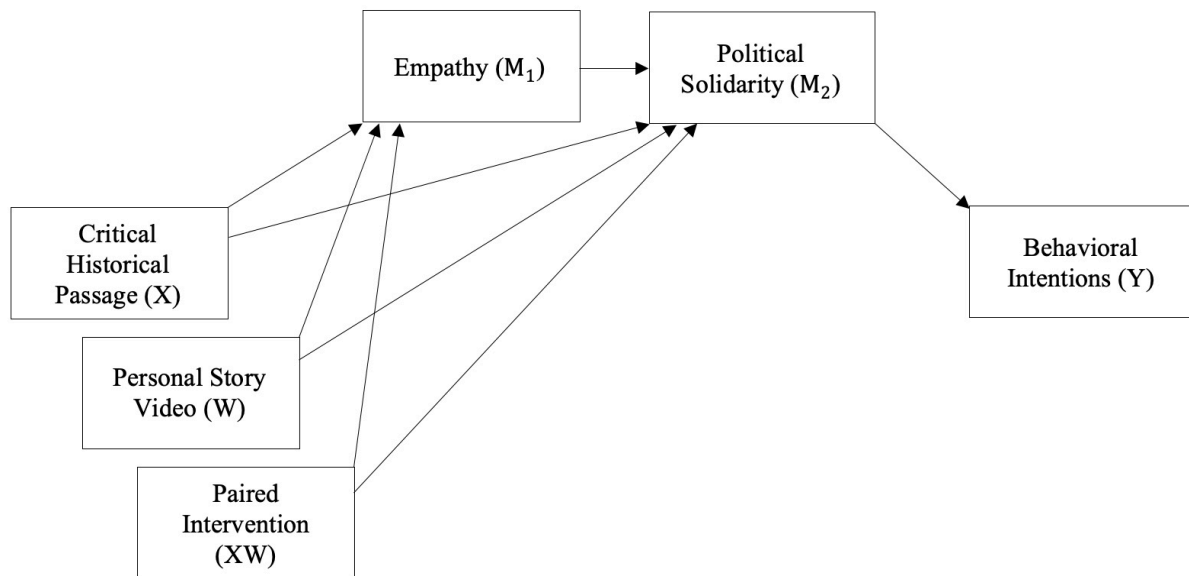
- H20. The indirect effects of the main effects (H20a–b) and, less confidently, the interaction (H20c) behavioral intentions through empathy then political solidarity will be positive and significant.
- H20a. The indirect effect of the Critical Historical Passage on behavioral intentions through empathy then political solidarity will be positive and significant.
- H20b. The indirect effect of the Personal Story Video on behavioral intentions through empathy then political solidarity will be positive and significant.
- H20c. The indirect effect of the interaction on behavioral intentions through empathy then political solidarity will be positive and significant.
-

Figure 3*Alternative Mediation Model with Partial Mediation*

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

Table 4*Alternative Fully Mediated Model Hypotheses*

Hypothesis	
#	Prediction
H21.	The main effects and, less confidently, the interaction will positively predict:
H21a.	Empathy.
H21b.	Political solidarity.
H22.	Empathy will positively predict political solidarity.
H23.	Political solidarity will positively predict behavioral intentions.
H24.	The direct effect of the main effects (H24a–b) and, less confidently, the interaction (H24c) on political solidarity will be positive and significant
H24a.	The direct effect of the Critical Historical Passage on political solidarity will be positive and significant.
H24b.	The direct effect of the Personal Story Video on political solidarity will be positive and significant.
H24c.	The direct effect of the interaction on political solidarity will be positive and significant.
H25.	The indirect effects of the main effects (H25a–b) and, less confidently, the interaction (H25c) on political solidarity through empathy will be positive and significant.
H25a.	The indirect effect of the Critical Historical Passage on political solidarity through empathy will be positive and significant.
H25b.	The indirect effect of the Personal Story Video on political solidarity through empathy will be positive and significant
H25c.	The indirect effect of the interaction on political solidarity through empathy will be positive and significant
H26.	The indirect effects of the main effects (H26a–b) and, less confidently, the interaction (H26c) on behavioral intentions through political solidarity will be positive and significant.
H26a.	The indirect effect of the Critical Historical Passage on behavioral intentions through political solidarity will be positive and significant.
H26b.	The indirect effect of the Personal Story Video on behavioral intentions through political solidarity will be positive and significant.
H26c.	The indirect effect of the interaction on behavioral intentions through political solidarity will be positive and significant.
H27.	The indirect effects of the main effects (H27a–b) and, less confidently, the interaction (H27c) on behavioral intentions through empathy then political solidarity will be positive and significant.
H27a.	The indirect effect of the Critical Historical Passage on behavioral intentions through empathy then political solidarity will be positive and significant.
H27b.	The indirect effect of the Personal Story Video on behavioral intentions through empathy then political solidarity will be positive and significant.
H27c.	The indirect effect of the interaction on behavioral intentions through empathy then political solidarity will be positive and significant.

Figure 4*Alternative Mediation Model with Full Mediation*

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

Method

Participants

I recruited participants through SONA, the host institution's introductory psychology research participation system. To be eligible, participants had to be non-Indigenous, 18 years of age or older, Canadian citizens by birth or naturalization, and currently living in Canada. I decided on these inclusion criteria to obtain a sample of people likely to identify as Canadian and belong to an outgroup. Participants completed the study online using any electronic device and received partial course credit for their participation. I recruited participants in two ways. I first recruited participants through the University of Manitoba's Introduction to Psychology research participant pool, starting in January 2025. In March 2025, participant recruitment started to slow. To achieve my proposed sample size, I expanded recruitment to the University of Winnipeg's Introductory Psychology research participant pool. However, recruitment through the University of Winnipeg was slower than anticipated, providing a smaller subsample ($n = 54$). I recruited a total of 620 participants across both institutions.

After ending recruitment, I began screening the data and excluded participants for various reasons. I followed my preregistration and excluded participants who did not commit to responding conscientiously or honestly ($n = 9$), were not Canadian Citizens by birth or naturalization ($n = 1$), were not currently living in Canada ($n = 15$), were Indigenous ($n = 6$), failed the quality control checks in the experimental conditions ($n = 32$), completed the survey more than once ($n = 28$), completed the study in an unreasonable time (i.e., ± 2.5 standard deviations outside the mean completion time, $n = 5$), or withdrew from the study ($n = 43$). Though I initially stated in my preregistration that I would exclude participants who reported taking a break during the study ($n = 31$), I decided to retain these participants to preserve

statistical power and maintain sample size. Overall, I excluded 121 participants, some of whom were excluded for multiple reasons. My final sample consisted of 499 participants.

Upon entering the survey, 124 participants were assigned to the control condition, 129 to the critical historical passage condition, 131 to the personal story video condition, and 115 to the critical historical passage plus personal story video condition. Participants were, on average, 19.70 years old ($SD = 4.35$), most of whom identified as women (61.4% women, 35.9% men, and 2.6% identified as another gender). In terms of racial/ethnic identity, 274 (54.6%) identified White, 71 (14.1%) as Filipino, 43 (8.6%) as South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.), 39 (7.8%) as Black, 14 (2.8%) as Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai, etc.), 11 (2.2%) as Arab, 10 (2%) as West Asian (e.g., Iranian, Afghan, etc.), 9 (1.8%) as Latin American, 6 (1.2%) as Korean, 2 (0.4%) as Chinese, and 18 (3.6%) identified as another racial/ethnic identity not listed (e.g., Hispanic, Croatian, and Caribbean). On average, 101 (20.2%) reported an annual household income of 0–50k, 161 (32.2%) reported 50–100k, and 205 (40.2%) reported greater than 100k. Most participants were citizens at birth ($n = 352$, 70.1%). Of the remainder, 136 (27.1%) were citizens by naturalization and 9 (1.8%) were permanent residents. In terms of Canadian identification, most participants identified as “extremely” Canadian ($M = 4.08$, $SD = .91$), where higher values indicated stronger Canadian identification. Politically, most participants were “middle of the road.” On a scale of (1) very left-wing to (7) very right-wing, participants scored an average of 3.80 ($SD = 1.45$) on foreign policy issues, 3.96 ($SD = 1.48$) on economic issues, and 3.59 ($SD = 1.64$) on social issues. See Table 5 for further demographic information.

Table 5*Participant Demographics*

Variable	Final Sample (<i>N</i> = 499)	
	<i>n</i>	%
Age	19.70 (4.35)	
Gender		
Woman	306	61.0%
Man	179	35.7%
Another gender	13	2.6%
Income		
0–50k	101	20.2%
50–100k	161	32.2%
100k+	205	40.2%
Ethnicity		
White	274	54.6%
Filipino	71	14.1%
South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)	43	8.6%
Black	39	7.8%
Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai, etc.)	14	2.8%
Arab	11	2.2%
West Asian (e.g., Iranian, Afghan, etc.)	10	2.0%
Latin American	9	1.8%
Korean	6	1.2%
Canadian Status		
Citizen at birth	352	70.1%
Citizen by naturalization	136	27.1%
Permanent resident	9	1.8%
Canadian Identification	4.08 (0.91)	

Note. *N* = 499. Age, Canadian Identification, and Political Orientation are reported as *M* (*SD*). Gender, Income, Ethnicity, and Canadian Status are reported as *n* frequency and (%).

Study Design and Procedure

The study used a 2 (critical historical knowledge: none, critical historical passage) × 2 (storytelling: none, personal story video) factorial design. Participants first read an information and consent form (see Appendix A). After providing consent, all participants responded to questions asking whether they committed to responding conscientiously and read instructions intended to decrease socially desirable responding. Then, participants were randomly assigned to

one of four conditions (control, critical historical knowledge, personal story video, combined intervention) via Qualtrics (<https://qualtrics.com>).

Control. Participants in the control condition proceeded directly to the dependent measures. I refer to Condition 1 as the “control condition.”

Critical Historical Passage. Participants in the critical historical passage condition read a brief passage about violence toward Indigenous women, girls, and 2SLGBTQI+. Participants then proceeded to the dependent measures. I refer to Condition 2 as the “critical historical passage condition.”

Personal Story Video. Participants in the personal story video condition viewed a video about missing and murdered Indigenous women and girls (4 minutes and 31 seconds long). After viewing the video, participants proceeded to the dependent measures. I refer to Condition 3 as the “personal story video condition.”

Combined Intervention. Participants in the combined intervention condition read the same passage as in the critical historical passage condition. Next, Participants viewed the same video as in the personal story video condition. Participants then proceeded to the dependent measures. I refer to Condition 4 as the “combined intervention condition.”

Next, all participants shared their feelings of empathy and levels of political solidarity. Then, participants reported their intentions to act, followed by their perceived level of effort required to engage in those actions. Next, participants reported their attitudes toward increased government protection related to the issue. After completing the dependent measures, participants provided their demographic information and completed quality control checks. Finally, participants viewed a debriefing form that included a list of resources that might help

them support initiatives related to missing and murdered Indigenous women, girls, and 2SLGBTQI+.

Materials

Commitment to Respond Conscientiously

I asked participants to answer three questions (“No” or “Yes”) intended to increase the likelihood that they would respond conscientiously throughout the survey. Participants answered the questions (1) “It is important that you pay close attention to the materials in this survey and complete the study in one sitting (do not leave the study to do other things). Are you willing to carefully read the materials and answer all the questions to the best of your ability?” and (2) “Are you able to focus on the study now?” (Clifford & Jerit, 2015, 2016). If participants responded “No” to these two questions, they answered a third question (3) “Would you like to come back to finish this study at another time?” I later excluded participants who responded “No” to question three.

Instructions to Decrease Socially Desirable Responding

Participants read the following instructions intended to decrease socially desirable responding:

Thank you so much for agreeing to participate in this study! This research takes a lot of time and is part of my master’s thesis. Before you start the survey, we just want to say one important thing: **There are no right or wrong answers to the questions you’ll see.** So, please respond honestly. If some questions make you feel uncomfortable, keep in mind that people have good and bad things to say about many things. **Remember that we will keep your responses confidential.**

Statement of Group

All participants read the following statement of the issue and reference group adapted from Neufeld, Starzyk, & Gaucher (2019b):

For the next few pages, you will answer questions about another group and an issue the group cares about – their “cause.” It is ok if you do not agree with the group or the issue/cause. The group you will answer questions about is **Indigenous women, girls, and 2SLGBTQI+**. The issue/cause you will reflect on is **missing and murdered Indigenous women, girls, and 2SLGBTQI+**.

Critical Historical Passage

Participants assigned to either the critical historical passage condition or the critical historical passage plus personal story video condition read the following instructions: “On the next page, you will read a short description about a social issue.” Participants then read a short passage titled “*Missing and Murdered Indigenous Women, Girls, and 2SLGBTQI+*,” which described violence toward Indigenous women, girls, and 2SLGBTQI+. I wrote this passage with the help of Prof. Starzyk, based on information from multiple sources listed in Appendix B. In the passage, I described how Indigenous women and girls experience disproportionately high rates of violence, including going missing or being murdered, particularly in regions such as Manitoba and Saskatchewan (Pearce, 2013; Statistics Canada, 2016). I then provide an example of how serial killers have specifically targeted Indigenous women, highlighting the case of Ramona Wilson, a 16-year-old girl who was murdered along the Highway of Tears in 1994 (Baum & McClearn; Carrier Sekani Family Services, 2022; CBC, 2016). Finally, I ended the passage by explaining how systemic factors, such as racism, sexism, poverty, and inadequate housing, increase the vulnerability of Indigenous women and girls. I also emphasized how law

enforcement has often failed to protect them or properly investigate their cases (Amnesty, 2004; Byrne & Abbott, 2011; CBC, 2016; Gehl, 2000; Human Rights Watch, 2013; NIMMIWG, 2017, 2019; NWAC, n.d., 2010; Palmater, 2016; Simon & Clark, 2013). I attempted to ensure that the content I included in the passage resembled that of the personal story video to facilitate comparison between the two intervention conditions. The full passage is available in Appendix B.

Personal Story Video

Participants assigned to either the personal story video condition or the critical historical passage plus personal story video condition read the following instructions: “On the next page, you will view a video about a social issue.” The video, titled *Highway of Tears* (CBC, 2016), displayed a mother describing her experience of having a daughter who went missing in Smithers, British Columbia. The Highway of Tears is a 725-kilometre stretch of highway along Highway 16 between Prince George and Prince Rupert, known for the high number of missing and murdered Indigenous women, girls, and 2SLGBTQI+ (Carrier Sekani Family Services, 2022, NWAC, 2010). The full video and script are provided in Appendix C.

I chose this specific video for numerous reasons. First, I feel that this immersive experience video resembled oral storytelling, as it displayed a mother telling her story and personal experiences with having a loved one who went missing and was murdered. The mother in the video, Matilda Wilson, tells the story of how her youngest child, Roberta Wilson, went missing and was murdered on June 11, 1994, at the age of 16. She also described the emotional impact on her family, the systemic racism and lack of urgency and racism shown by police, and the importance of families with missing or murdered loved ones sharing their personal and lived experiences.

Second, this video uses 360° interactive technology, providing viewers with a more immersive and engaging experience than traditional educational videos. This format may have also facilitated perspective-taking and deeper emotional engagement with the content (Efimoff & Starzyk, 2024).

Finally, the video centers on the voices of those who have lived experience with MMIWG2S+, which is important. Indigenous organizations indicate that one of the best ways to educate others on MMIWG2S+ is through those who were directly impacted by violence, such as families and survivors (NIMMIWG, 2019). Families and survivors offer critical insight into individual, institutional, and systemic forms of oppression and violence. Further, they can provide knowledge, expertise, and recommend solutions on how to move forward with the MMIWG2S+ issue (NIMMIWG, 2019; NWAC, 2010).

Empathy

I measured participants' feelings of empathy toward Indigenous women, girls, and 2SLGBTQI+ using the six-item measure by Batson et al. (1997). Participants read the following instructions: "Using the scale below, please indicate the extent that you are feeling right now when you think about Indigenous women, girls, and 2SLGBTQI+." Participants rated how much they felt (1) "sympathetic," (2) "soft-hearted," (3) "warm," (4) "compassionate," (5) "tender," and (6) "moved" using a five-point scale with the anchors not at all (coded 1), slightly (2), somewhat (3), very much (4), and extremely (5). Higher scores indicated greater empathy. I created a total empathy score by taking the average of all six items. Thus, scores ranged from 1 to 5. This scale had an internal consistency reliability of Cronbach's $\alpha = .92$.

Political Solidarity

Participants completed the nine-item Political Solidarity Measure (PSM; Neufeld, Starzyk, & Gaucher, 2019a), comprised of three subscales assessing allyship, cause connection, and social change commitment, each containing three items. Participants rated their agreement with statements such as (2) “I feel a sense of solidarity with Indigenous women, girls, and 2SLGBTQI+” (allyship), (4) “In some ways, I view this issue as my cause, too” (cause connection) and (8) “More people should know about how Indigenous women, girls, and 2SLGBTQI+ are negatively affected by this issue” (social change commitment) on a five-point scale with the following anchors strongly disagree (coded 1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). Higher scores indicated greater levels of political solidarity. I created a total score by taking the average of all nine items. Thus, scores ranged from 1 to 5. Previous research has established the factor structure, convergent and discriminant validity, test-retest stability, and predictive validity of the political solidarity measure (Neufeld et al., 2019a). This scale had an internal consistency reliability of Cronbach’s $\alpha = .91$.

Behavioral Intentions

Participants reported their behavioral intentions using 10 items developed by the Social Justice Laboratory that measured the extent to which participants agreed or disagreed that they would engage in 10 different actions in the next year that support positive change for an outgroup. Participants read the following instructions:

There are many ways to support the issue of missing and murdered Indigenous women, girls, and 2SLGBTQI+. We have listed a few ways below and will provide some information on how you could take such action later, in case that might be helpful. For now, please let us know what you intend to do—in the next year. In the next year, to

support the issue/cause of missing and murdered Indigenous women, girls, and 2SLGBTQI+, I would:

A sample item is “Attend a peaceful rally.” Participants rated their agreement with the 10 items on a five-point scale with the anchors strongly disagree (coded 1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). I completed an exploratory factor analysis on this scale, which suggested a two-factor model, each with four items. I provide a detailed description of the model fit in the results section. Higher scores indicated greater endorsement of behavioural intentions. I computed a total score by taking the average of all 8 items. Thus, scores ranged from 1 to 5. This scale had an internal consistency reliability of Cronbach’s $\alpha = .90$.

Behavioral Intentions Effort

Participants reported the perceived level of effort required for each of the 10 action items using the following instructions: “Now, whether you agreed or disagreed to act, please indicate **how difficult or easy** it would be for you to take each action—in the next year.” Participants rated their agreement with each item on a five-point scale with the anchors difficult (coded 1), somewhat difficult (2), neither difficult nor easy (3), somewhat easy (4), and easy (5). Higher scores indicated greater perceived ease of effort. I computed a total score by taking the average of all 10 items. Thus, scores ranged from 1 to 5. This scale had an internal consistency reliability of Cronbach’s $\alpha = .86$.

Attitude Toward the Issue

I measured participants’ attitudes using one item developed by the Social Justice Laboratory, which assessed support for increased government protection for Indigenous women, girls, and 2SLGBTQI+. Participants read the following instructions: “There is just one last

question for this section, below. Please indicate how much you agree or disagree with the statement below.” Participants rated their agreement with the statement “The government needs to do more to protect Indigenous women, girls, and 2SLGBTQI+” on a five-point scale with the anchors strongly disagree (coded 1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5). Higher scores indicated greater endorsement of government protection for Indigenous women, girls, and 2SLGBTQI+. I computed a total score by taking the average of the item. Thus, the score ranged from 1 to 5.

Social Desirability

Participants completed the short form of the Marlowe-Crowne Social Desirability Scale (Crowne & Marlow, 1960; Reynolds, 1982). This 13-item true-or-false measure assessed the tendency to respond in socially desirable ways, that is, to respond in ways that are likely to receive approval from others (Crowne & Marlow, 1960). A sample item is “No matter who I am talking to, I am always a good listener.” Large and significant correlations between this scale and the other variables could indicate that the findings are confounded with social desirability. Correlation analyses revealed only two significant correlations between the Marlowe-Crowne Social Desirability scale and other study variables. These correlations were small in magnitude, with the largest being $r = .16$. Though Reynolds (1982) found this scale to have acceptable reliability, I obtained a Kuder-Richardson (KR-20) reliability coefficient of only .67.

Demographic Questionnaire

Participants completed a short demographic questionnaire. They reported their age, current gender identity (Cameron & Stinson, 2019), and ethnic/racial background. Participants could select multiple ethnic/racial backgrounds. Participants also indicated their status within Canada, whether they currently live in Canada (Statistics Canada, 2017), and their annual

household income. Participants reported how many years they have lived in Canada if they were not citizens at birth. Participants also indicated the extent to which they identified as Canadian using a five-point scale with the anchors not at all (coded 1), slightly (2), somewhat (3), very much (4), and extremely (5). Higher scores indicated greater Canadian identification. Please see Appendix D for the questionnaire and its response options.

Political Orientation

Participants reported their political stance on “foreign policy issues,” “economic issues,” and “social issues” on a seven-point scale with the anchors very left-wing (coded 1), left-wing (2), slightly left-wing (3), middle of the road (4), slightly right-wing (5), right-wing (6), and very right-wing (7; Pratto et al., 1994). These items had an internal consistency reliability of Cronbach’s $\alpha = .90$.

Quality Control Checks

Participants assigned to an experimental condition completed four quality control questions. Participants answered (“No” or “Yes”) to the following questions: (1) “Did you complete this survey honestly?”, (2) “Did you complete this survey without taking a break?”, (3) “Did you read the entire passage?”, and (4) “Did you watch the entire video?” I later excluded participants who responded “No” to all questions except for question two, which I did not use in the final exclusion criteria.

Results

Data Analytic Overview

Before conducting my main analyses, I first screened the data and assessed for patterns of missingness. After screening the data, I conducted an exploratory factor analysis on the behavioral intentions scale to examine model fit. Next, I refined the scale based on multiple

considerations and removed items that cross-loaded onto multiple factors, had loadings $> .30$, and had the lowest squared multiple correlations. The final scale included eight items. I will describe how I arrived at these eight items in more detail later.

Next, I analyzed each composite variable, checked the internal consistency reliability, and conducted correlational analyses to explore the relations among the dependent variables. Then, I assessed the demographic characteristics of my sample. To examine whether there were differences in the extent to which participants felt more empathy, solidarity, behavioral intentions, and support for government action, I tested the assumptions and conducted two-way ANOVAs. Finally, to investigate whether solidarity and empathy explained the relationships between the interventions and behavioral intentions, I tested the assumptions and conducted mediation and path analyses. I used SPSS (version 30) and R Studio (version 2025.05.0+496).

Finally, I used statistical inference criteria based on current recommendations in social psychology research. I used the standard $p < .05$ criteria for determining statistical significance. Because p -values can be problematic and do not indicate the size of an effect, I focused on interpreting measures of effect size. Although it is common practice to use Cohen's (1998) recommendations to interpret effect sizes, I used Lovakov and Agadullina's (2021) more recent guidelines (small: $d = .15$, medium: $d = .36$, large: $d = .65$) based on their meta-analysis of social psychology studies. I also reported and interpreted 95% confidence intervals. In evaluating correlations, I again used the standard $p < .05$ criteria for determining statistical significance and interpreted their effect sizes using Gignac and Szodorai's (2016) recommendations (small: $r = .1$, medium: $r = .2$, large: $r = .3$). Lastly, for mediation analyses, I used the standard $p < .05$ criteria and interpreted results using beta coefficients and their confidence intervals. I also reported the proportion of variance accounted for (r-squared values).

Data Screening and Assumption Checks

Before conducting the main analyses, I screened the data. As stated before, I excluded participants who did not commit to responding conscientiously or honestly ($n = 9$), were not Canadian Citizens by birth or naturalization ($n = 1$), were not currently living in Canada ($n = 15$), were Indigenous ($n = 6$), failed the quality control checks in the experimental conditions ($n = 32$), completed the survey more than once ($n = 28$), completed the study in an unreasonable time (i.e., ± 2.5 standard deviations outside the mean completion time; $n = 5$), or withdrew from the study ($n = 43$). Following exclusions, I computed total scores for all composite variables and reliability statistics (see Table 6).

Table 6

Correlations Among Variables

Variable	EMP	PSM	BI	ATI	SD	PO
Empathy	.92	.65**	.62**	.54**	.04	-.17**
Political Solidarity		.91	.73**	.72**	-.04	-.30**
Behavioral Intentions			.92	.60**	.03	-.22**
Attitude Toward the Issue				--	-.09	-.36**
Social Desirability					.67	.15**
Political Orientation						.90

Note. All $N = 499$, besides Political Orientation ($N = 487$). I reported Spearman's correlations due to non-normal distributions among all composites. Italicized values on the diagonal represent the composite's internal consistency. Attitude Toward the Issue (ATI) has no internal consistency value because it is one item. * $p < .05$ (2-tailed) and ** $p < .01$ (2-tailed).

Next, I analyzed the data for missingness. I excluded participants who were missing more than two-thirds of their data ($n = 3$). I visually examined the data for patterns of consistent missingness, such as missing responses on the same item (Enders, 2022) but found no such patterns. I then conducted the Little MCAR test, which was not significant ($p = .68$), suggesting the data were missing at random (MAR). As such, I used maximum likelihood estimation to calculate parameters that would most likely result in the observed data (Enders, 2022). The

estimated parameters closely matched the sample parameters, so I proceeded with the true sample means. I imputed additional missing data by prorating other responses so long as at least two-thirds of the data were available for the dependent variables.

After data screening, I statistically tested the assumptions for my main analyses. First, I tested three assumption underlying correlational analyses: absent outliers, homoscedasticity, and linearity. I checked for univariate outliers by standardizing the variables, considering cases with z scores ± 2.5 as outliers for potential exclusions. Based on this, there were 3 outliers for “empathy,” 3 for “political solidarity,” 4 for “behavioral intentions,” 4 for “behavioral intentions effort,” and 4 for “attitude toward the issue.” The outliers accounted for less than 3% of the data and were unlikely to have influenced results (Meyers et al., 2017). As such, I decided against removing these participants. Second, I tested the homoscedasticity assumption by inspecting residuals versus predicted plots. I found that residual values among all dependent variables were fairly distributed around zero and did not noticeably increase or decrease across predicted values, suggesting no evidence of homoscedasticity. Third, I tested the linearity assumption by assessing regression plots. I found linear relationships between all direct effects. I also inspected residuals versus predicted regression plots and found that values were randomly scattered around zero, which confirmed the linearity assumption.

As well, I tested three assumptions of the two-way ANOVA: homogeneity of variances, normality, and normality of residuals. First, I tested the homogeneity of variances assumption by conducting a Levene’s test, which indicated that empathy, $F(3, 495) = 4.24, p = .006$, and political solidarity, $F(3, 495) = 3.31, p = .02$, violated this assumption. Second, I assessed the normality assumption by conducting the Shapiro-Wilk tests, which indicated significant deviations from normality across all dependent variables ($p < .001$). I also assessed normality

using (West et al., 1995) guidelines, which suggests that skewness values < 2 and kurtosis values < 7 indicate a moderate departure from normality. For all composites, skew was < 2 and kurtosis was < 7 , indicating deviations from normality (see Table 7). Thus, the assumption of normality is not met. Finally, I examined the normality of residuals assumption by inspecting residual Q-Q plots, which confirmed all dependent variables showed slight deviations from normality.

Table 7

Descriptive Statistics of Composite Variables

Variable	Skew	SE_{Skew}	Kurtosis	SE_{Kurtosis}
Empathy	-.67	.10	.08	.21
Political Solidarity	-.53	.10	-.10	.21
Behavioral Intentions	-.56	.10	.30	.21
Attitude Toward the Issue	-1.33	.10	1.80	.21

Note. $N = 499$. All variables are not normally distributed; the ratios of skew and by their standard error $> |2|$, variables were not kurtotic based on this criterion.

Finally, I tested two statistical assumptions underlying mediation: linearity and multicollinearity. First, I tested the linearity assumption by assessing regression plots. I found linear relationships between all direct effects. I then inspected residuals versus predicted regression plots and found that values were randomly scattered around zero, which confirmed the linearity assumption. Second, I tested the multicollinearity assumption by examining whether Variance Inflation Factor (VIF) values were < 5 and Tolerance values were $< .20$ (Garson, 2012). None exceeded these values, suggesting I had no multicollinearity issues.

Exploratory Factor Analysis

I conducted an exploratory factor analysis with all 10 behavioral intentions items developed by the Social Justice Laboratory to examine the basic factor structure of the items. Table 8 contains the descriptive statistics for the initial 10 items; see Appendix E and Appendix F for their correlation and covariance matrices. The Kaiser-Meyer-Olkin (KMO) Measure of

Sampling Adequacy was .92, suggesting that the data were appropriate for factor analysis (Kaiser, 1974). Bartlett's Test of Sphericity was significant, $\chi^2(45) = 3,030.94, p < .001$, indicating sufficient correlations for factor extraction. For all items, skew was < 2 and kurtosis was < 7 , indicating univariate normality (West et al., 1995). Inter-item correlations ranged from .35–.76. I conducted a parallel analysis, which suggested an upper limit of two factors be retained for exploratory factor analysis.

Table 8

Descriptive Statistics for Initial Behavioral Intentions Items

Item	<i>M</i>	<i>SD</i>	Skew (<i>SE</i>)	Kurtosis (<i>SE</i>)
BI1	2.93	1.20	0.03 (.10)	-0.91 (.21)
BI2	3.94	0.94	-1.04 (.10)	1.19 (.21)
BI3	3.79	1.06	-0.91 (.10)	0.42 (.21)
BI4	2.99	1.25	-0.01 (.10)	-1.02 (.21)
BI5	3.77	1.10	-0.80 (.10)	-0.01 (.21)
BI6	2.70	1.10	0.20 (.10)	-0.65 (.21)
BI7	4.14	0.91	-1.27 (.10)	1.87 (.21)
BI8	2.49	1.03	0.30 (.10)	-0.39 (.21)
BI9	3.95	0.99	-1.00 (.10)	1.08 (.21)
BI10	3.09	1.10	-0.20 (.10)	-0.64 (.21)

Note. $N = 499$. All items used the following rating scale: strongly disagree (1), disagree (2), neither agree nor disagree (3), agree (4), and strongly agree (5).

To confirm the two-factor solution, I conducted an exploratory factor analysis on all ten items. I used a direct oblimin rotation with $\delta = 0$ so that factors could correlate with each other. I then considered which extraction method to use. Researchers prefer the Maximum Likelihood (ML) extraction method because it provides a range of goodness-of-fit indices (Fabrigar et al., 1999). However, the Maximum Likelihood extraction method assumes that the data are normal. An alternative extraction method researchers use when data are non-normal is Principal Axis Factoring (PAF). Despite this, the Principal Axis Factoring extraction method does not compute the same goodness-of-fit indices (Fabrigar et al., 1999). As such, I chose the Maximum

Likelihood extraction method, which indicated a two-factor solution (see Table 9). I interpreted factor one as “less effort” and factor two as “more effort.” Model fit indices were poor for a one-factor solution, $\chi^2(35) = 425.53$, CFI = .87, RMSEA = .15, (95% CI .13, .16), SRMR = .06.

Model fit indices improved for a two-factor solution, $\chi^2(26) = 112.26$, CFI = .97, RMSEA = .08, (95% CI .06, .09), SRMR = .02, though there was room for refinement.

Table 9

Exploratory Factor Analysis for Initial Behavioral Intentions Items

Item	Factor 1	Factor 2
BI8	.83	-.12
BI6	.76	-.04
BI1	.75	.09
BI10	.63	.24
BI4	.62	.17
BI7	-.07	.92
BI9	.01	.86
BI3	.20	.67
BI2	.09	.62
BI5	.27	.52

Note. $N = 499$. I used an exploratory factor analysis with the Maximum Likelihood (ML) extraction method and an oblimin rotation, $\delta = 0$. I excluded bolded items from the final behavioral intentions measure. Model fit: $\chi^2(26) = 112.26$, CFI = .97, RMSEA = .08, (95% CI .06, .09), SRMR = .02.

To further improve model fit, I assessed which items cross-loaded and found items two, four, and five had factor loadings $< .70$, so I considered these three items for cross-loading. I decided to remove item two, “offer support to someone affected by the issue,” from factor one, and item four, “post on social media,” from factor two. I retained item five, “sign an online petition,” to ensure each factor contained four items. I also chose to keep item five instead of item two because signing an online petition is a common example of low-effort and low-commitment activism (Kristofferson et al., 2014). Further, researchers recommend using shorter questions to enhance clarity and improve data quality (Furr, 2011; Krosnick & Presser, 2010).

Please see Table 10 for final factor loadings. When I re-ran the exploratory factor analysis without items two and four, the items loaded into the same two factors. Without these two items, all indices suggested a well-fitting model: $\chi^2(13) = 43.18$, CFI = .98, RMSEA = .06, (95% CI .04, .09), SRMR = .01. The final scale had an internal consistency reliability of Cronbach's $\alpha = .90$. I computed a total score by taking the average of all eight items. Thus, scores ranged from 1 to 5.

Table 10

Exploratory Factor Analysis for Final Behavioral Intentions Items

Item	Factor 1	Factor 2
BI6	.80	-.06
BI8	.79	-.08
BI1	.73	.11
BI10	.70	.17
BI7	-.05	.91
BI9	-.01	.87
BI3	.23	.58
BI5	.24	.54

Note. $N = 499$. I used an exploratory factor analysis with the Maximum Likelihood (ML) extraction method and an oblimin rotation, $\delta = 0$. Model fit: $\chi^2(13) = 43.18$, CFI = .98, RMSEA = .06, (95% CI .04, .09), SRMR = .01.

Main Analyses

Associations Among Composites

I conducted correlational analyses to investigate the relationship among the dependent variables (see Table 6 above). As stated before, my composite distributions were nonnormal. When data are nonnormal, Pearson correlations can provide inflated values (Bishara & Hittner, 2015). As such, I reported Spearman rank-ordered correlations as this method does not rely on distributional assumptions (Bishara & Hittner, 2015).

I expected that all dependent variables would positively correlate (H1). The findings were consistent with this hypothesis. As I hypothesized, empathy, political solidarity, behavioral

intentions, and support for government action on the issue significantly and positively correlated with one another to a large extent (e.g., $> .3$; Gignac & Szodorai; 2016).

Differences Across Conditions

I conducted 2 (critical historical knowledge: none, critical historical passage) $\times$ 2 (storytelling: none, personal story video) bias-corrected and accelerated bootstrapped (BCa) analyses of variance (ANOVAs) to examine the effects of the manipulations on empathy, political solidarity, behavioral intentions, and attitudes toward increased protection for Indigenous women, girls, and 2SLGBTQI+. Table 11 presents the ANOVA results. See Table 12 for the estimated marginal means for each condition.

As a reminder, I hypothesized that, compared to the control condition, participants in the intervention conditions would report greater empathy (H2a), political solidarity (H2b), behavioral intentions (H2c), and support for government action on the issue (H2d). The data partially supported these hypotheses. As I expected, the main effect of the critical historical passage was significant for empathy, political solidarity, and behavioral intentions. Compared to those who did not read the critical historical passage, participants who read the passage reported higher empathy ($M_{\text{No Passage}} = 3.35$, $SE = .06$; $M_{\text{Passage}} = 3.66$, $SE = .06$), political solidarity ($M_{\text{No Passage}} = 3.49$, $SE = .05$; $M_{\text{Passage}} = 3.66$, $SE = .05$), and behavioral intentions ($M_{\text{No Passage}} = 3.30$, $SE = .05$; $M_{\text{Passage}} = 3.47$, $SE = .05$). The pattern was similar for attitude toward the issue, but not significant ($M_{\text{No Passage}} = 4.26$, $SE = .56$; $M_{\text{Passage}} = 4.38$, $SE = .06$).

For the main effects of the personal story video, the main effect was only significant for empathy. Participants who watched, versus did not watch, the personal story video reported greater empathy ($M_{\text{No Video}} = 3.40$, $SE = .06$; $M_{\text{Video}} = 3.61$, $SE = .06$). The pattern similar, though, for political solidarity ($M_{\text{No Video}} = 3.58$, $SE = .05$; $M_{\text{Video}} = 3.57$, $SE = .05$), behavioral intentions

($M_{\text{No Video}} = 3.41$, $SE = .05$; $M_{\text{Video}} = 3.35$, $SE = .05$), and attitude toward the issue ($M_{\text{No Video}} = 4.26$, $SE = .05$; $M_{\text{Video}} = 4.38$, $SE = .06$).

Finally, the critical historical passage $\times$ personal story video interaction was not significant for any variable. To understand my data fully, I nonetheless compared estimated marginal means. As Table 12 shows, for empathy, political solidarity, and attitude toward the issue, the critical historical passage and both interventions together (the “combined” condition) outperformed no intervention. Furthermore, compared to no intervention, the personal story video increased empathy and improved attitudes toward the issue. Finally, for behavioral intentions, the critical historical passage increased behavioral intentions, but the personal story video and both interventions together did not. As one would expect, none of the interventions affected political orientation or social desirability. These findings therefore partially support my hypotheses (H3a–H3d) that critical historical knowledge and storytelling interventions would produce similar outcomes. The critical historical knowledge passage was, however, effective in more cases.

Table 11*Two-Way ANOVA for Dependent Variables by Condition*

Effect	<i>F</i>	<i>p</i>	η_p^2
Empathy			
Passage	13.10**	< .001	.026
Video	6.13*	.014	.012
Passage $\times$ Video	2.09	.149	.004
Political Solidarity			
Passage	6.08*	.014	.012
Video	0.07	.793	.001
Passage $\times$ Video	0.93	.336	.002
Behavioral Intentions			
Passage	4.40*	.036	.009
Video	0.59	.445	.001
Passage $\times$ Video	0.87	.351	.002
Attitude Toward the Issue			
Passage	2.78	.096	.006
Video	2.86	.091	.006
Passage $\times$ Video	1.95	.163	.004
Political Orientation			
Passage	0.44	.508	.001
Video	0.16	.686	.001
Passage $\times$ Video	0.16	.691	.001
Social Desirability			
Passage	0.02	.903	.001
Video	0.01	.959	.001
Passage $\times$ Video	0.09	.759	.001

Note. All $N = 499$, besides Political Orientation ($N = 487$). * $p < .05$ (2-tailed). ** $p < .01$ (2-tailed).

Table 12*Descriptive Statistics and Pairwise Comparisons Among Dependent Variables by Condition*

Measure	Control		Passage		Video		Combined	
	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>	<i>M</i>	<i>SE</i>
Empathy	3.18 _a	.09	3.62 _b	.09	3.52 _b	.08	3.71 _b	.09
Political Solidarity	3.45 _a	.07	3.69 _b	.07	3.53 _{ab}	.07	3.64 _b	.07
Behavioral Intentions	3.30 _a	.07	3.52 _b	.07	3.31 _a	.07	3.39 _a	.08
Attitude Toward the Issue	4.14 _a	.08	4.37 _b	.08	4.37 _b	.08	4.40 _b	.08
Political Orientation	3.87 _a	.13	3.74 _a	.12	3.77 _a	.13	3.74 _a	.13
Social Desirability	6.19 _a	.25	6.15 _a	.25	6.13 _a	.24	6.24 _a	.26

Note. All $N = 499$, besides Political Orientation ($N = 487$). Means with different subscripts significantly differ.

Effects Through Empathy and Solidarity

To understand whether empathy and political solidarity explained the relationship between the manipulations and behavioral intentions, I conducted mediation analyses using Hayes' (2018) PROCESS macro. Using a custom model, I specified 5,000 bootstrap samples, seed 1,2345, critical historical knowledge as a predictor (X), personal story video as a moderator (W), empathy as the first mediator (M_1), political solidarity as the second mediator (M_2), and behavioral intentions as the outcome (Y). I tested these effects using three mediation models, a fully specified model (H5–H12; Table 2; Figure 2), an alternative partially mediated model (H13–H20; Table 3; Figure 3), and a fully mediated model (H21–H27; Table 4; Figure 4). Given that the behavioral intention scales was newly developed, I explored alternative mediation models to examine whether the experimental manipulations, empathy, and political solidarity positively predicted behavioral intentions.

Fully Specified Mediation Model. I hypothesized that the direct effects of the main effects and, less confidently, the interaction on empathy (H5a), political solidarity (H5b), and behavioral intentions (H5c) would be positive and significant. The data partially supported this hypothesis. As shown in Table 13, the critical historical passage condition had a significant and

positive medium-sized direct effect on empathy. As well, the personal story video condition had a significant and positive small-sized direct effect on empathy. The interaction of the critical historical passage condition and the personal story video condition did not have a significant direct effect on empathy. These results suggest that, compared to the control condition, the critical historical passage condition and the personal story video condition positively predicted empathy, lending partial support to H5a. In contrast, none of the conditions, the critical historical passage condition, the personal story video condition, or their interaction, had a significant direct effect on political solidarity or behavioral intentions. Thus, the data did not support H5b and H5c.

I further hypothesized that empathy would positively predict political solidarity (H6a) and behavioral intentions (H6b). The data supported both hypotheses. Empathy had a significant and positive medium-sized direct effect on political solidarity, and a significant and positive small-sized direct effect on behavioral intentions, suggesting that participants who felt more empathy also reported greater political solidarity and stronger behavioral intentions.

Additionally, I hypothesized that political solidarity would positively predict behavioral intentions (H7). This hypothesis was supported. Political solidarity had a significant and positive medium-sized direct effect on behavioral intentions, such that participants who reported more solidarity also reported stronger behavioral intentions.

I also hypothesized that main effects and, less confidently, the interaction would have significant and positive indirect effects on political solidarity (H10a–c) and behavioral intentions (H10d–f) through empathy. These hypotheses were partially supported. The critical historical passage condition had a significant and positive small-sized indirect effect on both political solidarity and behavioral intentions through empathy. That is, the critical historical passage

positively predicted feelings of empathy, which, in turn, positively predicted political solidarity and behavioral intentions, supporting H10a and H10d. In contrast, the personal story video condition and the combined intervention condition did not have significant indirect effects on political solidarity or behavioral intentions through empathy, providing no support hypotheses H10b–c and H10e–f.

Further, I expected that the main effects (H11a–b) and, less confidently, the interaction (H11c) would have positive and significant indirect effects on behavioral intentions through political solidarity. I did not find support for these hypotheses. The critical historical passage condition, the personal story video condition, or the combined intervention condition did not have significant indirect effects on behavioral intentions through political solidarity.

Finally, I expected that the main effects (H12a–b) and, less confidently, the interaction (H12c) would have positive and significant indirect effects on behavioral intentions through empathy and then political solidarity. The data partially supported these hypotheses. The critical historical passage condition had a positive and significant small-sized indirect effect on behavioral intentions through empathy, and then political solidarity. That is, the critical historical passage positively predicted feelings of empathy toward Indigenous women, girls, and 2SLGBTQI+, which in turn positively predicted political solidarity with the cause and, subsequently, behavioral intentions, supporting H12a. Conversely, the personal story video condition and the combined intervention condition did not indirectly increase behavioral intentions through empathy, and then political solidarity, providing no support for H12b and H12c. Next, I explored an alternative partially mediated model, in which I removed the direct path between empathy and behavioral intentions.

Table 13*Mediation Analyses for the Fully Specified Mediation Model*

Antecedent	Consequent	Direct Effects					R^2
		b	SE	t	p	[95%, CI]	
Critical Historical Passage (X)	EMP (M ₁)	.44	.12	3.61	< .001	[.19, .67]	.04
	PSM (M ₂)	-.01	.07	-0.10	.920	[-.15, .13]	.49
	BI (Y)	-.01	.06	-0.22	.822	[-.14, .11]	.62
Personal Story Video (W)	EMP (M ₁)	.34	.12	2.80	.005	[.10, .57]	.04
	PSM (M ₂)	-.10	.07	-1.48	.137	[-.24, .03]	.49
	BI (Y)	-.11	.06	-1.66	.096	[-.23, .02]	.62
Combined Intervention (XW)	EMP (M ₁)	.25	.17	-1.47	.141	[-.59, .08]	.04
	PSM (M ₂)	.01	.10	0.11	.913	[-.19, .21]	.49
	BI (Y)	-.01	.09	-0.04	.971	[-.18, .18]	.62
Empathy (M ₁)	PSM (M ₂)	.57	.03	21.57	< .001	[.51, .62]	.49
	BI (Y)	.19	.03	5.79	< .001	[.13, .26]	.62
Political Solidarity (M ₂)	BI (Y)	.64	.04	15.67	< .001	[.56, .72]	.62
Total Effects							
Critical Historical Passage (X)	BI (Y)	-.01	.06	-0.22	.822	[-.14, .11]	.62
Personal Story Video (W)	BI (Y)	-.11	.06	-1.66	.096	[-.23, .02]	.62
Combined Intervention (XW)	BI (Y)	-.01	.09	-0.03	.971	[-.18, .18]	.62
Indirect Effects							
		Effect	Boot SE			[95%, CI]	
Critical Historical Passage (X)	EMP → BI	.08	.03			[.03, .15]	
	EMP → PSM	.25	.08			[.10, .39]	
	PSM → BI	-.01	.05			[-.09, .09]	
	EMP → PSM → BI	.16	.05			[.06, .26]	
Personal Story Video (W)	EMP → BI	.03	.02			[-.01, .08]	
	EMP → PSM	.11	.06			[-.01, .23]	
	PSM → BI	.01	.05			[-.09, .09]	
	EMP → PSM → BI	.07	.04			[-.02, .15]	
Combined Intervention (XW)	EMP → BI	-.05	.03			[-.12, .02]	

EMP → PSM	-.14	.10	[-.33, .05]
PSM → BI	.01	.06	[.12, .13]
EMP → PSM → BI	-.10	.06	[-.23, .03]

Note. $N = 498$. EMP = Empathy, PSM = Political Solidarity Measure, BI = Behavioral Intentions, b = unstandardized beta, SE = standard error, 95% CI = 95% confidence interval for the unstandardized beta. 5,000 bootstraps, R^2 = proportion of variance explained. Set seed = 1,2345.

Alternative Partially Mediated Model. I found similar results for the alternative partially mediated model as those observed in the fully specified model (see Table 14). The critical historical passage condition and the personal story video condition had a positive and significant medium-sized direct effect on empathy. The interaction of the critical historical passage condition and the personal story video condition was not significant. Thus, these results lend partial support to H13a. The critical historical passage condition, the personal story video condition, or the combined intervention condition had no direct effect on political solidarity or behavioral intentions, providing no support to H13b and H13c. Empathy continued to have a positive and significant medium-sized direct effect on political solidarity. Similarly, political solidarity had a positive and significant large-sized direct effect on behavioral intentions, supporting H14 and H15, respectively.

As for indirect effects, the critical historical passage condition had a positive and significant medium-sized indirect effect on political solidarity through empathy, providing support for H18a. In contrast, the personal story video condition and the combined intervention condition did not have significant indirect effects on political solidarity through empathy, lending no support to H18b and H18c. As well, none of the intervention conditions had a significant indirect effect on behavioral intentions through political solidarity, and thus the data did not support H19a–c. The critical historical passage condition had a positive and significant medium-sized indirect effect on behavioral intentions through empathy, and then political solidarity, supporting H20a. Conversely, both the personal story video condition and the combined intervention condition did not have significant indirect effects on behavioral intentions through empathy, and then political solidarity, providing no support for H20b or H20c. Finally, I explored an alternative fully mediated model, in which I removed the direct path between empathy and

behavioral intentions, and the direct paths between the intervention conditions and behavioral intentions.

Table 14*Mediation Analyses for the Alternative Partially Mediated Model*

Antecedent	Consequent	Direct Effects					
		<i>b</i>	<i>SE</i>	<i>t</i>	<i>p</i>	[95%, CI]	<i>R</i> ²
Critical Historical Passage (X)	EMP (M ₁)	.44	.12	3.61	<.001	[.19, .67]	.04
	PSM (M ₂)	-.01	.07	-0.10	.920	[-.15, .13]	.49
	BI (Y)	.03	.07	0.45	.654	[-.10, .16]	.59
Personal Story Video (W)	EMP (M ₁)	.34	.12	2.80	.005	[.10, .57]	.04
	PSM (M ₂)	-.11	.07	-1.49	.137	[-.24, .03]	.49
	BI (Y)	-.06	.07	-0.86	.390	[-.19, .07]	.59
Combined Intervention (XW)	EMP (M ₁)	.25	.17	-1.47	.141	[-.59, .08]	.04
	PSM (M ₂)	.01	.10	0.10	.913	[-.19, .21]	.49
	BI (Y)	-.03	.09	-0.32	.749	[-.22, .15]	.59
Empathy (M ₁)	PSM (M ₂)	.57	.03	21.57	<.001	[.51, .62]	.49
Political Solidarity (M ₂)	BI (Y)	.81	.03	26.60	<.001	[-.75, .87]	.59
Total Effects							
Critical Historical Passage (X)	BI (Y)	.03	.07	0.45	.654	[-.10, .16]	.59
Personal Story Video (W)	BI (Y)	-.05	.07	-0.86	.390	[-.19, .07]	.59
Combined Intervention (XW)	BI (Y)	-.03	.09	-0.32	.749	[-.22, .15]	.59
Indirect Effects							
		Effect	Boot <i>SE</i>			[95%, CI]	
Critical Historical Passage (X)	EMP → PSM	.25	.08			[.10, .39]	
	PSM → BI	-.01	.06			[-.11, .11]	
	EMP → PSM → BI	.20	.06			[.08, .32]	
Personal Story Video (W)	EMP → PSM	.11	.06			[-.02, .23]	
	PSM → BI	.01	.06			[-.11, .11]	
	EMP → PSM → BI	.08	.05			[-.02, .19]	
Combined Intervention (XW)	EMP → PSM	-.14	.10			[-.33, .05]	
	PSM → BI	.01	.08			[-.16, .17]	
	EMP → PSM → BI	-.12	.08			[-.27, .04]	

Alternative Fully Mediated Model. I found nearly identical results for the alternative fully mediated model to those observed in the two previous mediation models (see Table 15). While the critical historical passage condition and the personal story video condition had positive and significant medium-sized direct effects on empathy, the combined intervention condition did not. Thus, I found partial support for H21a. The critical historical passage condition, the personal story video condition, or the combined intervention condition did not have significant direct effects on political solidarity, providing no support for H21b. Empathy had a positive and significant medium-sized direct effect on political solidarity, and political solidarity had a positive and significant large-sized direct effect on behavioral intentions, supporting H22 and H23, respectively.

The critical historical passage condition had a positive and significant medium-sized indirect effect on political solidarity through empathy, supporting H25a. In contrast, the personal story video condition and the combined intervention condition did not have significant indirect effects on political solidarity through empathy, providing no support for H25b and H25c. None of the intervention conditions had significant indirect effects on behavioral intentions through political solidarity, and thus the data did not support H26a–c. Finally, I found a positive and significant small-sized indirect effect of the critical historical passage condition on behavioral intentions through empathy, and then political solidarity, supporting H27a. In contrast, the personal story video condition and the intervention condition did not have a significant indirect effect on behavioral intentions through empathy, and then political solidarity, providing no support for H27b and H27c.

Table 15*Mediation Analyses for the Alternative Fully Mediated Model*

Antecedent	Consequent	Direct Effects					R^2
		b	SE	t	p	[95%, CI]	
Critical Historical Passage (X)	EMP (M ₁)	.44	.12	3.61	<.001	[.20, .67]	.04
	PSM (M ₂)	-.01	.07	-0.10	.920	[-.15, .13]	.49
Personal Story Video (W)	EMP (M ₁)	.34	.12	2.80	.005	[.10, .57]	.04
	PSM (M ₂)	-.11	.07	-1.49	.137	[-.24, .03]	.49
Combined Intervention (XW)	EMP (M ₁)	-.25	.17	-1.47	.141	[-.59, .08]	.04
	PSM (M ₂)	.01	.10	0.10	.913	[-.19, .21]	.49
Empathy (M ₁)	PSM (M ₂)	.57	.03	21.57	<.001	[.51, .62]	.49
Political Solidarity (M ₂)	BI (Y)	.81	.03	26.85	<.001	[.75, .87]	.59
Total Effects							
Critical Historical Passage (X)	BI (Y)	-.01	.06	-0.22	.822	[-.14, .11]	.62
Personal Story Video (W)	BI (Y)	-.11	.06	-1.66	.096	[-.23, .02]	.62
Combined Intervention (XW)	BI (Y)	-.01	.09	-0.04	.971	[-.18, .18]	.62
Indirect Effects							
		Effect	Boot SE	[95%, CI]			
Critical Historical Passage (X)	EMP → PSM	.25	.08	[.10, .39]			
	PSM → BI	-.01	.06	[-.11, .11]			
	EMP → PSM → BI	.20	.06	[.08, .32]			
Personal Story Video (W)	EMP → PSM	.11	.06	[-.02, .23]			
	PSM → BI	.01	.06	[-.11, .12]			
	EMP → PSM → BI	.08	.05	[-.02, .19]			
Combined Intervention (XW)	EMP → PSM	-.14	.10	[-.33, .05]			
	PSM → BI	.01	.08	[-.16, .17]			
	EMP → PSM → BI	-.12	.08	[-.27, .04]			

Note. $N = 498$. EMP = Empathy, PSM = Political Solidarity Measure, BI = Behavioral Intentions, b = unstandardized beta, SE = standard error, 95% CI = 95% confidence interval for the unstandardized beta. 5,000 bootstraps, R^2 = proportion of variance explained. Set seed = 1,2345.

Model Fit

Finally, I conducted path analyses to compare model fit of the fully specified model, the alternative partially mediated model, and the alternative fully mediated model. As before, I specified 5,000 bootstrap samples, seed 1,2345, critical historical knowledge as a predictor (X), personal story video as a moderator (W), empathy as the first mediator (M₁), political solidarity as the second mediator (M₂), and behavioral intentions as the outcome (Y).

Fully Specified Mediated Model. First, I tested the fully specified mediated model in which I specified all direct and indirect effects between predictors, mediators, and the outcome. Model fit was $\chi^2(1) = 331.45$, CFI = .60, RMSEA = .81, (95% CI .74, .88), SRMR = .18. Overall, these predictors accounted for 74.5% of the variance in behavioral intentions.

Alternative Partially Mediated Model. Second, I tested the alternative partially mediated model in which I specified no direct effect between empathy and behavioral intentions. Model fit was nearly identical to the fully specified mediated model; $\chi^2(1) = 331.45$, CFI = .60, RMSEA = .81, (95% CI .74, .88), SRMR = .18. Overall, these predictors accounted for 71.2% of the variance in behavioral intentions.

Alternative Fully Mediated Model. Third, I tested the alternative fully mediated model in which I specified no direct effect between empathy and behavioral intentions or direct effects from the predictors and behavioral intentions. Model fit was $\chi^2(4) = 331.45$, CFI = .57, RMSEA = .81, (95% CI .74, .88), SRMR = .05. Overall, these predictors accounted for 67.1% of the variance in behavioral intentions.

Exploratory Analyses

I completed exploratory analyses to further examine the relationships between the interventions, empathy, political solidarity, and behavioral intentions. In the exploratory analysis,

I included attitudes toward the issue as an outcome variable. Using mediation analysis, I specified personal story video as a predictor (X), critical historical knowledge as a moderator (W), empathy as the first mediator (M₁), political solidarity as the second mediator (M₂), attitude toward support for government action on the issue (M₃), and behavioral intentions as the outcome (Y). After including attitude toward the issue in the model, I found a small indirect effect of the personal story video condition on behavioral intentions through empathy; $b = 0.06$, $SE_b = .02$, 95% CI [.01, .11]. I also found a small indirect effect of the personal story video on behavioral intentions through empathy, and then attitude toward the issue; $b = 0.01$, $SE_b = .01$, 95% CI [.01, .04]. Additionally, the indirect effect of the personal story video on behavioral intentions through empathy, and then political solidarity was small but significant; $b = 0.06$, $SE_b = .02$, 95% CI [.01, .12]. Finally, when all predictors, mediators, and outcomes were included in the model, the personal story video had a small indirect effect on behavioral intentions through empathy then political solidarity then attitude toward support for government action on the issue; $b = 0.04$, $SE_b = .01$, 95% CI [.01, .08], suggesting that the personal story video positively predicted feelings of empathy, solidarity, support for government action on the issue, which, in turn, positively predicted stronger behavioral intentions.

I also compared the intervention conditions separately and included political orientation as a covariate. Past research shows that conservatism is positively associated with anti-immigrant policy support (Bruneau, 2018) and negatively associated with empathy (Hasson et al., 2018). I was interested in examining whether political ideology influences the effects of historical education on empathy, political solidarity, behavioral intentions, and attitude toward the issue. I found a direct effect of the critical historical passage on empathy, $b = 0.30$, $SE_b = .09$, 95% CI [.14, .47]. I also found a direct effect of the personal story video on empathy, $b = 0.18$, $SE_b = .09$,

95% CI [.01, .35], and attitude toward the issue, $b = 0.11$, $SE_b = .05$, 95% CI [.01, .22]. As for indirect effects, I found a small indirect effect of the critical historical passage on attitude toward the issue through empathy, $b = 0.04$, $SE_b = .02$, 95% CI [.01, .05]. I also found a small indirect effect of the critical historical passage on attitude toward the issue through empathy, then political solidarity, $b = 0.08$, $SE_b = .03$, 95% CI [.04, .14]. Finally, I found a small indirect of the critical historical passage on attitude toward the issue through empathy then political solidarity, then behavioral intentions, $b = 0.01$, $SE_b = .01$, 95% CI [.01, .03].

As for indirect effects of the personal story video, I found a small indirect effect of the personal story video on attitude toward the issue through empathy, $b = 0.02$, $SE_b = .01$, 95% CI [.01, .05]. I also found a small indirect of the personal story video on attitude toward the issue through empathy, then political solidarity, $b = 0.05$, $SE_b = .03$, 95% CI [.01, .10]. Finally, I found a small indirect of the personal story video on attitude toward the issue through empathy then political solidarity, then behavioral intentions, $b = 0.01$, $SE_b = .01$, 95% CI [.01, .03].

Discussion

In this thesis, I investigated the effects of a critical historical education passage and a personal story video, in isolation, in combination, and compared to a control, on non-Indigenous participants' feelings of empathy, political solidarity, behavioral intentions, and support for government action. I had four main objectives. First, I was interested in understanding whether all interventions would outperform the control in eliciting empathy, political solidarity, behavioral intentions, and support for government action. Second, I aimed to assess whether the combined intervention condition would be most effective in eliciting empathy, solidarity, behavioral intentions, and support for government action. Third, I aimed to understand whether the critical historical passage and personal story conditions would produce similar levels of

empathy, political solidarity, behavioral intentions, and support for government action. Finally, I wanted to examine whether empathy and political solidarity indirectly explained the relationship between the interventions and behavioral intentions. My data partially supported these hypotheses.

Summary of the Findings

Exposure to either critical historical education or personal story about violence toward Indigenous women, girls, and 2SLGBTQI+ positively predicted emotional, attitudinal, and behavioral responses. Participants who read the critical historical passage (vs. did not read) or watched the personal story video (vs. did not watch) reported greater empathy. Additionally, compared to participants who received no intervention, participants who read the critical historical passage or watched the personal story video reported greater support for government action toward the issue. Further, compared to participants who received no intervention, participants who read the critical historical passage reported greater political solidarity and behavioral intentions with Indigenous women, girls, and 2SLGBTQI+. Unexpectedly, viewing the personal story video did not significantly predict political solidarity or behavioral intentions. As well, there was no evidence that the interaction of both interventions enhanced empathy, political solidarity, behavioral intentions, or support for government action. However, comparison of estimated marginal means revealed that both interventions together (the “combined” condition) outperformed no intervention.

Mediation analyses revealed direct effects of both the critical historical passage and personal story video on empathy. Empathy had a direct effect on both political solidarity and behavioral intentions, and political solidarity had a direct effect on behavioral intentions. As well, I found indirect effects of the critical historical passage on both political solidarity and

behavioral intentions through empathy. I also found an indirect effect of the critical historical passage condition on behavioral intentions through empathy then political solidarity. Overall, this suggests that the critical historical passage positively predicted feelings of empathy and political solidarity with Indigenous women, girls, and 2SLGBTQI+, which, in turn, positively predicted stronger behavioral intentions. Contrary to my expectations, neither the critical historical passage or the personal story video had direct effects on political solidarity or behavioral intentions. There were also no direct effects of the combined intervention condition on empathy, political solidarity, or behavioral intentions. Similarly, there were no indirect effects of either the personal story video condition or the combined intervention condition on behavioral intentions through empathy or political solidarity.

Through exploratory mediation analyses, I found several small direct and indirect effects after including attitude toward support for government action in the model. The personal story video positively predicted behavioral intentions through empathy. Additionally, the indirect effect of the personal story video on behavioral intentions through empathy then political solidarity was small but significant. Finally, when all predictors, mediators, and outcomes were included in the model, the personal story video had a small indirect effect on behavioral intentions through empathy, followed by political solidarity, and finally, attitude toward support for government action on the issue. That is, the personal story video positively predicted feelings of empathy, political solidarity, and positive attitudes toward the issue, which, in turn, positively predicted behavioral intentions. This suggests that the effects of personal story video may be partially explained by its influence on attitudes, as well as the relationship between attitudes, feelings, and behavioral outcomes. This final pathway may align with theories of behavior (see Ajzen, 1991), which identifies attitude toward the behavior as an indicator of behavioral

intentions. Further, attitudes are not only shaped by what people think about a behavior but also how they feel about it. It is possible that feelings of empathy served as an emotional antecedent to attitude formation, which may have improved participants' positive evaluation of support for increased government actions. In turn, more favorable attitudes toward Indigenous women, girls, and 2SLGBTQI+ people may have increased participants' intentions to act.

Strengths and Limitations

My thesis may contribute to the ongoing effort to integrate Indigenous research methodologies into the field of psychology (Archibald, 2008; Ciofalo et al., 2022; Kovach, 2009; Schmidt, 2019). First, focusing on increasing pro-Indigenous attitudes and behaviors, rather than reducing anti-Indigenous outcomes aligns with a strength-based framework and moves beyond deficit-based narratives (Kovach, 2009). Second, though I acknowledge that the story intervention in this study was not a traditional form of Indigenous storytelling, it reflects the potential value of sharing personal and lived experiences as an educational tool to foster more positive feelings and attitudes among non-Indigenous participants (Archibald, 2008). Personal stories, even when shared through non-traditional forms, seemed to engage listeners emotionally, perhaps enhancing non-Indigenous peoples understanding of complex and systemic issues (Moreford et al., 2024). Indigenous scholars and storytellers have long emphasized that stories are powerful tools for healing the mind, body, spirit, and heart (Archibald, 2008). As a research method, storytelling supports a strength-based framework, as it focuses on resilience, relationality, and emotional connection. Building on this strength-based approach, future research may expand on this by exploring storytelling interventions as a method of both education and healing for Indigenous or other racialized groups.

Another strength of this study is that my analyses were based on a large sample. With this sample, I was less concerned about sampling error and selection biases. Further, with a larger sample size, the estimates of the effects from this study were likely more stable. However, the exception to this may be the combined intervention condition, which often requires larger sample sizes to detect effects than main effects. Though main effects examine the impact of one predictor, interactions assess whether the effect of one predictor changes depending on another, which introduces a more complex relationship. This complex relationship may result in more variability within the data and reduced statistical power. An interaction effect could have been present in my data if I had a larger sample size.

In addition to strengths, there were some limitations in my study. Why did the critical historical passage, but not the personal story video, affect feelings of political solidarity or support for behavioral intentions? I created the critical historical passage using real data and purposefully avoided overtly persuasive language. People are often resistant to persuasive messages. When people suspect they are being persuaded, they will defend their attitudes against the persuasive attack (Knowles & Linn, 2004; Tormala et al., 2006). The personal story video may have felt more emotionally charged and persuasive, causing participants to reject the intervention. Additionally, differences in the quality and content of the interventions may have influenced participants' reactions. Although I hypothesized that both interventions would elicit similar outcomes, the interventions were not equivalent in content. The interventions did not contain parallel emotional intensity or statistically correct information, thus limiting my ability to compare the interventions directly. I wanted to ensure that the critical historical passage included both historical information on the root causes of violence and recent statistical information on

violence toward Indigenous women, girls and 2SLGBTQI+. Further, I could not modify the content in the personal story video to align with factual content in the critical historical passage.

Another limitation of this study is that participants' responses may have been influenced by potential backlash effects. For example, an open-ended item on my survey revealed that 2.8% of participants did not think of Indigenous women/girls and 2SLGBTQI+ as one group. Some participants shared that they would be more willing to support the cause of violence toward Indigenous women and girls, but not for violence toward 2SLGBTQI+. It is possible that participants had more negative attitudinal, emotional, and behavioral reactions toward 2SLGBTQI+ as they may have viewed this group as violating dominant societal norms related to gender and sexuality. Further, it is important to consider the potential backlash effects of educational interventions. Learning about historical and current injustices faced by racialized groups can be upsetting. For example, Efimoff (2022) found that non-Indigenous participants who learned about individual racism showed *increased* prejudice, possibly due to feelings such as guilt or sadness that may have made participants uninterested in future learning opportunities. Thus, it may be important for research to consider these emotional reactions in testing the effectiveness of educational interventions.

Future Directions

Future research could address some of the limitations of my study and further explore the effects of critical historical education and storytelling interventions on emotional responses, solidarity, and behavioral intentions toward Indigenous peoples, particularly Indigenous women, girls, and 2SLGBTQI+. Future research might consider the use of a multi-item measure of attitudes. Additionally, assessing both the affective and cognitive components of attitudes may clarify the mechanisms that drive behavior change (Ajzen, 1991). Future research may also

explore how to minimize potential backlash effects associated with critical historical knowledge and storytelling interventions. For example, reducing overtly persuasive messaging may help decrease defensive responses, making people less likely to reject or resist the message. Further, framing educational interventions about historical and current injustices in a more emotionally approachable way, such as by focusing on hope, strength, or resilience, may help reduce resistance and allow for increased engagement with the message.

Finally, future research could assess how different attitudes toward various marginalized groups influence the effectiveness of educational interventions. As stated previously, some participants expressed more support for the cause of violence toward Indigenous women and girls, but not for violence toward 2SLGBTQI+. Parsing these attitudes may help identify how to frame educational interventions so they are most effective for each group. In one study, Case and Stewart (2010) examined the effects of an educational course that contained content on LGBTQ+ issues on students' heterosexual privilege awareness and support for same-sex marriage. Participants in the post-course assessment (vs. pre-course assessment) reported greater awareness of heterosexual privilege and greater support for same-sex marriage. This suggests that educational interventions may need to be tailored to the specific identities and experiences of the groups being discussed. In this context, future research may consider differentiating between Indigenous women/girls and 2SLGBTQI+ when evaluating the effects of critical historical knowledge and storytelling interventions. This approach could help identify how to frame educational content to enhance more positive emotional, attitudinal, and behavioral outcomes for each group.

Conclusion

In this thesis, I assessed the effectiveness of critical historical education and stories to improve or increase thoughts, feelings, and behavioral intentions toward Indigenous women, girls, and 2SLGBTQI+. Results indicate that education about historical and current injustices directly and indirectly improved feelings, solidarity, behavioral intentions, and attitudes. Further, a personal story intervention directly improved feelings and attitudes, and indirectly changed behaviors when attitudes were involved in the model. Future research should continue to explore how various educational interventions may be refined to support reconciliation and encourage positive behavioral change.

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Appendix A**Information and Consent Form: Attitudes Toward a Social Group****Student Principal Investigator:**

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Sponsor: Social Sciences and Humanities Research Council

Thank you for your interest in this study! This consent form, a copy of which you may print or save, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, feel free to ask any of the people named above. Please take the time to read this document and any accompanying information carefully. It is very important that you understand:

- what is being asked of you.
- what the risks and benefits of participation are.
- how the information you provide will be used and stored.

Purpose of the Study: To understand attitudes toward a social group.

Study Procedures: If you decide to take part in this online study, you will answer questions about a social group in Canada and yourself (e.g., demographic questions).

Average duration: 30 minutes or less.

Benefits and risks: This study is minimal risk, meaning that the risks are no greater than what you might experience in your daily life (e.g., on social media). A benefit to participating is that you will learn first-hand about research in Psychology at the University of Manitoba and the University of Winnipeg. As people sometimes do when they think about social issues in daily life, a risk to taking part is that your mood may change. We expect any mood change to be temporary, if it occurs at all, and provide helpful resources in the debriefing should you need them.

Compensation: You will receive one credit toward your PSYC 1200 research participation grade.

Data storage, sharing, and use:

- All the information you provide as part of this study is confidential. This means that only members of the research team will see your information.
- We will keep your data confidential until we anonymize it in April 2025. For safety, your information will be kept on a UM-approved secure platform.
- We may keep the anonymized data indefinitely, post it in an online data repository such as Open Science Framework (as funding for this project recommends), or make it available to qualified researchers, editors, reviewers, or granting agencies.
- Any data sent out of the University of Manitoba will not show identifiable personal information about you.
- We will use this data for Erin Sinclair's thesis and to create academic products, such as publications or presentations, and knowledge mobilization pieces, such as summaries for the public. In doing so, we will only focus on trends across many participants meaning we will only present aggregate responses.
- A designated University of Manitoba auditor may check that this study is being done safely and properly. To do this, they may visit the study site or review the research records.

Withdrawing:

- If you want to withdraw, click the "I wish to withdraw" at the end of the survey so that you receive a research participation credit.
- If you want to delete your data, please email us (starzyk.lab@umanitoba.ca) as soon as possible with the subject heading "Attitudes Toward a Social Issue in Canada Delete Data"). You will be unable to withdraw your data after April 2025.

Ethics approval: The Research Ethics Board 1 at the University of Manitoba, Fort Garry campus, has reviewed and approved this research. If you have any questions, concerns, or complaints about this study, you may contact us or the University of Manitoba's Office of Human Research Ethics at humanethics@umanitoba.ca or 204-474-7122. This research has also been approved by the University Human Research Ethics Board at the University of Winnipeg.

Consent: If you consent to take part, this means you:

- are satisfied with the information we have provided.
- have had the opportunity to ask and have answered any questions.

- do not waive your legal rights nor release the researchers, sponsors, or involved institutions from their legal and professional responsibilities.
- understand that you will be taking part in a study, which you may freely leave or withdraw at any time, and /or refrain from answering any questions you prefer to omit, without prejudice or consequence.
- understand you may also ask questions while completing the study.
- do so of your own free will.

If you would like to participate, select “I agree.” If you want to leave now, and not participate, select “I disagree.”

I agree

I disagree

If you withdraw partway through the study, may we still include the questions you have completed in our analysis?

Yes

No

Summary of Results: If you would like to receive a summary of results (available approximately July 2025), you may leave your contact information at the end of the study.

Notice Regarding Collection, Use, and Disclosure of Personal Information

Your personal information is being collected under the authority of *The University of Manitoba Act*. The University of Manitoba is committed to preserving your right to privacy. The information you provide will be used by the University to support our research. Your personal information will not be used or disclosed for other purposes, unless permitted by *The Freedom of Information and Protection of Privacy Act* or *The Personal Health Information Act*. If you have any questions about the collection of personal information: Ph: 204-474-9462 or Email:

fippa@umanitoba.ca

Appendix B

Critical Historical Passage

Missing and Murdered Indigenous Women, Girls, and 2SLGBTQI+

Indigenous women and girls are more likely to go missing or be murdered than other women in Canada—**12 times more likely**. This pattern is true across Canada. Here in Manitoba and nearby in Saskatchewan, Indigenous women are **19 times more likely** to go missing or be murdered than non-Indigenous women. Indigenous women and girls also experience more abuse than do non-Indigenous, in romantic relationships and even by strangers.

Sadly, serial killers like **Robert Pickton** have preyed on Indigenous women. One place Pickton found his victims was along the “**Highway of Tears**,” a 724-kilometre stretch of Highway 16 in British Columbia, between the cities of Prince George and Prince Rupert.

Ramona Wilson is one woman who was murdered on the Highway of Tears. She died on June 11, 1994, when she was 16-years-old. That day, she was planning to meet friends. She never made it there.

Indigenous women and girls are more vulnerable because of past and present policies and how some people think of them. Both **racism** and **sexism** have led Indigenous (vs non-Indigenous) women and girls to, for example, be poorer and have **fewer options for safe transportation**, especially if they live in rural areas. Indigenous women and girls also feel **less protected by law enforcement**, in part because law enforcement agencies have sometimes acted slowly or made racist decisions in cases involving missing and murdered Indigenous women and girls. In Ramona Wilson’s case, her family says the police did not take Ramona’s disappearance seriously. Even though it was not like her, the police assumed Ramona had run away and told the family she “would be back in a week.” Decades later, the case is still unsolved.

For years, and still today, Indigenous peoples and allies have called for more action on the issue of missing and murdered Indigenous women and girls. There is still a need for justice, safety, and change for Indigenous women, girls, and communities across Canada.

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Appendix C

Personal Story Video Link and Script

Video link

<https://www.youtube.com/watch?v=Q-gRYS3LXvA>

Video script

Searching for answers along BC's highway of tears, the story of Vancouver's missing women is well documented. Highway 16 known as the highway of tears stretches from Prince George to Prince Rupert. Why are we allowing that to happen today?

They're not just a statistic, they're people, they're little girls when they're growing up, they were bubbly and everything, they had plans to go somewhere, to do something. They figured the world would never hurt them in any way.

My name is Matilda Wilson, I have six children altogether, and Ramona is the youngest one. She was 16 years old when she was murdered on June 11, 1994. They hired her in June to be a peer counsellor for the Smithers community service, and she was so ecstatic about that.

Saturday was the day she was to meet her friends and you know there's no buses running their transits or anything like that. She never made it there.

I went to the RCMP, their response was she'll come back just give her a week. It just seemed nobody was alarmed at all. Why was that because she was native or what? We just try to have some hope, but we know it's a vast area, there are so many logging roads. It's just like looking at [a] needle in a haystack.

On April 10, the RCMP notified me they said that they had found the remains of Ramona Wilson. It just felt like I couldn't go on anymore because that was the baby of our family.

The highway, you have beautiful scenery when you're driving or if you're walking you see the mountains you see how dense the forests are. Still there's an eerie feeling that you're all alone there. Ramona's murder [has been] unsolved for 22 years.

Even now I lose my breath just... just thinking about the mothers that there's no trace of their daughters. I want people to know that we're standing there for our loved ones, the ones that are still missing, and the ones that are unsolved murders. I'm not going to give up.

Appendix D

Demographic Questions

What is your age? [drop down list]

What is your current gender identity?

Man

Woman

I identify my gender as (please specify): _____

What is your ethnicity? You may check all that apply. Examples within brackets are not complete; other groups are possible within categories.

Arab

Black

Chinese

Filipino

Indigenous (First Nations, Métis, Inuk)

Japanese

Korean

Latin American

South Asian (e.g., East Indian, Pakistani, Sri Lankan, etc.)

Southeast Asian (e.g., Vietnamese, Cambodian, Laotian, Thai, etc.)

West Asian (e.g., Iranian, Afghan, etc.)

White

Other, please specify: _____

What is your status within Canada?

Citizen at birth

Citizen by naturalization

Permanent resident

Other (e.g., temporary resident, refugee)

Do you currently live in Canada?

No

Yes

How long have you lived in Canada, in years? If you have lived in Canada your entire life, indicate your age. [drop down list]

To what extent do you identify as being Canadian?

Not at all	Slightly	Somewhat	Very much	Extremely
1	2	3	4	5

What is your annual household income? [drop down list]

\$0-\$4,999
 \$5,000-\$9,999
 \$10,000-\$14,999
 \$15,000-\$19,999
 \$20,000-\$24,999
 \$25,000-\$29,999
 \$30,000-\$34,999
 ...continues in \$5,000 increments to \$250,000+

Using the scale below, please indicate how you would describe your stance on each of these three categories of issues.

Very Left-Wing	Left-Wing	Slightly Left-Wing	Middle of the Road	Slightly Right- Wing	Right- Wing	Very Right- Wing
1	2	3	4	5	6	7

Foreign policy issues.

Economic issues.

Social issues.

Appendix E*Correlation Matrix for Initial Behavioral Intentions Scale*

Item	BI2	BI3	BI4	BI5	BI6	BI7	BI8	BI9	BI10
BI1	.47	.52	.64	.55	.57	.50	.60	.55	.69
BI2	--	.60	.43	.52	.40	.62	.37	.61	.59
BI3		--	.53	.54	.46	.64	.46	.65	.59
BI4			--	.60	.52	.49	.57	.53	.54
BI5				--	.46	.63	.43	.61	.51
BI6					--	.43	.57	.40	.63
BI7						--	.38	.75	.54
BI8							--	.39	.54
BI9								--	.56
BI10									--

Note. $N = 499$.

Appendix F*Covariance Matrix for Initial Behavioral Intentions Scale*

Item	BI1	BI2	BI3	BI4	BI5	BI6	BI7	BI8	BI9	BI10
BI1	1.47	.54	.66	.96	.74	.77	.55	.75	.67	.92
BI2	.54	.90	.60	.51	.54	.42	.54	.36	.57	.61
BI3	.66	.60	1.12	.71	.63	.54	.62	.50	.69	.69
BI4	.96	.51	.71	1.56	.82	.72	.55	.73	.66	.74
BI5	.74	.54	.63	.82	1.22	.56	.64	.50	.67	.63
BI6	.77	.42	.54	.72	.56	1.24	.44	.65	.45	.77
BI7	.55	.54	.62	.55	.64	.44	.83	.35	.68	.54
BI8	.75	.36	.50	.73	.50	.65	.35	1.06	.40	.61
BI9	.67	.57	.69	.66	.67	.45	.68	.40	1.00	.62
BI10	.92	.61	.69	.74	.63	.77	.54	.61	.62	1.22

Note. $N = 499$.