

# Beyond Culture: Geographic Relocation and Social Trust across Canada

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## **Abstract**

Residents of Quebec—a Catholic, French-speaking province of Canada—display systematically lower levels of social trust than citizens from other Canadian provinces. Over the years, historians and sociologists have attributed Quebec’s deficit in social trust to the province’s unique cultural background, but these claims have not yet been empirically validated at the individual level. Using data from the 2003 and 2008 Canadian General Social Survey, I test whether discrepancies in social trust across Canada emanate from deeply rooted cultural characteristics, or if they are rather strictly contextual. Using a nearest neighbor matching design ( $n = 2,520$ ), I measure the effect of geographically relocating within the other linguistic group (French-speaking Quebec or English-speaking Canada) on Canadians’ levels of social trust. Results suggest that context matters most in explaining patterns in social capital within Canada. Indeed, expatriates’ social trust levels adapt to their new environment: Quebec natives living in the Rest of Canada display significantly higher trust levels than those residing in Quebec, while the exact opposite trend is observable for English-Canadian natives who moved to Quebec.

# 1 Introduction

On the night of March 14, 2017, hundreds of motorists remained stranded on Montreal’s Highway 13, stuck in the middle of a heavy snowstorm. Countless 911 calls were reported—yet due to successive decisional failures, Quebec’s transport authorities remained inactive during more than twelve hours, leaving entire families freezing in their vehicle overnight. In the aftermath of the blizzard, the Director of McGill’s Institute for the Study of Canada described the Quebec government’s gaffe as symptomatic of an “almost pathologically alienated and low-trust society, deficient in many of the most basic forms of social capital that other Canadians take for granted” (Potter, 2017). This declaration sparked outrage within the province, resulting in its author’s resignation. Yet, accumulating evidence indeed suggests that Quebecers display alarmingly low levels of social trust compared with their counterparts from the rest of Canada (Canadian Social General Survey 2003, 2008 and 2013; World Value Survey 2010-2014).

Over the years, two potential explanations have been offered to account for Quebec’s relative deficit in social trust within Canada. A first wave of scholars have focused on the role played cultural macro-level explanatory factors like language, history or religion in the Canadian context (Côté, 2002; Kazemipur, 2006), echoing Johnston and Soroka’s (2001, 80) claim that social capital is primarily a cultural attribute. A second wave of scholarly work from across the globe has rather suggested that individual variations in social trust could be explained by strictly contextual factors, for instance interpersonal contact with diversity (Kesler and Bloemraad, 2010; Dinesen and Sønderskov, 2015). The present paper builds on these contributions by testing the explanatory power of both the cultural and the contextual hypotheses in accounting for discrepancies in social trust between Quebec and the Rest of Canada (ROC). Using nearest neighbor matching techniques, I test whether individuals who move to the other national linguistic group (French-speaking Quebec or the English-speaking ROC) maintain stable social trust levels—cultural thesis—or rather adapt to their new cultural environment—contextual thesis. Results obtained via ordinary least squares regression and confirmed via falsification tests suggest that context matters most in explaining patterns in social capital across Canada.

## 2 A Social Form of Capital

Over the past decades, social capital has become one of the most well-known concepts in contemporary political science, leading to the development of a rich literature on the deter-

minants and consequences of social capital across time (Rahn and Transue, 1995; Putnam, 2001, Stolle and Hooghe, 2005) and space (Putnam, 1993; Helliwell and Putnam, 1995; Knack and Keefer, 1997; Temple, 2002). The first contemporary definition of this concept has been provided by sociologist Pierre Bourdieu, who describes social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintances or recognition” (1985, 248). Thus, for Bourdieu, social capital, in contrast with economic and cultural capital, is the product of the size of one’s mobilizable network and the volume of all forms of capital owned by one’s network members (*ibid.*). It is therefore an inherently impalpable concept—which can nonetheless have considerable and long-standing consequences for social groups. Indeed, Bourdieu argues that social capital emanates from purely rational individual or collective investment strategies, but ultimately grows to generate individual and institutional solidarity within societies. Within the field of sociology, Loury (1977, 1981) and Coleman (1988) have also significantly contributed to the development of this concept, likewise with a focus on the social and economic opportunities that citizens derive from social capital, either for consummatory motives—via direct benefits—or instrumental motives—via norms of reciprocity (see also Portes, 1998, 7).

In political science, the most well-known approach to social capital can be found in Robert Putnam’s seminal work. In *Making Democracy Work* (1993), which studies the differences in political culture across newly created regional governments in Italy, Putnam argues that social capital—defined as the sum of trust, networks and norms of reciprocity—can account both for institutional performance and democratic health. A few years later, in *Bowling Alone*, which examines the progressive decline of social capital within the United States since the 1960s, Putnam further defines social capital as the product of “connections among individuals—social networks and the norms of reciprocity and trustworthiness that arise from them” (2001, 19), diverging from sociologists’ focus on individual rational calculus and rather conceiving social capital as a measure of communal health. In the American context, he concludes that citizens’ civic disengagement is first and foremost due to generational changes—the decline of the “civic generation”—and contextual factors like changes in family structure, suburban sprawl and the rise of electronic entertainment. Ultimately, this decline has negative repercussions on society, as social capital is argued to be positively correlated with children welfare, secure neighborhoods, democracy, health and happiness<sup>1</sup>. However, this work has been criticized for conceptualizing social capital as exogenous to its reported

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<sup>1</sup>Fukuyama (2001) also highlights the existence of negative externalities linked with high levels of social capital, as solidarity within certain groups can sometimes translate into hostility towards other groups.

consequences, rather than as a self-reinforcing phenomenon<sup>2</sup> (Jackman and Miller, 1998).

## 2.1 Determinants of Social Trust: Two Schools of Thought

The present paper focuses on one specific indicator of social capital as defined by Putnam—*social trust*—to understand Quebec’s exceptionalism within Canada, which constitutes a unique case as a multinational country with high internal social trust variations. Indeed, over the years, various authors have taken note of Quebec’s shortage of social trust relatively to the rest of the country. Thus, in his research on trust and diversity across Canadian cities, Kazemipur highlights that “trust levels are alarmingly low for cities in the province of Quebec” (2006, 220). Moreover, while diversity is usually associated with greater social capital in the country—a “Canadian exceptionalism” also highlighted by Johnston and Soroka (2001)—Quebec’s metropolis, Montreal, represents a puzzling case as a high-diversity and low-trust city (Kazemipur, 2006). Data from the 2003 and 2008 Social General Survey illustrates this general trend. **Figure 1** presents the average score on indicators of social trust for respondents living in the Rest of Canada and in Quebec, with Quebec residents reporting systematically lower levels of trust than their counterparts from the rest of the country. This has important implications for democratic health, as scholars have noted that trusting individuals have higher levels of formal and informal political involvement (Brehm and Rahn 1997; Claibourn and Martin 2000). In this section, I discuss the contributions of two major schools of thought—the cultural and the contextual approaches—for the understanding of Quebec’s deficit in social trust.

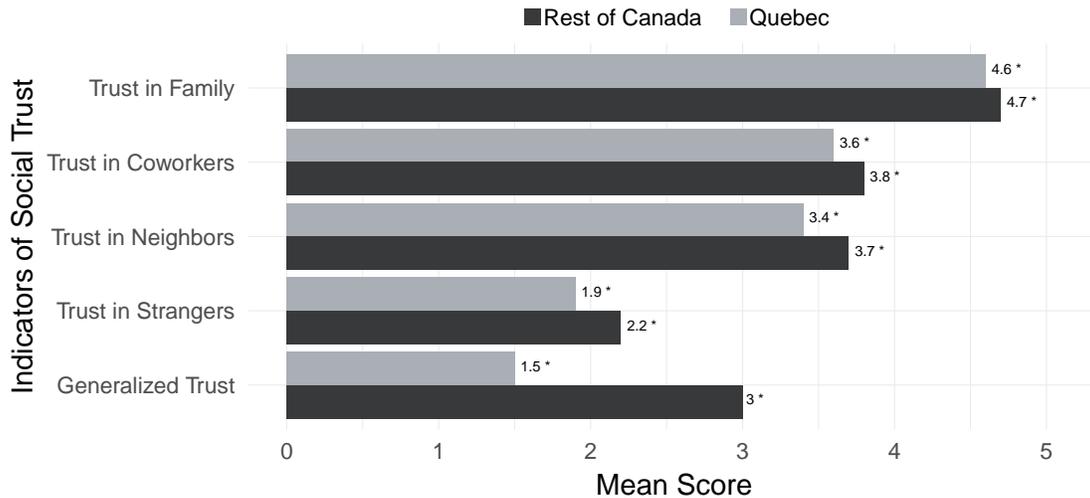
### 2.1.1 Cultural Approach: Language, Catholicism and Welfare

For a first stream of authors, whose work build largely on Almond and Verba’s (1963) *Civic Culture*, social capital and culture go hand in hand, with some nations showing higher levels of interpersonal trust than others due to their shared set of intrinsic values. Similarly, for Putnam (1993), the efficiency of Italian regional governments can be traced back to hundreds of years, with “the impact of experience on behavior [being] affected by norms passed across generations through early socialization” (Jackman and Miller, 1998, 52). Comparable claims have also been formulated by Sturgis et al. (2010), who argue that genetics matters more than environmental factors in explaining trust levels of Australian monozygotic and dizygotic twins. Building on this literature, this section exposes three different cultural factors which

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<sup>2</sup>“Thus, the structure of the situation (i.e. the large long-term costs associated with a short-term breach of trust) creates incentives for individuals to be trustworthy” (Jackman and Miller, 1998, 53).

**Figure 1:** Indicators of Social Trust by Region of Residence



*Source:* 2003 and 2008 Canadian General Social Survey.

*Note:* N = 45,362 respondents. The aggregate binary generalized trust score was multiplied by 5 to allow for comparison with aggregate group trust indicators.

could potentially account for Quebec’s exceptionalism regarding social trust.

A first commonly held hypothesis for Quebec’s social capital deficit lies within its distinct status as a linguistic minority. Indeed, as a small French-speaking society that has struggled to preserve its identity since the British Conquest of 1759, Quebecers’ low levels of social capital could be the simple consequence of their minority status within Canada. During the eighteenth and nineteenth centuries, various policies were unsuccessfully introduced to weaken subnational attachment levels within the French-Canadian minority, among others through linguistic assimilation. Even today, despite Quebecers’ success in preserving their cultural heritage, studies have shown that Quebec citizens tend to interpret their national history as an humiliating succession of subservience and missed opportunities (Létourneau, 2014). Interestingly, lower levels of social capital are also observable in other groups that have been historically disadvantaged or discriminated against, like African Americans in the United States (Kawachi et al., 1997).

Multiple authors have acknowledged that religious affiliation is a strong—if not the single strongest—determinant of social capital (Putnam, 2001, 74; Alesina and La Ferrara, 2000). Consequently, a second potential explanation for Quebec’s low levels of social capital is the prevalence of the Catholic faith in the province. Indeed, research has suggested that Catholicism is generally linked with lower levels of trust across the globe, but the reasons

underlying this phenomenon remain unclear. Some have suggested that Catholics' strong traditional values might be at play (Inglehart and Baker, 2000, 29). Others have argued that the strong hierarchical structure of the Catholic Church (Putnam, 1993, 173-175) and its dogmatic characteristics (Van Deth and Scarbrough, 1995, 529) could be a deterrent for social capital. Overall, however, research on the micro effects of Catholicism provide inconsistent findings (Lasinska, 2013, 101).

Third, since Quebec's *Quiet Revolution* in the 1960s, the province clearly "stands out from the other large provinces as considerably more equitable" within Canada in terms of social services (Barrington-Leigh, 2013, 21). Could Quebecers' active efforts towards developing a less hierarchical society modify the nature of their social capital, and thus explain their deficit in traditional forms of trust? Indeed, previous research has suggested that welfare states limit incentives to voluntarily associate to follow norms of reciprocity (Boli, 1991; Kumlin and Rothstein, 2005). Consequently, for Fukuyama, government involvement should remain limited, as

states can have a serious negative impact on social capital when they start to undertake activities that are better left to the private sector or to civil society. The ability to co-operate is based on habit and practice; if the state gets into the business of organizing everything, people will become dependent on it and lose their spontaneous ability to work with one another (2001, 18).

This claim remains nonetheless disputed within the literature, with some authors arguing that it is rather the decline of welfare states that generates insurmountable tensions between social capital and the neoliberal agenda, the latter having the effect of substantially reducing solidarity by increasing inequalities (Ferragina, 2010, 2012). All in all, however, being protected by the state from the cradle to the grave might shift social expectations towards institutions rather than towards fellow individuals. This third explanation could account for the province's difference on the grounds that Quebecers might not have less social capital than other Canadians, but rather other forms of social capital, which are deeply linked with the characteristics of welfare states.

### **2.1.2 Contextual Approach: Interpersonal Contacts**

Another important stream of the literature has rather made a contextual—or environmental—case to account for individual variations in social trust, mostly across geographical units. For instance, Marchall and Stolle's (2004) study of generalized trust patterns across the city of Detroit demonstrates that predictors of trust within a given neighborhood vary for White and Black respondents, hinting at the existence of concurrent contextual and cultural effects. Their findings suggest that community context matters most for African Americans

when explaining generalized trust. Additional work has looked more precisely at patterns between interpersonal contact with diversity and social trust, with ambiguous results. For instance, in their study of residential exposure to ethnic diversity in Denmark, Dinesen and Sønderskov (2015) have suggested that interethnic exposure had negative effects on social trust at the micro level. However, using cross-sectional times-series data, Kesler and Bloemraad (2010) argue that while immigration can indeed be negatively correlated with social trust, institutional arrangements can moderate this relationship—with accommodationist policies attenuating or even reversing this effect.

In Canada, studies on the relevance of the contextual argument have mostly focused on the explanatory power of contact with diversity to account for social trust, yet have tended to disprove that there exists a significant negative relationship between both variables. Indeed, Johnston and Soroka (2001, 13) have argued that “the context that matters in the Canadian case is not the ethnic diversity of a province so much as the history of the whole country”. Similarly, the study of Canadian cities shows a surprisingly positive correlation between ethnic diversity and social trust across the country, with the exception of Montreal—a highly diverse, yet low-trust city (Kazemipur, 2006). While these authors provide precious insights on patterns of social capital within Canada, it remains unclear which precise environmental characteristic could account for Quebec’s exceptionalism if the contextual theory holds true. Consequently, the present paper adopts a general identification strategy without isolating precise contextual variables, rather focusing on geographical boundaries across linguistic groups<sup>3</sup>.

### 3 Data and Method

Data emanates from the 2003 and the 2008 General Social Survey (GSS) by Statistics Canada, which has a total of 45,362 respondents from all provinces, weighted to reflect the overall sociodemographic composition of the Canadian population. Using Putnam’s (2000, 19) definition of social capital as the product of “connections among individuals”, I concentrate on one of these connections: social trust. Thus, for each respondent, a social trust score<sup>4</sup> was generated using the following indicators: trust in strangers<sup>5</sup>, trust in neighbors,

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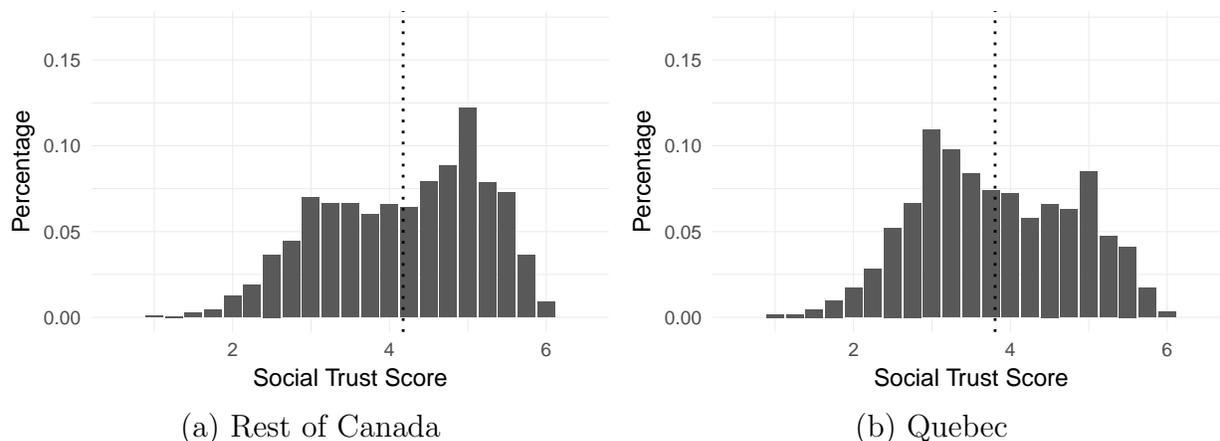
<sup>3</sup>Using the geographical boundaries of the province of Quebec to distinguish linguistic groups makes intuitive sense, as Quebec is recognized as a distinct *region* within Canada, with “its homogeneity being all the more evident as its territory has been occupied and shaped by a society whose language, culture and institutions are unique in North America” (Desrosiers et al., 1988, 34).

<sup>4</sup>A factorial analysis of this social trust scale is presented in **Figure 7** (Appendix).

<sup>5</sup>Using a scale of 1 to 5 where 1 means “Cannot be trusted at all” and 5 means “Can be trusted a lot”, how much do you trust each of the following groups of people? (A) Strangers, (B) Neighbors, (C) Coworkers,

trust in coworkers, trust in family, and generalized trust<sup>6</sup>. **Figure 2** depicts the distribution of social trust scores for respondents living in the Rest of Canada and in Quebec, the latter being significantly lower than the former ( $p < 0.01$ ).

**Figure 2:** Social Trust Score by Region of Residence



*Source:* 2003 and 2008 Canadian General Social Survey.

*Note:*  $N = 45,362$  respondents. The dotted vertical line depicts the average score for respondents from each region (4.20 for the Rest of Canada, with a 1.00 standard deviation, and 3.75 for Quebec, with a 1.02 standard deviation). Scores are from 1 (lowest social trust) to 6 (highest social trust). Scale is composed of a 5 point average for trust towards strangers, neighbors, coworkers and family, as well as of an additional 1 point for generalized trust.

### 3.1 Identification Strategy

The main explanatory variable—the *treatment*—consists in moving to the other national linguistic group during one’s lifetime. Treated respondents are (1) individuals born in Quebec who reside in any other Canadian province at the time of the survey or (2) individuals born in the Rest of Canada who reside in Quebec at the time of the survey. Consequently, ROC respondents who reside in a different English-Canadian province than their province of birth are not considered as treated individuals. Moreover, individuals who were born outside of Canada are excluded from this analysis.

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(D) Family Members.

<sup>6</sup>Generally speaking, would you say that most people can be trusted or that you cannot be too careful in dealing with people?

Using a nearest neighbor matching design, I measure the effect of moving to the other main Canadian linguistic group on respondents' levels of social trust when compared with similar individuals who remained in their region of birth ( $N = 2,520$ ). A major threat to causal inference when using moving as a treatment is self-selection bias, since we would expect treated individuals to have different socioeconomic characteristics than the rest of the Canadian population—among others, regarding their economic status. The main advantage of matching is the removal of all imbalances on such covariates. **Table 1** presents the variable balance by treatment status after matching. Matching significantly reduces imbalances for the dependent variable (social trust score) and the covariates (education, age, sex, income, urbanity, being born in Quebec, being Catholic and being a French speaker). In the unmatched dataset, significant imbalance could be observed for the level of education (positively associated with moving), age (positively associated with moving), being a French speaker (positively associated with moving), being born in Quebec (positively associated with moving), and being female (negatively associated with moving)<sup>7</sup>.

**Table 1:** Variable Balance by Treatment Condition After Matching

	Unit of Analysis	Treat. Mean	Control Mean	St. Difference
Education	Type of Degree (1-5)	3.848	3.749	-0.073
Age	10 years (1-7)	3.217	3.131	-0.067
Female	Binary	0.471	0.476	0.011
Income	10 000\$ (1-12)	9.024	8.590	-0.182
Urban	Binary	0.902	0.886	-0.040
Born in Quebec	Binary	0.433	0.432	-0.004
Catholic	Binary	0.456	0.544	0.180
French Speaker	Binary	0.322	0.321	-0.002

*Source:* 2003 and 2008 Canadian General Social Survey.

*Note:*  $N = 2,520$  matched respondents.

<sup>7</sup>Variable balance by treatment condition before matching is presented in **Table 4**

## 3.2 Theoretical Model

Results are obtained using multivariate regression analysis. The theoretical model is as follows:

$$y_n = \alpha_n + \beta_n + \alpha_n * \beta_n + \tau_n + \lambda_n + \mu$$

where  $y_n$  is the individual score on a social capital scale for respondent  $n$ ,  $\alpha_n$  is a dummy variable for respondent  $n$  being born in Quebec (versus in the Rest of Canada),  $\beta_n$  is a dummy variable for having moved to the other linguistic group (treatment),  $\alpha_n * \beta_n$  is an interaction term between birth region and treatment,  $\tau_n$  is the year of the survey response (2003 or 2008),  $\lambda_n$  is respondent  $n$ 's sociodemographic profile (education, age, gender, urbanity<sup>8</sup> and income) and  $\mu$  is the error term. I hypothesize that Canadians adapt to their new region of residence after geographically relocating—either within Quebec or the Rest of Canada—leading to the expectation of a positive interaction effect for Quebecers who moved within the English-speaking majority, in contrast with a negative relationship for ROC-born residents who moved to Quebec.

## 4 Analysis

Did respondents who moved to the other linguistic group adapt to the level of social trust of their new surroundings, or did intrinsic cultural characteristic lead to stable levels of social trust despite geographically relocating? Evidence from individual survey data supports the first hypothesis, confirming the contextual approach to social trust in the Canadian case. Interestingly, while trust scores from respondents who moved to another linguistic group were slightly more negatively skewed than their counterparts before matching, nearest neighbor matching generated highly comparable trust distributions across treated and non-treated respondents. However, despite these baseline similarities, regression analysis results show that social trust varies as a function of birth region and moving status, with treated individuals adapting to social trust patterns of their new environment.

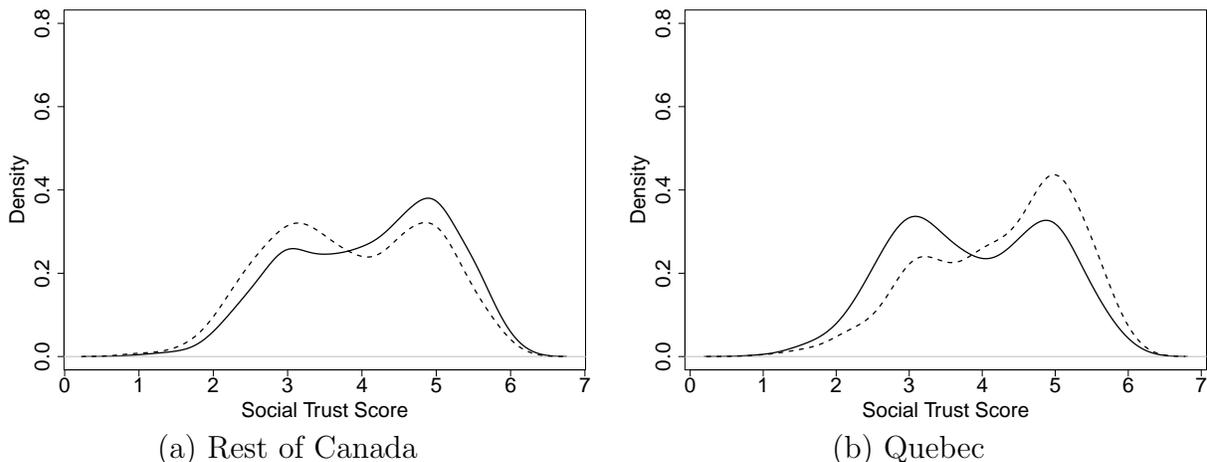
Robustness checks are also presented to confirm the reliability of these findings. Indeed, the 2003 General Social Survey includes a question on the *timing* of respondents' moving occurrence within their lifetime, allowing for a closer look into the causal mechanism at play. Moreover, the existence of an intermediate treatment category—moving across provinces, but

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<sup>8</sup>Previous research suggests that population size is negatively correlated with social capital (Putnam, 2000—see also Kazemipur, 2006 for an application of this theory in the Canadian context), which justifies including it in the model.

within one’s own linguistic group—allows for placebo testing, ensuring that the observed results are related to moving to the other linguistic group rather than to simply geographically relocating *anywhere* across Canada. Thus, falsification tests were conducted on respondents who moved to the other linguistic group strictly when they were 15 years old or older, as well as on respondents who switched provinces within their own linguistic group. Both analyses confirm the robustness of our findings.

**Figure 3:** Social Trust Score by Region of Birth and Treatment Condition



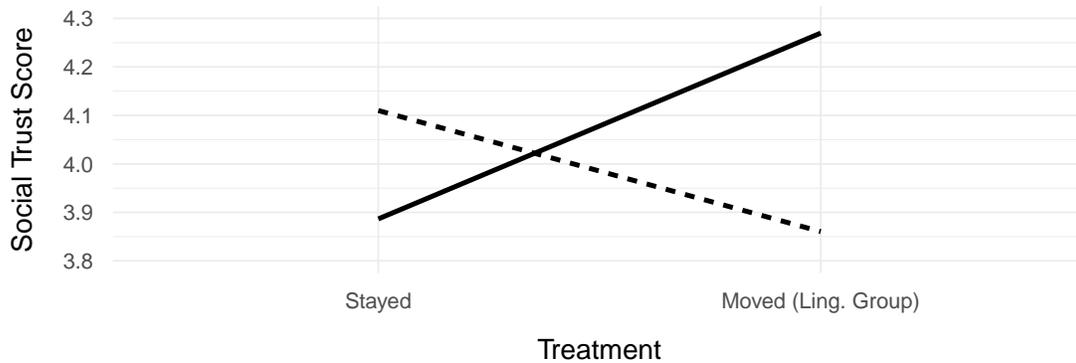
*Source:* 2003 and 2008 Canadian General Social Survey.

*Note:* N = 2,250 matched respondents. The dotted line represents the density of social trust scores for individuals who relocated within the other linguistic group, while the full line represents scores of respondents who stayed within their region of birth.

#### 4.1 Estimating the Dual Effect of Geographical Relocation on Social Trust

Straightaway, preliminary descriptive evidence suggests the relevance of the contextual hypothesis in accounting for social trust variations across the country. Indeed, **Figure 3** and **Figure 4** display the existence of an interaction effect between moving and one’s native region relative to social trust—both evident for trust score density distribution (**Figure 3**) and groups’ respective trust score mean (**Figure 4**)—without controlling for other variables. Quebec natives living in the Rest of Canada display significantly higher levels of social trust than those who stayed in Quebec, while the exact opposite trend is observable for English-

**Figure 4:** Interaction Effect between Region of Birth and Treatment Condition



*Source:* 2003 and 2008 Canadian General Social Survey.

*Note:*  $N = 2,250$  matched respondents. The dotted diagonal line represents respondents born in the ROC, while the full diagonal line represents respondents born in Quebec. T-tests confirm the existence of a statistically significant difference ( $p < 0.01$ ) between social trust scores of ROC-born citizens and Quebec-born citizens within each condition.

Canadian natives living in Quebec ( $p < 0.01$ ). If the cultural hypothesis was true, we would expect expatriates to maintain levels of social trust similar to that of their counterparts who stayed within their birth region. Contrarily, here, average scores within both conditions are comparable for region of birth and region of residence, suggesting an environmental adaptation phenomenon.

The full regression model with covariates is presented in **Table 2**. Results confirm the descriptive evidence of a significant interaction between the treatment and individuals' native region. These findings suggest an overall positive effect of moving to the other culture on social trust for Quebec-born residents (with a 0.29 social trust score increase on average<sup>9</sup>—see Model 3), while this relationship is negative for ROC-born citizens (with a 0.28 social trust score decrease on average—see Model 3). As expected, being born in Quebec is negatively correlated with levels of social trust, with an average 0.27 social trust score decrease. Results also reveal that while education, age and income are significantly correlated with higher levels of social trust, Catholic respondents have lower social trust scores on average—even when controlling for language and being born in Quebec. Also, interestingly, respondents from the 2008 General Social Survey display significantly lower levels of social trust than their counterparts from the 2003 survey, suggesting an overall decline in trust levels in Canada

<sup>9</sup>Additionning the baseline effect for being born in Quebec with the interaction term.

**Table 2:** Determinants of Social Trust Score

	Model 1	Model 2	Model 3
(Intercept)	4.11*** (0.04)	3.24*** (0.16)	3.31*** (0.16)
Born in Quebec	-0.22*** (0.06)	-0.31*** (0.06)	-0.27*** (0.06)
Moved (Ling. Group)	-0.25*** (0.06)	-0.29*** (0.05)	-0.28*** (0.05)
Born in Quebec * Moved (Ling. Group)	0.63*** (0.08)	0.61*** (0.08)	0.56*** (0.08)
Education		0.11*** (0.02)	0.11*** (0.02)
Age		0.07*** (0.02)	0.08*** (0.02)
Female		0.01 (0.04)	0.02 (0.04)
Income		0.06*** (0.01)	0.06*** (0.01)
Urban		-0.06 (0.07)	-0.08 (0.07)
2008		-0.39*** (0.04)	-0.39*** (0.04)
French Speaker			-0.03 (0.05)
Catholic			-0.13*** (0.04)
R <sup>2</sup>	0.02	0.11	0.11
Adj. R <sup>2</sup>	0.02	0.10	0.11
Num. obs.	2520	2520	2520
RMSE	1.04	1.00	1.00

\*\*\* $p < 0.01$ , \*\* $p < 0.05$ , \* $p < 0.1$

over time.

## 4.2 Testing for Omitted Variable Bias: Two Falsification Tests

These findings suggest that Quebecers might not be *inherently* low-trust, but rather that their overall deficit in this form of social capital could be due to—or reinforced by—merely contextual factors. To ensure that these results are not due to omitted variable bias, falsification tests were conducted to confirm the findings’ robustness when varying the strength of treatment (moving to Quebec as a child versus later in one’s life) and the nature of treatment (moving to another province versus to another linguistic group). Both tests successfully support our findings.

### 4.2.1 Strength of Treatment

A first potential confounder lies in the fact that we ignore how long respondents have lived in their native culture before moving to the other linguistic group, which suggests significant heterogeneity in the strength of the “moving” treatment. Thus far, the reported causal relationship is therefore an intent-to-treat effect, based on assignment to treatment rather than on its actual reception, which includes respondents who moved to the other linguistic group as infants.

**Table 3:** Determinants of Social Trust Score (Moved After 15 Years Old)

	Estimate	Std. Error	t value	Pr(> t )
(Intercept)	3.7729	0.2418	15.60	0.0000
Born in Quebec	-0.2296	0.1270	-1.81	0.0712
Moved (Ling. Group)	-0.3998***	0.1069	-3.74	0.0002
Born in Quebec * Moved (Ling. Group)	0.5891***	0.1813	3.25	0.0012
Sociodemographic Controls	X	X	X	X

*Source:* 2003 Canadian General Social Survey.

*Note:* N = 574 matched respondents.

Consequently, while the findings presented in **Table 2** are likely underestimating the actual effect of moving on social trust in the Canadian context, the 2003 survey questionnaire allows for a more detailed identification strategy targeting respondents who didn’t move neighborhoods until they were 15 years old<sup>10</sup>. Thus, **Table 3** displays the estimated effect of moving to the other linguistic group only after age 15, indicating a stronger initial “moving”

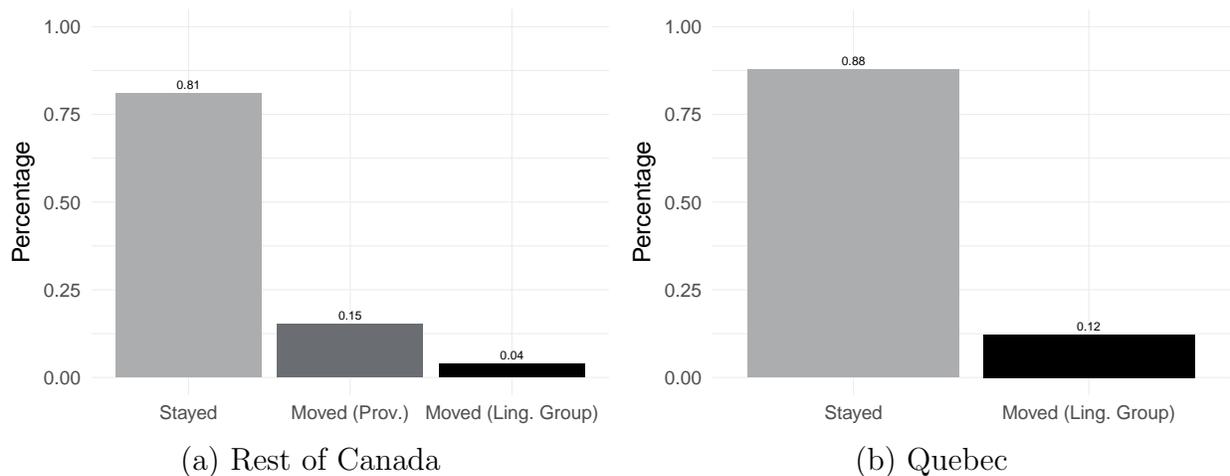
<sup>10</sup>Up to the age of 15, how many times did you move from one neighborhood to another?

treatment than when including respondents who moved before their initial cultural identity had formed. As expected, results confirm the existence of an even stronger interaction effect between region of birth and treatment than in the original model.

#### 4.2.2 Nature of Treatment

Another potential confounder to our model is the following: is the reported effect simply due to moving, or rather to actually relocating within another linguistic group? **Figure 5** presents the distribution of survey respondents by these different treatment conditions in the unmatched dataset. Using a placebo treatment for respondents from the Rest of Canada—*moving to another province within one’s own linguistic group*<sup>11</sup>—allows for comparison between both types of treatment. If results were strictly due to the effects of moving, we should observe a negative effect of geographical relocation for ROC-born individuals, regardless of moving destination.

**Figure 5:** Moving Status by Region of Birth

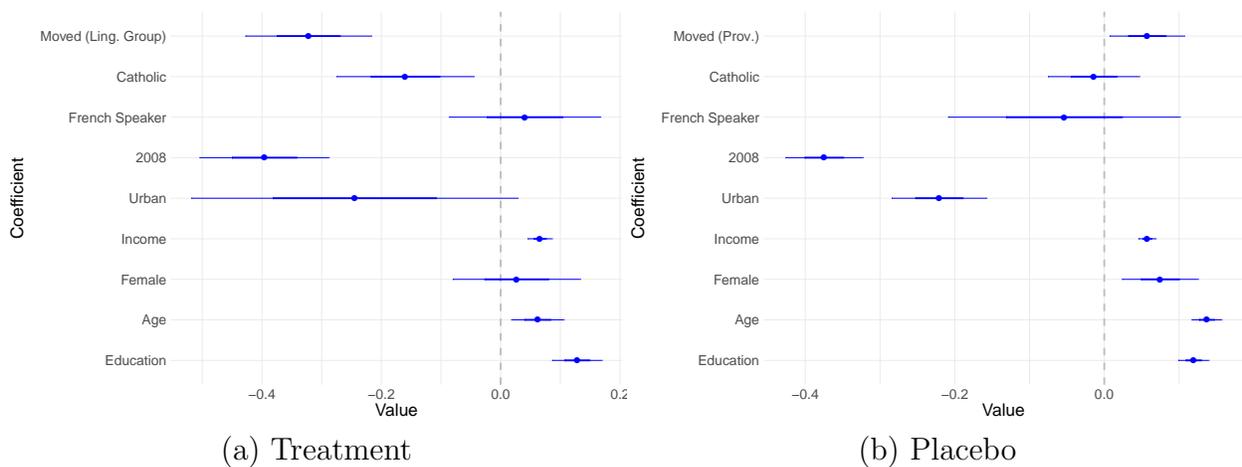


*Source:* 2003 and 2008 Canadian General Social Survey.  
*Note:* N = 45,362 respondents (before matching).

<sup>11</sup>Since Quebecers automatically move to the other linguistic group when they leave their province, only ROC-born respondents are included in this analysis.

**Figure 6** depicts regression coefficients obtained in each condition, with nearest neighbor matching for each respective treatment. As expected, results show that moving to the other linguistic group has a distinct negative effect on social trust score, while moving to another province within one’s linguistic group is rather positively correlated with social trust. These findings confirm that the observed results presented in **Table 2** are not due to each groups’ distinct reaction to geographical relocation, but rather to movers’ contextual adaptation to their new cultural environment.

**Figure 6:** Determinants of Social Trust in the Rest of Canada (Treatment and Placebo)



*Source:* 2003 and 2008 Canadian General Social Survey.  
*Note:* N = 23,630 matched respondents (born in the Rest of Canada).

## 5 Conclusion

Quebec’s deficit in social capital has recently been brought into the public debate following the controversy surrounding important governmental mishaps in March 2017. However, until now, most hypotheses on the underlying causes of this unique phenomenon had not been empirically tested using individual survey data. The present article thus seeks to contribute to the scholarly literature on social capital by testing two different explanations for the low levels of social capital within the province of Quebec: the cultural approach and the contextual approach. Using nearest neighbor matching techniques, I find that context

matters most in explaining the unique patterns in social capital across Canada. Indeed, results from regression analyses and falsification tests show that relocating within the other linguistic group is a significant predictor of social trust, disproving the hypothesis that Quebecers have *inherently* low-trust attitudes due to their cultural background. More precisely, for individuals born in Quebec, relocating within the Rest of Canada significantly increases social trust scores, while the opposite effect is observable for ROC-natives relocating within Quebec.

A few important nuances to these findings are discussed below. First, one could suggest that underlying differences persist between Quebec-born and ROC-born expatriates, which can't be properly assessed using our observed covariates. On the one hand, French speakers' decision to move to the English-majority culture could be predominantly driven by economic incentives, which might not be the case for English Canadians moving to Quebec. On the other hand, Quebec expatriates might self-select into specific locations across Canada, which could also explain some of these findings. All in all, we can't ensure that the ignorability assumption holds for these unobserved covariates, and further research will be needed to reject such alternative hypotheses. Second, and most importantly perhaps, this study does not identify the exact contextual factors at play in explaining the striking social trust differences between Quebec and the Rest of Canada. Thus, in the next steps of this research, I intend to include further contextual covariates to verify if the sources of these discrepancies can be singled out by analyzing provincial-level differences across Canada. Future iterations of this project will also include data from 2013 Canadian General Social Survey.

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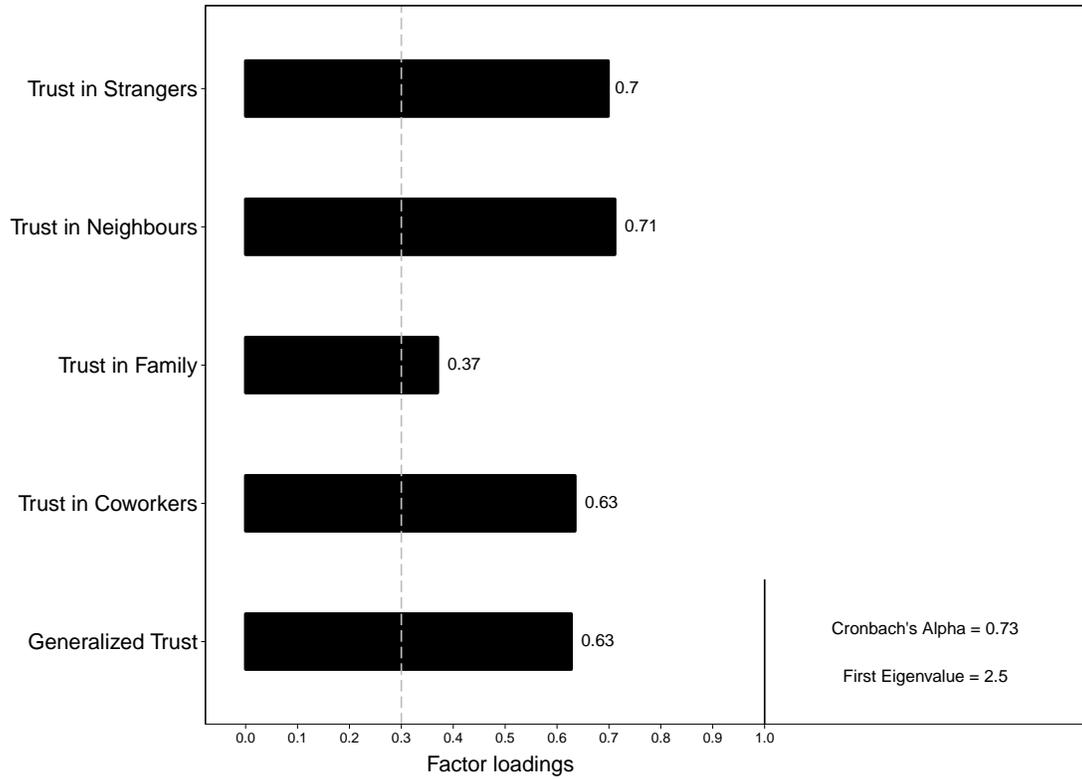
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## 7 Appendix

**Figure 7:** Factorial Analysis of Social Trust Scale



*Source:* 2003 and 2008 Canadian General Social Survey.

*Note:* N = 2,520 matched respondents.

**Table 4:** Variable Balance by Treatment Condition Before Matching

	Unit of Analysis	Treat. Mean	Control Mean	St. Difference
Education	Type of Degree (1-5)	3.804	3.485	-0.243
Age	10 years (1-7)	3.243	3.041	-0.162
Female	Binary	0.461	0.501	0.081
Income	10 000\$	8.776	8.939	0.068
Urban	Binary	0.905	0.800	-0.266
Born in Quebec	Binary	0.420	0.198	-0.543
Catholic	Binary	0.462	0.399	-0.129
French Speaker	Binary	0.343	0.216	-0.305

*Source:* 2003 and 2008 Canadian General Social Survey.

*Note:* N = 45,362 respondents (before matching).