

# **The Personal is Political: Evaluating the Effects of Personality Traits on Ideology and Vote Choice in Canada**

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Paper prepared for the Canadian Political Science Association Conference, Victoria, BC, June 6, 2013.

## **Abstract**

Recent work in political behaviour has examined the effects of personality traits on a host of factors relevant to, and including, vote choice. Using the well-established Five Factor Model of Personality (FFM) in a variety of different political contexts, the literature suggests consensus on strongly significant effects for Conscientiousness and Openness to Experience, the former positively associated with right-wing ideological views, the latter with left-wing views. There is less agreement on other effects of personality traits: Extraversion and Agreeableness have been found to be only weakly positively and negatively correlated with right-wing views, respectively, and Emotional Stability has been found to have no significant effect. This paper examines these relationships in the Canadian context with regard to ideological self-placement and vote choice, using data from the 2011 Canadian Election Study, which for the first time included items designed to capture respondents' FFM personality traits. Conscientiousness is found to be positively significant for conservative self-placement but not vote choice, Openness is strongly and correctly significant for both ideological self-placement and vote choice, and other traits were only weakly or not at all significantly associated with ideology and vote choice. The findings thus broadly support arguments for the salience of personality on politics at the individual level.

## **Introduction**

This paper tests the effects of personality traits on two manifestations of political behaviour in Canada: self-reported ideological placement and vote choice in the 2011 federal election. Classic models of voting behaviour ignore the potential effects of personality in favour of demographic characteristics and more ‘proximate’ influences such as poll and leader effects. They share the implicit assumption that drives much behavioural work: that the fundamental aspect of individuals most relevant to politics is their group membership. Individuals as political actors are seen as members of overlapping general categories. Recent scholarship, however, examines more individualized factors such as genetic variation and personality traits. Looking at the effects of genetics on political behaviour is a new and growing research area, but the effects of personality in the political arena are not particularly new to studies outside of quantitative vote choice models. In this paper I argue for the utility of personality in explicating patterns of political behaviour in the Canadian context.

The first section of the paper reviews the literature on differences in personality between liberals and conservatives in general. The second section briefly discusses the particular measure of personality used in this study, the Five Factor Model of Personality (FFM), and the subsequent section reviews studies which have explicitly utilized the FFM in assessing the relationship between personality and political behaviour. Six hypotheses, drawn from the literature, are put forward, followed by an explication of the methodology and strategy for testing the hypotheses. Results and discussion conclude the paper. In brief, personality traits are found to be important explanatory factors in models of ideological placement and vote choice. The effects of openness to experience are most pronounced; the results indicate a consistent, strong negative correlation with conservative ideology and vote choice. A strong positive association between conscientiousness and conservatism was found in the ideology model but not the vote choice model. The analysis suggests mixed results for the traits of extraversion, agreeableness, and emotional stability.

### **Liberal and Conservative Personality Differences**

The conception of personality as one of the basic individual-level factors driving differences in political attitudes and beliefs is well-established (see Carney et al. 2008). Early studies in the 1930s and 1940s, coincident with the rise of both behaviouralism in the social sciences and fascist ideologies in Europe and elsewhere, tended to revolve around what came to be called “Right-Wing Authoritarianism” (RWA), characterized by rigidity, adherence to convention, intolerance, xenophobia, and deference to authority (Carney et al. 2008: 810). Adorno et al.’s pioneering study of the correlations between particular personality traits and “authoritarian” attitudes (anti-semitism, particularly) is the canonical statement in this regard (1950; but see McKinney 1973 for a critique). This programme of research has not lost its appeal. Recent studies have examined RWA in a wide variety of situations, ranging from the effects of the September 11<sup>th</sup> events on manifestations of the trait (Perrin 2005), and the relationship between RWA and attitudes towards feminism, gender, and the Bill Clinton-Monica Lewinsky scandal (Smith and Winter 2002) to the correlations between RWA and levels of political knowledge and interest, in which high levels of the former were significantly correlated with low values on the latter measures (Peterson et al. 2002).

Efforts to discover individual-level bases for authoritarian ideologies originated in and remain clearly motivated by highly normative foundations. Studies of personality in terms of the liberal-conservative difference emerge from more prosaic analytical concerns. Milbrath (1962), for instance, asks how children who are not socialized into a particular party identification nonetheless acquire one. He finds, using data from a survey of lobbyists in Washington as well as the 1956 US election study, that they develop liberal or conservative attitudes in terms of orientations to political change (688). McClosky (1958) found “considerable regularity and coherence not only in the body of norms professed but in the relation between certain casts of character and personality on the one side and the degree of conservatism or liberalism expressed on the other”; conservatism was here associated with such characteristics as lower intelligence, social isolation, low self-esteem, frustration, timidity, hostility, intolerance, and rigidity (35-38). A less negative picture of the conservative personality ‘type’ is found in Tomkins (in Carney et al. 2008), who constructed the notion of “ideo-affective postures”: unique ways of looking at the world (813). So, liberals stress freedom, believe in the innate goodness of human beings, and favor the encouragement of “human creativity and experience”, while conservatives see an inherently flawed human nature and value convention, order and rule-following.

As with research into right-wing authoritarianism, studies of fundamental differences between liberals and conservatives, rooted in personality, are a mainstay of personality psychology. One fascinating study examines the developmental roots of liberalism and conservatism with data from an extended longitudinal analysis (Block and Block 2006). The researchers collected psychological data on 128 nursery school children in 1969 and were able to reassess 104 of these subjects when they had reached the age of 23 (736). This temporal aspect of the data allows the analysts to examine potential differences between liberals and conservatives “before they become political beings” (735). The study finds that those subjects measured as being conservative at age 23 shared similar traits at nursery school age: anxiety about uncertainty, greater susceptibility to guilt, increased rigidity under duress, and, especially for females, indecisiveness, neatness and compliance (745-746). Those who subsequently were identified as more liberal were characterized at nursery school age as “resourceful, autonomous, expressive, and self-reliant” (746).

Recent studies have taken similar lines: Jost et al. (2007), for instance, examine the relationship between ways of dealing with uncertainty and conservatism. They find that avoidance of uncertainty (including such things as dislike for ambiguity and close-mindedness) and perceptions of threat are both predictors of conservatism, mediated by resistance to change (989). Van Hiel and Mervielde (2004) look at the relationship between conservatism and a psychological concept known as “Boundaries of the mind”, which tries to capture the cognitive differences in individuals’ framing of experiences as either organized and closed (“thick boundaries”) or fuzzy and permeable (“thin boundaries”). Unsurprisingly, in light of the current discussion, they find that conservatives have a statistically significant negative relationship to the thin boundaries score, in other words, conservatism is positively associated with organized and closed, *thick*, framing of experiences. The findings regarding both RWA and the liberal-conservative difference are quite consistent in their elucidation of distinct and mutually exclusive patterns of personality variables as they relate to political ideology.

## The Five Factor Model of Personality

This analysis employs the Five-Factor Model (FFM), a standard, well-established and generally accepted measure of fundamental individual personality traits. The FFM emerged gradually and unevenly in the personality psychology literature (see Digman 1996). Its origins were in examining commonalities among adjectives or descriptions by teacher ratings of students and peer reviews (mostly university students). Factor analysis was used to identify correlated items: the disagreements in the literature mostly related to the number and content of the personality categories. Contemporary personality psychology, however, has generally accepted the utility of the FFM as a “consensual, objective, quantifiable description of the main surface tendencies of personality”, though of course there are alternatives (Caprara et al. 2006: 6). Moreover, personality in general and the factors identified in the FFM, in particular, are seen as individual-level expressions of genetic traits and hence, in this respect, universal: studies of the cross-cultural validity of the FFM produce relatively robust results (McCrae and Allik 2002).

The five factors are Extraversion, Agreeableness, Conscientiousness, Emotional Stability, and Openness to Experience (Winter 2003: 118, see Table 1). Each has been found to measure a different aspect of personality; the labels and characteristics are straightforward. Extraversion is a measure of dynamism and activity versus introversion and passivity. Agreeableness probes the extent to which individuals tend to accept or ‘agree to’ external stimuli, in terms of credulity and trust or skepticism and distance. Conscientiousness involves the level of “impulse control that is socially prescribed” and is manifested in a general preference for order and certainty (Schoen 2007: 412): the distinction between ‘rule-following’ and ‘rule-breaking’. Emotional stability suggests individuals’ capacities to control or contain disruptive or negative emotions (or to reduce their occurrence in the first place). Finally, the openness to new experiences trait measures the extent of curiosity and willingness to embrace other cultures, novel ideas, and so on, as against rigidity of thought and, at its extreme, intolerance towards difference.

[Table 1 Here]

Thus, in terms of political behaviour, it is argued that personality should be seen as prior to what Gerber et al. call “characteristic adaptations”, such as RWA, and as “predating, rather than being caused by, social and political influences” (2010: 113, 111). The extent to which personality itself can be viewed as causal is contentious, but Schoen’s review of the literature suggests that basic personality does “affect an individual’s motivation, goals, and values, thereby providing criteria to evaluate external stimuli” (2007: 412). That is, there is a *prima facie* link between ostensibly non-political personality traits and factors which have been seen as essential in the political arena, e.g., values, and in general, personality conditions how individuals respond to political events. Caprara et al. (2006) also argue that individual traits, as a whole, are becoming more relevant to political behaviour, as against the traditional social or economic, group-based factors: this is a process they call “individualization” (2). From a methodological standpoint, then, the FFM taps into a deeply rooted and highly stable potential factor in political behaviour and, pragmatically, is “a well-substantiated and agreed-upon framework for describing personality” (Caprara et al. 1999: 178).

## The Five Factor Model in Political Behaviour

The Five Factor Model of personality has been utilized in a variety of ways in the political behaviour literature: studies have examined both elite-level and mass behaviour as well as different outcomes such as ideological orientation, opinions across different policy domains, and vote choice (Table 2). However, thus far, the application of FFM to explanations of political behaviour has varied considerably among political systems, mostly due to particular researchers' interests.

[Table 2 Here]

Political behaviour in Italy, for instance, has been elucidated using the FFM in several studies by Caprara and collaborators. In their first effort, Caprara et al. (1999) looked at the relationship between personality and party preference as expressed in the 1994 Italian election. Both of their hypotheses were confirmed: center-right coalition supporters were scored very high on the extraversion trait, and less high but still significant on conscientiousness, while center-left supporters scored low on both traits. Opposing tendencies were evident for agreeableness and openness: high for center-left supporters, low for center-right, while emotional stability, expected to have null significance, was indeed not relevant (190). Their second analysis showed, somewhat surprisingly, that “[o]nly personality had a significant impact on political preference, whereas none of the demographic variables modified in any way” the relationship between the two (190). So, overall, Caprara et al. find strong evidence for the importance of the FFM personality traits on both liberal-conservative differences and explanatory models of vote choice.

The mainstay of the literature on personality and political behaviour explores the relationships between the FFM traits and ideology and vote choice. As Caprara et al. (1999; 2006) found, the associations between conscientiousness and conservatism and openness and liberalism are robust and have been replicated across numerous studies. Carney et al. (2008) present their study of personality as a test of a persistent view that ideological orientations are not stable and deep-rooted nor meaningfully differentiable. The argument is that there are no major *individual-level* differences between, say, liberal and conservative, and these orientations are in any case more reflections on ephemeral, cognitively accessible opinions than fundamental individual characteristics (808; cf. Zaller 1992). They test these assertions in methodologically unique ways, such as examining university dorm rooms and office spaces, and find that there are, indeed, “psychological differences between liberals and conservatives [which] are not merely the superficial result of self-presentational or social desirability concerns”, and that these differences are manifested in physical ways (e.g., liberals had more and a greater diversity of books and CDs and more ‘colorful’ office spaces) (834, 832).

In the German context, Schoen and Schumann (2007) again find similar results to previous studies. High values of openness and agreeableness and low on conscientiousness were associated with likelihood of voting for left parties, while their findings on emotional stability diverge somewhat, in finding it negatively correlated with conservatism; they suggest that neurotic individuals are more likely to prefer parties which are seen as providing “shelter against material or cultural challenges” (492). This particular finding echoes Jost et al.’s finding,

mentioned earlier (2007). Gerber et al. (2010), in their overall results, find that all traits in the FFM were statistically significant to self-reported ideology, but that, again, conscientiousness and openness, associated with conservatism and ideology respectively, were of the greatest magnitude.

Several studies have looked specifically at the effects of personality traits on a policy domain or across several domains, or have parsed the mediating effect of political context on the 'expression' of traits. As Gerber et al. suggest, different traits may be manifested differently between issues or between contexts: openness to experience, for example, might result in liberal tendencies when within a homogenous conservative context but conservative tendencies within a homogenous liberal one (2010: 115). The relationship between personality and political behaviour might also be sensitive to sociodemographic differences. They specifically test whether there are significant black-white differences, and find, for instance, that the relationship between the conscientiousness and emotional stability traits and conservatism is more robust for white Americans than for blacks (112). As indicated in Table 2, they also found subtle but significant differences between social and economic policy domains. Schoen (2007) used the FFM to test personality effects on attitudes concerning foreign policy in Germany. He tests four outcome variables: opinions on the Euro, on EU governance in general, the invasion of Iraq, and abolition of the German army (424). The results, again in congruence with the evident trend in the literature, were that openness and agreeableness were associated with 'liberal' opinions - support for the Euro and the EU, skepticism about military forces, and opposition to Iraq - while conscientiousness was significant for opposition to the EU and 'appreciation' for the military, but not for the other two issues (423).

Studies have also examined other aspects of political behaviour, aside from ideology and vote choice. The relationship between personality and voter *turnout* is elucidated by Denny and Doyle (2008). Although not explicitly using the FFM nomenclature, they found essentially that conscientious, emotionally stable, and extraverted individuals were more likely to vote than those who scored low on those traits (309). Mondak and Halperin (2008), in a wide-ranging study, found several interesting correlations between personality and behaviour, among them high external efficacy (i.e., the 'no say in government' question) associated with high agreeableness, high internal efficacy (i.e., the 'understand government' question) related to high openness, and extraversion with political participation (355-357). Mondak et al. (2010) studied the effects of personality on civic engagement in the US; their signal contribution is to 'introduce' data from Uruguay and Venezuela, atypical cases for examining political behaviour.

Finally, the FFM has also been used to study elite-level behaviour. For instance, Caprara et al. (2010) examine potential differences in the levels of personality traits between political elites, specifically female members of the Italian parliament, and the female public, regardless of political orientation. They found significant differences on four of the personality traits (all except conscientiousness): in each case elites scored higher than the public, which suggests that personality is an important indicator of political success (756). On individual traits, similar results to those in other studies obtain here: openness and agreeableness were associated with left-wing parties, conscientiousness and extraversion with right-wing parties. Caprara et al. also found that elites differ from the public in terms of the strength of the relationship between traits and political ideology, and speculate that "self-presentation concerns" are much greater among

politicians than voters (757). In a different methodological vein, Rubenzer et al. (2000) surveyed experts on the American presidency (specifically, academics who had written full-length biographies), asking them essentially to complete the NEO PI-R personality test for their case(s). Their outcome of interest is in explaining ‘presidential greatness’: openness to experience (high), facets of conscientiousness (high) and extraversion (high) were among the traits observed to be significant.

## Hypotheses

Political psychology has not been a primary focus of students of Canadian politics and political behaviour. The dearth of studies testing the relationship between personality traits and political behaviour in Canada makes the task of generating tractable and specific hypotheses more difficult, in that there are no easily identifiable ‘jumping off’ points. For instance, one standard avenue of research, taking an established theoretical framework and testing previous findings with new or improved data, is unavailable here, at least in the specifically Canadian context. Simply put: where to begin? There are many potential hypotheses which could be tested in the Canadian behavioural context, and any specification will undoubtedly ‘ignore’ many of the findings, as above, in the political psychology literature. In choosing not to test, say, for differential effects across policy domains, as Gerber et al. (2010) suggest, there is a danger of returning results which are interesting but meaningful only within narrow bounds.

Nevertheless, the literature review suggests a number of hypotheses. First, notwithstanding Caprara et al.’s (2006) conclusion that values supervene on traits, most studies of personality and political behaviour have found that personality on the whole contributes to our understanding of behaviour as reflected in model construction. In terms of individual traits, extraversion has been found to have either a positive but weak association with conservative orientation, or no association. Agreeableness seems to be negatively associated with conservatism, though that relationship is also not particularly robust. There is virtual consensus over the strong positive association between conscientiousness and conservative orientation and over the null effects of emotional stability. Finally, openness has also been observed to have a strong negative correlation with conservatism. Thus, the six hypotheses of this analysis are as follows:

H1: The addition of personality traits as a whole increases the explanatory or predictive power of the model of self-reported ideological placement, and increases the ability of a vote choice model to produce correct classifications.

H2: Extraversion will have a weak positive relationship to conservative ideological placement and conservative vote choice.

H3: Agreeableness will have a weak negative relationship to conservative ideological placement and conservative vote choice.

H4: Conscientiousness will have a strong positive correlation with conservative ideological placement and conservative vote choice.

H5: Emotional Stability will have no significant effect on either self-reported ideological placement or conservative vote choice.

H6: Openness will have a strong negative correlation with conservative ideological placement and conservative vote choice.

The first hypothesis aims at the general question of whether the inclusion of personality traits does indeed contribute to our models of political and voting behaviour in the aggregate. Previous studies have found that “the size of the effects of these traits rivals those of canonical predictors of political behavior that have been the subject of countless studies—such as education and income” (Gerber et al. 2010: 112). If this is the case, it suggests that further research into their effects in the Canadian context is required.

H4 and H6, the hypotheses asserting strong relationships between openness and conservatism (negative) and conscientiousness and conservatism (positive), are the key hypotheses in terms of testing the relationship between personality traits and behaviour. As the summary in Table 2 indicates, these are the most robust and consistent relationships among the five traits in the FFM. As Carney et al. note, there is “remarkable consensus over more than seven decades” of personality research that these two dimensions are the most related to political orientation (2008: 815-816). The significances of extraversion, agreeableness, and emotional stability to explaining political orientations have been less evident and are thus hypothesized to have weak or no relationships to the outcome variables of ideological self-placement and party vote choice; these hypotheses are included for completeness.

### **Methodology**

The foregoing analysis employs data from the 2011 federal election in Canada, in which the incumbent Conservative Party achieved a majority of seats in the House of Commons and the New Democratic Party, previously a third party or lower, became the Official Opposition, largely due to a surge in popularity in Quebec. The Liberal Party and the Bloc Quebecois suffered massive losses; in both cases, the party leaders lost in their own constituencies. The 2011 edition of the Canadian Election Study (CES) included, for the first time, questions which directly probe personality traits. Indeed, the questions are essentially identical to those asked on the Cooperative Campaign Analysis Project, from which Gerber et al. (2010) extract their data. Thus, while the CES, as far as I can tell, does not produce documentation of the survey construction process, it is clear that the battery used is that constructed by Gosling et al. (2003).

This is a brief, ten-item version of the full 240-item NEO PI-R test and the shortened sixty-item NEO-FFI test, designed to suffice when resources are limited and/or the measurement of personality is included only as one component of a larger survey, as is the case with the CES: in short, when “researchers may be faced with a stark choice of using an extremely brief instrument or using no instrument at all” (Gosling et al. 2003: 505). The central premise of the much-abbreviated version is that a small number of questions which essentially asks respondents directly about their personality traits, rather than the more subtle indicators of the longer tests, are sufficiently robust in terms of measurement error. This is found to be the case: while there are nontrivial limitations, the authors report that brief versions “can stand as reasonable proxies for longer Big-Five instruments” (523). Thus, for the present analysis I have simply assumed that the questions asked on the CES adequately measure the five personality traits of the FFM.

The ten-item test was administered as part of the web questionnaire portion of the 2011 CES (see Appendix 1). Respondents were given a four-point Likert scale (excluding the neutral

option) and prompted with a pair of words. The test is constructed so as to measure each of the five personality factors twice, with one item for the ‘high’ value and one for the ‘low’ value: for example, conscientiousness is measured on the ‘high’ value with “dependable; self-disciplined”, and on the ‘low’ value with “disorganized; careless”. The ‘low’ and ‘high’ measures were added and rescaled 0 to 1 for each personality trait.

The limitations of the data for this study are apparent. Since the 2011 CES is the first to ask about personality traits, previous data cannot be pooled with 2011 data. Moreover, since the questions probing personality were only asked on the Web Questionnaire portion of the CES, only a fraction of the total CES sample participated (767 of 4,308). Additionally, because of the listwise deletion of missing observations as variables were added to the model, the final number of usable observations in the regressions was  $N = 629$  for the OLS regression and  $N = 653$  for the logistic regression. Gerber et al. (2010), by contrast, were able to extract 12,472 usable observations from the Cooperative Campaign Analysis Project. A second problem evident is the use of self-reporting, especially in terms of directly probing personality traits; use of a more robust and perhaps less direct instrument might result in more accurate measures of personality. Thus, the results obtained, especially in terms of finding statistical significance, should be taken with these caveats in mind. Indeed, this suggests that further research would be greatly assisted by standardization and routine use of personality measures in future Canadian Election Studies and other surveys in the Canadian context.

### *Testing the Hypotheses*

H1, the hypothesis that personality traits as a whole add significantly to the explanatory power of models of self-reported ideological placement, is tested through the use of a hierarchical (or sequential) multiple regression model. This allows one to test “the impact of a set of independent variables on a dependent variable after holding constant a block of other variables” (Pearson 2010: 274). This is akin to the bloc recursive model, though without necessarily the temporal implications. A succession of sets of independent variables are regressed on the dependent variable, and the changes in the R-squared value, which indicates the total variance in the dependent variable ‘explained’ by the included independent variables, are noted. Thus, the important metric here is the *change in the R-squared value* between the models, as well as the statistical significance of the r-squared differences. Three models of self-reported ideological placement are reported: the first only includes a set of standard sociodemographic variables, the second the sociodemographic plus variables for each region in Canada (Atlantic, Quebec, and the West, with Ontario serving as the reference category), and the third adds the personality variables. The second part of the hypothesis, claiming that including personality variables should generate a more powerful model of vote choice, looks at classification tables of the same three models to determine how adding explanatory variables changes the ability of the model to correctly classify cases (i.e., to predict based on the explanatory variables the correct vote choice).

Hypotheses 2 through 6 are tested in two ways. For the effect of the five personality traits on ideological self-placement, a standard OLS multiple regression analysis is used, regressing the five factors and a standard set of sociodemographic variables (gender, age, education, region, and immigrant status) on the self-reported ideological score, which ranges from 0 (most liberal)

to 10 (most conservative). Thus, positive coefficients suggest a conservative direction, negative coefficients a liberal direction. For the effect on actual vote choice, a multinomial logistic regression was run, with vote choice as the dependent variable (Conservative vote choice omitted as the base outcome) and the same set of independent variables as the prior analysis. A separate logistic regression was run on Conservative vote choice (i.e., with a dummy Conservative vote variable).

## Results

As above, H1 claims that the overall effect of personality traits is a significant improvement of the explanatory power in a model of ideological self-placement. This is tested using a hierarchical regression analysis in which the important indicator is the change in the r-squared value, as well as the statistical significance of the difference in the r-squareds. Table 3 presents the statistical output.

[Table 3 Here]

The output suggests that H1 for the ideology model is confirmed: the model gains predictive power, i.e., it accounts for more of the variance in respondents' ideological self-placement, as region and then personality variables are added. Region explains an additional 6.1% of the variance while personality increases the predictive power by 3.5%, a smaller but not insignificant amount. Both r-squared differences were statistically significant. Thus, it can be said that personality as a separate group of independent variables increases the explanatory power of a model of self-reported ideological placement, at least with regard to the models specified here, which include sociodemographic and regional variables.

H2 through H6 posit expectations about the direction and significance of individual personality traits on ideological self-placement and vote choice. The effects on ideological self-placement are tested in a standard OLS regression model with sociodemographic and regional control variables; the coefficients and standard errors are displayed, with indicators for statistical significance, in Table 4.

[Table 4 Here]

The results obtained clearly support H4 and H6, the hypotheses concerning conscientiousness and openness to experience. Both are significant at the  $p \leq 0.01$  level, both coefficients are of relatively large magnitude (1.340 for conscientiousness, -1.356 for openness), and both have the correct signs: conscientiousness is positively correlated with conservatism, openness negatively correlated. In concrete terms, the difference on ideological self-placement between individuals scoring at the extreme poles of the conscientiousness scale (0 and 1) would be 1.34 points on the placement rating, all else equal. The findings suggest that the traits of conscientiousness and openness have comparable or larger marginal effects than such standard important variables as region and identifying as Catholic. On the other hand, the findings on extraversion (H2) and agreeableness (H3) do not support their associated hypotheses: extraversion displays the correct positive sign (positively related to more conservative ideology) but is of very slight magnitude, and is not statistically significant, and agreeableness has the

opposite sign to that hypothesized (positive, where the hypothesis suggest a negative effect on ideological self-placement), and is also not statistically significant. Both variables have large robust standard errors which cause the associated 95 percent confidence intervals to overlap zero. H5, which hypothesized no effect for emotional stability, is supported by the analysis: the coefficient is slightly positive but not statistically significant.

The control variables behave mostly as expected, notably the substantial difference in the coefficients between Quebec and the West and the gender variables. The Quebec and gender variables are highly negatively associated with conservative ideological self-placement, while the West evinces a high positive correlation with conservatism. The large positive coefficient for the religion variable (a dummy variable with Catholic coded 1), is anomalous, as the literature on religion and voting in Canada suggests we should see a negative correlation, at least historically (Stephenson 2010).

The second part of the analysis examines the relationships between the FFM personality traits and actual vote choice.<sup>1</sup> First, the correctness of H1 with regard to vote choice was tested by estimating the ability of successive models to correctly predict the outcome categories (results not shown). The model including only the first set of sociodemographic variables (i.e., excluding region) correctly predicted 40.9 percent of cases, while adding the regional variables correctly predicts 45.3 percent. The full model with personality variables increases the correct prediction rate slightly to 47.3 percent. It is important to note that the outcome in the model, vote choice, is multinomial, meaning there are more than two possible dependent variable values; thus, although the correct prediction rate appears low, the full model reduces the error by almost twenty percent from a baseline model (i.e., one with no explanatory variables). The strongest claim I can make here is that H1 is supported in the vote choice model, but much more weakly than in the previous ideology model.

Table 5 displays the results of the multinomial logistic regression analysis on vote choice. In terms of the individual variable effects, I report the relative risk ratios and robust standard errors for the FFM personality variables, omitting the other sociodemographic variables for clarity.

[Table 5 Here]

The overall picture of the logistic model of vote choice suggests a somewhat weaker role for personality variables, particularly in terms of strongly statistically significant results. The coefficients indicate the likelihood of being in the category compared to the baseline group, here Conservative vote choice; a relative risk ratio (RRR) of 1 indicates that, all else equal, one is equally likely to be in the category as not in the category on the dependent variable. Correspondingly, a  $RRR > 1$  suggests that the independent variable increases the likelihood of a positive outcome on the dependent variable, while a  $RRR < 1$  decreases that same likelihood.

Several results stand out. The strongest result, by far, is on the openness to experience variable, which is strongly statistically significant across all categories and which is correctly directional. For instance, a one-unit increase on the openness trait makes voting for the NDP, as

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<sup>1</sup> Models were estimated both with and without the Quebec subset of the sample. Unless noted, all reported results include Quebec, and all effects were substantively similar.

compared to the Conservatives, *five times more likely*, and voting for the Liberals almost three times (2.966) more likely. By contrast, openness to experience changes the likelihood of voting Conservative by a factor of 0.244. Thus, not only do the individual results support H6 – they show a strong negative correlation between conservative vote choice and openness to experience – but taking them together further supports the hypothesis, since openness makes Conservative voting less likely, Liberal voting more likely, and NDP (i.e., the most ‘liberal’ party) even more likely.

H2 posits that extraversion is weakly but positively associated with conservative vote choice. In the multinomial model the NDP coefficient is significant but the Liberal one is not, and the Conservative coefficient is significant, though only at the  $p \leq 0.10$  level. All signs are correct, and the magnitude in the Conservative vote choice model (2.042) is relatively large. Overall, though, H2 is partially confirmed by the empirical results. Agreeableness (H3) produces contradictory results in terms of direction, since if we expect a linear negative association with conservatism the NDP coefficient should be greater than the Liberals, which is not the case, and there are no significant findings. Conscientiousness (H4) is only significant in the separate Conservative vote choice model, though it is of relatively large magnitude. Unlike the ideology model, then, the vote choice models do not support H4 in a meaningful way. Finally, H5 is supported by this analysis as it was in the ideology model; emotional stability does not have any significant effects on vote choice.

## Discussion

Clearly, there is some difference between the models of ideological self-placement and vote choice in terms of support for the importance of personality traits, both individually and in the aggregate. To summarize the results, H1, the expectation that personality traits in general add to the explanatory power of the self-reported ideological placement model, was confirmed; a test of its predictive power in the logistic model suggests some improvement in the ability to correctly classify cases but the results are weaker. H2, the hypothesis of a weak positive relationship between extraversion and conservatism, was somewhat supported in the vote choice model but not in the model of self-reported ideology. H3 was clearly not supported: agreeableness was not found to be significant in either model, and did not conform to expectations in the vote choice analysis. Conscientiousness had the strongest positive correlation with conservatism in the standard regression model of ideology but its effect disappeared in the logistic regression model testing vote choice. Thus, H4 can only be partially confirmed. As expected, emotional stability had no significant effect in either model. The relationship between openness to new experiences and political behaviour, H6, was confirmed in both tests: strong and statistically significant negative correlations were found for both self-reported ideological placement and vote choice. Thus, by far the strongest finding in terms of the effects of the individual personality traits is that those who scored higher on the openness trait rate themselves as less conservative, are less likely to have actually voted for the Conservative Party and more likely to have voted for the Liberals and the NDP, the latter even moreso.

In light of the data limitations, the findings here provide only a first step in assessing the role of personality in political behaviour in Canada. One particular avenue of further study is suggested by the substantive differences between the results of the ideology and vote choice

models in terms of the effects of personality. Structural-institutional factors and political contexts, as suggested by Gerber et al. (2010), may play important roles. For instance, the Canadian electoral system, single member plurality, may play an important role in shaping individual vote choice in terms of competitiveness within a constituency and strategic voting. The argument that SMP is a 'less pure' representation of voters' underlying characteristics, e.g., personality and beliefs, might provide some explanation for the difference between the models. Schoen and Schumann suggest that "strategic voting is likely to change the effect of personality traits on vote choice, as compared to expressive voting, presumably diminishing it" (2007: 476-477).

Since the 'Michigan model' of voting presents the process of individual vote choice as a temporally ordered "funnel of causality" in which the most antecedent factors are more or less stable sociodemographic characteristics, ideological dispositions are prior to short-term strategic considerations. Thus, the former is theoretically more directly affected by preceding factors, such as personality, than vote choice, which may be mediated through, among other things, a strategic calculus. Vote choice is a more concrete, active manifestation of behaviour and thus is likely to be more subject to intervening variables between personality and outcome than things like self-reported ideology. As well, outside of the direct effects of personality on vote choice, there is a universe of plausible implications: for instance, personality should have an effect on political participation, on economic voting, on how individuals receive, process, and act on informational stimuli about politics, and so on. Personality as a whole was found to be a useful contribution to our understanding of political attitudes and behaviour, and personality traits, particularly openness to experience, were found to be important factors in explaining ideology and vote choice in Canada, but much more work needs to be done.

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## Tables

**Table 1: Five Factor Model of Personality**

Trait (alternative labels)	Characteristics
<b>Extraversion (energy)</b>	High: Warmth, Gregariousness, Assertiveness, Leadership, Dominance, Aggression Low: Followership, Introversion, Shyness
<b>Agreeableness (friendliness)</b>	High: Trust, Straightforwardness, Altruism, Congeniality Low: Remote, Hostile, Combative
<b>Conscientiousness</b>	High: Competence, Order, Sense of Duty, Responsible Low: Irresponsible, "Cuts losses",
<b>Emotional Stability (neuroticism)</b>	High: Stable, "Unflappable" Low: Anxiety, Anger, Depression, Indecision
<b>Openness to New Experiences</b>	High: Curious, Learns from Experience Low: Rigid, close-minded

Source: McCrae and Costa (1996), Winter (2003)

**Table 2: Summary of Selected Studies on FFM and Political Behaviour**

	Extraversion	Agreeableness	Conscientiousness	Emotional Stability	Openness
<b>Caprara et al. (1999): center-left/right coalitions</b>	+ center-right	+ center-left - center-right	<+ center-right	No effect	+ center-left - center-right
<b>Caprara et al. (2006): center-left/right coalitions</b>	<+ center-right	+ center-left - center-right	<+ center-right	No effect	+ center-left - center-right
<b>Carney et al. (2008): ideology</b>	<+ liberal	No effect	+ social conservative <+ economic conservative	No effect	+ social liberal <+ economic liberal
<b>Gerber et al. (2010): self-reported ideology</b>	<+ social conservative + economic conservative	+social conservative +economic liberal	+ all conservative	<+ social conservative + economic conservative	+ all liberal
<b>Mondak (2010): self-reported ideology</b>	No effect	<+ liberal	+ conservative	<+ conservative	+ liberal
<b>Mondak and Halperin (2008): party id, ideology, Bush approval</b>	No effect	No effect	+ conservative + pres. approval	<+ conservative <+ pres. approval	+ liberal - pres. approval
<b>Schoen and Schumann (2007): party preference</b>	No effect	+ social liberal + economic liberal	- social liberal - economic liberal	- conservative	+ social liberal

Note: + or – indicates that the researchers assert a ‘strong’, statistically significant effect, <+ or <- a significant but weaker effect.

**Table 3: Overall Effect of Personality Traits on Explanatory Power of Model**

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>
<b>r-squared</b>	0.059	0.120	0.155
<b>Δ r-squared</b>	-----	0.061	0.035
<b>Root MSE</b>	2.075	2.011	1.979

N = 629, 1: age, gender, education, religion, immigration status (traditional / non-traditional),  
2: 1 + Atlantic, Quebec, West, 3: 2 + extraversion, agreeableness, conscientiousness, emotional  
stability, openness,  $F_{21}(3, 619) = 14.333, p = 0.000, F_{32}(5, 614) = 5,059, p = 0.000$

**Table 4: Effects of FFM Personality Traits on Ideological Self-Placement**

<b>Extraversion</b>	0.229 (0.360)
<b>Agreeableness</b>	0.238 (0.473)
<b>Conscientiousness</b>	1.340*** (0.348)
<b>Emotional Stability</b>	0.051 (0.437)
<b>Openness to Experience</b>	-1.356*** (0.379)
<b>Age</b>	-0.004 (0.006)
<b>Female</b>	-0.493*** (0.165)
<b>Education</b>	-0.196*** (0.041)
<b>Catholic</b>	0.863*** (0.189)
<b>Trad. Source Immigrant</b>	-0.174 (0.303)
<b>Non-TS Immigrant</b>	0.699** (0.343)
<b>West</b>	0.769*** (0.202)
<b>Quebec</b>	-0.775*** (0.226)
<b>Atlantic Canada</b>	-0.482** (0.229)
<b>Constant</b>	6.140 (0.577)

Note: Entries are OLS coefficients, with robust standard errors in parentheses. N= 629,  $R^2 = 0.155$ , \* $p \leq 0.10$ , \*\* $p \leq 0.05$ , \*\*\* $p \leq 0.01$

**Table 5: Effects of FFM Personality Traits on Vote Choice**

Trait	Vote Choice		
	NDP	Liberal	Conservative
<b>Extraversion</b>	0.373** (0.168)	0.502 (0.232)	2.042* (0.780)
<b>Agreeableness</b>	0.722 (0.414)	1.999 (1.343)	0.807 (0.397)
<b>Conscientiousness</b>	0.787 (0.373)	0.477 (0.236)	2.012* (0.797)
<b>Emotional Stability</b>	0.673 (0.354)	1.080 (0.634)	1.204 (0.544)
<b>Openness</b>	5.000*** (2.601)	2.966** (1.583)	0.244*** (0.108)

Note: Entries are multinomial logit coefficients with relative risk ratios and robust standard errors. The NDP and Liberal entries are compared to Conservative as the baseline group, while the Conservative coefficients are estimated in a separate logistic regression comparing Conservative to non-Conservative vote choice. Control variables (age, gender, education, immigration status, Catholic, region) are not shown. N = 653, pseudo-R<sup>2</sup> = 0.160, \*p ≤ 0.10, \*\*p ≤ 0.05, \*\*\*p ≤ 0.01

## Appendix 1: Personality Variables

The question wording is as follows:

*Here are a number of personality traits that may or may not apply to you. Please indicate the extent to which you agree or disagree with each pair of traits. You should rate the extent to which each pair of traits applies to you, even if one characteristic applies more strongly than the other. I see myself as:*

- 1 strongly agree
- 2 somewhat agree
- 3 somewhat disagree
- 4 strongly disagree

*Extraverted; enthusiastic.*  
*Critical; quarrelsome.*  
*Dependable; self-disciplined.*  
*Anxious; easily upset.*  
*Open to new experiences; complex.*  
*Reserved; quiet.*  
*Sympathetic; warm.*  
*Disorganized; careless.*  
*Calm; emotionally stable.*  
*Conventional; uncreative.*

The scale for each personality trait was constructed by recoding high values of the traits to high variable labels, adding the two associated items, then rescaling on a 0 to 1 range.

## Appendix 2: Control and Dependent Variable Coding

Age = Years  
Gender = 1 female, 0 male  
Education = categorical from 1 “no schooling” to 11 “professional degree”  
Religion = 1 catholic, 0 else  
ImmigTSC = 1 born outside of Canada in US, Europe, Australia, or New Zealand, 0 else  
ImmigNTSC = 1 born outside of Canada and outside US, Europe, Australia, NZ, 0 else  
Atlantic = 1 Atlantic Province (NL, NS, NB, PEI), 0 else  
Quebec = 1 Quebec, 0 else  
West = 1 Western Province (BC, AB, SK, MB), 0 else

Self-Reported Ideology = 0 most liberal to 10 most conservative