Measuring Anti-Indigenous Attitudes: The Indigenous Resentment Scale

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Abstract

This paper presents a novel *Indigenous resentment scale* to measure anti-Indigenous attitudes in settler-colonial societies. I 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. I test the Indigenous resentment scale using original, nationally representative survey data. I conduct a reliability analysis and use statistical learning techniques to show that the Indigenous resentment scale is internally consistent and unidimensional, and has high theoretical construct validity. As I show, the Indigenous resentment scale is a strong predictor of social avoidance behaviors and significantly predicts opposition to government policies designed to help Indigenous peoples. I 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: Anti-Indigenous Attitudes; Measurement; Settler-colonialism; Scaling; Racial & Ethnic Politics

1   Introduction

In the wake of George Floyd's murder at the hands of the police, thousands of protestors gathered in the United States and other democracies to denounce anti-Black racism and racialized state violence. Among the protestors were Indigenous activists who have toppled statues of Christopher Columbus. Unlike many of the other recently defaced statues, Columbus was not a slaver or Confederate leader, but rather a navigator celebrated by many as the European "discoverer" of the Americas—a belief that reinforces the erasure of the Indigenous peoples living in the Americas before Columbus's arrival. Like anti-Black attitudes, anti-Indigenous attitudes motivate prejudicial behavior and support for policies that disempower Indigenous peoples. Understanding the nature and consequences of negative outgroup attitudes is an important first step toward identifying solutions for addressing disparities between social groups. But how should we conceptualize and measure anti-Indigenous attitudes? In this article, I draw on existing research on symbolic racism, Indigenous theory, and settler-colonial studies to propose a novel concept of *Indigenous resentment.* I test the Indigenous resentment scale using original, nationally representative survey data. My analysis reveals that the Indigenous resentment scale is an internally consistent, unidimensional, and valid measure.

In Section 2, I review existing efforts to empirically measure racial attitudes in Anglo-settler contexts such as the United States, Canada, and Australia. 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; Enders and Scott, 2019; Enders, 2019). I also review promising efforts to study anti-Indigenous attitudes, including nascent efforts to measure symbolic racism toward Indigenous peoples. However, I 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" (e.g. Neblo, 2009*b*), thus ignoring important features of settler-Indigenous relations. Notably, existing efforts to quantify anti-Indigenous attitudes have typically ignored conflicts over land. I draw on Indigenous and settler-colonial theories to develop a stronger theoretical account of the relationship between White racism and settler-colonialism. From this theoretical framework I develop a concept and measure of *Indigenous resentment* that has high construct validity.

In Section 3, I outline the data collection and analysis procedures used in this paper. An otherwise representative sample of White, English-speaking respondents were recruited ($n = 1,150$) to complete an online survey that included measures of Indigenous resentment and important correlates. Factor analysis and the results of a scree test are used to assess the dimensionality of the seven-item scale of Indigenous resentment. The results of a reliability analysis are used to assess the internal consistency of the Indigenous resentment scale. To confirm the results of the factor analysis, item-rest correlations are plotted to show that individual responses to each item are homogeneously non-decreasing (to support the claim that the scale is unidimensional). The results are presented in Section 4, showing conclusive evidence that the scale is unidimensional and highly reliable. To assess theoretical construct validity (specifically, by testing whether the scale predicts things it should (Henry and Sears, 2002)), I show that Indigenous resentment predicts social avoidance behaviours and opposition to policies designed to help Indigenous peoples.

Recognizing that social scientists—particularly those fielding longer surveys—may not have space on their questionnaires for the full seven items used to construct the Indigenous resentment scale, I also present best practices for measuring Indigenous resentment using a smaller subset of survey items. In Section 5, I propose a four-item "short Indigenous resentment scale." In Section 6, I conclude by discussing the 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 edu-

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cated 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 increasingly unwilling to explicitly endorse White supremacy or attribute racial inequalities to intrinsic biological differences,[1] 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 being replaced by *symbolic racism*, a mix of anti-Black affect and an endorsement of the belief that Blacks violate cherished American cultural values related to hard work and material success (e.g., Kinder, Sanders and Sanders, 1996; Sears and Henry, 2003; Tarman and Sears, 2005).

In the American literature, proponents of the symbolic racism literature maintain that symbolic racism truly represents a "new" kind of racism, where an older set of attitudes

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

attributing racial inequalities to biological differences was replaced by a newer set of beliefs attributing racial inequalities to cultural, or symbolic differences. The idea that biological racism has been *replaced* by cultural racism has been criticized on theoretical grounds by scholars who point out that European racism has been rooted in perceptions of cultural differences since at least the time of the Inquisition (Balibar, 1991), and that American racism directed at Indigenous and Black peoples has also always centered on understandings of cultural inferiority (Jones, 2001).[2] However, even these critiques recognize that, by the 1960s, the scientific community had rejected the biological basis of race and racial inequalities, and the bulk of public opinion followed suit. The question of whether biological racism has been replaced by a new form of cultural, or symbolic, racism, or whether beliefs about the biological differences between races fell out of favor while the traditional symbolic basis of racism remained salient is beyond the scope of this paper. What matters for this paper is that relatively few citizens in Western democracies attribute the existence of racial hierarchies to immutable biological differences,[3] and that it is important to have a measure of anti-Indigenous attitudes focuses on the symbolic aspects of anti-Indigenous attitudes.

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 operationalization of symbolic racism is *racial resentment*. The racial resentment scale contains four items items tapping into anti-Black affect and the belief that Black

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[2]Research 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, 2009*a*). 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, 2009*b*). The debate about the relationship between old fashioned and symbolic racism goes is beyond the scope of this paper. The goal of this paper is to simply to construct a reliable, valid, and unidimensional Indigenous resentment scale.

[3]Although there is evidence that "old fashioned" racist beliefs have not completely disappeared and may even be enjoying a resurgence (Jardina and Piston, 2019).

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 that ask respondents to directly endorse stereotypic beliefs about the inferiority of Indigenous peoples (e.g., whether respondents believe Indigenous peoples are lazy, dirty, or bad parents) (Morrison et al., 2008; Harell, Soroka and Iyengar, 2016; Langford and Ponting, 1992; Pedersen and Walker, 1997). Relatedly, others have asked about respondents' desire for social avoidance (e.g., the desire to avoid social contact with Indigenous peoples, expressed by unfavorability toward romantic, work, or neighborhood ties with Indigenous peoples) (Berry and Kalin, 1995). Others have measured explicit dislike (affective prejudice), using 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).

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 today.

However, there are ways in which the legacy of settler-colonialism and domination of Indigenous peoples differs from the domination of Black peoples 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.[4] 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).

Operationalizing Indigenous Resentment

Drawing from the symbolic racism literature as well as settler-colonial and Indigenous scholarship regarding the nature of Indigenous-settler conflicts, I operationalized the concept of Indigenous resentment by constructing a scale comprised of seven Likert-type questions.[5] The battery of items taps into conflict over land, language rights, jurisdictional autonomy (conflicts over taxation), and more traditional racial resentment items tapping into the idea

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[4]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 about the principle of land rights. As such, this item is not useful outside the Australian context. Note also that The Australian Symbolic Racism Scale is *not* a measure of anti-Indigenous attitudes specifically, but rather a more general scale of White Australian attitudes that that taps into Australians' attitudes toward a range of non-White, Indigenous, or foreign-born groups of people in Australia.

[5]I initially pre-tested 15 survey items with samples of undergraduate students from two research-intensive universities. The results of the student pre-tests were used to narrow down the number of items (see Supplementary Materials for more detail on pre-testing with student samples).

that Indigenous peoples[6] violate Anglo-American values related to industriousness and enjoy special government favors. Respondents are asked to register their agreement or disagreement with each statement (strongly disagree, disagree, neither agree nor disagree, agree, or strongly agree). Following the recommended procedures for constructing a Likert scale, the scale contains roughly equal number of unfavorable and favorable statements concerning Indigenous peoples (McIver and Carmines, 1981). This helps prevent response bias from inflating the reliability of the scale. Agreement with favorable statements is reverse coded so that a higher score on the scale indicates higher levels of Indigenous resentment (more unfavorable attitudes toward Indigenous peoples). I have also proposed a shortened, four-item version of the scale for researchers who cannot include all seven items in their surveys, as well as a single-item that can be used to gauge Indigenous resentment. The scale items are presented in Table 1.

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[6]A 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 the surveys were conducted, the term "Aboriginal" is more commonly used. Following a growing convention, the term "Indigenous" is used in scholarly writing when a global term is appropriate, although the distinct names that peoples or use to identify themselves (such as Anishinaabe, Dene, Haida, or Māori) are used whenever possible. In the surveys, the more vernacular Canadian term, "Aboriginals," was used. The term was defined for respondents the first time it appears in the surveys.

Table 1: Indigenous Resentment Scale Items

Full Indigenous Resentment Scale	Short Indigenous Resentment Scale	Single-Item Measure of Indigenous Resentment
• Aboriginals are getting too demanding in their push for land rights.	• Aboriginals are getting too demanding in their push for land rights.	• Aboriginals are getting too demanding in their push for land rights.
• More must be done to protect Aboriginal languages. (Reversed)	• More must be done to protect Aboriginal languages. (Reversed)	
• Aboriginals get unfair tax breaks.	• Aboriginals get unfair tax breaks.	
• Irish, Jewish, Chinese, and many other minorities overcame prejudice and worked their way up. Aboriginals should do the same without any special favours.	• Irish, Jewish, Chinese, and many other minorities overcame prejudice and worked their way up. Aboriginals should do the same without any special favours.	
• The government does not show enough respect toward Aboriginals.(Reversed)		
• Aboriginal activists are making reasonable demands. (Reversed)		
• Aboriginals get more favours from the education system than they should have.		

3 Data and Analysis Procedure

To see whether the seven items designed to measure the concept of Indigenous resentment do, in fact, comprise a unidimensional, reliable, and valid scale, data was collected using Dynata's (formerly Survey Sampling International's) online panels. An otherwise representative sample White, English-speaking Canadian respondents were recruited to participate in the study between March and May 2019 ($n = 1,150$). Respondents answered a range of questions including socio-demographic questions, attitudes toward government spending, variables tapping into preferences for social contact, and, of course, the seven items measuring Indigenous resentment. Variable distributions are presented in the Supplementary

Materials (Table S1) and the distributions for each of the seven items measuring Indigenous resentment are displayed in Figure S1.

The analysis proceeds in three stages. In the first stage of the analysis, the dimensionality of the scale is assessed using factor analysis and the results of a scree test. In the second stage of the analysis, a reliability analysis is conducted. The item-rest scores are plotted to further confirm that the responses to the scale items are monotonically nondecreasing, offering further evidence that the scale is unidimensional (McIver and Carmines, 1981).

In the third stage of the analysis, the theoretical construct of the scale is investigated (to see whether the scale predicts things it should (Henry and Sears, 2002)). Two OLS regression models are estimated to see if Indigenous resentment predicts the outcomes that it should: a racially motivated desire for social avoidance (social distance) and opposition toward government policies designed to help Indigenous peoples. These outcomes were chosen because, according to existing theory, these variables should be related to the scale of Indigenous resentment. The first item, social distance, is distinct from Indigenous resentment in the sense that it taps into a kind of "old fashioned" racism (a desire for social segregation). However, existing research suggests that racial attitudes are hierarchically ordered, which is to say that those who express a desire for social distance from a target group can be expected to endorse symbolic racist attitudes (although many who endorse symbolic racism do not endorse old fashioned racist attitudes) (Neblo, 2009a). As such, we can expect Indigenous resentment and a desire for social distance from Indigenous peoples to be at least moderately associated. Indigenous resentment is even more theoretically similar to the second outcome asking about attitudes toward government policies designed to help Indigenous peoples. The inclusion of such a conceptually similar measure was deliberate. The regression models are a diagnostic tool: if the Indigenous resentment scale does *not* predict (or co-vary with) such a conceptually similar variable, then we can comfortably conclude that the proposed Indigenous resentment scale is *not* measuring what it is supposed to. We would expect a good measure of Indigenous resentment—a measure of the belief that Indigenous peoples violate

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values related to hard work and self-sufficiency—to strongly predict opposition toward government help for Indigenous peoples, because those who believe Indigenous peoples violate the value of hard work and self-sufficiency would not see Indigenous peoples as deserving government assistance.

Social distance is measured by taking the difference between a summated scale of "Indigenous social avoidance" (whether respondents would favor or oppose having an Indigenous neighbor, an Indigenous co-worker, or a close relative date an Indigenous person) from a summated scale of "White social avoidance" (whether respondents would favor or oppose having a White neighbor, a White co-worker, or a close relative date a White person) (see S3 for the full question wording). The distribution of the social distance scale ranges from -5 to 9, where negative values indicate a desire for social distance from Whites (a relative preference for social contact with Indigenous peoples), and positive values indicate a desire for social distance from Indigenous peoples (a relative preference for social contact with Whites). In other words, higher values on the social distance scale indicate a greater desire to *avoid* social contact with Indigenous peoples (more unfavorability toward romantic, work, or neighborhood ties with Indigenous peoples) relative to Whites (relative to how one feels about romantic, work, or neighborhood ties with White people).[7] The modal, or the most frequently occurring, score on the social distance scale is zero. A score of zero represents no stated difference in a respondent's preferences for social contact—having a neighbor, co-worker, or a close relative in a romantic relationship—with either White or Indigenous peoples. The mean of the distribution, illustrated by the dashed line in Figure 1, is 1.08, suggesting that on average respondents expressed slightly more social distance toward Indigenous peoples relative to Whites. The right skew of the distribution indicates some respondents expressed a stronger desire for social distance from Indigenous peoples; respondents who expressed a desire for social distance from Whites (those who scored a

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[7]Creating a relative measure of social avoidance (rather than just a summated scale of Indigenous social avoidance) reduces noise and helps to ensure the scale is tapping into racially-motivated desires for social avoidance. Rather than, for instance, picking up idiosyncratic variation in respondents' aversion to social contact more generally (e.g., variation in social anxiety/ preferences for being alone).

negative value on the scale) did not express a very strong desire for social distance.
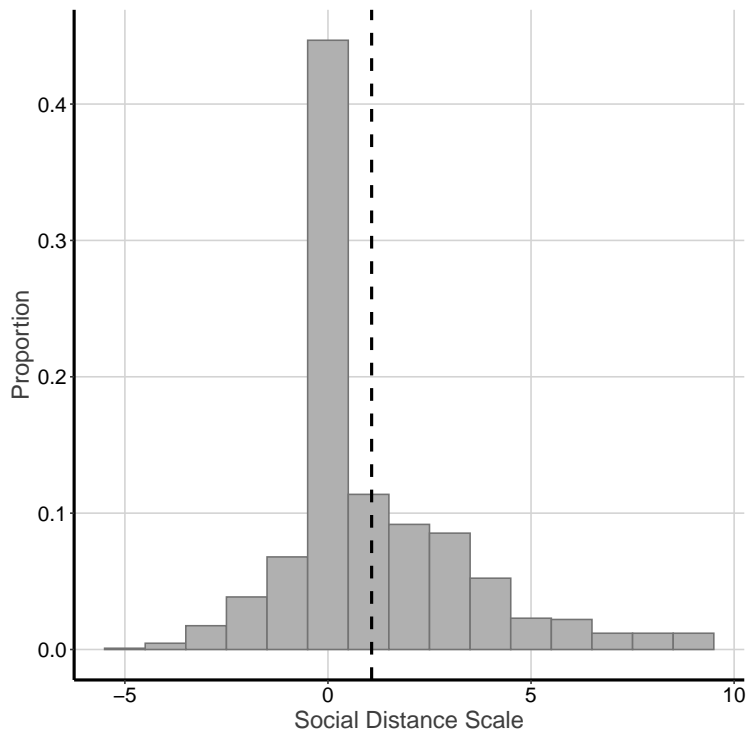

Figure 1: Distribution of the social distance scale. A score of zero represents no preference for social contact between White or Indigenous peoples. Higher values represent a desire for social distance from Indigenous peoples (a preference for social contact with Whites). The dashed line represents the mean of the distribution.

To operationalize *policies designed to help Indigenous peoples*, respondents were asked to indicate how much the federal government should spend on helping Indigenous peoples on a five-point scale (a lot less, somewhat less, about the same as now, somewhat more, or a lot more). The distribution of feelings toward government spending to help Indigenous peoples is presented in Figure 2. On average, respondents indicated that they want government spending to stay the same or even increase a little more. However, over a fifth of respondents indicated that the government should spend a little or a lot less to help Indigenous peoples. In the analysis in the body of the paper, I estimated an OLS regression and treated attitudes toward policies designed to help Indigenous peoples as a numeric outcome variable. As a robustness check, I also estimated an ordered logistic regression and treated attitudes toward policies designed to help Indigenous peoples as a categorical outcome (the results of the

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alternate model specification are substantively identical, see SM Table S3.4).
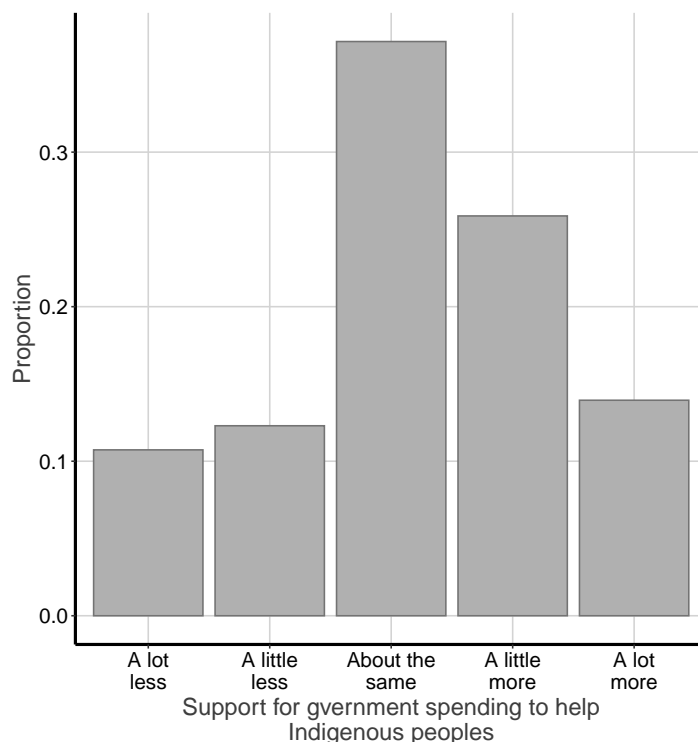

Figure 2: Attitudes toward government spending to help Indigenous peoples on a five-point scale

The regression models control for sociodemographic features including respondent age, gender (man=1, income ($29K or less, $30K-$59,999, $60-$89,999, $90K-119,999, $120K-$149,999, $150K+), education level (no college, trade or diploma, bachelor degree, graduate degree), partisan support (support for a right-of-center party=1), and ideology, measured by a self-placement scale ranging from 0 (left) to 10 (right). Variable distributions are presented in Table S1. The missing values on the control variables in the regression models were imputed using the MICE package in R (see Table S2).[8] Missing values on the outcomes were dealt with through list-wise deletion.

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[8]There 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). As a robustness check, the models were also estimated with the non-imputed data (dropping missing values through list-wise deletion). The results are not substantively different.

4 Results

4.1 Dimensionality

The first step is to clarify the dimensionality of the responses to the seven items tested. The results of a scree plot are presented in Figure 3. A visual analysis of a scree plot helps identify the number of factors to retain in exploratory factor analysis (Cattell, 1966). A scree plot orders eigenvalues from largest to smallest in a downward curve. The scree test involves visually identifying how many factors to retain in an exploratory factor analysis. More specifically, the scree test involves identifying the point where the eigenvalues level off (the "scree," or "elbow" of the graph) is identified, and the number of factors to the left of this point should be retained. In this case, there is one point to the left of the scree, which suggests retaining a single factor. This visual test is confirmed by parallel analysis, a non-visual test that involves comparing the eigenvalues from the observed data to eigenvalues generated from a Monte-Carlo simulated data matrix (Horn, 1965).
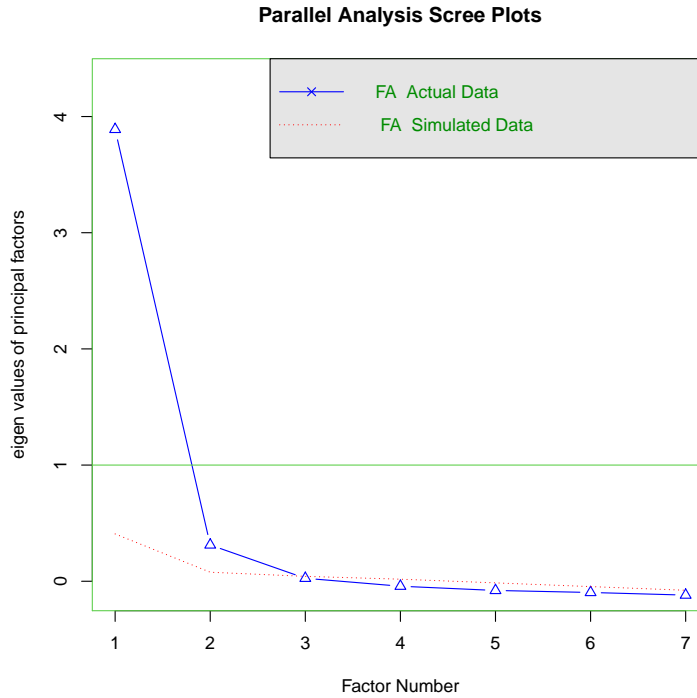
Parallel Analysis Scree Plots

Figure 3: Scree plot of the Indigenous resentment scale items. A visual analysis of the actual data (the solid line) suggests retaining a single factor (as there is only a single factor to the left of the plot's "elbow"). A parallel analysis, which involves comparing the observed data to simulated data (the dashed line), confirms that a single factor should be retained.

An exploratory factor analysis of the items was also conducted, and the loadings are presented in Table 2.[9] Factor loadings can range from -1 to 1 (written as $|1|$). Loadings that come closer to $|1|$ indicate that a given variable strongly influences the underlying factor. Loadings closer to 0 suggest that a given variable has a weaker influence on the underlying factor. Generally, variables with factor loadings of $|0.4|$ or higher are retained, and loadings of $|0.7|$ are considered high. As can be seen from Table 2, all the factor loadings are positive (as expected), and high. 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

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[9]Earlier feedback on this paper included a question asking whether orthogonal or oblique rotation was used. The answer is that rotation was not used. Recall that in factor analysis, the axes can be rotated in m-dimensional space to reduce the correlation between the underlying dimensions (or factors) and clarify the relationship between measures and latent traits. Because the Indigenous resentment scale only has a single factor ($m = 1$), there is nothing to rotate.

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

A linear composite, or summative scale was constructive by adding together the response scores of each constituent item. I rescaled the resulting Indigenous resentment scale to range from 0 to 1 for ease of interpretation. The Indigenous resentment scale has a mean of 0.49 with a standard deviation of 0.25 (Figure 4).
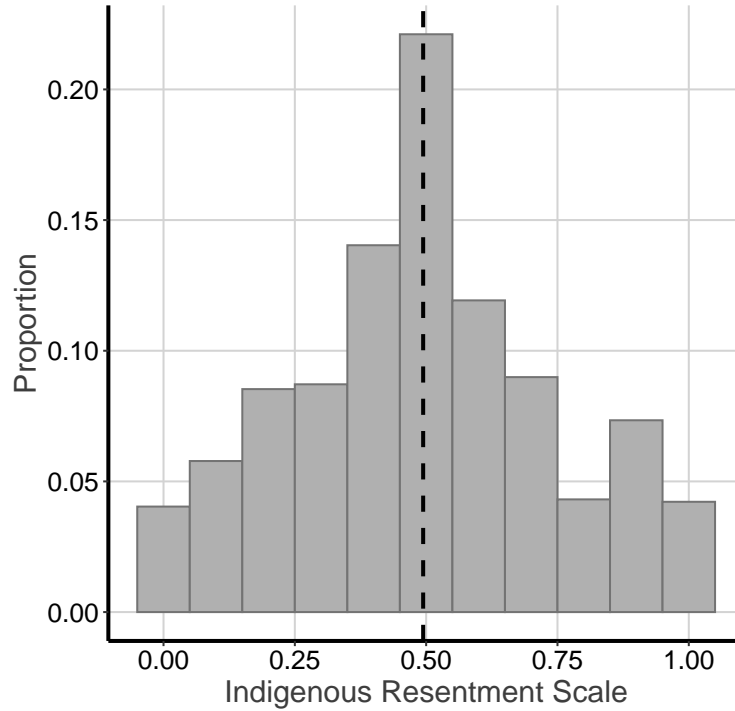
Figure 4: The distribution of the Indigenous resentment scale, which ranges from 0 to 1. The dashed line represents the mean of the distribution (0.49). The standard deviation is 0.25.

A correlation matrix showing the correlations between the scale items, the Indigenous resentment scale, and the outcomes used in the regression analyses in Section are plotted in Figure 5. When interpreting the values of the correlation matrix, note that the closer a correlation coefficient's values come to either +1 or -1 ($|1|$), the stronger the relationship. To aid in visual interpretation, higher correlations are also denoted by darker shading. The nearer to 0 (meaning no relationship), the weaker the correlation. As a general rule of thumb, a correlation (r) between $|0.9|$ to $|0.7|$ indicates a high correlation ($r = |1|$ is a perfect correlation), r between $|0.6|$ to $|0.4|$ indicates a moderate correlation, and r between $|0.3|$ to $|0.1|$ indicates a low correlation (Dancey and Reidy, 2007, p. 176). Looking just at

the correlations between each of the individual items used to construct the scale, we can see that nearly all of the items are highly correlated.

The full Indigenous resentment scale and the outcome variables—social distance and attitudes toward policies to help Indigenous peoples—that will be used to test the validity of the scale are also included in the correlation matrix (Figure 5). I have included these items in the correlation matrix because readers may be interested to see how closely associated the Indigenous resentment scale is with the outcomes used to test the validity of the scale. As can be seen from Figure 5, the Indigenous resentment scale and social distance scales are moderately correlated ($r = 0.5$). Congruent with existing theory, Indigenous resentment is more closely associated with attitudes toward government spending to help Indigenous peoples (a known correlate of symbolic racism) than to the social distance distance scale (which taps into "old fashioned" racism).

A final note on Figure 5: readers should be cautious when interpreting the correlation between the individual scale items and the Indigenous resentment scale. The correlation between a given scale item and the total score from the scale value is known as the item-total correlation. The problem with this value is that, because the item is included in the total score from the scale, the item is being correlated with itself (inflating the correlation). It is better to interpret the item-rest correlation, which shows the correlation between an item and the remaining scale items minus the correlated item (in Table 3, below).
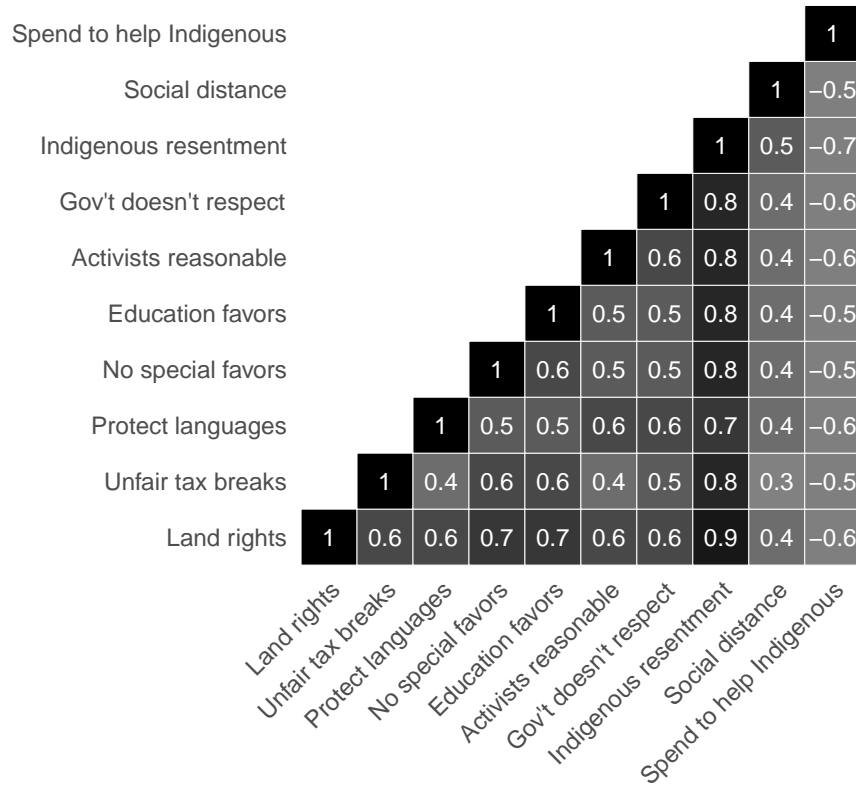
	Land rights	Unfair tax breaks	Protect languages	No special favors	Education favors	Activists reasonable	Gov't doesn't respect	Indigenous resentment	Social distance	Spend to help Indigenous
Spend to help Indigenous										1
Social distance									1	−0.5
Indigenous resentment								1	0.5	−0.7
Gov't doesn't respect							1	0.8	0.4	−0.6
Activists reasonable						1	0.6	0.8	0.4	−0.6
Education favors					1	0.5	0.5	0.8	0.4	−0.5
No special favors				1	0.6	0.5	0.5	0.8	0.4	−0.5
Protect languages			1	0.5	0.5	0.6	0.6	0.7	0.4	−0.6
Unfair tax breaks		1	0.4	0.6	0.6	0.4	0.5	0.8	0.3	−0.5
Land rights	1	0.6	0.6	0.7	0.7	0.6	0.6	0.9	0.4	−0.6

Figure 5: Correlation Matrix of Indigenous Resentment Items

In Table 3, I present the results of a reliability analysis. Although the threshold for Cronbach's alpha (α) is disputed, in general 0.7 is considered a "high" or "good" alpha (Taber, 2018). The results show that scale is highly statistically reliable ($\alpha = 0.90$). It is also helpful to examine the α-if-deleted scores, which 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.

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 $\alpha = 0.90$		

To confirm the results of the factor analysis and support the claim that the scale is unidimensional, the item-rest correlations are plotted to show that individual responses to each item are monotonically non-decreasing. In Figure 6, each item is plotted against the rest scores (the average scale scores minus the survey item in question) to visually identify whether responses to the items are monotonically non-decreasing. The trait of monotone homogeneity implies that respondents who score higher on the latent trait of Indigenous resentment are also more likely to dominate any given individual item (Junker and Sijtsma, 2000). Showing that individual responses to each item are monotonically non-decreasing offers further evidence that the items comprise a unidimensional scale (McIver and Carmines, 1981).
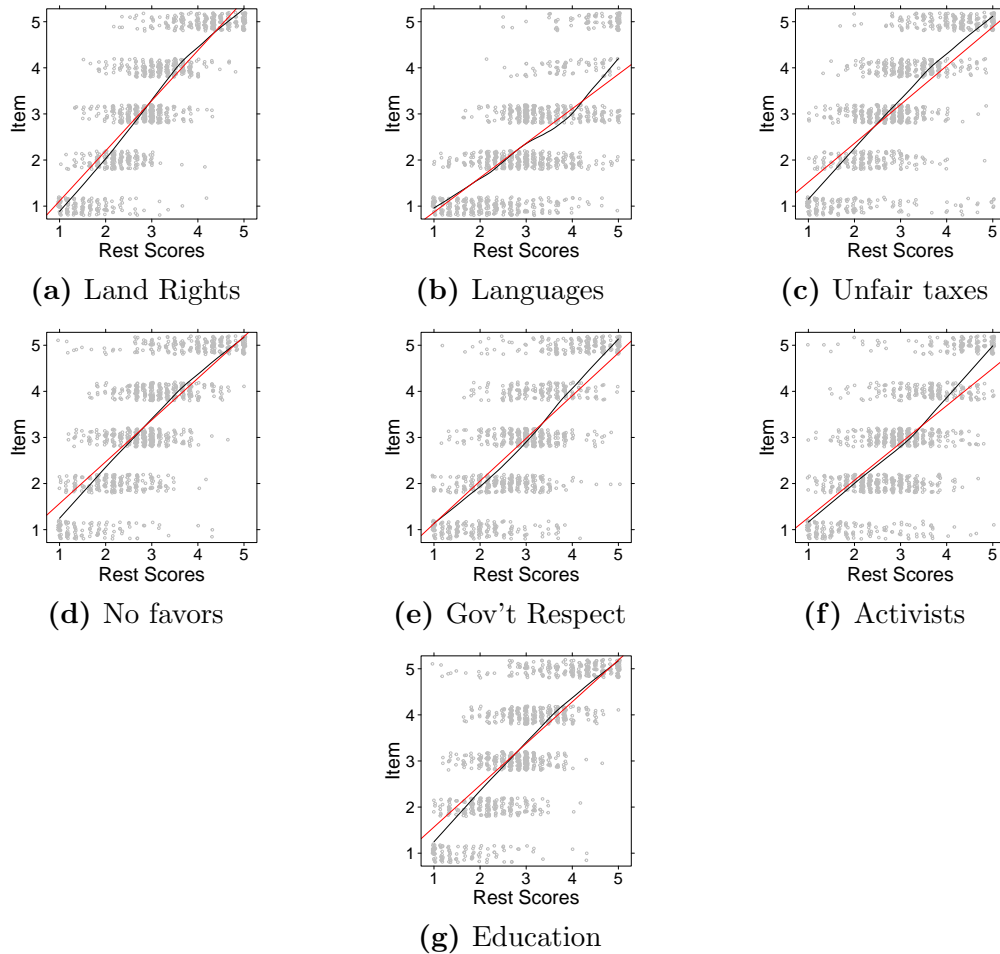
(a) Land Rights   **(b)** Languages   **(c)** Unfair taxes

(d) No favors   **(e)** Gov't Respect   **(f)** Activists

(g) Education

Figure 6: Item-Rest Correlation Plots

4.3 Validity

I also test the theoretical construct validity of the scale. An important aspect of construct validity is whether a scale has predictive qualities. Following the convention in political science, the "predictive validity" (Henry and Sears, 2002) of the scale is inferred from the association between Indigenous resentment and outcomes that Indigenous resentment is theoretically expected to predict. 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 to help Indigenous peoples. Even controlling for socio-economic and political attributes (including

21

partisan preferences and ideology), Indigenous resentment powerfully predicts aversion to social contact with Indigenous peoples and attitudes toward government spending to help Indigenous peoples.

Table 4: Regression Results

	Dependent variable:	
	Social Distance	Increase Spending
	(1)	(2)
Indigenous Resentment	4.327***	−0.814***
	(0.267)	(0.028)
Constant	−1.412***	0.923***
	(0.257)	(0.027)
Observations	1,090	1,090
R^2	0.284	0.512
Adjusted R^2	0.271	0.503
Residual Std. Error (df = 1069)	1.927	0.203
F Statistic (df = 20; 1069)	21.204***	56.105***

Note: *p<0.05; **p<0.01; ***p<0.001
Controlling for party identification, ideology, gender, education, income, age, and region.
See supplementary material for full regression results table.

A one-unit increase in Indigenous resentment is associated with a 4.3 point increase on the social distance scale, which ranges from -5 to 9 (Table 4). Substantively, this means that moving from a score of 0.25 to 0.75 on the Indigenous resentment scale (which ranges from 0 to 1) is associated with an increase on the social distance scale from approximately 0 (no preference for social contact between White or Indigenous peoples) to a score of 2.15 (a higher than average preference for social distance from Indigenous peoples) (Figure 7).
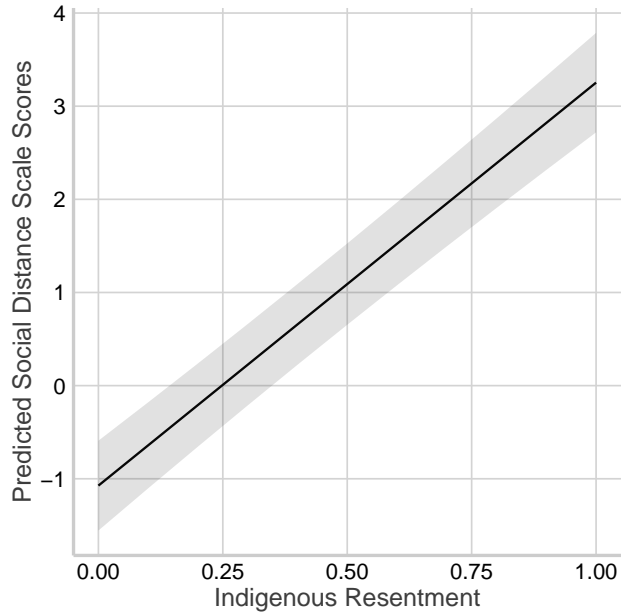
Figure 7: The estimated effect of Indigenous resentment on social distance, controlling for partisan support, ideology, gender, education, income, age, and region

With respect to attitudes toward policies designed to help Indigenous peoples, a one-unit increase in Indigenous resentment is associated with a 0.81 point decrease in the variable measuring preferences for government spending to help Indigenous peoples (on a five-point scale ranging from 0 to 1) (Table 4). Substantively, this means that moving from a score of 0.25 to 0.75 on the Indigenous resentment scale is associated with a decrease from 0.75 (a preference for "spending somewhat more") to a score of 0.34 (a preference between "spending about the same" and "spending somewhat less") on government programs to help Indigenous peoples (Figure 8).
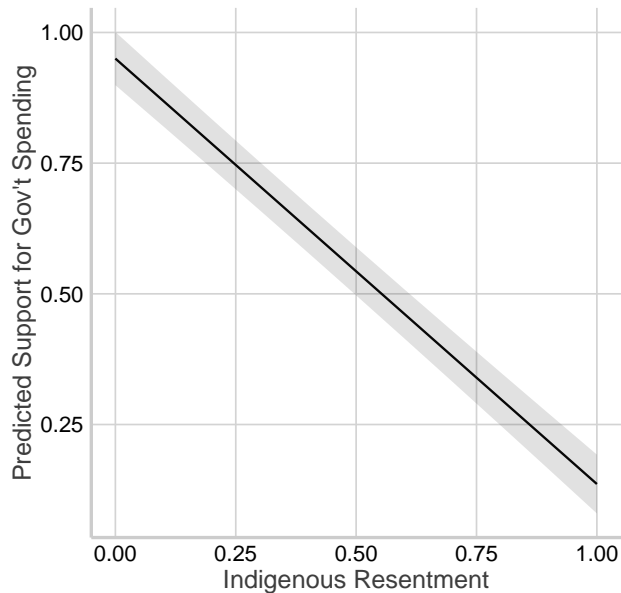
Figure 8: The estimated effect of Indigenous resentment on support for government spending to help Indigenous peoples, controlling for partisan support, ideology, gender, education, income, age, and region

Note that because the two outcomes considered in these analysis (social distance and opposition to government funding to support Indigenous peoples) are measured on different scales, it is not possible to compare the magnitude of the Indigenous resentment coefficient across the two models. See the SM, Section S3.3, for a comparison of the magnitude of the Indigenous resentment coefficients across the models using standardized outcome variables.

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 (Jackman, 2008). Increasing the number of related items in a scale

cancels out measurement error. As such, shorter scales should be used with caution. For these reasons, it is the convention in fields such as psychology to use longer batteries of questions to measure important constructs. While the methodological benefits of longer scales are undisputed, shorter, four-item scales are common in the fields of public opinion polling and political science research. Pollsters or scholars trying to collect data across a range of topics may not be able to include all seven items comprising the Indigenous resentment scale in their surveys. In such cases, I recommend using a "short Indigenous resentment scale" comprised of four items. Namely, the items tapping into attitudes toward conflicts over land, language 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 avoidance from Indigenous peoples and opposition to government aid to help Indigenous peoples (Table S6).

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, I recommend including the item tapping into conflicts over land. Land is central to Indigeneity (Coulthard, 2014; Green and Green, 2007; Simpson, 2011; Wildcat et al., 2014; Singh, 2019), 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 avoidance from Indigenous peoples and opposition to government aid to help Indigenous peoples, although—unsurprisingly—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 S7).

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, I developed a novel *Indigenous resentment scale* with high construct validity.

The Indigenous resentment scale is potentially open to the same criticisms leveled at measures of symbolic racism toward Black Americans, including the racial resentment scale. Critics of the racial resentment scale claim that the scale reflects "principled conservatism" (conservative ideology) instead of racial prejudice (Sniderman and Tetlock, 1986). However,

recent U.S. research empirically tests this claim. Enders (2019) tests whether the racial resentment survey items exhibit differential item functioning and finds that, even though there is some overlap between the racial resentment items and left-right ideology, the racial resentment scale still significantly predicts attitudes toward redistribution even after correcting for the influence of conservative principles. Even though attitudes toward government spending and racial resentment are correlated, there is little reason to be concerned that measures of symbolic racism are merely expressions of "principled conservatism."

In North America, White privilege was made possible by *both* the expropriation of Black bodies and attempted extermination of Indigenous peoples, and understanding how racialized hierarchies that devalue Black and Indigenous lives are perpetuated requires understanding the structure of White racial attitudes toward both Black and Indigenous peoples. Because the legacy of settler-colonialism and domination of Indigenous peoples differs from the domination of Black peoples, it is important to develop a measure of anti-Indigenous attitudes that taps into the distinct features of Indigenous-settler relations. The goal of this present work is to develop a theoretically-informed, unidimensional, reliable, and valid measure of Indigenous resentment.

My effort to quantify and analyze anti-Indigenous attitudes contributes to the methodology of Indigenous statistics, which—recognizing that statistics play a role in both reflecting and constituting social reality—seeks to shift the analysis of settler-colonial inequalities away from a focus on "perceived Aboriginal deficits" (Walter and Andersen, 2013, p. 26). Working within this framework, my work seeks to clarify how *settlers'* attitudes and behaviour maintain social inequalities between Indigenous peoples and settlers. My empirical analysis shows that the Indigenous resentment scale is unidimensional and statistically reliable. The analysis presented here 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 theoretical construct validity I show that the Indigenous resentment scale strongly motivates racially-motivated social distancing. Among Whites, higher levels of Indigenous

resentment strongly predict 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 I also show that Indigenous resentment strongly reduces support for government assistance to help Indigenous peoples. Understanding how attitudinal dispositions shape policy preferences is important for understanding how socioeconomic 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. The scale presented here is not meant to be the only or final measure of symbolic racism toward Indigenous peoples. Depending on a scholar's research questions, more precise measures may be useful in different contexts. 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 (and regions within Anglo-American settler-colonies). It would also be interesting to compare anti-Indigenous attitudes in Anglo settler-colonies and Latin settler-colonies.

Finally, given the mass migration of Mayan and other Indigenous peoples into Mexico and the United States (Ortiz and Pombo, 2014), future scholars might consider the intersection of Indigeneity and immigration status. In the United States, five out of the six children who died while they were in the custody of the Department of Homeland Security since President Donald Trump took office were Indigenous (Nolan, 2019). This is largely driven by the fact that most Indigenous migrants do not speak European languages, and the Department of Homeland Security often only provides translation in Spanish and English. Due to ongoing colonial inequalities, patterns of migration and xenophobia, Indigenous children are still being incarcerated and dying in state custody today.

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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Supplementary Material

S1 Variable Details

Table S1: Variable Distributions

Variable	Obs	Mean	Std. Dev.	Min	Max
Push for land rights					
Disagree strongly	1,090	0.124	0.329		
Disagree somewhat	1,090	0.167	0.373		
Neither agree nor disagree	1,090	0.288	0.453		
Agree somewhat	1,090	0.206	0.405		
Agree strongly	1,090	0.215	0.411		
Favors from education system					
Disagree strongly	1,090	0.171	0.377		
Disagree somewhat	1,090	0.198	0.399		
Neither agree nor disagree	1,090	0.329	0.471		
Agree somewhat	1,090	0.158	0.365		
Agree strongly	1,090	0.144	0.351		
Other minorities overcame prejudice					
Disagree strongly	1,090	0.0945	0.293		
Disagree somewhat	1,090	0.179	0.384		
Neither agree nor disagree	1,090	0.272	0.445		
Agree somewhat	1,090	0.235	0.424		
Agree strongly	1,090	0.220	0.414		
Unfair tax breaks					
Disagree strongly	1,090	0.135	0.341		
Disagree somewhat	1,090	0.160	0.367		
Neither agree nor disagree	1,090	0.302	0.459		
Agree somewhat	1,090	0.219	0.414		
Agree strongly	1,090	0.185	0.388		
Activists making reasonable demands					
Disagree strongly	1,090	0.128	0.334		
Disagree somewhat	1,090	0.164	0.370		
Neither agree nor disagree	1,090	0.295	0.456		
Agree somewhat	1,090	0.281	0.449		
Agree strongly	1,090	0.133	0.339		
Protect Aboriginal languages					
Disagree strongly	1,090	0.0836	0.277		
Disagree somewhat	1,090	0.061	0.239		
Neither agree nor disagree	1,090	0.295	0.456		
Agree somewhat	1,090	0.312	0.463		
Agree strongly	1,090	0.248	0.432		
Government doesn't show enough respect					

Disagree strongly	1,090	0.175	0.379		
Disagree somewhat	1,090	0.159	0.366		
Neither agree nor disagree	1,090	0.272	0.445		
Agree somewhat	1,090	0.239	0.4267		
Agree strongly	1,090	0.155	0.363		
Gender (man=1)	1,090	0.476	0.499		
Education					
No college	1,090	0.342	0.475		
Trade	1,090	0.295	0.456		
BA	1,090	0.265	0.441		
Postgrad	1,090	.098	0.298		
Right party	1,090	0.445	0.497		
Region					
BC	1,090	0.135	0.342		
Prairies	1,090	0.195	0.396		
Ontario	1,090	0.441	0.497		
Quebec	1,090	0.149	0.356		
Maritimes	1,090	0.080	0.271		
Age					
18-34	1,090	0.192	0.394		
35-44	1,090	0.220	0.414		
45-54	1,090	0.222	0.416		
55-64	1,090	0.297	0.457		
65+	1,090	0.069	0.254		
Income					
$29K or less	1,090	0.173	0.378		
$30K-$59,999	1,090	0.252	0.434		
$60K-$89,999	1,090	0.206	0.405		
$90K-$119,999	1,090	0.171	0.377		
$120-$149,999	1,090	0.110	0.313		
$150K or more	1,090	0.088	0.284		
Ideology	1,090	4.976	2.081896	0	10
Indigenous resentment scale	1,090	0.494	0.246	0	1
Short Indigenous resentment scale	1,090	0.507	0.256	0	1
Social distance scale	1,090	1.075	2.256	-5.000	9.000
Spending to help Indigenous peoples	1,090	0.55	0.288	0	1

Figure S1: Distribution of Indigenous Resentment Scale Items
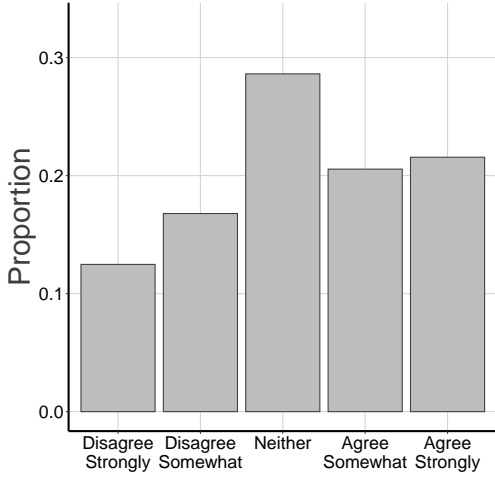
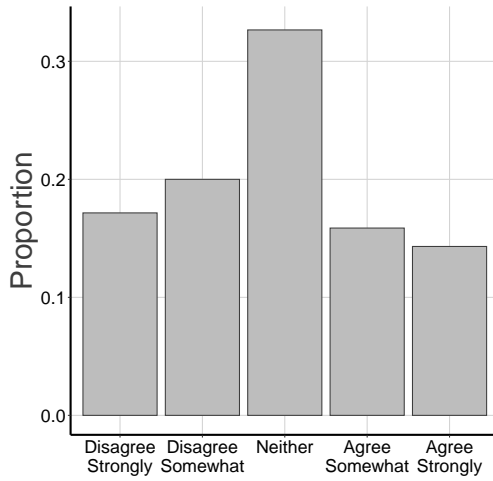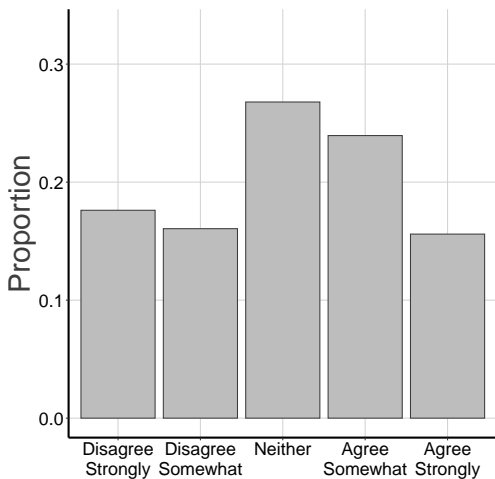**(a)** Aboriginals are getting too demanding in their push for land rights.
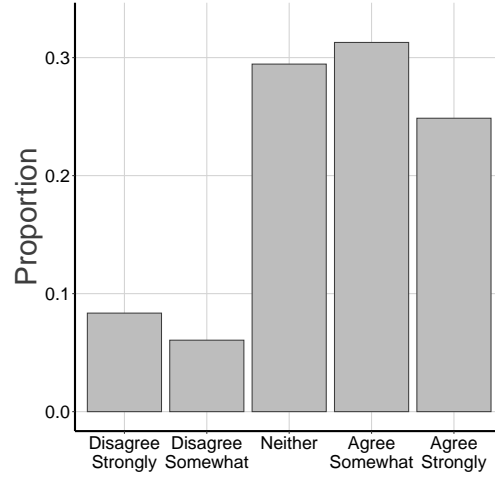
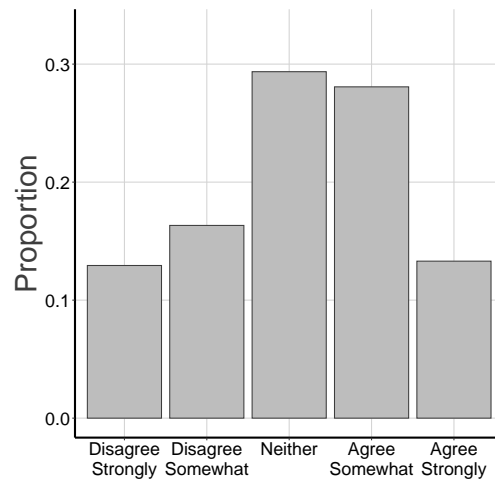**(b)** More must be done to protect Aboriginal languages.
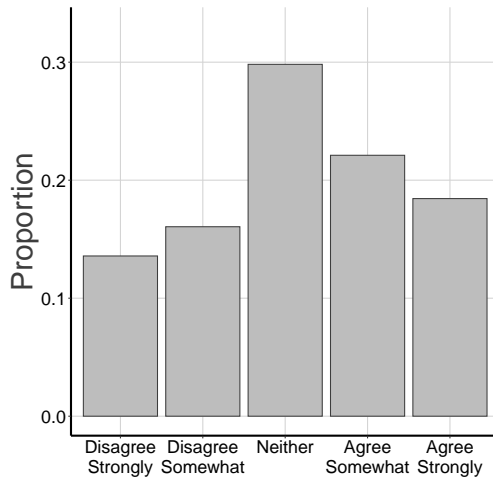
(c) Aboriginals get unfair tax breaks.

(d) Aboriginals get more favours from the education system than they should have.

(e) The government does not show enough respect toward Aboriginals.

(f) Aboriginal activists are making reasonable demands.

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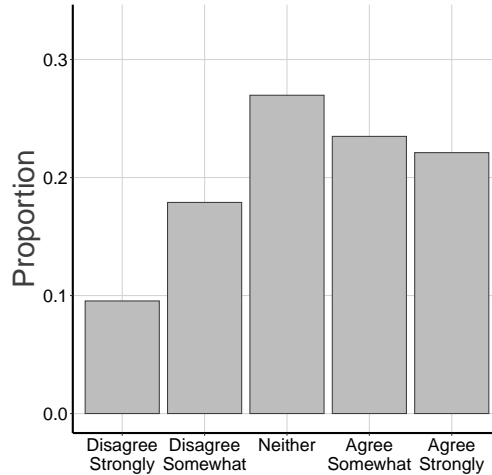
(g) Irish, Jewish, Chinese, and many other minorities overcame prejudice and worked their way up. Aboriginals should do the same without any special favours.

S2 Missing Values

Although over 1,600 respondents were recruited to take the online survey, he study was limited to English-speaking White citizens and approximately 450 potential participants were screened out because they indicated they were francophones, people of color, or non-citizen residents. This was a panel of paid participants, and so even though respondents were permitted to skip questions there was relatively little missing data. Missing values on control variables were imputed using MICE but missing values on the main independent variables (the items comprising the Indigenous resentment scale) and outcome variables were dealt with through list-wise deletion (the resulting $n = 1,090$) (see Table S2). Note: Respondents who indicated they were non-partisan/undecided were coded as missing so I could estimate their party preference. As a robustness check, coding undecided respondents as non-right party identifiers (including them in the reference category instead of imputing the party preference) does not change the results.

Table S2: Missing Values

Item	Number of Missing Values	Procedure
Spending for Indigenous peoples	9	LWD
Social distance	22	LWD
Indigenous Resentment scale items		
Land rights	28	LWD
Unfair tax	27	LWD

Protect language	25	LWD
No favors	26	LWD
Education favors	26	LWD
No respect	27	LWD
Reasonable	27	LWD
Ideology	8	MICE
Right Party Identifier	216	MICE
Age	54	MICE
Gender	21	MICE
Education	32	MICE
Income	98	MICE
City	73	MICE
Region	5	MICE

MICE=imputed missing (Multiple Imputation by Chained Equations)

LWD=missing were list-wise deleted

S3   Validity

S3.1   Outcome Variables

The social distance measure was constructed by summing responses to preferences for social contact with Indigenous peoples ("Aboriginals") and preferences for social contact with White people, and then taking the difference between the two sets of items. The individual questions comprising the scales are listed below:

- How would you feel about a close relative dating a white person? (Oppose somewhat, oppose a little, favour a little, favour somewhat)

- How would you feel about having white neighbours? (Oppose somewhat, oppose a little, favour a little, favour somewhat)

- How would you feel about having white co-workers? (Oppose somewhat, oppose a little, favour a little, favour somewhat)

- How would you feel about a close relative dating an Aboriginal person? (Oppose somewhat, oppose a little, favour a little, favour somewhat)

- How would you feel about having Aboriginal neighbours? (Oppose somewhat, oppose a little, favour a little, favour somewhat)

- How would you feel about having Aboriginal co-workers? (Oppose somewhat, oppose a little, favour a little, favour somewhat)

The measure of attitudes toward government help for Indigenous peoples was measured by simply asking respondents: "Should the federal government spend more, less, or about the same as now on helping Aboriginals?" (A lot more, Somewhat more, About the same as now, Somewhat less, A lot less)

S3.2 Full OLS Regression results

Table S3: Regression Results

	Dependent variable:	
	Social Distance	Increase Spending
	(1)	(2)
Indigenous Resentment	4.327***	−0.814***
	(0.267)	(0.028)
Right Vote	0.189	−0.036*
	(0.134)	(0.014)
Ideology	0.068*	0.005
	(0.031)	(0.003)
Gender (men=1)	−0.115	0.026
	(0.126)	(0.013)
Education (*No college*)		
Trade	−0.085	−0.003
	(0.153)	(0.016)
BA	−0.020	−0.002
	(0.160)	(0.017)
Grad	−0.188	−0.001
	(0.230)	(0.024)
Income *($60K-89K)*		
$29K or less	−0.00002	−0.002
	(0.198)	(0.021)
$30K-59K	−0.129	0.007
	(0.176)	(0.019)
$90K-119K	−0.147	−0.012
	(0.195)	(0.021)
$120K-149K	0.280	0.0001
	(0.220)	(0.023)
$150K+	−0.633*	−0.012
	(0.248)	(0.026)
Age *35-44*		
18-34	−0.085	0.042*
	(0.188)	(0.020)
45-54	0.047	−0.019
	(0.178)	(0.019)
55-64	−0.109	0.020
	(0.168)	(0.018)
65+	0.201	0.022
	(0.259)	(0.027)
Region		

BC	−0.352	0.013
	(0.185)	(0.019)
Prairies	0.513**	−0.020
	(0.165)	(0.017)
English Quebec	0.586**	−0.011
	(0.182)	(0.019)
Maritimes	−0.027	0.019
	(0.226)	(0.024)
Constant	−1.412***	0.923***
	(0.257)	(0.027)
Observations	1,090	1,090
R^2	0.284	0.512
Adjusted R^2	0.271	0.503
Residual Std. Error (df = 1069)	1.927	0.203
F Statistic (df = 20; 1069)	21.204***	56.105***

Note: *p<0.05; **p<0.01; ***p<0.001

S3.3   OLS Regressions with Standardized Outcome Variables

It is more intuitive to interpret the association between Indigenous resentment and social distance using the original scale of social distance (where 0 indicates no difference in a respondent's preference for social contact between White and Indigenous peoples, and positive values indicate a greater desire for social distance from Indigenous peoples) and the original measure of attitudes toward government spending to help Indigenous peoples (on a five-point scale ranging from spend a lot less to spend a lot more). However, because these outcomes are measured using different units, it is not possible to directly compared the magnitude of the Indigenous resentment coefficients across the two models. As such, using the original scales it is not possible to answer the question "Does Indigenous resentment have a larger association with social distance or attitudes toward government spending to help Indigenous peoples?"

If we want to answer this question by comparing the magnitude of the Indigenous resentment coefficients across the two models we must put the outcomes on a common scale. The most common way to achieve this is to use z-score standardization. This involves simply subtracting a variable by its mean and dividing the result by the variable's standard deviation. To standardize a variable, you simply subtract the vector by its mean and then divide the result by the variable's standard deviation. The resulting variable is mean centered and every one unit increase represents one standard deviation from the mean. As a result, the distribution of a given variable might be less intuitive (for instance, with respect to social distance, the score of 0 no longer represents "no preference for social contact between White or Indigenous peoples," but rather represents the mean of the distribution). However, standardization does facilitate comparison across variables by standardizing the units of measurement.

The results of the OLS regressions using z-score standardized outcomes is presented in Table S4. The results are substantively identical (in terms of the signs and significance of

the coefficients). Indigenous resentment significantly and substantively predicts both social distance and attitudes toward government spending to help Indigenous peoples. However, the magnitude and interpretation of the coefficients is different. A one-unit increase in Indigenous resentment is predicted to increase a desire for social distance from Indigenous peoples by 1.9 standard deviations. By contrast, a one-unit increase in Indigenous resentment is predicted to decrease support for spending to help Indigenous peoples by a full 2.8 standard deviations.

Table S4: Regression Results

	Dependent variable:	
	Social Distance	Increase Spending
	(1)	(2)
Indigenous Resentment	1.918***	−2.823***
	(0.118)	(0.098)
Right Vote	0.084	−0.124*
	(0.059)	(0.049)
Ideology	0.030*	0.019
	(0.014)	(0.011)
Gender (men=1)	−0.051	0.089
	(0.056)	(0.046)
Education (*No college*)		
Trade	−0.038	−0.012
	(0.068)	(0.056)
BA	−0.009	−0.005
	(0.071)	(0.059)
Grad	−0.083	−0.004
	(0.102)	(0.084)
Income *($60-$89)*		
$29K or less	−0.00001	−0.008
	(0.088)	(0.073)
$30K-59K	−0.057	0.025
	(0.078)	(0.064)
$90K-119K	−0.065	−0.043
	(0.086)	(0.071)
$120K-149K	0.124	0.0005
	(0.098)	(0.080)
$150K+	−0.281*	−0.040
	(0.110)	(0.091)
Age *35-44*		
18-34	−0.038	0.144*
	(0.083)	(0.069)
45-54	0.021	−0.066
	(0.079)	(0.065)

55-64	−0.048	0.071
	(0.074)	(0.061)
65+	0.089	0.077
	(0.115)	(0.095)
Region *(Ontario)*		
BC	−0.156	0.046
	(0.082)	(0.068)
Prairies	0.227**	−0.069
	(0.073)	(0.060)
English Quebec	0.260**	−0.039
	(0.081)	(0.067)
Maritimes	−0.012	0.066
	(0.100)	(0.083)
Constant	−1.102***	1.295***
	(0.114)	(0.094)
Observations	1,090	1,090
R^2	0.284	0.512
Adjusted R^2	0.271	0.503
Residual Std. Error (df = 1069)	0.854	0.705
F Statistic (df = 20; 1069)	21.204***	56.105***

Note: *p<0.05; **p<0.01; ***p<0.001

S3.4   Robustness Check: Alternate Model Specification

Table S5

	Dependent variable:
	Increase Spending
Indigenous Resentment	−7.864***
	(0.355)
Right Vote	−0.343*
	(0.133)
Ideology	0.046
	(0.032)
Gender (men=1)	0.211
	(0.125)
Education (*No college*)	
Trade	−0.042
	(0.150)
BA	−0.065
	(0.160)
Grad	−0.026
	(0.227)

Income *($60-$89)*	
$29K or less	−0.028
	(0.197)
$30K-59K	0.035
	(0.174)
$90K-119K	−0.100
	(0.193)
$120K-149K	0.091
	(0.220)
$150K+	−0.193
	(0.249)
Age *35-44*	
18-34	0.401*
	(0.188)
45-54	−0.145
	(0.177)
55-64	0.217
	(0.168)
65+	0.287
	(0.257)
Region	
BC	−0.026
	(0.184)
Prairies	−0.214
	(0.162)
English Quebec	−0.182
	(0.181)
Maritimes	0.201
	(0.228)
Observations	1,090

Note: $^*p<0.05$; $^{**}p<0.01$; $^{***}p<0.001$

S3.5 Shorter Scales, Evidence of Validity

Table S6: Regression Results Using the Short Scale of Indigenous Resentment

	Dependent variable:	
	Social Distance	Increase Spending
	(1)	(2)
4-Item Indigenous Resentment	4.019***	−0.712***
	(0.255)	(0.028)
Right Vote	0.233	−0.048**

	(0.134)	(0.015)
Ideology	0.066*	0.004
	(0.032)	(0.004)
Gender (men=1)	−0.126	0.024
	(0.126)	(0.014)
Education (*No college*)		
Trade	−0.093	−0.004
	(0.153)	(0.017)
BA	0.019	−0.010
	(0.161)	(0.018)
Grad	−0.182	−0.001
	(0.231)	(0.026)
Income *($60-$89)*		
$29K or less	−0.027	0.004
	(0.199)	(0.022)
$30K-59K	−0.139	0.010
	(0.177)	(0.020)
$90K-119K	−0.098	−0.022
	(0.196)	(0.022)
$120K-149K	0.292	−0.002
	(0.221)	(0.025)
$150K+	−0.552*	−0.028
	(0.249)	(0.028)
Age *35-44*		
18-34	−0.096	0.045*
	(0.189)	(0.021)
45-54	0.092	−0.026
	(0.180)	(0.020)
55-64	−0.076	0.016
	(0.169)	(0.019)
65+	0.280	0.010
	(0.261)	(0.029)
Region		
BC	−0.282	−0.003
	(0.185)	(0.021)
Prairies	0.565***	−0.034
	(0.165)	(0.018)
English Quebec	0.554**	−0.005
	(0.183)	(0.020)
Maritimes	0.004	0.012
	(0.227)	(0.025)
Constant	−1.374***	0.904***
	(0.259)	(0.029)
Observations	1,090	1,090

R^2	0.276	0.454
Adjusted R^2	0.263	0.443
Residual Std. Error (df = 1069)	1.937	0.215
F Statistic (df = 20; 1069)	20.384***	44.361***

Note:	*p<0.05; **p<0.01; ***p<0.001

Table S7: Regression Results Using a Single-Item Measure (Resentment Over Land)

	Dependent variable:	
	Social Distance	Increase Aid
	(1)	(2)
Resentment Over Land	0.672***	−0.123***
	(0.052)	(0.006)
Right Vote	0.343*	−0.066***
	(0.138)	(0.016)
Ideology	0.088**	0.001
	(0.033)	(0.004)
Gender (men=1)	−0.136	0.028
	(0.131)	(0.015)
Education (*No college*)		
Trade	0.021	−0.024
	(0.158)	(0.018)
BA	0.115	−0.027
	(0.166)	(0.019)
Grad	−0.241	0.009
	(0.239)	(0.027)
Income (*$60-$89*)		
$29K or less	−0.003	−0.001
	(0.206)	(0.024)
$30K-59K	−0.150	0.011
	(0.183)	(0.021)
$90K-119K	−0.122	−0.017
	(0.203)	(0.023)
$120K-149K	0.312	−0.006
	(0.228)	(0.026)
$150K+	−0.411	−0.053
	(0.257)	(0.030)
Age *35-44*		
18-34	−0.126	0.050*
	(0.195)	(0.022)
45-54	0.016	−0.013
	(0.185)	(0.021)

55-64	−0.212	0.040*
	(0.174)	(0.020)
65+	0.090	0.043
	(0.269)	(0.031)
Region		
BC	−0.284	−0.001
	(0.192)	(0.022)
Prairies	0.574***	−0.033
	(0.171)	(0.020)
English Quebec	0.562**	−0.007
	(0.189)	(0.022)
Maritimes	0.024	0.009
	(0.235)	(0.027)
Constant	−1.650***	0.961***
	(0.279)	(0.032)
Observations	1,090	1,090
R^2	0.228	0.377
Adjusted R^2	0.214	0.365
Residual Std. Error (df = 1069)	2.000	0.230
F Statistic (df = 20; 1069)	15.791***	32.362***

*Note:* *p<0.05; **p<0.01; ***p<0.001

S3.6   Pretesting

I 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 S8 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 S2). This is evidence of unidimensionality; that all 15 items are tapping into an 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, I use data reduction techniques to propose a seven-item Indigenous Resentment Scale.

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[10]That 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.

Figure S2: Scree Test of Pretested Variables

Scree plot
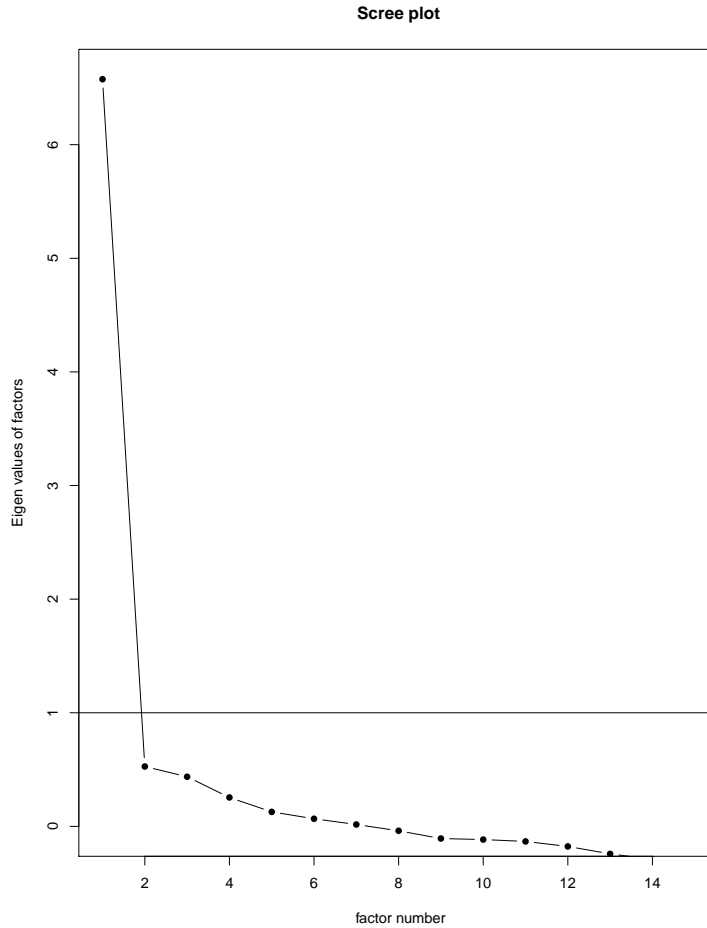
I use two data reduction techniques. The first, factor analysis, is a supervised method that is more common in the social sciences. Factor analysis models unobserved (latent) variables called factors using observed, correlated variables. The second, principal component analysis (PCA) is an unsupervised 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 S3).

Table S8: 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 I 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 my scale which should tap into a single construct, see Figure S3).

Figure S3: Biplot of Pretested Variables