

6 Supplementary Material

6.1 Question Wording

Vote Choice (post-election): “Which party did you vote for?”

Vote Choice (pre-election intent): “Which party do you think you will vote for?”

Vote Choice (pre-election, respondent reported voting in advance): “For which party did you vote?”

Vote Choice (pre-election, respondent undecided): “Is there a party you are leaning towards?”

Vote Choice (pre-election, respondent reported they are unlikely to vote): “If you decide to vote, which party do you think you will vote for?”

Minority Feeling Thermometer: “How do you feel about the following countries and groups? Slide the slider to any number from 0 to 100.) Zero means you really DISLIKE the country or group, and 100 means you really LIKE the country or group.” [Minorities]

Done For Racial Minorities: How much do you think should be done for **racial minorities**?

Education: “What is the highest level of education that you have completed?”

Income (categories): “We don’t need the exact amount; does your household income fall into one of these broad categories?”

Income (raw): “What is your total household income before taxes for the year [survey year]? Be sure to include income FROM ALL SOURCES. Please type in your household income, in dollars, without commas.”

Gender: “Are you?” [male, female]

Age: “To make sure we are talking to a cross section of Canadians, we need to get a little information about your background. First, in what year were you born?”

Party Identification: “In federal politics, do you usually think of yourself as a Conservative, Liberal, NDP, Bloc Québécois, Green, or none of these?”

6.2 Variable Coding Scheme

Vote Choice: A 6-category variable indicating respondent’s vote choice in a given election year. The categories are as follows: Liberal (1), Conservative (2), NDP (3), BQ (4), Green (5), other (6). Vote choice is first coded based on the post-election survey question and then pre-election

questions if the aforementioned responses are missing. Respondents who reported they did not know, who declined to state or intended to vote for “none” of the parties were coded as missing (unless they reported having a party they “leaned” towards supporting).

Minority Feeling Thermometer: A 100-point interval variable, with higher values corresponding to warmer feelings towards racial minorities. Rescaled to range from 0-1.

Education: Ordinal variable ranging from 1 (no schooling) to 11 (professional degree or doctorate)

Income: Ordinal variable ranging from 1 (respondent makes less than \$30,000 CAD per year) to 5 (respondent makes more than \$110,000 CAD per year). In the 2004 and 2006 CES, the largest income category is “More than \$100,000.” Respondents in this category are recoded here to be in the highest income category (5).

Gender: Dichotomous variable indicating whether the respondent identifies as male/a man (0) or female/ a woman (1). A third option is not provided in CES waves prior to 2019, and less than 1% of respondents in the 2019 and 2021 CES identified as neither a man or a woman.

2019/2021 Indicator: Dichotomous variable indicating whether the CES survey is for the 2019/2021 elections (1) or not (0).

Age: A semi-continuous variable that takes the value of the respondent’s age. In surveys where age is not asked, age is calculated by subtracting the respondent’s date of birth from the survey year.

Quebec Indicator: Dichotomous variable indicating whether the respondent resides in Quebec (1) or not (0).

Party ID: A 7-point categorical variable indicating the party identification of the respondent. Coded as follows: Liberal (1), Conservative (2), NDP (3), BQ (4) and Green (5).

6.3 Summary Statistics

Table 2: Summary Statistics of All Variables (unweighted)

Variable	N	Mean	Std. Dev.	Min	Max
Vote choice	68,297	N/A	N/A	1	6
Minority Thermometer	65,262	0.67	0.25	0	1
Done for racial minorities	40,295	3.44	1.05	1	5
2019/2021 indicator	82,042	N/A	N/A	0	1
Party ID	63,202	N/A	N/A	1	5
Gender (female)	81,561	0.56	0.50	0	1
Quebec indicator	81,984	N/A	N/A	0	1
Income	75,292	2.93	1.40	1	5
Education	81,209	7.35	1.97	1	11
Age	81,241	49.69	16.96	17	115

6.4 Summary of Vote Choice

Table 3: Pooled Vote Choice (unweighted)

Party Vote	N	Proportion
Liberal	22,763	33.33
Conservative	20,764	30.40
NDP	13,229	19.37
BQ	5,473	8.01
Green	4,155	6.08
Other	1,913	2.80

6.5 Summary of Party ID

Table 4: Pooled Party ID (unweighted)

Party ID	N	Proportion
Liberal	24,427	38.65
Conservative	19,686	31.15
NDP	10,803	17.09
BQ	5,238	8.29
Green	3,048	4.82

6.6 Pooled Vote Choice Models, Non-NDP Parties

Table 1 in the manuscript reports multinomial logistic regression output for “naive,” “demographics only” and “full” vote choice models. Due to space considerations, only values for NDP vote choice are shown in the body of the manuscript. The following tables provide results for the other values of the dependent vote choice variable (Conservative vote, BQ vote, Green vote, and vote for another party). Liberal vote choice is omitted, as Liberal vote choice is the baseline category. As such, all coefficients are relative to vote choice for the Liberal party. Furthermore, the Party ID variable treats Liberal party ID as the baseline category, so party ID effects are relative to Liberal party ID.

Table 5: Three Models of Conservative Vote Choice, Minority Thermometer IV (multinomial logit, Liberal baseline)

	Conservative (“naive”)	Conservative (“demos only”)	Conservative (“full”)
Minority Thermometer	-1.03*** (0.13)	-0.90*** (0.14)	-1.01*** (0.25)
2019/2021 indicator	0.43*** (0.11)	0.44*** (0.12)	-0.40 (0.21)
Thermometer x 2019/2021	-0.89*** (0.15)	-0.95*** (0.16)	-0.01 (0.27)
Income		0.11*** (0.01)	0.06*** (0.01)
Education		-0.10*** (0.01)	-0.07*** (0.01)
Age		0.00*** (0.00)	0.00* (0.00)
Gender (female)		-0.17*** (0.03)	0.00 (0.04)
Quebec indicator			-0.01 (0.07)
Liberal Party ID (baseline)			—
Conservative Party ID			5.08*** (0.06)
NDP Party ID			1.33*** (0.09)
BQ Party ID			2.35*** (0.15)
Green Party ID			1.71*** (0.16)
Constant	0.76*** (0.10)	0.88*** (0.13)	-1.16*** (0.23)
Observations	48,466	45,545	38,952

Note: Entries are logistic regression coefficients with standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

Table 6: Three Models of BQ Vote Choice, Minority Thermometer IV (multinomial logit, Liberal baseline)

	BQ (“naive”)	BQ (“demos only”)	BQ (“full”)
Minority Thermometer	-1.59*** (0.17)	-1.42*** (0.18)	-0.71* (0.35)
2019/2021 indicator	-0.08 (0.14)	-0.04 (0.15)	-0.03 (0.28)
Thermometer x 2019/2021	0.40* (0.19)	-0.44* (0.20)	-0.22 (0.39)
Income		-0.05** (0.02)	0.07* (0.03)
Education		-0.08*** (0.01)	-0.07** (0.02)
Age		0.00 (0.00)	0.00 (0.00)
Gender (female)		-0.29*** (0.04)	-0.19* (0.08)
Quebec indicator			20.48*** (3.45)
Liberal Party ID (baseline)			—
Conservative Party ID			3.02*** (0.14)
NDP Party ID			2.10*** (0.14)
BQ Party ID			5.27*** (0.12)
Green Party ID			2.07*** (0.23)
Constant	-0.14 (0.12)	0.56** (0.18)	-22.08*** (3.47)
Observations	48,466	45,545	38,952

Note: Entries are logistic regression coefficients with standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

Table 7: Three Models of Green Vote Choice, Minority Thermometer IV (multinomial logit, Liberal baseline)

	Green (“naive”)	Green (“demos only”)	Green (“full”)
Minority Thermometer	0.44 (0.28)	0.46 (0.30)	-0.06 (0.45)
2019/2021 indicator	1.01*** (0.24)	1.06*** (0.25)	0.12 (0.38)
Thermometer x 2019/2021	-0.85** (0.30)	-0.91** (0.32)	-0.03 (0.47)
Income		-0.16*** (0.02)	-0.03 (0.02)
Education		-0.03* (0.01)	0.01 (0.02)
Age		-0.02*** (0.00)	-0.01*** (0.00)
Gender (female)		0.08 (0.05)	0.05 (0.07)
Quebec indicator			-0.24** (0.09)
Liberal Party ID (baseline)			—
Conservative Party ID			1.91*** (0.11)
NDP Party ID			1.82*** (0.10)
BQ Party ID			2.13*** (0.23)
Green Party ID			4.80*** (0.11)
Constant	-2.31*** (0.23)	-0.78** (0.27)	-2.71*** (0.40)
Observations	48,466	45,545	38,952

Note: Entries are logistic regression coefficients with standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

Table 8: Three Models of “Other” Party Vote Choice, Minority Thermometer IV (multinomial logit, Liberal baseline)

	Other party (“naive”)	Other party (“demos only”)	Other party (“full”)
Minority Thermometer	-0.78 (0.58)	-0.87 (0.60)	-1.77* (0.76)
2019/2021 indicator	2.01*** (0.43)	1.82*** (0.44)	0.15 (0.55)
Thermometer x 2019/2021	-0.98 (0.60)	-0.68 (0.61)	1.28 (0.78)
Income		-0.08** (0.03)	-0.02 (0.04)
Education		-0.12*** (0.02)	-0.07* (0.03)
Age		-0.02*** (0.00)	-0.01*** (0.00)
Gender (female)		-0.42*** (0.07)	-0.25* (0.10)
Quebec indicator			0.26* (0.13)
Liberal Party ID (baseline)			—
Conservative Party ID			3.78*** (0.13)
NDP Party ID			2.00*** (0.17)
BQ Party ID			3.03*** (0.25)
Green Party ID			2.84*** (0.24)
Constant	-2.96*** (0.42)	-0.80 (0.45)	-2.86*** (0.59)
Observations	48,466	45,545	38,952

Note: Entries are logistic regression coefficients with standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

6.7 Robustness check: regional variation

There is substantial research showing that Canadian politics vary by region, with a particular emphasis on the distinction between francophone Quebec and the rest of Canada (e.g., [Gidengil et al., 1999](#); [Blais et al., 2003](#); [Blais, 2002](#); [Bilodeau, Turgeon & Karakoç, 2012](#); [Wright et al., 2017](#); [Johnston, 2019](#); [Turgeon et al., 2019](#)). While an indicator variable indicating whether a respondent is from Quebec is included in the models reported in the body of the manuscript, this section of the supplementary material also reports output from the “full” version of the model for both Quebec alone and for Canada (excluding Quebec). Because the weights in the pooled CES data are designed to reflect the national electorate, the model outputs reported here are unweighted. The “Liberal” dependent variable category is omitted, as it is the baseline category. The “Quebec indicator” variable from the full model is omitted, as the analyses are subset by Quebec vs. non-Quebec Canada.

Table 9: *Only* Quebec: “Full” Model of Party Vote Choice, Minority Thermometer IV (multinomial logit, Liberal baseline)

	Conservative	NDP	BQ	Green	Other
Minority Thermometer	−1.17*** (0.34)	0.58 (0.33)	−0.59 (0.32)	0.38 (0.72)	−2.96** (1.01)
2019/2021 indicator	0.17 (0.25)	−0.69* (0.29)	0.43 (0.25)	0.88 (0.57)	0.24 (0.60)
Thermometer x 2019/2021	−0.14 (0.37)	0.21 (0.39)	−0.40 (0.36)	−0.32 (0.76)	2.01 (1.05)
Income	0.02 (0.03)	−0.05 (0.03)	0.06* (0.03)	−0.10* (0.05)	−0.06 (0.06)
Education	−0.06** (0.02)	0.02 (0.02)	−0.04* (0.02)	0.01 (0.03)	−0.09* (0.04)
Age	0.00 (0.00)	−0.02*** (0.00)	0.01* (0.00)	−0.02*** (0.00)	−0.02*** (0.01)
Gender (female)	−0.08 (0.08)	0.16* (0.08)	−0.21** (0.07)	0.02 (0.12)	−0.55*** (0.17)
Liberal Party ID (baseline)	—	—	—	—	—
Conservative Party ID	4.60*** (0.11)	1.78*** (0.17)	2.60*** (0.14)	1.66*** (0.28)	3.61*** (0.22)
NDP Party ID	1.11*** (0.15)	3.81*** (0.10)	2.15*** (0.12)	2.13*** (0.18)	1.87*** (0.29)
BQ Party ID	2.09*** (0.12)	2.15*** (0.13)	5.18*** (0.10)	2.14*** (0.20)	2.89*** (0.24)
Green Party ID	0.52 (0.37)	2.25*** (0.21)	2.39*** (0.21)	4.99*** (0.19)	2.77*** (0.35)
Constant	−1.25*** (0.31)	−1.70*** (0.32)	−2.15*** (0.29)	−1.87*** (0.62)	−1.87** (0.69)
Observations	11,922	11,922	11,922	11,922	11,922

Note: Entries are logistic regression coefficients with standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

To visualize the output of the model results in the preceding table, we turn to [Figure 7](#). The following figure shows the predicted probability of support for the Liberals, Conservatives, NDP and BQ by minority feeling thermometer and election period in Quebec alone (all other provinces are excluded). Feelings towards racial minorities are positively predictive of Liberal support in the 2019-2021 period, negatively predictive of Conservative support in both election periods, positively predictive of NDP support in both periods, and negatively predictive of BQ support in the 2019-2021 period. Furthermore, there is no statistically significant difference in Liberal, Conservative, or BQ vote between the two time periods at the 95% confidence level. NDP support decreases in 2019/2021 in comparison to earlier elections, but this intercept-shift in support is not conditioned on racial attitudes.

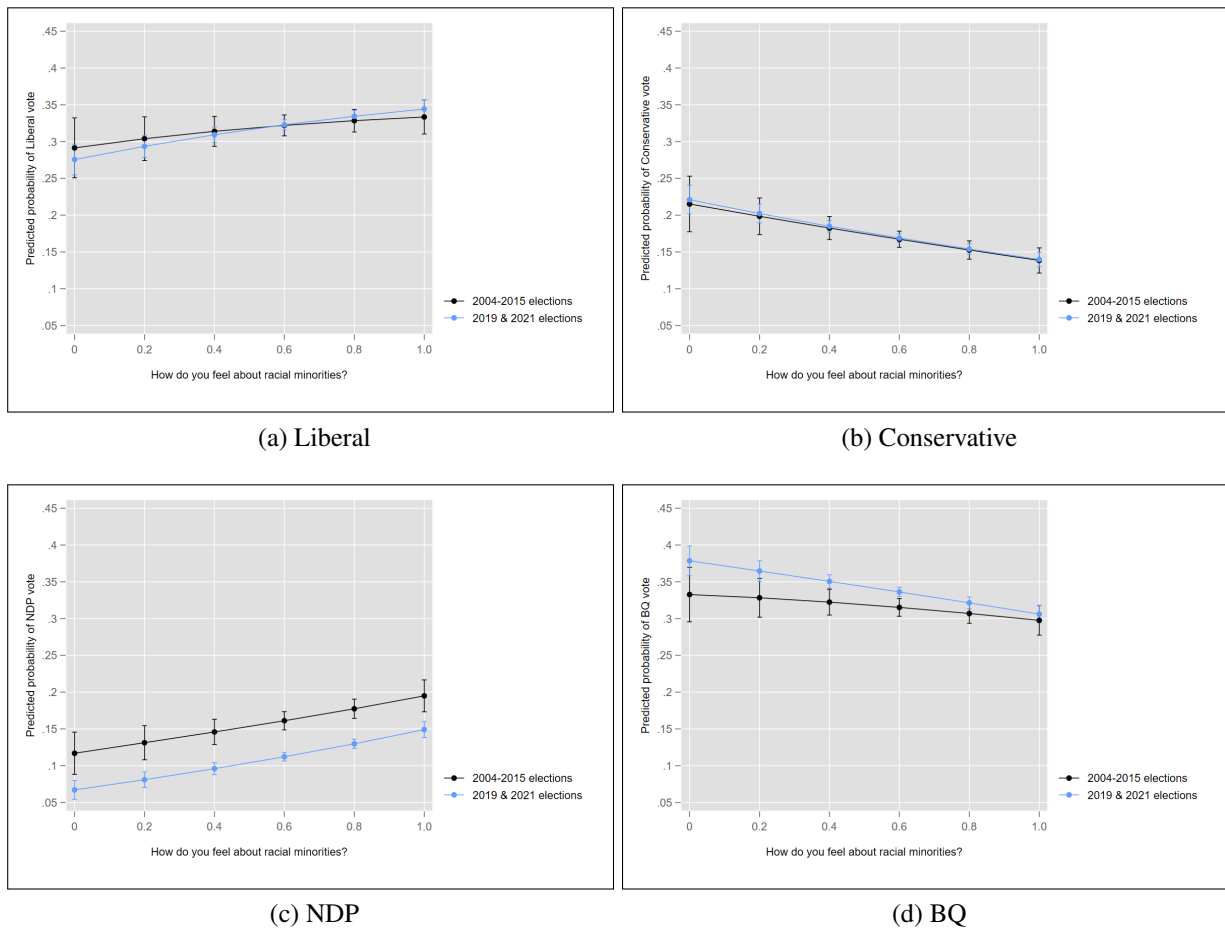


Figure 7: Predicted probability of Liberal, Conservative, NDP and BQ vote by minority feeling thermometer and time period (full model, Quebec only). 95% confidence intervals.

[Table 11](#) below displays the output of the “full” model of vote choice when Quebecers are omitted from the sample. As such, the BQ is omitted as a dependent variable category and as a party ID category. The analysis is unweighted.

Table 10: Canada *Excluding* Quebec: “Full” Model of Party Vote Choice, Minority Thermometer IV (multinomial logit, Liberal baseline)

	Conservative	NDP	Green	Other
Minority Thermometer	-0.82*** (0.21)	-0.16 (0.20)	0.07 (0.35)	0.67 (0.75)
2019/2021 indicator	0.33 (0.18)	-0.28 (0.17)	0.79** (0.30)	1.57** (0.57)
Thermometer x 2019/2021	-0.34 (0.23)	0.58** (0.22)	-0.43 (0.37)	-0.17 (0.77)
Income	0.06*** (0.02)	-0.11*** (0.01)	-0.06* (0.02)	-0.04 (0.04)
Education	-0.08*** (0.01)	-0.04*** (0.01)	0.00 (0.02)	-0.05* (0.03)
Age	0.00 (0.00)	-0.01*** (0.00)	-0.01*** (0.00)	-0.01*** (0.00)
Gender (female)	-0.02 (0.04)	0.17*** (0.04)	0.04 (0.06)	-0.35*** (0.09)
Liberal Party ID (baseline)	—	—	—	—
Conservative Party ID	5.02*** (0.05)	1.54*** (0.07)	1.83*** (0.09)	3.67*** (0.12)
NDP Party ID	1.22*** (0.08)	3.46*** (0.05)	1.73*** (0.09)	1.96*** (0.15)
Green Party ID	1.54*** (0.13)	2.05*** (0.10)	4.64*** (0.09)	2.28*** (0.23)
Constant	-1.60 (0.20)	-0.69*** (0.19)	-2.93*** (0.32)	-3.96*** (0.61)
Observations	33,421	33,421	33,421	33,421

Note: Entries are logistic regression coefficients with standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001

Figure 8 below shows the predicted probability of support for the Liberals, Conservatives and NDP in Canada (*excluding* Quebec) by minority feeling thermometer and election period. As we can see, the substantive interpretation of the relationships does not differ substantially from that for the country as a whole (Figure 5 of the manuscript). Vote choice for the Liberals is positively predicted by feelings towards minorities in both periods, vote choice for the Conservatives is negatively predicted in both periods, and vote choice for the NDP is positively predicted by feelings towards minorities in only the 2019-2021 period. Between the two periods, Conservative and Liberal support decreases among voters with very warm feelings towards racial minorities. The results for NDP support are substantively identical to those when Quebec is included: those with strongly negative feelings towards racial minorities are less likely to support the NDP in the later period than pre-2019. In addition, voters with strongly positive feelings towards racial minorities are more likely to support the NDP in the later period than pre-2019.

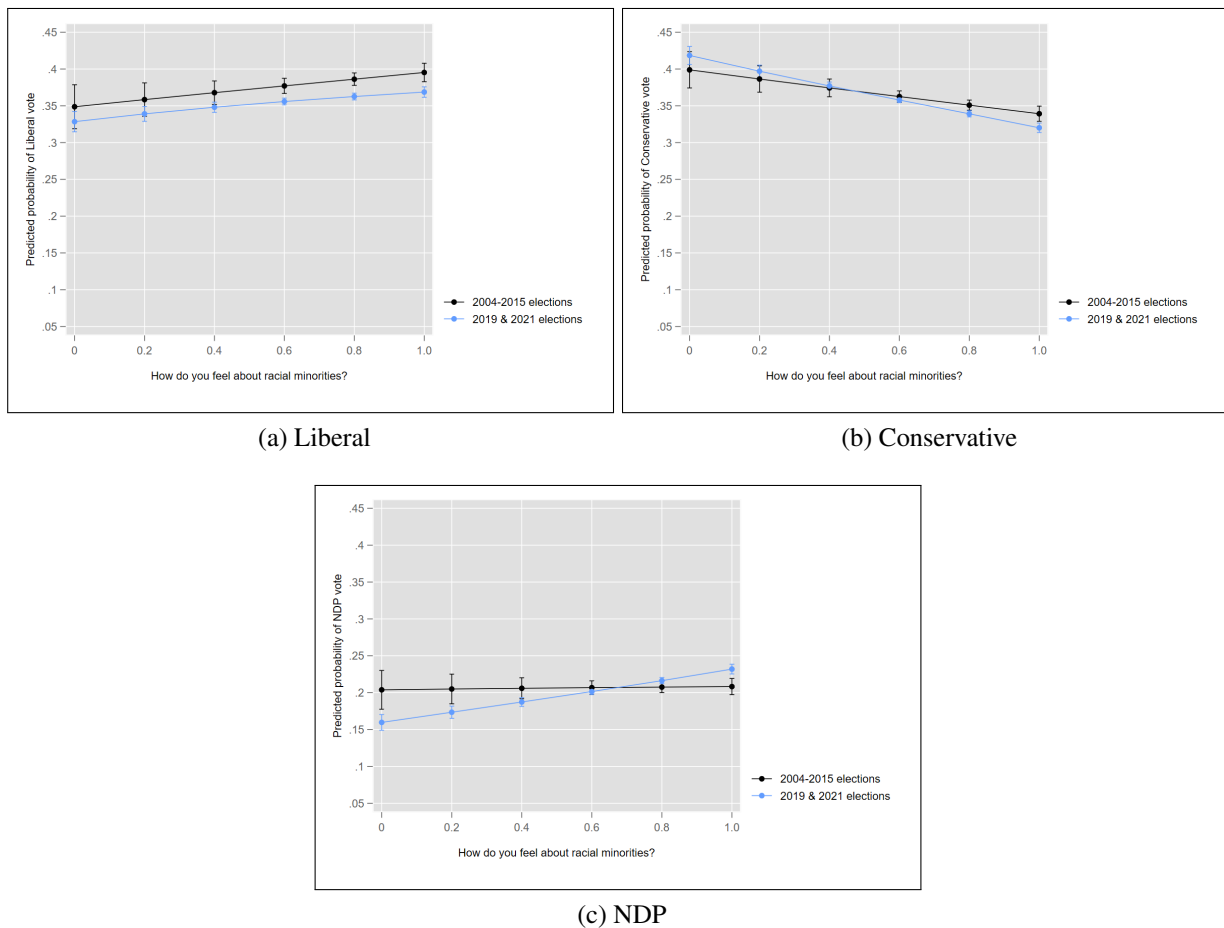


Figure 8: Predicted probability of Liberal, Conservative and NDP vote by minority feeling thermometer and time period (full model, Quebec excluded). 95% confidence intervals.

6.8 Full Output of Multinomial Logistic Regression Using Alternate IV

The following table provides the regression coefficients for the variables of interest when the alternate independent variable is used. Instead of the minority feeling thermometer, the independent variable measuring racial attitudes is a five-point Likert scale ranging from “much less” (1) to “much more” (5) in response to the CES question “how much do you think should be done for racial minorities?”. This model displayed in the table below is the same one used to generate the predicted probability plots in [Figure 6](#) of the manuscript. The results are for the “full” model (all relevant covariates included). The Liberal party vote outcome is the baseline category (and thus not shown).

Table 11: “Full” Model of Party Vote Choice, “Done For Racial Minorities” IV (multinomial logit, Liberal baseline)

	Conservative	NDP	BQ	Green	Other
Done For Racial Minorities	−0.29*** (0.05)	−0.03 (0.05)	0.01 (0.09)	−0.27** (0.09)	−0.29 (0.15)
2019/2021 indicator	0.36 (0.23)	−0.48 (0.25)	1.49*** (0.43)	−0.87 (0.40)	2.48*** (0.58)
Thermometer x 2019/2021	−0.21** (0.07)	0.11 (0.06)	−0.39*** (0.11)	0.18 (0.11)	−0.42* (0.17)
Income	0.05 (0.02)	−0.08** (0.02)	0.02 (0.05)	−0.01 (0.04)	−0.03 (0.06)
Education	−0.08*** (0.02)	−0.05** (0.02)	−0.10*** (0.03)	0.01 (0.03)	−0.06 (0.04)
Age	0.00 (0.00)	−0.01*** (0.00)	0.01 (0.00)	−0.01 (0.00)	−0.02*** (0.00)
Gender (female)	−0.01 (0.06)	0.18** (0.06)	−0.10 (0.32)	−0.05 (0.11)	−0.11 (0.14)
Quebec indicator	0.07 (0.09)	−0.36*** (0.08)	20.63*** (2.66)	−0.30* (0.15)	0.47** (0.18)
Liberal Party ID (baseline)	—	—	—	—	—
Conservative Party ID	4.64*** (0.08)	1.58*** (0.10)	2.97*** (0.19)	1.66*** (0.18)	3.58*** (0.19)
NDP Party ID	1.20*** (0.12)	3.45*** (0.07)	2.09*** (0.20)	1.56*** (0.16)	1.91*** (0.26)
BQ Party ID	2.36*** (0.21)	2.16*** (0.21)	5.36*** (0.18)	0.90 (0.68)	2.94*** (0.38)
Green Party ID	1.69*** (0.22)	2.01*** (0.16)	2.46*** (0.32)	4.58*** (0.16)	2.90*** (0.33)
Constant	−0.51 (0.26)	−0.49 (0.27)	−22.43*** (2.70)	−1.85*** (0.45)	−3.00*** (0.70)
Observations	23,048	23,048	23,048	23,048	23,048

Note: Entries are logistic regression coefficients with standard errors in parentheses

* p<0.05, ** p<0.01, *** p<0.001