Temperament and Tolerance:
Reconsidering 'Region' in Canadian Political Cultures

(Abridged)

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METHODOLOGY AND REVIEW

The 2015 Canada Election Study (CES) features ten (10) incisive psychological questions that measure personal temperament and character, such as openness, extraversion, and anxiousness. Respondents are asked to rank each of the ten traits on a scale from 1-7, with seven (7) indicating that the trait in question describes the subject "extremely well" (CES WEB Codebook, 2015). In this article I explore how these traits correlate with normative ideological positions. Specifically, these are: favourability toward immigrants (from 1-99) and racial minorities (1-99). These variables have been employed previously in the literature as credible indicators of—or integral aspects of— general political orientations or political cultures (Soroka, et al., 2013; Soroka & Robertson, 2010; Olsen, 2011). In the interest of methodological transparency and disclosure, and on the advice of Weslsey (2014), the entirely of my working dataset can be viewed and audited from their source (CES Surveys, 2015 CES). Given the statistical nature of the inquiry, no qualitative inferences or process tracing will be supplied.

I will observe how these personality types are distributed across Canada based on the respondent's self-reported province or territory of residency. This way, I can find out if there are personality or '*temperament regions*' across the country, and if they correspond with other territorial political cultures identified in the literature (Nelson, 2007: 23-27; Henderson, 2010: 484; Bilodeau, Turgeon, & Karakoc, 2012: 579). To this end, I will explore whether there are provinces or territories with significantly disproportionate (sig.<0.05) distributions of respondents who report the *maximal* expression of each trait (i.e. [7]). Only maximal trait expressions are accounted for in this study in the interest of methodological parsimony. Within the existing literature, there is no published research that yet resembles this design—this presents a unique opportunity to uncover a new dimension of Canadian regional political cultures as well

as their ideological precursors. I intend to situate my research within the existing bodies of scholarship on political psychology and behaviour by adding to a burgeoning theoretical trend which suggests that aspects of the individual serve as the micro-foundation of ideology formation, localized social systems, and, more broadly, political cultures (Bouchard & McGue, 2003; Hatemi et al., 2009; Settle, Dawes, & Fowler, 2009).

Cross-tabs are utilised to display correlation and statistical significance across variables (Pearson's R and chi-squared; 2-sided sig test; ANOVA and *F*-test). The data will then be visualised and compared with the help of simple graphs and tables in order to assist the reader with understanding the significance of the values in an expedient manner. The metrics used to gauge personality are those ten (10) traits measured in the 2015 CES:

1) Extraverted, enthusiastic
2) Critical, quarrelsome
3) Dependable, self-disciplined
4) Anxious, easily upset
5) Open to new experiences, complex
6) Reserved, quiet
7) Sympathetic, warm
8) Disorganized, carless
9) Calm, emotionally stable
10) Conventional, uncreative

Using cross-tabs, the reader can then observe the geographical differences, whether or not these differences are distributed disproportionately, and to what extent they may or may not transcend territorial-provincial boundaries. Depending on the result, this may either reinforce or detract from the legitimacy of provincial-level units of analysis as a locus of regional study (i.e. the *individual*, or the *ideological*, units may offer more insight into, or consistency between, regional politico-cultural cleavages). For further reading on a research design of a similar nature, see

Rentfrow (2013) and his work on the social psychology of three distinct political regions of the United States.

I will operate under the following null hypothesis (H_0): there is no non-random relationship between both *personality and general political orientation* as well as *personality and territorial regions*. Thus, the alternative hypothesis (H_A) asserts that certain personality types are, in fact, indicators of political orientations, and are non-randomly distributed across geographical space. The preliminary level of significance (alpha, or α-value) is $p \leq 0.05$, meaning if the *p*-value—the probability of obtaining an effect that supports H_0—is *less than* alpha (5%, two-tailed), then we can reject the null hypothesis and infer, with a high degree of confidence (>95%), that the relationship described by H_A is present. Furthermore, a secondary null hypothesis (H_β) will hold that *no* statistically significant correlation exists between the implicated personality traits and geographical location (i.e. region, province, or territory).

IDEOLOGY AND POLITICAL CULTURE

Political systems were once described as having a "spring" or motor responsible for motivating citizens to behave in ways that support the functioning of the regime. Baron de Montesquieu, writing from Canada's then-colonial mainland, labelled this force the *spirit of the people*, a drive motivated by factors both environmental and institutional. His observations of early modern Europe led him to the discovery of three distinct Spirits: *virtue*, for republics; *honour*, for monarchies; and *fear*, for despotisms. Accordingly, a political system would dissolve if it failed to maintain its Spirit. For Montesquieu, this explained why the formation of an English republic failed after the Glorious Revolution, and likewise the Fall of Rome: neither state could cultivate

a sustained, virtuous civic spirit (Montesquieu & Carrithers, 1977: 309). In situating the level of analysis at the socio-political Spirit or 'ethos' of the time, Montesquieu effectively turned attention inward to the individual—the citizen, the most fundamental unit of a political system—in order to derive explanatory insight into the nature of the system itself. This would go on to constitute the first contemporary study of political culture as explained by the approximate features of the citizenry; the micro-social explaining the macro-political.

Much has changed since the political sociology of eighteenth century France. The academic study of political cultures, in its modern form, was coined by Almond and Verba (1963) who espoused a similarly sociological argument relating the public's specific orientation toward politics to the stability of the political system altogether. In their seminal text, *The Civic Culture*, the authors essentially argue against institutionalism in the study of democratic stability, instead favouring a culturalist approach. In employing this cultural lens, they found that the presence of a strong participatory citizenry (a "civic culture") constituted the basis of an effective and responsive democracy. Later, a notable case study of Italian regional governance was undertaken that corroborated these findings, concluding that Italy's nascent subnational governing units performed best if marked by a vibrant civic culture (Putnam, 1993). Lijphart (1977; 1999) complemented these analyses by developing an alternative account of political culture by broadly dividing democratic societies into either "majoritarian" or "consensual" camps. Later work found that consensus-based systems involved a greater prevalence of compromise and minority rights protections—this was seen as being superior to majoritarian systems such as those of the Westminster tradition (Lijphart, 2012). It is argued that where deep-seeded ethnic, linguistic, regional, or religious cleavages mark one's political culture, majoritarian systems cannot sustain themselves in the long run (Andeweg, 2000: 509).

Cultural approaches such as these contain interesting implications for its study in the Canadian context; with its territorial vastness, linguistic sects, and ethno-religious heterogeneity, where exactly does Canada fit in within these paradigms? Further, what are the bases of Canada's regional and demographic cleavages, and how might they be overcome within a Westminster system? To this end, an array of scholarship has attempted to find an appropriate answer. Simeon and Elkin's (1980) *Small Worlds* provided a provided a strong empirical foundation for suggesting that the enduring fractures in the Canadian political culture are of a uniquely territorial nature, and most evident in provincial party politics. The authors found that "regionalism is a profound and fundamental feature of Canada", contradicting the pan-Canadian myths that had hitherto been prevalent in the political culture discourse (p. vii). In examining the more micro-scale influences on party competition, they found that public attitudes and opinions captured by federal election surveys indicated that territorial divergences were so pervasive that, in fact, "[t]here is no *national* party system even at the federal level. Each party and each region is a small world" (Simeon & Elkins, 1980: 238, emphasis in original). Commenting on Elkin and Simeon's thesis, Hepburn (2010) states that the authors put to rest previous structural-functional assumptions of regional difference, and instead reframed the issue as a matter of localized ethnic, religious, linguistic, and regional identity (p. 529). The very fact that this may appear as self-evident to the reader today is a testament to the veracity and impact that the 'small worlds thesis' had on Canada's understanding of its own politico-cultural dynamic. This served as a refreshing departure from Grant's (1965) rather grim assertion that Canada had relinquished any semblance of an independent political culture to their colonial (British) and continental (American) masters.

Regional Cleavages

Contemporary regional politico-cultural cleavages in Canada are made apparent by Harell and Deschatelets (2014) and Cochrane and Perrella (2012). Further, Wiseman (2007) has demonstrated how personal values generate preferences for the institutions that define regional political cultures (p. 34); it is suggested that regional disparities in personal values contribute to a process of localised socialization which instills and reinforces regional difference according to these values (p. 20). Taking this one step further, it is the objective of this analysis to inquire into the formative aspects of these values—the individual temperament. Likewise, there are numerous accounts of ideological enclaves and disparities across Canadian political cultures (Wiseman, 1981; Finbow, 2004; Johnson, 2009; Bilodeau et al., 2012), yet, the literature is barren with respect to how these cultures percolate through the individual and the values that they hold. For example, Bilodeau et al. (2012) demonstrates the ideological differences that constitute a significant aspect of Canada's regional cleavages. However, more incisive research must be conducted in order to derive more fundamental insights into how agents at the most rudimentary level can generate, cultivate, or express these differences. This would allow us to go beyond the traditional historical approaches to understanding macro-level regional differences, such as Hartz-Horowitz' fragment theory (Wiseman, 2007: 23), and instead cut into the present-day empirical differences that have proceeded from those historical antecedents. This may prove useful in informing our understanding of what regional difference *is* in Canada, how it can be overcome, and how we can enact policy that accounts for how these differences manifest—especially, for example, in the realm of immigration and refugee settlement. This follows the assumptions of a burgeoning research trend in political psychology which holds that the political behaviour of a citizen is not motivated by self-interest or national loyalties, but rather a desire to express the traits and cultural mores that define and delimit their personal identities (Johnston,

Federico, & Lavine, 2017); as well as a growing literature on regional disparities in personality traits within federal states (Rentfrew, Jokela, & Lamb, 2015; Rentfrow et al., 2013).

Personality and Values

Outside of the Canadian context, scholars have begun to uncover the relationship between personality psychology and public perceptions of immigrants. Gallego and Pardos-Prado (2014) explore the correlation between the Big Five personality traits and immigrant-specific prejudices across a wide sample of the Dutch population. Their findings confirm that all five traits are associated with attitudes toward immigrants either beyond or matching the effect of other strong socio-demographic predictors. Most relevant were their results regarding trait Neuroticism, which was significantly associated with prejudice toward immigrants; this finding held up across various statistical models even when additional controls were included (p. 92). Of perhaps equal import, one standard deviation increase in trait Agreeableness was found to exhibit an increase of 0.13 standard deviations in positive attitudes toward immigrants when keeping all other demographic predictors held constant (p. 91). It is worth noting that the authors could not adjudicate between a direct personality-prejudice link and other causal possibilities because the scholarship exploring the link between attitudes toward immigrants and personality is remarkably scarce (p. 93). Nonetheless, these personality traits were found to bear significant positive or negative affects on general attitudes toward immigrants.

These results are corroborated by an earlier study by Stürmer et al. (2013) which also found that individual differences in the Big Five personality traits had "substantially greater power in predicting individual differences in xenophilia than individual differences in [other socio-demographic] traits" (p. 832). Additionally, a later study of the general Danish population found that trait 'Openness' had an unconditional positive affect on one's willingness to support

the admission of immigrants to the country (Dinesen, Klemmensen, & Norgaard, 2016). Further, this study found intersecting effects between traits Agreeableness and Conscientiousness on the perception of economic threat by immigrants: respondents scoring low on Agreeableness but high on Conscientiousness were more sensitive to the skill level of incoming immigrants (p. 55). These findings are important as they attest to the fact that leveraging the insights of personality psychology to explore dispositional attitudes toward immigrants is a valid and potentially fruitful opportunity for politico-cultural research.

In the literature, people's self-reported attitudes toward immigrants have been used as a proxy for a more general indicator of social diversity. In particular, Paas and Halapuu (2012) have employed this as an indicator of a polity's "people climate", which is used to determine favourability toward immigrant economic and cultural integration (p. 4). Card, Dustmann, and Preston (2005) provide important insight into the value of public attitudes toward immigration as a potentially powerful window into a variety of different socio-cultural issues such as the value of one's perceived national culture, racial homogeneity, and the desirability of social contact (p. 39). This is particularly useful because it supports the idea that favourability toward immigrants can essentially 'travel', in that it can stand in as an indicator for several other, broader aspects of a political culture.

Hainmueller and Hiscox (2007) find that, within European economies, differences in opinion toward immigration are driven by differences among individuals' cultural values and beliefs, rather than concerns of pure rational self-interest, such as labour market competition (p. 399). How exactly these cultural values and beliefs emerge in a given society, however, remains to be more thoroughly explored. However, human capital theory may play an intervening role, as this theory holds that higher levels of education generally lead to a greater level of tolerant

attitudes (Paas & Halapuu, 2012: p. 10). Hainmueller and Hopkins' (2014) meta-analysis explores the existing literature on mass attitudes toward immigration policy in Europe and North America. Their results indicate that immigration-related attitudes are largely driven by symbolic threats to "intangible social constructs, such as the national economy or national identity" (p. 227). Interestingly, however, the authors concede that these sociotropic concerns need to be isolated more precisely in further research, as their causal mechanisms and relation to attitude formation are unknown (p. 225). This is where I intend to contribute to the literature. Although this work does not concern itself with causality, it is important to conduct research on the *correlation* between Canadian's values and personalities such that we can 'set the gears in motion' to determine whether psychological attributes may have causal potential for future research to explore.

RESULTS

The following cross-tabulations were configured using the SPSS software suite, and illustrates the covariance and correlation across personality variables, territorial proximity, and politico-cultural attitudes. Using the analysis of variance (ANOVA) statistical model, we can examine the prevalence of certain political orientations among those who express particular psychological attributes by simply observing the average responses to the dependent variable in all of the seven (7) groups belonging to each trait. Their respective average values can be observed under the

"Mean" columns[1]. With the procedure now understood, let us assess how each personality trait corresponds to political attitudes.

TABLE 1A: Mean Attitudes Toward Immigrants (0-100) and Trait Sympathetic/Warm

n	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	37	**50.16**	29.236	4.806	40.41	59.91	0	100
2	99	**49.69**	27.358	2.750	44.23	55.14	0	100
3	245	**58.55**	25.927	1.656	55.29	61.81	0	100
4	687	**60.57**	25.785	.984	58.64	62.50	0	100
5	1082	**64.14**	23.716	.721	62.72	65.55	0	100
6	1152	**66.06**	25.228	.743	64.61	67.52	0	100
7	727	**66.52**	29.826	1.106	64.35	68.69	0	100
Total	4029	**63.69**	26.188	.413	62.88	64.50	0	100

a. Source: 2015 Canada Election Study

In Table 1A, above, we notice that those who identify the least as being **Sympathetic/Warm**, group 1 (*n*1), exhibit an average attitude toward immigrants of (**50.16**), in comparison to those who most identify as such, group 7 (*n*7), who boast an average of (**66.52**). Let $\propto$ represent the likelihood, in percent form, of better predicting a positive response in the dependent variable. The $\propto$ value can be derived from the equation:

$$\propto = \frac{\mu n7}{\mu n1} - 1$$

$$0.326 = \frac{66.52}{50.16} - 1$$

[1] Note: All values of (1000) in the SPSS dataset have been manually adjusted to appear as a missing value. Survey respondents who failed to provide an answer were automatically assigned a response of (1000), which initially offset the results.

Therefore, we can conclude that those who *most identify* as being **Sympathetic/Warm**, are **33%** more likely to yield positive attitudes toward immigrants. Below, Table 1B analyses the variability among the mean values listed under Table 1A, in terms of the individuals surveyed within each group. The *F*-statistic (**12.8**), representing the mean square (regression), is shown as being statistically significant due to the Sig. value (**.000**) being under the pre-determined significance level (< 0.05). This indicates that the average individual *variances* within each respondent group are homogeneous (or, "homoscedastic")—in other words, that the population within each group on the (1-7) scale were more or less equally varied in their responses. This provides all the more reason to trust the validity of the findings because there aren't any outliers within one category that offset the observed trend. If H_0 is correct, we would expect the *F* value to be close to (1).

TABLE 1B: ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	**51866.229**	**6**	**8644.371**	**12.826**	**.000**
Within Groups	2710634.849	4022	673.952		
Total	2762501.078	4028			

Lastly, and perhaps most importantly, Table 1C, below, displays Pearson's *R* value (**0.127**), which indicates a positive correlation between the two variables, and the Sig. value, at (**<0.05**), indicates that this relationship is significant.

TABLE 1C: SYMMETRIC MEASURES

		Value	Standard Error[a]	Approximate T	Approx. Sig.
Interval by Interval	Pearson's *R*	**.127**	.017	8.150	**.000**
N of Valid Cases		4029			

a. Not assuming the null hypothesis.

Now, with the first example walked-through in more detail, the following section will display the rest of the data with minimal descriptive. Their implications for statistical inference will be discussed in the subsequent section.

TABLE 2A: Mean Attitudes Toward Immigrants (0-100) and Trait Critical/Quarrelsome

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	499	**69.40**	26.662	1.194	67.06	71.75	0	100
2	856	**64.20**	25.970	.888	62.46	65.95	0	100
3	761	**63.86**	24.538	.890	62.11	65.60	0	100
4	908	**61.30**	24.971	.829	59.68	62.93	0	100
5	622	**60.45**	27.572	1.106	58.28	62.63	0	100
6	250	**63.08**	27.670	1.750	59.64	66.53	0	100
7	82	**68.09**	30.765	3.397	61.33	74.85	0	100
Total	3978	**63.55**	26.167	.415	62.74	64.36	0	100

a. Source: 2015 Canada Elections Study

TABLE 2B: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	664.285[a]	600	**.035**
Likelihood Ratio	698.755	600	.003
N of Valid Cases	3978		

a. 478 cells (67.6%) have expected count less than 5. The minimum expected count is .08.

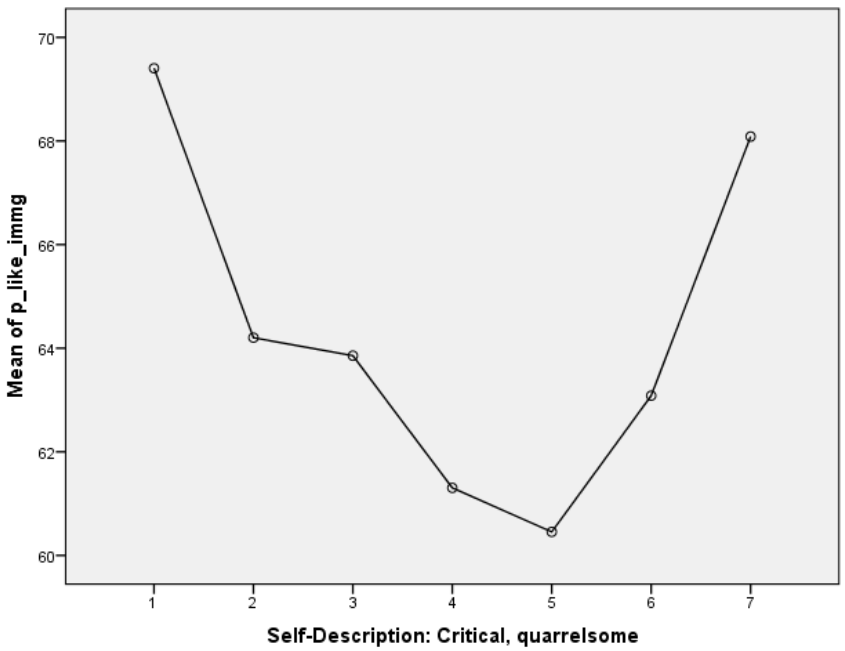
TABLE 2C: Symmetric Measures

		Value	Standard Error[a]	Approximate T	Approx. Sig.
Interval by Interval	Pearson's R	**-.070**	.017	-4.423	.000
Ordinal by Ordinal	Spearman Correlation	-.076	.016	-4.777	.000
N of Valid Cases		3978			

a. Not assuming the null hypothesis.

Above, Table 2A indicates that those who identify with the trait **Critical/Quarrelsome** the *least* are only marginally more likely to have a positive view of immigrants. Pearson's *R*, under Table 2C, indicates an inverse relationship between expression of this trait and a positive attitude toward immigrants, while Table 2B indicates that this relationship is statistically significant (**0.035**). Therefore, the **Critical/Quarrelsome** trait should not be used as an indicator of positive attitudes toward immigrants, especially in light of the distribution's seemingly *random* (i.e. non-normal) nature displayed by Figure 2A below.

Figure 2A: Distribution of Means Plot (Non-Normal)



Source: 2015 Canada Election Study

For this reason, the trait **Critical/Quarrelsome** will be omitted from inclusion in the larger regional analysis. This will act as an exemplar for similar cases, as traits that do not have a linear relationship cannot be meaningfully employed in this study.

TABLE 3A: Mean Attitudes Toward Immigrants (0-100) and Trait Openness to Experience

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	71	**56.00**	28.785	3.416	49.19	62.81	0	100
2	229	**55.06**	26.876	1.776	51.56	58.56	0	100
3	437	**57.94**	26.933	1.288	55.41	60.47	0	100
4	974	**61.51**	25.720	.824[a]	59.89	63.12	0	100
5	1078	**64.13**	24.351	.742[a]	62.67	65.58	0	100
6	853	**68.62**	25.137	.861	66.93	70.30	0	100
7	401	**70.41**	28.799	1.438	67.58	73.23	0	100
Total	4043	63.74	26.181	.412	62.93	64.55	0	100

a. Source: 2015 Canada Election Study

TABLE 3B: ANOVA (Trait: Openness)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	79323.254	6	13220.542	19.826	.000
Within Groups	2691330.533	4036	666.831		
Total	2770653.787	4042			

TABLE 3C: Symmetric Measures (Trait: Openness)

		Value	Standard Error[a]	Approximate T	Approx. Sig.
Interval by Interval	Pearson's R	**.167**	.016	10.761	**.000**
Ordinal by Ordinal	Spearman Correlation	.178	.016	11.508	.000
N of Valid Cases		4043			

a. Not assuming the null hypothesis.

As indicated by Pearson's *R* value, above, Table 3C indicates the strongest statistically significant correlation so far: between trait **Openness to Experience** and positive immigrant attitudes (**.167**).

TABLE 4A: : Mean Attitudes Toward Immigrants (0-100) and Trait Calm/Emotional Stability

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
1	92	**57.72**	27.817	2.900	51.96	63.48	0	100
2	199	**59.07**	29.600	2.098	54.93	63.20	0	100
3	370	**58.98**	27.887	1.450	56.13	61.83	0	100
4	888	**61.60**	25.410	.853	59.93	63.28	0	100
5	1016	**64.69**	24.578	.771	63.18	66.20	0	100
6	948	**64.59**	25.368	.824	62.98	66.21	0	100
7	508	**69.65**	27.765	1.232	67.23	72.07	0	100
Total	4021	**63.65**	26.185	.413	62.84	64.46	0	100

TABLE 4B: ANOVA (Trait: Calm and Emotional Stability)

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	39467.589	6	6577.931	**9.718**	**.000**
Within Groups	2716966.876	4014	676.873		
Total	2756434.465	4020			

TABLE 4C: Symmetric Measures (Trait: Calm and Emotional Stability)

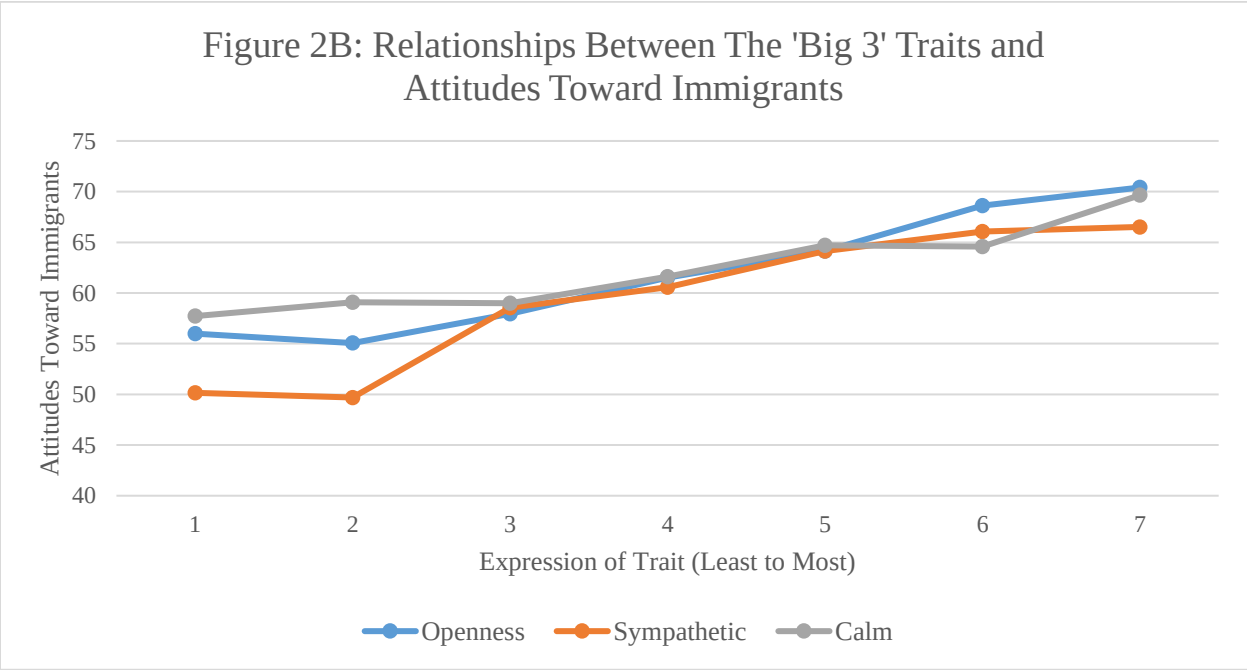
		Value	Standard Error[a]	Approximate T	Approx. Sig.
Interval by Interval	Pearson's R	**.112**	.017	7.159	**.000[c]**
Ordinal by Ordinal	Spearman Correlation	.117	.016	7.468	.000[c]
N of Valid Cases		4021			

a. Not assuming the null hypothesis.

Table 4A, above, indicates a positive correlation between the expression of trait **Calm and Emotional Stability** and favourable attitudes toward immigrants. The correlation coefficient, under Table 4C, is (**.112**) and is statistically significant (**.000**).

In the interest of brevity, I must plainly disclose that no further personality traits measured under the 2015 CES were found to have a statistically significant positive, non-random correlation with the dependent variable. Thus, after running each of the above statistical tests on the remaining individual traits, only three (3) personality metrics remain as reliable, statistically

significant indicators of attitudes toward immigrants: **Openness to Experience, Sympathy and Warmth, and Calmness**. Their respective correlations are displayed by the scatterplot, Figure 2B, below.



More surprisingly, identical tests performed against favourability toward ethnic minorities found *no* statistically significant relationship in all cases except for trait **Disorganized/Careless** which returned a weak (**.046**) Pearson's *R* value and a (**.004**) level of significance. However, when applying a Kolmogorow-Smirnov test, as seen below under Table 11A, we notice a very low level of significance under each response category (**.000**) which allows us to reject its assumed null hypothesis (that the distribution *is* normal, or non-random). Thus, we can dismiss these data as having a spurious, or random, correlation with the dependent variable. As such, we can now confirm that there are *no personality traits* measured under the 2015 CES that act as a reliable indicator of attitudes toward racial minorities.

TABLE 5A: Normality Test - Attitudes Toward Racial Minorities and Trait Disorganized/Careless

Self-Description: Disorganized, careless	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
1	.441	1166	**.000**	.269	1166	.000
2	.411	1112	**.000**	.243	1112	.000
3	.444	697	**.000**	.260	697	.000
4	.470	515	**.000**	.301	515	.000
5	.406	251	**.000**	.233	251	.000
6	.464	128	**.000**	.275	128	.000
7	.489	67	**.000**	.415	67	.000

a. Lilliefors Significance Correction

GEOGRAPHICAL PREVALNCE

With the main indicators now established, we can proceed to examine how well these personalities match up with the territorial regions of Canada, and, further, each region's distribution of the ideological-political attitudes toward immigrants. Displayed below are a series of cross-tabs and their associated ANOVA tests. These tables highlight which provinces and territories most express each personality trait by highlighting their frequency as a percentage form. It is important to recall that for the purposes of this study we will only consider the figures under the [7] column, as this indicates how prevalent the *most* expressive carriers of each trait are. The Pearson Chi-Square tests, displayed below each cross-tab, will indicate whether the observed differences between the provinces and territories arose by chance: if the *p*-value exceeds the significance level (**.05**), then we can infer the inter-provincial differences arose by chance.

CROSSTAB 1: Expression of Trait Calm/Emotionally Stable by Province/Territory

		Self-Description: Calm, emotionally stable							
		1	2	3	4	5	6	7	Total
Which province or territory are you currently living in? [AA]	Alberta	1.5%	3.9%	9.6%	23.8%	22.3%	26.5%	**12.3%**	100.0 %
	British Columbia	2.6%	4.8%	9.0%	23.0%	24.2%	22.8%	**13.4%**	100.0 %
	Manitoba	3.0%	3.6%	13.2%	15.6%	26.3%	23.4%	**15.0%**	100.0 %
	New Brunswick	2.8%	9.3%	12.0%	24.1%	23.1%	17.6%	**11.1%**	100.0 %
	Newfoundland and Labrador	4.7%	2.3%	4.7%	23.3%	23.3%	18.6%	**23.3%**	100.0 %
	Nova Scotia	2.5%	7.4%	5.7%	26.2%	22.1%	23.0%	**13.1%**	100.0 %
	Ontario	2.3%	5.0%	10.3%	23.2%	26.9%	20.2%	**12.0%**	100.0 %
	Prince Edward Island		5.6%	8.3%	19.4%	33.3%	19.4%	**13.9%**	100.0 %
	Quebec	2.5%	4.8%	8.5%	22.3%	24.4%	25.2%	**12.4%**	100.0 %
	Saskatchewan	1.3%	5.1%	5.1%	22.8%	20.3%	29.1%	**16.5%**	100.0 %
Total		2.4%	4.9%	9.4%	22.7%	25.0%	22.9%	**12.7%**	100.0 %

Table 5A: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	55.437[a]	60	**.643**
Likelihood Ratio	56.793	60	**.594**
N of Valid Cases	4293		

a. 19 cells (24.7%) have expected count less than 5. The minimum expected count is .12.

Table 5A, above, displays a hypothesis testing statistic that determines whether the relationships described in Crosstab 1 arose out of chance. If the *p*-value (right-most column) is greater than

our set level of significance (**>0.05**), then we can conclude that the relationship is spurious.

CROSSTAB 2: Expression of Trait Sympathetic/Warm by Province/Territory

		Self-Description: Sympathetic, warm							
		1	2	3	4	5	6	7	Total
Which province or territory are you currently living in? [AA]	Alberta	0.9%	3.3%	9.9%	19.9%	23.2%	24.7%	**18.1%**	100.0 %
	British Columbia	1.4%	3.2%	7.8%	18.2%	28.7%	25.0%	**15.8%**	100.0 %
	Manitoba	1.8%	2.4%	5.5%	13.3%	28.5%	33.3%	**15.2%**	100.0 %
	New Brunswick		1.9%	5.7%	28.3%	19.8%	26.4%	**17.9%**	100.0 %
	Newfoundland and Labrador		7.1%	4.8%	16.7%	23.8%	21.4%	**26.2%**	100.0 %
	Nova Scotia	2.4%	7.2%	5.6%	13.6%	24.8%	28.0%	**18.4%**	100.0 %
	Ontario	1.1%	2.3%	7.0%	19.4%	27.2%	26.2%	**16.8%**	100.0 %
	Prince Edward Island			5.9%	14.7%	26.5%	38.2%	**14.7%**	100.0 %
	Quebec	0.8%	1.8%	3.8%	14.8%	26.4%	31.2%	**21.1%**	100.0 %
	Saskatchewan	1.3%		9.2%	19.7%	30.3%	28.9%	**10.5%**	100.0 %
Total		1.1%	2.5%	6.2%	17.5%	26.6%	28.0%	**18.2%**	100.0 %

TABLE 5B: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	120.603[a]	60	**.000**
Likelihood Ratio	116.895	60	**.000**
N of Valid Cases	4303		

a. 23 cells (29.9%) have expected count less than 5. The minimum expected count is .05.

Table 5B, above, indicates that a statistically significant relationship exists between the provinces and the expression of trait **Sympathetic/Warm**. In essence, it communicates that we would not expect this outcome if the null hypotheses were assumed to be true.

CROSSTAB 3: Expression of Trait Openness by Province/Territory

		Self-Description: Open to new experiences, complex							
		1	2	3	4	5	6	7	Total
Which province or territory are you currently living in? [AA]	Alberta	0.9%	5.4%	9.4%	24.8%	26.9%	23.9%	**8.8%**	100.0 %
	British Columbia	1.2%	7.0%	6.4%	24.8%	26.7%	22.4%	**11.6%**	100.0 %
	Manitoba	0.6%	6.1%	10.9%	24.2%	32.7%	19.4%	**6.1%**	100.0 %
	New Brunswick	2.7%	4.5%	14.5%	27.3%	22.7%	18.2%	**10.0%**	100.0 %
	Newfoundland and Labrador	2.3%	4.7%	14.0%	27.9%	25.6%	14.0%	**11.6%**	100.0 %
	Nova Scotia	2.4%	4.0%	14.4%	22.4%	23.2%	23.2%	**10.4%**	100.0 %
	Ontario	2.0%	5.1%	11.0%	25.7%	24.5%	21.4%	**10.3%**	100.0 %
	Prince Edward Island			5.7%	25.7%	34.3%	25.7%	**8.6%**	100.0 %
	Quebec	2.4%	6.0%	11.9%	23.7%	27.8%	19.2%	**9.0%**	100.0 %
	Saskatchewan		8.8%	13.8%	27.5%	23.8%	18.8%	**7.5%**	100.0 %
Total		1.9%	5.7%	10.8%	24.8%	26.4%	20.8%	**9.7%**	100.0 %

TABLE 5C: Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)
Pearson Chi-Square	61.837[a]	60	**.410**
Likelihood Ratio	67.634	60	**.233**
N of Valid Cases	4314		

a. 20 cells (26.0%) have expected count less than 5. The minimum expected count is .09.

From the above Tables 5A and 5C, we can conclude that both trait **Openness** and **Calmness/Emotional Stability** do not pass the Pearson Chi-Square test as their *p*-values are both above the set level of significance. In other words, we cannot confidently conclude that their distribution across the provinces are the product of anything but pure chance. Interestingly, Table 5B indicates that trait **Sympathy/Warmth** does, in fact, observe a distribution pattern across the provinces that cannot be explained by chance alone (**Sig. .000)**. This is likely due to the particular trait's significant over-representation in both Quebec and Newfoundland and Labrador. Conversely, the trait appears to be significantly under-represented in Saskatchewan and Manitoba.

DISCUSSION

In 2016, the *National Post* quoted Canadian Prime Minister as having said that there "is no core identity, or mainstream, in Canada…[t]here are shared values—openness, respect…equality and justice. Those qualities are what make us the first post-national state". As we have now made clear, even these shared values enjoy a fair degree of variability across geographical-territorial space. It is incumbent upon us, then, to acknowledge where these regional differences arise in order to devise a fuller understanding of the ideological rifts that make Canada truly post-national. By rethinking our perception of regional differences in Canada

and how they are expressed—by both institutional-structural indicators, and personal-preferential sentiments—we are offered a new plane of inquiry from which we can further explore and perhaps transgress regional cleavages moving forward.

More specifically, the findings of this study reveal three personality traits measured by the most recent *Canada Election Study* that serve as statistically significant indicators for favourable attitudes toward immigrants: openness to experience; sympathy and warmth; and emotional calmness. Of these three, only sympathy and warmth was found to bear a non-random distribution across the provinces and territories. This is presumed to be a result of the trait's disproportionately high occurrence in the provinces of Quebec and Newfoundland and Labrador, and a similarly disparate *low* occurrence in the prairie provinces of Saskatchewan and Manitoba. For policymakers, this may bear interesting implications in the realm of immigrant and refugee settlement policy as it could assist with determining regional attitudes that may assist with societal integration. While the extant body of literature regarding regional political cultures typically focuses upon their macro-level historical or economic differences (Harell & Deschatelets, 2014; Cochrane & Perrella, 2012; Bilodeau et al., 2012), there is now a case to be made that there is potential in turning out attention toward the individual in assessing how these political cultures or ideological preferences are expressed.

One caveat worth taking into consideration is discussed in a working paper by Grigorieff, Roth, and Ubfal (2016), which found that providing information about immigration has a significant positive affect on one's attitude toward immigrants[2]. This may suggest that those presiding in prominent immigrant settlement provinces such as Ontario or British Colombia, who

[2] Those who received the treatment (immigration information) were 33 percent less likely to indicate that there were too many immigrants when compared to the control group.

are therefore more likely to be exposed to information pertaining to immigration, would be expected to express a marked increase in favourable attitudes toward immigrants. Likewise, this further suggests that those provinces that return the least favourable attitudes toward immigrants can be altered by immigration-related advocacy campaigns that disclose the information necessary for a more informed understanding of the issue. In other words, public attitudes toward immigration may very well be malleable, and not exclusively a determinant of one's psychological dispositions. However, future research should explore whether one's expression of traits Openness or Sympathy affect one's responsiveness to immigration-related information; it stands to reason that those who self-report a low score on either of these indices may not be as influenced by such information that those who score higher. This is important because it suggests that even if personal temperament is found to have a negligible effect on one's attitude toward immigrants, we still ought to account for one's individual temperament when designing and implementing immigration-related advocacy or integration material: those with a certain personality profile may not be as receptive to these policies as others. For this reason, I believe that individual temperament and personality should be explored in greater depth in future research as it may generate insights into how to best integrate immigrant communities into specific regions of the country. Namely, those with a general temperament better equipped to accommodate, accept, and embrace them with sympathy and warmth.

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