

Measuring Anti-Indigenous Attitudes: The Indigenous Resentment Scale

Abstract

This paper presents a novel *Indigenous resentment scale* to measure anti-Indigenous attitudes in settler-colonial societies. We draw from existing quantitative research on measuring outgroup attitudes, Indigenous philosophy, and settler-colonial scholarship to develop a concept and measure of Indigenous resentment with high construct validity. We conduct a reliability analysis and use statistical learning techniques to show that the Indigenous resentment scale is internally consistent, unidimensional, and has high predictive validity. We explain how the Indigenous resentment scale improves upon existing attempts to measure anti-Indigenous attitudes and discuss the usefulness of the scale in social scientific research.

Keywords: Settler-colonialism; Anti-Indigenous Attitudes; Scaling; Racial Politics; Public Opinion

1 Introduction

Social hierarchies become internalized as attitudinal dispositions that motivate prejudicial behavior (Fiske, 1998) and anti-egalitarian policy preferences (Henry and Sears, 2002; Sears, 1988). Understanding the nature and consequences of negative outgroup attitudes is an important first step toward identifying solutions for addressing disparities between social groups. In this article, we draw on existing research on symbolic racism, Indigenous theory, and settler-colonial studies to propose a novel concept of *Indigenous resentment*. We test the Indigenous resentment scale using original survey data. Our analysis reveals that the Indigenous resentment scale is an internally consistent, unidimensional, and valid measure.

In Section 2, we review existing efforts to empirically measure racial attitudes in Anglo-settler contexts such as the United States, Canada, Australia, and New Zealand. The greatest activity in this area has been in the study of *symbolic racism* toward Black Americans, which has been defined as the combination of anti-Black affect and the belief that Black Americans violate cherished values of hard work and industry (Kinder, Sanders and Sanders, 1996; Sears and Henry, 2003; Tarman and Sears, 2005). We also review promising efforts to study anti-Indigenous attitudes, including nascent efforts to measure symbolic racism toward Indigenous peoples. However, we make the case that existing efforts to measure symbolic racism toward Indigenous peoples fall short. Existing efforts typically involve taking scales designed to measure symbolic racism toward Black Americans and switching the words “Black” for “Native American” or “Aboriginal,” thus ignoring important features of settler-Indigenous relations. Notably, existing efforts to quantify anti-Indigenous attitudes have typically ignored conflicts over land. We draw on Indigenous and settler-colonial theories to develop a concept and measure of *Indigenous resentment* that has higher construct validity.

In Section 3, we outline our methods and describe our data collection procedures. We recruited an otherwise representative sample of White, English-speaking respondents ($n = 1,500$) to complete an online survey that included measures of Indigenous resentment and important correlates. We use factor analysis and the results of a scree test to assess the

dimensionality of our seven-item scale of Indigenous resentment. We use a reliability analysis to assess the internal consistency of our seven-item Indigenous resentment scale. We present our results in Section 4, where we offer conclusive evidence that the scale is unidimensional and highly reliable. To assess predictive validity (whether the scale predicts things it should (Henry and Sears, 2002)) we also show that Indigenous resentment predicts social avoidance and opposition to redistributive policies designed to help Indigenous peoples.

We recognize that social scientists—particularly those fielding longer surveys, a common practice in public opinion research—may not have space on their questionnaires for the full seven items used to construct the Indigenous resentment scale. As such, in Section 5 we present best practices for measuring Indigenous resentment using a smaller subset of survey items, including a four-item “short Indigenous resentment scale.” In Section 6, we conclude by discussing our findings, reviewing the importance of studying Indigenous resentment, and by pointing to avenues for future research.

2 Anti-Black and Anti-Indigenous Attitudes in Settler-Colonies

The philosopher James Baldwin (1985, p. 47) explains that “the truth concerning the White North American experience is to be deciphered in the hieroglyphic lashed onto the Black man’s back—there, and in the continuing fate of the last of the Mohicans.” What Baldwin means is that White North American privilege was made possible by the expropriation of Black bodies and attempted extermination of Indigenous peoples. This intuition can be extended to other similar settler-colonial societies, particularly other Anglo-settler states. In the Anglosphere, the collective common sense is centered around the idea that hard work is rewarded by material success. The idea that hard work is rewarded by material success combined with overt racism—the explicit endorsement of White supremacy—helped justify the expropriation of Black bodies as slave labor during earlier colonial expansions. After

European—and later, American—powers abolished slavery, the fiction that hard work is rewarded by material success was also used to absolve former slave-holders from obligations to redistribute the wealth that they had accumulated through colonization and slave labor. Baldwin (1985, p. 32) explains how, in the United States, the ideology of the American Dream “clearly states that America is the land of opportunity and that Blacks, therefore, deserve their situation here.”

As Dene philosopher (Coulthard, 2014) explains, the vision of capitalist productivity as a normative ideal was also used to justify colonialism and the expansion of non-Indigenous peoples across colonized territories. Indigenous lands that were labeled as “empty” to justify colonizers’ land appropriations, and Indigenous peoples were defined as “unproductive” to justify colonizers’ efforts to assimilate or exterminate them. Settler-colonialism, particularly in Anglo-settler states, entailed a commitment to private property and capitalism. Settler-colonialism further entailed a commitment to a specific understanding of industry and rationality—to the understanding that “we can all be industrious and rational if educated properly” (Arneil, 2017, p. 30). The logic of Settler-colonialism in Anglo-settler states helped define “citizens and civil society in explicit opposition to the idle, irrational, custom-bound ‘Indian’ who may be transformed into a citizen but only if he/she gives up his/her ‘customs’ or ‘ways’ and instead becomes industrious and rational” (Arneil, 2012, p. 492).

The combination of overt racism—the explicit endorsement of White supremacy—combined with the expectation that Indigenous peoples can become “industrious and rational” motivated the attempted genocide of Indigenous peoples through policies that aimed to eliminate Indigenous peoples through assimilation or death. For instance, the United States, Indigenous children were sent to “industrial schools” to train as menial laborers and study Christianity (Smith, 2001). In Canada, Australia, and New Zealand, even more aggressive assimilation efforts involved forcibly removing children from their families to attend “residential schools.” Not only were the explicit aims of the schools assimilative (to “kill the Indian in the child”), but thousands of children died while in custody (Truth and Reconciliation

Commission of Canada, 2015).

In today’s post-WWII, post-civil rights Anglo-democracies, citizens are unlikely to explicitly endorse White supremacy¹ and there is an active debate over the best ways to measure racial attitudes. Much of this debate has centered around measuring White racial attitudes toward Black Americans. Perhaps the most influential line of thinking posits that “old fashioned” racist beliefs about the biological inferiority of Black Americans and explicit endorsement of segregation has been replaced by a subtler kind of “symbolic racism” (e.g., Kinder, Sanders and Sanders, 1996; Sears and Henry, 2003; Tarman and Sears, 2005). While there is evidence that “old fashioned” racist beliefs have not completely disappeared and may even be enjoying a resurgence (Jardina and Piston, 2019),² it is also important to measure subtler racial attitudes. While old fashioned racist beliefs certainly persist, democratic norms prevent many people who hold negative outgroup attitudes from endorsing overtly racist attitudes and explicit dislike or beliefs about the biological inferiority of outgroups. This tends to result in an underestimation of the extent of negative outgroup attitudes.

Symbolic racism was originally defined as linking anti-Black animus and the belief that Blacks violate cherished values related to hard work and industry. Measures of symbolic racism also rely more heavily on subtle cues as opposed to overtly racist language. The broad concept of symbolic racism includes accounts of modern racism (McConahay, 1986), symbolic racism (Sears, 1988; Henry and Sears, 2002), subtle racism (Pettigrew and Meertens, 1995), and racial resentment (Kinder, Sanders and Sanders, 1996). By far the most popular

¹Although see Jardina and Piston (2019) for a discussion of the endurance of biological racist beliefs.

²Research also convincingly shows that the structure of racial prejudice is (approximately) lexically ordered and unidimensional, meaning different operationalizations of racial attitudes are tapping into the same latent trait of racial antipathy (Neblo, 2009a). For instance, opposition to affirmative action, opposition to the equal treatment of Black people, and explicit opposition to integration or intermarriage do not constitute separate *types* of racism, rather they constitute opposite ends of a lexically-ordered underlying concept of racism. More people likely oppose affirmative action (the “easier” item) and fewer people oppose intermarriage (the “harder” item). However, people who oppose intermarriage (people who agree to the more discriminating item) also tend to oppose affirmative action and are less likely to endorse the equal treatment of Black citizens. What is heterogeneous is the causal structure driving opinions about race politics (Neblo, 2009b). The debate about the relationship between old fashioned and symbolic racism goes beyond the scope of this paper. The goal of this paper is to simply to construct a reliable, valid, and unidimensional Indigenous resentment scale.

operationalization of symbolic racism is *racial resentment*. The racial resentment scale contains four items tapping into anti-Black affect and the belief that Black Americans violate cherished values related to hard work and industry (Kinder, Sanders and Sanders, 1996; Enders and Scott, 2019) and has been included on the American National Election Study consistently for over three decades (Enders, 2019).

Thus far, fewer efforts have been made to study symbolic racism toward Indigenous peoples. Most research on anti-Indigenous attitudes have involved using scales measuring “old fashioned” or “biological” racism (Morrison et al., 2008; Harell, Soroka and Iyengar, 2016; Langford and Ponting, 1992; Pedersen and Walker, 1997). Similarly, others have used feeling thermometer ratings that ask respondents to explicitly indicate their feelings toward Indigenous peoples and other group members (Harell, Soroka and Ladner, 2014; Donakowski and Esses, 1996) or a desire for social distance (Berry and Kalin, 1995). However, White citizens in contemporary democracies are often uncomfortable expressing overtly racist attitudes. Social desirability concerns mean measures of overt racism often underestimate the extent of anti-Indigenous attitudes. As such, it is also essential to study subtler, symbolic racism toward Indigenous peoples.

There have been some efforts to measure symbolic racism toward Indigenous peoples, but most of these efforts have involved directly taking scales to study anti-Black attitudes and swapping the word “Black” for “Native American” (in the U.S.) (Neblo, 2009b) or “Aboriginal” (in Canada and Australia) (Harell, Soroka and Iyengar, 2016; Morrison et al., 2008). These measures offer promising developments into the study of anti-Indigenous attitudes because they tap into beliefs that the target groups—Black or Indigenous peoples, respectively—are deficient in terms of their commitment to industry and hard-work, beliefs that play an ongoing role in justifying the disempowerment of both Black and Indigenous peoples.

However, there are ways in which the legacy of settler-colonialism and domination of Indigenous peoples differs from the domination of Black folk and existing measures of symbolic

racism toward Indigenous peoples do not tap into the distinct features of Indigenous-settler relations. Most importantly, land and land expropriation play a central role in Indigenous-settler conflicts. There is a consensus among Indigenous philosophers and settler-colonial scholars that, as Coulthard (2014, p. 13), argues, colonization is “a struggle primarily inspired by and oriented around the question of land” (see also Green and Green, 2007; Simpson, 2011; Wildcat et al., 2014; Singh, 2019). To have any real construct validity, any measure of settlers’ attitudes toward Indigenous peoples must tap into attitudes toward land conflicts.

Thus far only one scale, the “Australian Symbolic Racism Scale,” considers any questions about land (Fraser and Islam, 2000). The Australian Symbolic Racism Scale includes one item that asks respondents whether: “Native Title should be extinguished where it would hold up major mining projects which would produce major benefits to the Australian economy” (Fraser and Islam, 2000, p. 136, Appendix A). Unfortunately, this question asks about very specific policy—abolishing land title when title would hold up a major project that would benefit the Australian economy—and does not tap into more general attitudes toward conflicts over land. As such, this item is not useful outside the Australian context or for comparative studies of anti-Indigenous attitudes in settler-colonies.³

In addition to conflicts over land, the nature of Indigenous-settler conflicts may shape settler attitudes toward Indigenous peoples in ways that are distinct from settler attitudes toward non-Indigenous people of color. For instance, Indigenous peoples may make demands for the re-invigoration or preservation of pre-contact languages that are not typically made by Black Americans or other disempowered minorities. Because treaties grant Indigenous peoples’ distinct group-based rights, settlers may also feel resentment with Indigenous peoples’ jurisdictional autonomy (particularly with respect to taxation or land-use). Taking these concerns into account and drawing from the symbolic racism literature, we developed a seven-item Indigenous Resentment Scale.⁴ The battery of Likert-type questions ask re-

³Note also that The Australian Symbolic Racism Scale is *not* a measure of anti-Indigenous attitudes specifically. Rather, it is a more general scale of White Australian attitudes that taps into Australians’ attitudes toward a range of non-White, Indigenous, or foreign-born groups of people in Australia.

⁴We initially pre-tested 15 survey items with samples of undergraduate students from two research-

spondents to indicate whether they agree or disagree with items tapping into conflict over land, language rights, jurisdictional autonomy (conflicts over taxation), and more traditional racial resentment items tapping into the idea that Indigenous peoples violate Anglo-American values related to industriousness and enjoy special government favors.⁵

3 Data and Analysis Procedure

Data was collected between using Dynata’s (formerly Survey Sampling International’s) online panels between March and May 2019 ($n = 1,500$). We recruited an otherwise representative sample White, English-speaking Canadian respondents. In the first step of our analysis, we analyze the dimensionality of the scale using factor analysis and the results of a scree test. In the second stage of our analysis, we conduct a reliability analysis.

Finally, in the third stage of our analysis we investigate the predictive validity of the scale by estimating two OLS regression models to see if Indigenous resentment predicts the outcomes that it should. First, if the Indigenous resentment scale is a useful measure it should predict a racially-motivated desire for social distance. *Social distance* is measured by taking the difference between a summated scale of “Indigenous social distance” (whether respondents would favor or oppose having an Aboriginal neighbor, an Aboriginal co-worker, or a close relative date an Aboriginal person) from a summated scale of “White social distance” (whether respondents would favor or oppose having a White neighbor, a White co-worker, or a close relative date a White person).⁶ Higher values indicate a higher desire for

intensive universities. We used our results of our student pre-tests to narrow down the number of items (see Supplementary Materials for more detail on pre-testing with student samples).

⁵A note on terminology: Although “Indigenous peoples” is the term “used in international or scholarly discourse,” this term is often less familiar to non-academic audiences (Panel on Research Ethics, 2018). In Canada, where we conducted our surveys, the term “Aboriginal” is more commonly used. In our scholarly writing we use the term “Indigenous” when a global term is appropriate, although we use the distinct nation names that peoples use to identify themselves (such as Anishinaabe, Haida, or Dene) whenever possible. In our surveys, we use the more vernacular term “Aboriginals.” We define the term for respondents the first time it appears in our survey.

⁶Creating a relative measure of social distance (rather than just a summated scale of Indigenous social distance) reduces noise and helps to ensure the scale is tapping into racially-motivated desires for social distance. Rather than, for instance, picking up idiosyncratic variation in respondents’ aversion to social

social distance from Indigenous peoples relative to Whites. Phrased differently, higher values indicate greater preference for social contact with Whites relative to Indigenous peoples.

Second, if the Indigenous resentment scale is a useful measure it should predict opposition to policies designed to help Indigenous peoples. To operationalize *policies designed to help Indigenous peoples*, we asked respondents whether “Government funding to help Aboriginals” should increase, stay the same, or decrease. In both models we control for sociodemographic features including respondent age, gender, income, education level, partisan support, and ideology. The missing values on the control variables that are included in the regression models were imputed using the MICE package in R.⁷ Missing values on the outcomes and primary independent variables were dealt with through list-wise deletion. Variable distributions are presented in Table 1.

Table 1: Variable Distributions

Variable	Obs.	Mean	Std. Dev.	Min	Max
Reasonable demands					
<i>Agree strongly</i>	1,100	0.13	0.34	0.00	1.00
<i>Agree somewhat</i>	1,100	0.28	0.45	0.00	1.00
<i>Neither agree nor disagree</i>	1,100	0.29	0.46	0.00	1.00
<i>Disagree somewhat</i>	1,100	0.16	0.37	0.00	1.00
<i>Disagree strongly</i>	1,100	0.13	0.33	0.00	1.00
Land rights (R)					
<i>Agree strongly</i>	1,100	0.21	0.41	0.00	1.00
<i>Agree somewhat</i>	1,100	0.21	0.40	0.00	1.00
<i>Neither agree nor disagree</i>	1,100	0.29	0.45	0.00	1.00
<i>Disagree somewhat</i>	1,100	0.17	0.37	0.00	1.00
<i>Disagree strongly</i>	1,100	0.12	0.33	0.00	1.00
Education favors (R)					
<i>Agree strongly</i>	1,100	0.14	0.35	0.00	1.00
<i>Agree somewhat</i>	1,100	0.16	0.37	0.00	1.00
<i>Neither agree nor disagree</i>	1,100	0.33	0.47	0.00	1.00
<i>Disagree somewhat</i>	1,100	0.20	0.40	0.00	1.00

contact more generally (e.g., variation in social anxiety/ preferences for being alone).

⁷There was relatively little missing data because study participants were recruited through a professional panel and were paid for completing the study (see Supplementary). Imputing missing values is considered good practice and is preferable to dropping data because multiple imputation accounts for uncertainty, producing more accurate standard errors (Azur et al., 2011). We also estimated our models with the non-imputed data (dropping missing values through list-wise deletion) as a robustness check. The results are not substantively different.

<i>Disagree strongly</i>	1,100	0.17	0.38	0.00	1.00
Work their way up (R)					
<i>Agree strongly</i>	1,100	0.22	0.41	0.00	1.00
<i>Agree somewhat</i>	1,100	0.23	0.42	0.00	1.00
<i>Neither agree nor disagree</i>	1,100	0.27	0.45	0.00	1.00
<i>Disagree somewhat</i>	1,100	0.18	0.38	0.00	1.00
<i>Disagree strongly</i>	1,100	0.09	0.29	0.00	1.00
Protect languages					
<i>Agree strongly</i>	1,100	0.25	0.43	0.00	1.00
<i>Agree somewhat</i>	1,100	0.31	0.46	0.00	1.00
<i>Neither agree nor disagree</i>	1,100	0.30	0.46	0.00	1.00
<i>Disagree somewhat</i>	1,100	0.06	0.24	0.00	1.00
<i>Disagree strongly</i>	1,100	0.08	0.28	0.00	1.00
No gov't respect					
<i>Agree strongly</i>	1,100	0.16	0.36	0.00	1.00
<i>Agree somewhat</i>	1,100	0.24	0.43	0.00	1.00
<i>Neither agree nor disagree</i>	1,100	0.27	0.45	0.00	1.00
<i>Disagree somewhat</i>	1,100	0.16	0.37	0.00	1.00
<i>Disagree strongly</i>	1,100	0.17	0.38	0.00	1.00
Unfair taxes (R)					
<i>Agree strongly</i>	1,100	0.18	0.39	0.00	1.00
<i>Agree somewhat</i>	1,100	0.22	0.41	0.00	1.00
<i>Neither agree nor disagree</i>	1,100	0.30	0.46	0.00	1.00
<i>Disagree somewhat</i>	1,100	0.16	0.37	0.00	1.00
<i>Disagree strongly</i>	1,100	0.16	0.36	0.00	1.00
Indigenous resentment scale	1,100	0.49	0.25	0.00	1.00
Support for gov't aid	1,100	0.55	0.29	0.00	1.00
Social distance scale	1,100	0.44	0.16	0.00	1.00
Region					
<i>British Columbia</i>	1,100	0.14	0.34	0.00	1.00
<i>Prairies</i>	1,100	0.19	0.40	0.00	1.00
<i>Ontario</i>	1,100	0.44	0.50	0.00	1.00
<i>English Quebec</i>	1,100	0.15	0.36	0.00	1.00
<i>Maritimes</i>	1,100	0.08	0.27	0.00	1.00
Age category					
<i>18-34</i>	1,100	0.19	0.39	0.00	1.00
<i>35-44</i>	1,100	0.22	0.41	0.00	1.00
<i>45-54</i>	1,100	0.22	0.42	0.00	1.00
<i>55-64</i>	1,100	0.30	0.46	0.00	1.00
<i>65+</i>	1,100	0.07	0.25	0.00	1.00
Right-party vote	1,100	0.44	0.50	0.00	1.00
Income					
<i>\$29,999 or less</i>	1,100	0.17	0.38	0.00	1.00
<i>\$30,000 to \$59,999</i>	1,100	0.25	0.43	0.00	1.00
<i>\$60,000 to \$89,999</i>	1,100	0.21	0.40	0.00	1.00

<i>\$90,000 to \$119,999</i>	1,100	0.17	0.38	0.00	1.00
<i>\$120,000-\$149,999</i>	1,100	0.11	0.31	0.00	1.00
<i>\$150,000+</i>	1,100	0.09	0.28	0.00	1.00

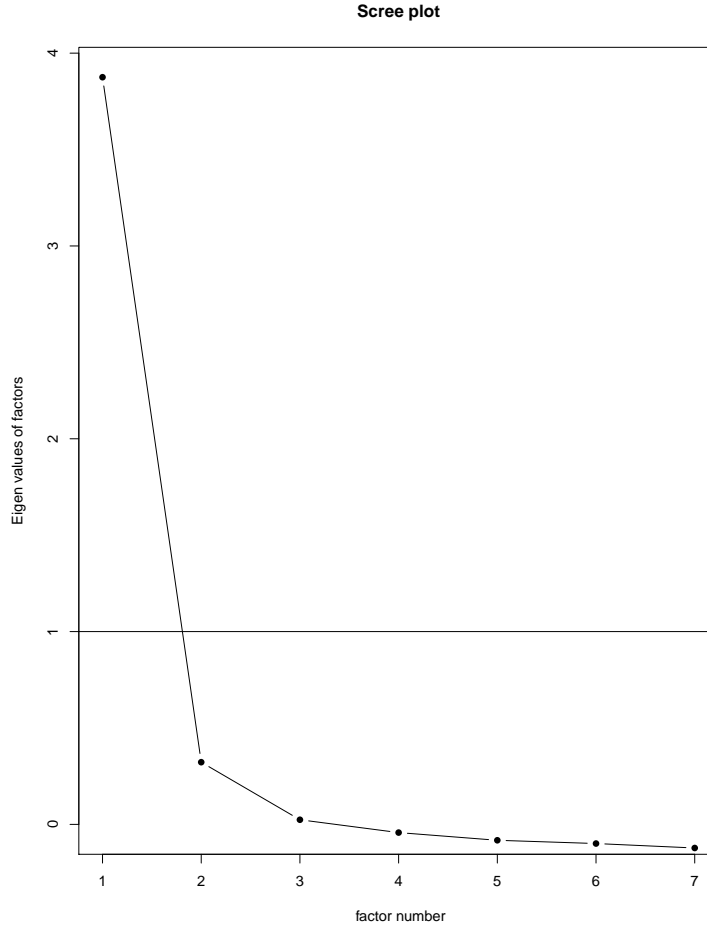
4 Results

4.1 Dimensionality

The first step is to clarify the dimensionality of the responses to the seven items we tested. We present the results of a scree plot and an exploratory factor analysis of the items to examine the dimensionality. The results of a scree plot help identify the number of factors to retain in exploratory factor analysis. Both the scree test and the Kaiser rule point to retaining a single factor, suggesting that the item responses are unidimensional (Figure 1).⁸

⁸A “scree test” involves identifying and retaining the number of eigenvalues to the left of the plot’s scree (or tapering off point). The “Kaiser rule” is to drop all components with eigenvalues less than one. Both procedures point to retaining a single factor.

Figure 1: Scree Plot of Indigenous Resentment Scale Items



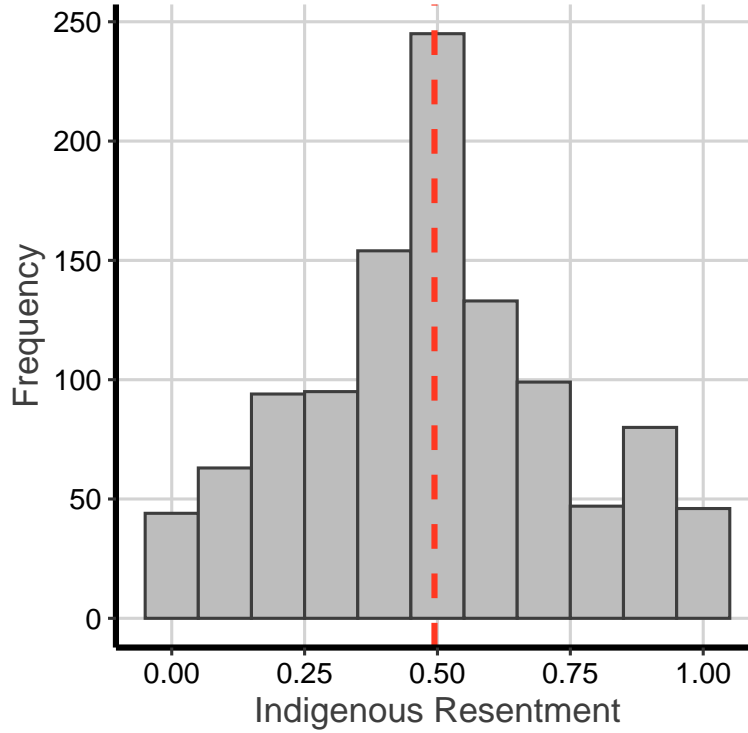
We also conducted an exploratory factor analysis of the items. Loadings are presented in Table 2. As can be seen from Table 2, the variable that loads most highly onto the underlying factor is the item tapping into conflicts over land rights (with a factor loading of 0.87), lending further empirical support to Indigenous scholars and activists claim that land is the defining feature of Indigenous-settler conflicts.

Table 2: Factor Analysis of Indigenous Resentment Scale Items

Variables	Factor Loadings
“Aboriginals are getting too demanding in their push for land rights.”	0.87
“More must be done to protect Aboriginal languages.”	0.69
“Aboriginals get unfair tax breaks.”	0.70
“Irish, Jewish, Chinese, and many other minorities overcame prejudice and worked their way up. Aboriginals should do the same without any special favours.”	0.76
“The government does not show enough respect toward Aboriginals.”	0.74
“Aboriginal activists are making reasonable demands.”	0.71
“Aboriginals get more favours from the education system than they should have.”	0.73

4.2 Reliability

We summed responses to the Indigenous resentment items and rescaled the resulting Indigenous resentment scale to range from 0 to 1. The Indigenous resentment scale has a mean of 0.49 with a standard deviation of 0.25 (Figure 2). In Table 3, we present the results of a reliability analysis. The results show that scale is highly statistically reliable ($\alpha = 0.90$). The α -if-deleted scores show the overall reliability of the scale when an item is dropped. The results show that dropping any given item would decrease the reliability of the Indigenous resentment scale, indicating that all the items should be retained. The item-rest correlations show the correlation between an item and the remaining scale items minus the correlated item. All the item-rest correlations are high, ranging between 0.69 and 0.81. The variable measuring conflicts over land has the highest item-rest correlation (0.81), further substantiating the intuition that attitudes toward land conflicts are central to the concept of Indigenous resentment.

Figure 2: Distribution of Indigenous Resentment Scale**Table 3:** Reliability Analysis of the Indigenous Resentment Scale

	Item-rest score	α -if-deleted
“Aboriginals are getting too demanding in their push for land rights.”	0.81	0.87
“More must be done to protect Aboriginal languages.”	0.65	0.89
“Aboriginals get unfair tax breaks.”	0.66	0.88
“Irish, Jewish, Chinese, and many other minorities overcame prejudice and worked their way up. Aboriginals should do the same without any special favours.”	0.71	0.88
“The government does not show enough respect toward Aboriginals.”	0.69	0.88
“Aboriginal activists are making reasonable demands.”	0.67	0.88
“Aboriginals get more favours from the education system than they should have.”	0.68	0.88
Cronbach’s $\alpha = 0.90$		

4.3 Validity

Following the convention in our discipline, we infer predictive validity from the association between Indigenous resentment and outcomes that Indigenous resentment is theoretically expected to predict (Henry and Sears, 2002). Evidence from two OLS regression models offer strong evidence of predictive validity (Table 4). The Indigenous resentment scale predicts both a desire for social distance from Indigenous peoples and opposition to redistributive policies that help Indigenous peoples.

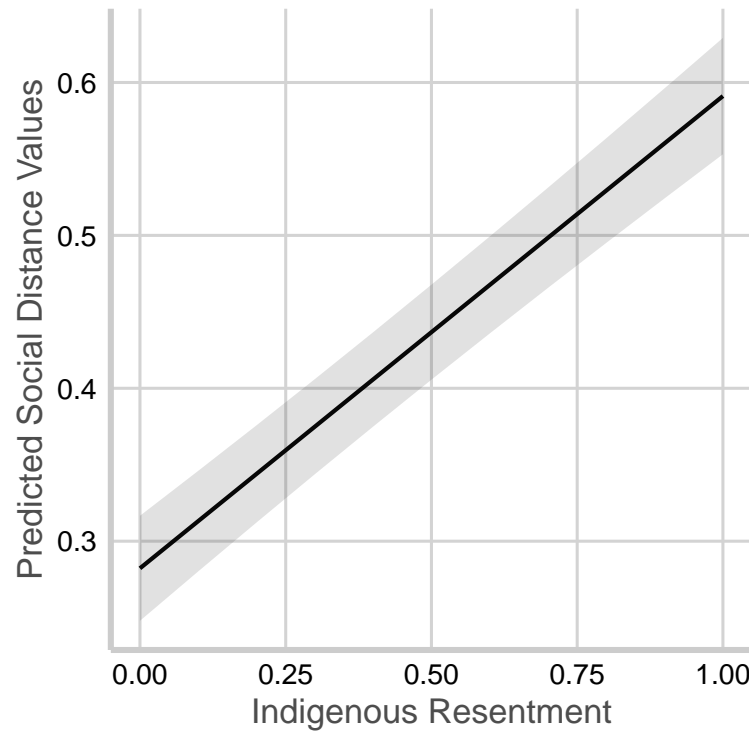
Table 4: Regression Results

	<i>Dependent variable:</i>	
	Social Distance	Increase Aid
	(1)	(2)
Indigenous Resentment	0.309*** (0.019)	−0.815*** (0.028)
Right Vote	0.013 (0.010)	−0.037** (0.014)
Ideology	0.005* (0.002)	0.006 (0.003)
Gender (men=1)	−0.009 (0.009)	0.026* (0.013)
Education		
<i>Trade</i>	−0.008 (0.011)	−0.002 (0.016)
<i>BA</i>	−0.003 (0.011)	−0.001 (0.017)
<i>Grad</i>	−0.018 (0.016)	0.004 (0.024)
Income		
<i>29K or less</i>	−0.001 (0.014)	−0.001 (0.021)
<i>30K-59K</i>	−0.009 (0.013)	0.006 (0.018)
<i>90K-119K</i>	−0.010 (0.014)	−0.011 (0.020)
<i>120K-149K</i>	0.021 (0.016)	−0.001 (0.023)
<i>150K+</i>	−0.045* (0.018)	−0.014 (0.026)

Age		
<i>18-34</i>	-0.005 (0.013)	0.040* (0.020)
<i>45-54</i>	0.004 (0.013)	-0.021 (0.019)
<i>55-64</i>	-0.008 (0.012)	0.019 (0.018)
<i>65+</i>	0.014 (0.019)	0.020 (0.027)
Region		
<i>BC</i>	-0.024 (0.013)	0.013 (0.019)
<i>Prairies</i>	0.036** (0.012)	-0.017 (0.017)
<i>English Quebec</i>	0.041** (0.013)	-0.011 (0.019)
<i>Maritimes</i>	-0.002 (0.016)	0.019 (0.024)
Constant	0.259*** (0.018)	0.922*** (0.027)
Observations	1,100	1,100
R ²	0.282	0.511
Adjusted R ²	0.268	0.502
Residual Std. Error (df = 1079)	0.138	0.203
F Statistic (df = 20; 1079)	21.138***	56.308***
<i>Note:</i>	*p<0.05; **p<0.01; ***p<0.001	

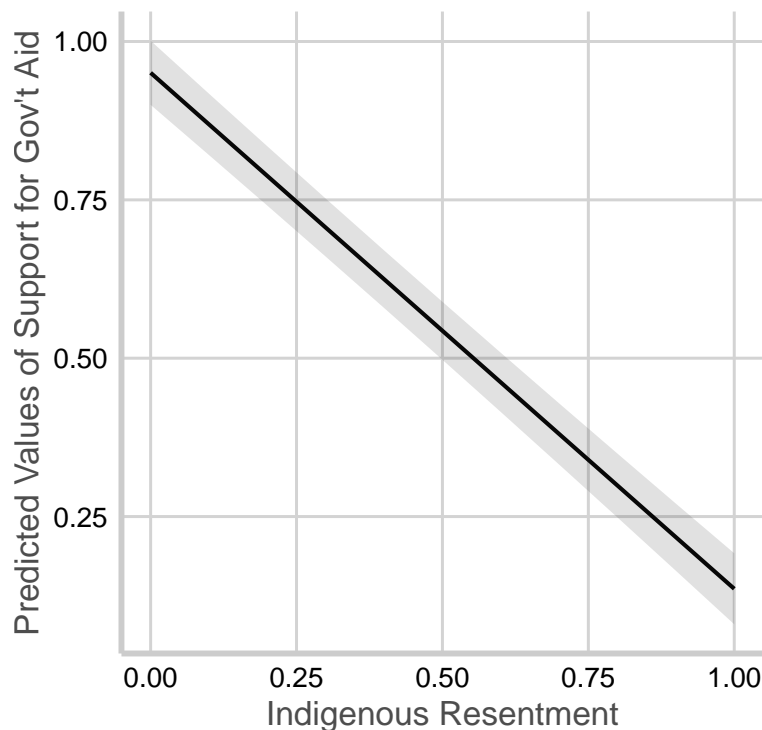
Indigenous resentment powerfully predicts aversion to social contact with Indigenous peoples. Even controlling for socio-economic and political attributes, Indigenous resentment is a powerful predictor of social distance. The effect of Indigenous resentment on social distance holding the other variables constant at their means is presented in Figure 3.

Figure 3: Effect of Indigenous Resentment on Desire for Social Distance



Indigenous resentment also strongly predicts support for government aid to Indigenous peoples. This is true even when controlling for partisanship and ideology. The effect of Indigenous resentment on attitudes toward government aid for Indigenous peoples holding the other variables constant at their means is presented in Figure 4.

Figure 4: Effect of Indigenous Resentment on Support for Government Aid



5 The Short Indigenous Resentment Scale

5.1 The Short Indigenous Resentment Scale

From a measurement perspective it is always better to construct scales from a larger number of related variables. Increasing the number of related items in a scale cancels out measurement error.⁹ As such, shorter scales should be used with caution. However, it may be the case that scholars collecting survey data will not be able to include all seven items comprising the Indigenous resentment scale. Shorter, four-item scales are common in public opinion polling and political science research where pollsters or scholars try to collect data across a range of topics. In this case, we recommend using a “short Indigenous resentment scale” comprised of four items. Namely, the items tapping into attitudes toward conflicts over land, language

⁹Which is why—by definition—increasing the number of related items in a scale increases the internal consistency of the scale (as measured by Cronbach’s α)

rights, tax breaks, and the idea that Indigenous peoples should not get any special favors. Although reducing the number of items in the scale does decrease the scale’s reliability, the four-item, short Indigenous resentment scale is still a statistically reliable measure (Table 5). Like with the full scale, the short Indigenous resentment scale significantly predicts a desire for social distance from Indigenous peoples and opposition to government aid to help Indigenous peoples (Table S1).

Table 5: Reliability Analysis of the Short (4-Item) Indigenous Resentment Scale

	Item-rest score	α -if-deleted
“Aboriginals are getting too demanding in their push for land rights.”	0.76	0.75
“More must be done to protect Aboriginal languages.”	0.84	0.56
“Aboriginals get unfair tax breaks.”	0.80	0.66
“Irish, Jewish, Chinese, and many other minorities overcame prejudice and worked their way up. Aboriginals should do the same without any special favours.”	0.77	0.72
Cronbach’s $\alpha = 0.84$		

5.2 A Single-Item Measure of Indigenous Resentment

Single-item measures introduce more statistical noise into subsequent analyses and so should be used with caution. However, if scholars whose primary research is not anti-Indigenous attitudes are fielding an omnibus survey and would be willing to include only one item measuring Indigenous resentment as a service to others interested in the topic, we recommend including the item tapping into conflicts over land. Land is central to the very concept of “Indigeneity” (CITE) and conflicts over land are at the core of Indigenous-settler relations. Furthermore, factor analysis shows that out of all the items, variable tapping into conflicts over land loads more strongly onto the underlying concept of Indigenous resentment (Table 2). The variable tapping into conflicts over land also correlates more strongly with the remaining scale items (Table 3). The single item asking respondents whether they believe

Indigenous peoples have gone too far in their push for land rights also predicts a desire for social distance from Indigenous peoples and opposition to government aid to help Indigenous peoples, although the standard errors of these coefficients are larger due to the increase in statistical noise that comes from using a single item to measure a complex latent attitude (Table S2).

6 Discussion & Conclusion

Although there have been some promising efforts to measure symbolic racism toward Indigenous peoples, existing instruments ignore important features of settler-Indigenous relations—most importantly, existing scales ignore conflicts over land. Drawing on Indigenous and settler-colonial scholarship as well as existing efforts to empirically measure anti-Black and anti-Indigenous attitudes in Anglo-settler contexts such as the United States, Canada, Australia, and New Zealand, we developed a novel *Indigenous resentment scale* with high construct validity.

The results of a factor analysis and scree test illustrate that the seven-item scale of Indigenous resentment is unidimensional. We also show that the Indigenous resentment scale is statistically reliable. Our analysis offers quantitative evidence for the longstanding argument made by Indigenous scholars that conflicts over land are at the heart of settler-colonialism.

As evidence of predictive validity we show that the Indigenous resentment scale strongly motivates group-based social distancing. Among Whites, higher levels of Indigenous resentment strongly predict greater opposition toward having Indigenous (relative to White) neighbors, co-workers, or romantic relationships with family members. Understanding the attitudinal dispositions that drive prejudicial behaviors is an essential step toward identifying solutions for addressing group-based conflicts. As further evidence of criterion validity we also show that Indigenous resentment strongly reduces support for government assistance

to help Indigenous peoples. Understanding how attitudinal dispositions shape policy preferences is also important for understanding how inequalities are maintained in democracies.

The Indigenous resentment scale was designed to apply to a wide range of settings, particularly in Anglo-American settler colonies where the dominant ideology—the fiction that hard work is rewarded by material success—helps hide the reality that European settlers’ wealth was made possible by the expropriation of Indigenous lands and Black labor. Future research might consider Indigenous resentment in comparative perspective, offering a look at differences in Indigenous resentment—and the consequences of Indigenous resentment—across Anglo-American settler-colonies. It would also be interesting to compare anti-Indigenous attitudes in Anglo settler-colonies, Latin settler-colonies, and empire states with minority Indigenous populations (such as Sweden and Japan). Of course, future scholars must first validate (or further refine) the Indigenous resentment scale in contexts outside of Anglo-settler states.

In the North American context, given the mass migration of Mayan and other Indigenous peoples into Mexico and the United States (Ortiz and Pombo, 2014), it would also be worthwhile to know how anti-Indigenous attitudes intersect with anti-immigrant attitudes. Even if most Americans are unaware that many of the migrants crossing their southern border are Indigenous, it is still important for us to gauge the extent of indifference toward or lack of awareness about the existence of Indigenous peoples. The consequences of indifference can be terrible: five out of the six children who died in the custody of the Department of Homeland Security since President Donald Trump took office were Indigenous (Nolan, 2019). Most border agents only provide Spanish translation—a language that many Indigenous peoples from Central America cannot communicate in fluently.

It is also worth studying gendered attitudes toward Indigenous peoples. Indigenous women in many countries including the U.S. (Salam, 2019) and Canada (Government of Canada, 2016) are far more likely to be murdered or go missing than women of any other background, and reported sexual assaults are less likely to result in arrests. In the United

States, nearly 80% of rape/sexual assaults against Indigenous women are committed by White Americans (Perry, 2004, p. 10). This striking level of intergroup violence is unique to Indigenous women in the American context. Understanding differences in attitudes toward Indigenous and non-Indigenous women may help explain why Indigenous women face higher levels of violence and indifference.

Given the ongoing legacy of settler-colonial oppression across settler-colonies, the relatively scant literature on the social and political consequences of anti-Indigenous attitudes is a major omission in the social sciences. The Indigenous resentment scale should be useful to scholars working across a range of fields, including psychology, political science, sociology, gender studies, and race, ethnic and settler-colonial studies.

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S1 Supplementary Material

S1.1 Shorter Scales, Evidence of Validity

Table S1: Regression Results Using the Short Scale of Indigenous Resentment

	<i>Dependent variable:</i>	
	Social Distance	Increase Aid
	(1)	(2)
4-Item Indigenous Resentment	0.286*** (0.018)	−0.711*** (0.028)
Right Vote	0.017 (0.010)	−0.050*** (0.015)
Ideology	0.005* (0.002)	0.005 (0.003)
Gender (men=1)	−0.009 (0.009)	0.025 (0.014)
Trade	−0.008 (0.011)	−0.003 (0.017)
BA	−0.0004 (0.011)	−0.009 (0.018)
Grad	−0.018 (0.016)	0.006 (0.025)
29K or less	−0.003 (0.014)	0.004 (0.022)
30K-59K	−0.010 (0.013)	0.009 (0.020)
90K-119K	−0.006 (0.014)	−0.020 (0.022)
120K-149K	0.022 (0.016)	−0.003 (0.024)
150K+	−0.038* (0.018)	−0.031 (0.028)
18-34	−0.005 (0.013)	0.043* (0.021)
45-54	0.007 (0.013)	−0.028 (0.020)
55-64	−0.005 (0.012)	0.014 (0.019)
65+	0.020 (0.019)	0.008 (0.029)
BC	−0.019 (0.013)	−0.003 (0.021)

Prairies	0.040*** (0.012)	−0.030 (0.018)
English Quebec	0.039** (0.013)	−0.005 (0.020)
Maritimes	−0.00002 (0.016)	0.012 (0.025)
Constant	0.262*** (0.018)	0.901*** (0.029)
Observations	1,100	1,100
R ²	0.273	0.451
Adjusted R ²	0.260	0.440
Residual Std. Error (df = 1079)	0.139	0.215
F Statistic (df = 20; 1079)	20.268***	44.261***
<i>Note:</i> *p<0.05; **p<0.01; ***p<0.001		

Table S2: Regression Results Using a Single-Item Measure (Resentment Over Land)

	<i>Dependent variable:</i>	
	Social Distance	Increase Aid
	(1)	(2)
Resentment Over Land	0.048*** (0.004)	−0.123*** (0.006)
Right Vote	0.025* (0.010)	−0.067*** (0.016)
Ideology	0.006** (0.002)	0.002 (0.004)
Gender (men=1)	−0.010 (0.009)	0.028 (0.015)
Trade	−0.0002 (0.011)	−0.022 (0.018)
BA	0.006 (0.012)	−0.026 (0.019)
Grad	−0.022 (0.017)	0.015 (0.027)
29K or less	−0.002 (0.015)	0.0003 (0.023)
30K-59K	−0.011 (0.013)	0.011 (0.021)
90K-119K	−0.008 (0.014)	−0.015 (0.023)
120K-149K	0.023 (0.016)	−0.006 (0.026)

150K+	−0.029 (0.018)	−0.056 (0.029)
18-34	−0.007 (0.014)	0.047* (0.022)
45-54	0.002 (0.013)	−0.016 (0.021)
55-64	−0.015 (0.012)	0.038 (0.020)
65+	0.007 (0.019)	0.041 (0.031)
BC	−0.019 (0.014)	−0.002 (0.022)
Prairies	0.040*** (0.012)	−0.029 (0.020)
English Quebec	0.040** (0.013)	−0.006 (0.022)
Maritimes	0.001 (0.017)	0.009 (0.027)
Constant	0.242*** (0.020)	0.958*** (0.032)
Observations	1,100	1,100
R ²	0.225	0.374
Adjusted R ²	0.211	0.362
Residual Std. Error (df = 1079)	0.143	0.230
F Statistic (df = 20; 1079)	15.684***	32.196***
<i>Note:</i> *p<0.05; **p<0.01; ***p<0.001		

S1.2 Pretesting

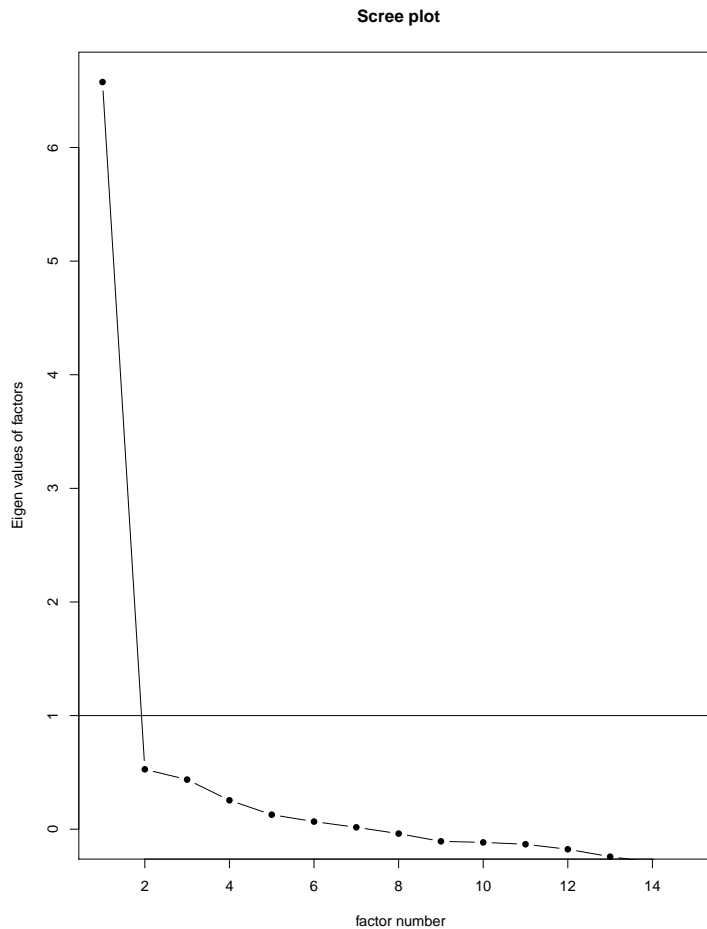
We pre-tested 15 survey items using a sample of undergraduate students from two research-intensive universities, one in Western Canada and the other in Central Canada ($n = 219$). The items draw from the symbolic racism literature as well as distinct settler attitudes related to land rights, taxations, hunting and fishing, traditions, and languages. See Table S3 for variable wording. Students may differ in systematic ways from the general population. Still, student subjects are commonly recruited when designing psychometric measures. This is because the goal at this early stage is not to make generalizable claims from the sample to a broader population. That is, the goal is not to make claims about the levels of symbolic racism in the population from a student sample. Rather, the goal is to identify patterns in the data. Response patterns in data collected from student subjects should reflect response patterns in the broader population.¹⁰

The results of a scree test indicate that a single dimension captures sufficient variance (Figure S1). This is evidence of unidimensionality; that all 15 items are tapping into an

¹⁰That is to say, if even undergraduate students express lower levels of symbolic racism than other members of the public, the items should hang together in similar ways.

underlying construct of Indigenous resentment. While it is justifiable—and even useful—to include as many items as possible, most social scientists face space limitations on surveys and shorter scales are popular, particularly in political science research and public opinion polling. As such, we use data reduction techniques to propose a seven-item Indigenous Resentment Scale.

Figure S1: Scree Test of Pretested Variables



We use two data reduction techniques. The first, factor analysis, is a supervised method that is more common in the social sciences. Factor analysis models unobserved (latent) variables called factors using observed, correlated variables. The second, principal component analysis (PCA) is an unsupervised statistical learning technique that is more commonly used by computer scientists who are more interested in reducing complexity and less interested in theoretically-meaningful, underlying latent concepts. PCA involves taking the linear transformation of an original set of correlated variables to produce a smaller set of orthogonal variables (principal components) that account as much of the total variance of the original, observed values (James et al., 2013; Hastie, Tibshirani and Friedman, 2009). The results of FA and PCA are typically similar although do give different information, and so it is useful

to analyze the results from both procedures. The results of the PCA can also be plotted in a biplot (Figure S2).

Table S3: Assessing Dimensionality of Pretested Variables for Data Reduction

Variable	Factor Analysis Results	PCA Results	
	Factor Loadings	PC 1	PC2
“Aboriginal activists are making reasonable demands.”	-0.74	0.26	-0.22
“Aboriginals are getting too demanding in their push for land rights.”	0.76	-0.31	0.09
“Aboriginals are too easily offended.”	0.69	-0.26	0.11
“Aboriginals get more favours from the education system than they should have.”	0.71	-0.25	0.07
“Aboriginals get unfair tax breaks.”	0.72	-0.30	-0.08
“Aboriginals seek special favours under the guise of equality.”	0.77	-0.30	-0.12
“Aboriginals should follow the same hunting and fishing regulations as everyone else.”	0.53	-0.26	-0.72
“The same laws that apply off Aboriginal reserves should apply on Aboriginal reserves.”	0.53	-0.22	-0.37
“Discrimination against Aboriginals is no longer a problem in Canada.”	0.59	-0.18	0.06
“For better or for worse, most Aboriginal traditions are lost.”	0.19	-0.08	0.25
“Irish, Jewish, Chinese, and many other minorities overcame prejudice and worked their way up. Aboriginals should do the same without any special favours.”	0.80	-0.34	-0.08
“Many Aboriginals interpret innocent remarks as racist.”	0.60	-0.22	0.09
“More must be done to protect Aboriginal languages.”	-0.67	0.23	-0.13
“Over the past few years Aboriginals have gotten less than they deserve.”	-0.68	0.25	-0.16
“The government does not show enough respect toward Aboriginals.”	-0.73	0.30	-0.35
Proportion variance explained	0.44	0.82	0.47

The seven items used in the resulting Indigenous Resentment Scale we derived because—most importantly—they are theoretically relevant and meaningful according to Indigenous and settler-colonial theories. After theoretical considerations, items were chosen based on how well they load onto the underlying, latent variable of Indigenous resentment (as illustrated by the results of the factor analysis) and how much variation they explain in the first (but not second) principal component (i.e., the item tapping into hunting and fishing regulations loads highly onto the second principal component, making it less ideal for our scale which should tap into a single construct, see Figure S2).

Figure S2: Biplot of Pretested Variables

