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Linking Political Orientation and Environmentalism:

An analysis of changing environmental attitudes and subsequent party support in Canada

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Introduction

Canada is one of the world's largest emitters of greenhouse gas emissions by volume (11th), is three times above the global average for per capita emissions (3rd), and is significantly far behind where it needs to be both in setting climate policy goals and achieving those it has already set (Ritchie, 2019). It is a country with a stained recent past in global climate leadership, becoming the first to withdraw from the Kyoto Protocol in 2011 and receiving a "Lifetime Unachievement" award from the Climate Action Network in 2013, after numerous fossil of the year awards during 9 years of environmental negligence under Conservative former prime minister Stephen Harper from 2006 to 2015 (Climate Action Network 2013; Hayden 2014) (Stoddart et al., 2016). Despite a resurgence of the climate agenda under Prime Minister Trudeau since 2015 and global climate sensationalization and activism in the last decade, Canada has struggled significantly to tackle its emissions problem. This is attributable largely to federalism, a political economy entrenched in a 'Carbon complex' of "oil and gas exploration, producing and refining companies; [and] vehicle, plane and ship manufactures; media, advertising and cultural corporations" promoting high-emission lifestyles (Urry, 2013). Furthermore, Canada is a federal state, meaning the majority of power in enforcing environmental legislation lies with provincial as opposed to federal government. Since climate change politics is viewed with respect to 'multilevel governance' due to how policy responses operate at local, provincial and international levels, this presents a "political nightmare" in passing meaningful amendments tackling climate change in every province, given conflicting interests (Stoddart and Tindall, 2015). Consequently, it appears federalism is a limiting factor in unlocking the deadlock of climate politics in Canada. As a result, the climate agenda will not progress without a 'delicate intergovernmental balance, and a weakening of the Conservative reaction' (Macneil and Paterson, 2018). This study aims to improve understanding of the link between party and ideological alignment and environmental attitudes. It will discuss how this may impact how Canadians vote both in federal and provincial elections, and what this means for environmental policy, through a review of existing literature and analysis of federal election data from 2015 and 2019. It aims to provide an updated understanding on the link between environmental attitudes and political orientation on a federal level, whilst also taking interprovincial circumstances into account, an aspect often overlooked in previous studies on the topic.

Literature Review

The modern western experience, especially technological development, economic growth, material prosperity, urbanization and democracy, stems from the accelerated extraction and consumption of fossil fuels used to build the industrialist capitalist system (McCright et al., 2011). In the decade preceding Harper's election in 2006, climate had remained a largely backseat issue whilst the importance of resource extraction to the Canadian economy rapidly increased, and resource development in Western Canada underwent rapid expansion as other industries in central Canada stagnated (MacNeil, 2014). Harper ran the 2008 election on a stream of 'mainstream populism', a facet of which was a vicious attack on the liberal party's carbon pricing proposals- a significant factor in Harper's landslide victory (Lockwood, 2018). Under Conservative rule, Canada established an almost 'apathetic attitude' towards the environment. This is evident through promoting increased access for extractive industries, expanding Albertan oil sands, exiting the Kyoto Protocol, rolling back the Environmental Assessment Act effectively diminishing federal environmental regulation, and launching a very large PR offensive against environmental groups labeled 'money launderers' (Stoddart et al., 2016) (MacNeil and Paterson, 2018). These years are often seen as 'especially gloomy', during which Canada's reputation among NGOs and partner states reached rock bottom, the legacy of which is still visible today (MacNeil and Paterson, 2016) (Stoddart et al., 2016). The impact these years had on public opinion towards climate change is immense, as in tandem with a rise in Right-Wing Populism (RWP), Harper was among many RWP leaders who contributed to an explosion of "antitax...politics" which generated hostility towards any kind of tax, especially environmental taxes, by framing the public as 'left behind' (Lockwood, 2018). It was also symptomatic of how RWP leaders in resource rich countries tend to have close relationships with fossil fuel industries, seen through Harper's close ties with mining and tar sand companies, as well as leaders of anti-environmental advocacy groups such as Barry Cooper, the leader of 'Friends of Science' (Greenberg et al., 2011) (Lockwood, 2018). Scholars have also noted the large impact that US climate policy over the same period has had on Canadian climate policy, with "Ottawa's most consistent tactic...being to hide behind Washington's equally mournful performance", seen through Ottawa's largely reactionary stance over the Keystone XL pipeline. Thus, until climate regulations and opposition to Keystone were taken seriously by the Obama administration, Canada were largely laggard (MacNeil and Paterson, 2016). This can also be seen in the opposite way, with the anti-environmental stance of President Trump who withdrew the US from the Paris Climate Accord (Harper style) feeding further into the rise of global RWP, a platform largely adopted in the election of Ontario's premier Doug Ford, who immediately after being elected scrapped Ontario's 'silly' cap-and-trade program, has now taken Ottawa to court over its carbon tax plan (Kassam, 2018). Thus, the recent history of climate policy in Canada has culminated in a now "ongoing war of position" between the three dominant party coalitions in Canadian climate politics: Significant Conservative backlash politics that define Canada's economic interests and identity as an 'energy superpower', the Green/NDP position of complete federal overhaul, and Trudeau's more centered

and contradictory position of both climate action yet continued expansion of the oil sands (MacNeil and Paterson, 2018). Echoed in public opinion, and spread across Canada's various provinces, this division and lack of consensus presents the most significant problem Canada faces in managing its emissions problem.

Ford's actions are characteristic of how federalism is a limiting factor in Canada's fight against Climate change. Prior to 2006, the federal government was content to allow provinces to occupy environmental frontlines, lacking any assertion regarding provincial jurisdiction over natural resources. (Harrison and Bocking, 1997). Moreover, during the Harper years, the federal government 'moved aggressively' to reduce its regulation of natural-resource development and allowed provinces greater control over Environmental Impact Assessment processes, whilst limiting public participation in these processes (Hoberg et al., 2012). Consequently, or as a result of general federal negligence, provinces then set up their own emissions regulations, entrenching "a complete lack of harmony" between provinces through a labyrinth of systems that Ottawa are "very likely to have tremendous difficulty" navigating (MacNeil and Paterson, 2016). This is because even in general, the multilevel character of climate governance "creates points of tension and conflict among jurisdictions" who possess the power to paralyze action on policy, citing competitiveness concerns. This can potentially force instability upon any attempt at a long-term approach towards intergovernmental balance on reducing emissions (Breton, 1996) (Stoddart and Tindall, 2015). This can be seen on several occasions in the last 15 years, for example, when Alberta and Newfoundland and Labrador rejected Ontario premier McGuinty's cap-and-trade proposal in 2007 due to fears of the impact on their oil industry (Boyd, 2017). Furthermore, out of British Columbia, Ontario, Manitoba and Quebec, Quebec was the only province not to pull out of the Western Climate Initiative cap-and-trade program by 2011, the rest blaming changing economic context (Houle et al., 2012). The fragile balance that Trudeau had created prior to enacting a federal carbon tax backstop was threatened by the election of an anti-pipeline government in BC in 2017, angering Alberta whom Trudeau had promised the construction of the pipeline in return for support of the backstop. Whilst the BC government could not physically stop the pipeline, they maintained the power of severely slowing construction through bureaucratic means, exacerbating the deadlock on the tax even further by angering Alberta (MacNeil and Paterson, 2018). Following Ottawa's proposal of the Pan-Canadian Framework on Clean Growth and Climate Change, 5 provinces resisted the changes, which resulted in the imposition of a federal backstop- a national minimum price on Carbon. Saskatchewan remained consistently opposed, whilst New Brunswick and Manitoba failed to meet Ottawa's standards (MacNeil, 2020). Doug Ford scrapped his province's cap-and-trade program upon election in 2018, also triggering the backstop (Lachapelle and Kiss, 2019). As evidenced, the problem of federalism is incredibly deep-rooted and poses a massive threat to any balance struck between provinces. Furthermore, even when individual provinces take initiative, such as in BC where a carbon tax has been in place since 2008, economic interests still trump environmental concern. This can be seen where in the same period as the implementation of the

carbon tax, between 2007 and 2012, BC production of oil and gas grew 25 times over, with emissions from the sector increasing 110% over the period (Wilkinson, 2015). Thus, even in areas where one good environmental policy is implemented, results in emissions reductions may continue to be hampered by the individual economic ambitions of the province. MacNeil and Paterson harrowly predicted in 2018 "If Alberta and/or Ontario fall under Conservative rule, Trudeau may find himself facing the same intergovernmental dynamics that destroyed his party's climate ambitions in the late 1990s and 2000s" (MacNeil and Paterson, 2018). Since that statement, Ontario has fallen under Conservative rule and has already posed severe danger to intergovernmental dynamics on climate change, proving just how difficult federalism renders Canada's ability to tackle climate change.

As a result of federalism, environmental policy creation and enforcement still lies largely in the hands of provinces. Therefore, predicated by the volatile nature of provincial politics, the complicated but politically feasible policy of cap-and-trade is repeatedly preferred over the more economically sound, yet politically challenging policy of a carbon tax (Harrison, 2012). In fact, a carbon tax can be applied faster, with more ease, provide a more stable price signal and provide greater transparency as compared to cap-and-trade policy. Yet, it is often forgone due to its easy framing as a cause of rising energy prices (Harrison, 2012) (MacNeil and Paterson, 2018). Rabe and Borick (2012) even suggest that carbon taxation is a "worthy policy" but 'simply cannot be expected to survive actual translation into policy' due to its political infeasibility (Rabe and Borick, 2012). British Columbia, the only province to successfully implement a carbon tax, was only able to do so under very specific and favorable political conditions. In 2007, 2 years into his term with 2 years remaining, the liberal BC premier Gordon Campbell proposed a carbon tax. As he was in the middle of his term, there was little immediate risk to re-election posed by the carbon tax, and would give British Columbians time to adjust to the policy whilst in power. As the recession was still the primary concern of voters and the BC liberal party was seen as the best on the economy, the carbon tax posed little threat to the party's overall standing in voter's eyes. As well as this, the BC NDP made the mistake of opposing the policy, which allowed the BC liberals to attract more left-of-centre voters, increasing their standing prior to the next provincial election (Harrison, 2012). Given the need for such a plethora of circumstances to present themselves in order for good environmental policy to be enacted, this shows the power that public opinion and consensus have on provincial elections and subsequent environmental policy. This is concurrent with Rabe's conclusion that electoral transitions in provinces are 'key tests' of policy durability, showing that policies which survive electoral transitions are much more likely to endure (Rabe, 2018). Although the durability of policy is partially to do with policy design, this demonstrates the need to understand the varying interests and opinions of people in each province, which are discussed later in this study.

The importance of public opinion and voter perception of environmental stewardship cannot go understated. Climate governance is not limited to formal political settings, but relies heavily on social movements and public perception (Stoddart and Tindall, 2015). Whilst science is a key aspect in

policymaking, public opinion especially surrounding environmental issues is incredibly powerful, and when public opinion and science diverge, policies that directly conflict with science can be implemented, such as the reversal of climate change mitigation policies (Bernauer, 2003) (Anderson et al., 2017) (Diamond et al., 2020). Public perception on climate policy has been a key cause of gridlock, as recent polling suggests that most Canadian are confused by carbon pricing. Few understand its mechanisms, and many think that it will reduce Canadian business appeal and increase living costs. This lack of understanding has allowed Conservatives and right wing media outlets to "take advantage of the public's poor grasp of carbon pricing to undermine the policy and gain electoral advantage" through blaming the policy for rising energy prices. This means that the true durability of the Canadian carbon price following the signing of the PCF is being determined by the battle for public opinion (MacNeil and Paterson, 2018) (MacNeil, 2020). Varying public opinion also risks 'spatially distorted signalling' where those who lose from spatially concentrated climate policy, such as those in proximity to renewable energy projects, can send signals to politicians and punish the government for this failure. Concentrated local opposition can overpower a diffuse, supportive public, creating incentives for environmental policy to reflect a vocal and local minority rather than the preferences of a diffuse majority. This mechanism was cited as a main cause for the Liberals losing their majority in the 2011 Ontario general election (Stokes, 2015).

Currently, public opinion in Canada on a federal level would suggest that the majority of people would support tougher climate policy. Prior to the 2015 federal election, Canadians ranked the environment as the second most important issue in the country, with support across the political spectrum for increased government action (Wilkinson, 2015). Before the 2019 federal election, data from 338 federal ridings showed that Canadians wanted action on climate and were generally willing to accept a small carbon price for it (MacNeil, 2020). Furthermore, 35% of voters placed it in their top 3 election concerns and many said that it would determine how they voted on election day (Shah, 2019). Given the importance climate change views have on voting and party preferences, it is important to understand what factors affect this link, and see how this has evolved in recent history in Canada.

In 2011 Anderson and Stephenson carried out a landmark study on political orientation and environmentalism in Canada, which was actually the inspiration for this study. Studying federal election survey data from 2000, 2004 and 2006, and through analyzing various indicators of party support and ideology against environmental concern, they concluded that environmental concern was indeed a positional issue in Canadian politics (Anderson and Stephenson, 2011). They found that rising environmental concern increased party support for parties on the left, especially the liberal party, whereas parties on the ideological right tended to lose support as environmental concern rose, a trend that has become clearer over time. This indicates that the conservative party has been disadvantaged by environmental concern. However, instead of enlisting any brokerage mechanisms in adopting a pro-environmental stance, they maintained and bolstered their anti-environment position, entrenching an ideological gap on environmental policy in Canada, and subsequently widened partisan divide on the

issue (Anderson and Stephenson, 2011). Similar analysis is carried out in this study on the 2015 and 2019 elections to see how the link has continued to evolve since the 2000s. Anderson and Stephenson's conclusions are concurrent with other scholars- that individuals are sorted along party lines on many issues, with political orientation having the largest total effect on policy support (Dietz et al., 2007) (McCright et al., 2011) (McCright et al., 2016). Contrastingly, Benegal and Scruggs conclude that unemployment and economic risk are bigger factors in determining shifting opinions on climate change than political orientation (Benegal and Scruggs, 2018). Another major factor that impacts perceptions on climate change and subsequent party support is the media, with more right leaning newspapers preaching the impact of climate change policy on industries such as the Alberta oil sands (Stoddart and Tindall, 2015). This is significant as mass media are found to be the strongest links between the public and policymakers, through a provision of a platform of engagement with decision-making (Cottle 2008). While these factors affect opinion on a federal level, factors on the provincial level must also be considered.

Climate scholars have found that coalition building deepens and strengthens support for climate change mitigation policies over time (Levin et al., 2012) (Bernstein and Hoffman 2018) (Stokes and Breetz 2018) (Meckling 2019). This can be seen in provinces where climate policy implementation has been more successful, such as Quebec, British Columbia, Nova Scotia, Prince Edward Island and the Northern Territories. On the other hand, provinces where opposition policy elites have exploited the public's disposition to be loss-averse have rendered climate policy more risky in public view and thus more "politically contentious", have struggled far more in climate policy implementation (Tversky and Kahneman, 1981) (Jacobs and Weaver, 2015) (Stokes and Breetz, 2018). This can be seen in Alberta, Saskatchewan, Ontario and Newfoundland and Labrador, some of Canada's largest emitters.

The population of British Columbia has had the longest time out of any Canadian province to feel the effects of a major emissions reduction policy. Prior to implementation in 2008, the BC population had seen a sharp rise in environmental concern following a wide host of climate related environmental issues, including warmer weather destroying tree populations, beetle infections and a series of very intense storms (Harrison, 2012). Hence, alongside the aforementioned fortunate political circumstances premier Campbell acted under, it was a good time in terms of public opinion to implement the tax. Despite rising environmental concern, the implementation of the tax still sparked heavy public opposition, with many lower income sections of society perceiving it as 'punitive'. Harrison has noted that the continued survival of the tax is largely down to its revenue-neutral nature, which helped gain the support of businesses in BC (Harrison, 2012). Many scholars have insisted that the carbon tax in BC required a very specific set of circumstances to be implemented, which are required to make carbon tax implementation viable anywhere in North America. These are the support of the private sector, a population feeling the effects of climate change, a parliamentary majority, ample time before an upcoming election, and a party leader like Premier Gordon Campbell who is strongly personally committed to the cause regardless of

opposition even within their party (Harrison 2012) (Burmeister and Hausotter, 2019). Former Liberal party leader Stephane Dion tried to run his election campaign in 2008 with a carbon tax inspired by Campbell, but lacking any other favorable circumstances, failed miserably at the polls (Harrison, 2012). In a 2021 poll, the public in BC had the second-highest approval rating of a federal minimum carbon price of any province in Canada, behind only Quebec (Canseco, 2021). 12 years on, a majority (64%) of British Columbians said that the carbon tax did not negatively affect the finances of their household, showing that it is certainly possible to get public support for a carbon tax (Canseco, 2020). Despite climate change having a disproportionate impact on Northern BC, the majority of people there support pipeline expansion, Coastal GasLink development and increased forestry employment opportunities, showing how jobs are still a higher priority for many British Columbians, despite environmental cost (Canseco, 2019) (Simmons, 2020). The impact of interprovincial competitiveness concerns mentioned earlier are clear to see both in BC and Manitoba, whereby BC froze its Carbon price from 2013 to 2018 to allow other provinces to take some environmental responsibility, whereas Manitoba who have previously favored a carbon price pulled out several times due to a lack of an interprovincial carbon price (Boyd, 2017). The situation in BC and Manitoba demonstrates the complexity of environmental policy support and implementation on a provincial level in Canada, despite being some of the better performers nationwide.

Ontario, Canada's most populous province, experienced a very volatile environmental policy in the last 20 years. It began its coal phase out in 2003, completed in 2014, which was seen as very successful in helping reduce Ontario's emissions to their lowest levels in 2016. It passed the Green Energy Act in 2009, which helped propel the province's renewable energy ambitions, and Ontario formally joined Quebec and California in their cap-and-trade initiative in 2017 (Lachapelle and Kiss, 2019). However, the wind energy developments from the Green Energy Act imposed heavy political costs to the Ontario liberal party given its unpopularity in rural areas close to new developments, whilst the cap-and-trade initiative was reversed upon conservative premier Doug Ford's election in 2018 (Lachapelle and Kiss, 2019) (MacNeil, 2020). The developments were part of the province's Feed-in-tariff (FIT) program, which gave renewable energy developers fixed price long term contracts. Whilst the coal phase out passed Rabe's key test of policy durability by surviving all the electoral transitions during its implementation, the FIT program failed the transition from a Majority to minority Liberal government in Ontario and was scrapped, whilst the cap-and-trade policy failed to survive the transition from Liberal to Conservative in 2018 (Rabe, 2018) (Millar et al., 2020). The failure of the FIT program and the rise in general hostility towards environmental policy in the province is attributable to a lack of coalition building, and mistakes in the public framing of the policy (Stokes, 2015). Whilst the coal phase out was framed to the public in light of health benefits, the government tried to increase support for the FIT program through framing it in terms of economic gains. This allowed Conservative policy opponents to exploit the public's aversion to losses. Consequently, this appealed to rural Ontarians who feared rising energy prices, which alongside the removal of municipal control in 2009 as part of the act,

allowed for 50 anti-wind groups to coalesce and increase media coverage of their protests, resulting in significant political mobilization on the issue and subsequent reversal of the policy (Warren, 2013) (Millar et al., 2020). A similar loss framing tactic was used during a period of rising electricity prices between 2014 and 2018, which rendered the implementation of cap-and-trade policy more risky and weakened its ability to withstand electoral transition. Consequently, the odds of voting Conservative in Ontario increased with perceptions that electricity had become more expensive and that the federal government should take responsibility over climate policy (Lachapelle and Kiss, 2019). On the other hand, Ontario has several lessons to learn from Nova Scotia (NS), where a FIT policy was successfully implemented, withstood several electoral transitions and garnered widespread public support. This success has been attributed to a lack of partisan divide, as all three major parties supported the policy. In NS, communities near wind farms were actually given the chance to invest in these projects, tying their own economic success to the success of renewable energy development in the province. Despite a greater rural-urban divide in Ontario, Stokes attributes the relative success of Nova Scotia to partisanship and greater community engagement, with local support for wind energy being over 50% higher in NS than Ontario (27% vs 79%) (Stokes, 2015). The positive effect of partisanship on energy policy can also be seen in Prince Edward Island, and the Northern territories, where consensus governments have been a significant backbone of energy policy implementation (MacNeil, 2020). Ontario is thus a great example of the destabilizing power of public opinion on the implementation of energy policy.

Alberta and Saskatchewan, Canada's two oil and gas giants, are responsible for the highest level of energy related emissions across Canada, with Alberta by far having the highest emissions of any Canadian province. The oil sands (mostly in Alberta) are the fastest growing source of carbon emissions in Canada, growing 23% between 2005 and 2017, and are expected to double GHG output by 2030, with investment growing from $10 billion in 2009 to $250 billion by 2035 (Bowness and Hudson, 2013) (Israel, 2020). This poses a massive problem for Canada's emissions output, and treating this problem is extremely difficult and unlikely to be successful anytime soon, given its importance to Alberta's political economy. The oil and gas industry are seen as the "engine" of Alberta's economy, with tar sands being the primary driver of state revenues, capital accumulation, and a significant source of employment and economic growth (Bowness and Hudson, 2013) (Adkin et al., 2016). Alberta's dependence on oil has been crafted largely by 44 years of Progressive Conservative (PC) rule from 1971 to 2015, during which through decades of favorable legislation, the energy industry and the government formed a "symbiotic relationship". Successive PC governments would cultivate a narrative that the citizens of Alberta directly benefit from the profits from oil and gas extraction, and in return the oil and gas industry would provide financial support to bolster the PC party's ability to dominate provincial politics (Adkin, 2016) (Adkin et al., 2016). The government has tried to stifle any pro-environmental movements or discussions during this time, as seen when Lower Athabasca Regional Planning (LARP) set up public consultation events with members of the public regarding concerns over the land use plan of the oil sands in 2009. Adkin

found that there was little meaningful interaction between citizens and stakeholders during these consultations, which were heavily controlled and whose results were largely ignored in the development of the land use plan. This suggested that the public engagement was simply meant to establish the democratic legitimacy of the plan, as opposed to make any actual contribution towards concerns of the public (Adkin et al., 2016). This is significant as it shows the creation of a faux social licence for the project through manipulation of the public in the region to bend to the will of commercial and political interest. In 2019, Alberta's Conservative leader Jason Kenney successfully weaponized Alberta's dependence on oil and gas against federal emissions caps, triggering the imposition of the federal backstop (MacNeil, 2020). As shown earlier, public opinion tends to be reflective of partisan consensus, and in this case, the public in Alberta and Saskatchewan have tended to side with their governments in the prioritization of their economy over climate concerns. This can be seen where the majority of Albertans place economy as the most important issue in their province, agree with the Trans Mountain Pipeline expansion, and where 79% of Albertans believe this will lead to significant job creation (Canseco, 2020). The same case is clear in Saskatchewan, where 35% of voters find economy and jobs to be the most important issue, compared with only 8% for the environment (Canseco, 2020). These views are shared between both provinces, where Alberta and Saskatchewan were the only provinces where the majority of participants in a poll wanted authorization for the Keystone XL pipeline, and were the only two provinces where more than 70% of participants said jobs and economy are of a greater weight in the debate over the pipeline than climate change and the environment (Pearson, 2021). They were also the two provinces with the highest percentage of support for job protection as opposed to a gradual phase out of fossil fuels, and had the largest difference in percentage points of voters who wanted to prevent job losses from oil compared to meeting emissions reductions targets set in the Paris Climate Accord (Seskus, 2020). These views show that there is a long way to go in swaying public opinion in support of emissions reductions policies in Alberta and Saskatchewan, which poses a headache given their continued, stubborn dominance over emissions output in Canada.

Methodology

The purpose of my data analysis is to provide an updated understanding of the changing link between environmentalism and political orientation. I analyze four different measures of political orientation against a single measure of environmental concern, in an aim to produce results comparable with Anderson and Stephenson's 2011 study of the 2000, 2004 and 2006 federal election surveys. In their study, they measure environmental concern using two measures. The first measure asked respondents how far they agreed with the statement "Protecting the environment is more important than creating jobs". This measure was used for 2000 and 2004, but was not present in the 2006 election survey. The second measure asked "Should the government increase, decrease, or keep spending the same on the environment?". This measure was used for 2004 and 2006, but was not present in the 2000 election survey. In my analysis, I opted to use the spending measure, as this was present in both the 2015 and 2019

election survey, as opposed to the job creation measure which was only present in the 2019 survey, in order to increase the comparability of my results. For the spending measure, they coded -1 for decrease, 0 for no change, and 1 for increase spending (denoting a pro-environmental attitude) and labelled this variable 'Environmental Concern'. They then carried out four stages of analysis for four different measures of political orientation. The first stage was ideology, where the average environmental concern (-1 to 1) was plotted for those who identified themselves as 'Left', 'Centre' and 'Right' leaning on the ideological scale, by creating a coefficient determined from an index of questions on general government spending, using the same coding as the environmental spending measure. The second stage was party feeling, where the average feeling from 0 to 100 (0= dislike, 100=like) for each party was plotted at increasing levels of environmental concern (-1 to 1). The third stage used regression analysis with party identification at increasing levels of environmental concern, to create 'Predicted Probability of Party Identification at Increasing Levels of Environmental Concern'. The final stage was a multinomial logit vote choice model, to generate predicted vote choice based on environmental concern (Anderson and Stephenson, 2011). In my analysis, I carry out five stages of analysis. The first stage is very similar to the 2011 study, however in 2015 and 2019 respondents were asked to place themselves on an ideological scale from 0 to 10, which I used to code 0-4 as 'Left', 5 as 'Centre', and 6-10 as 'Right' leaning, instead of using a spending index to create a coefficient for ideology. In my second stage of analysis, I use the exact same method of measuring average party feeling at increasing levels of environmental concern, as done in 2011. However, for stages 3 and 4, due to greater difficulty and time constraint on the research, instead of creating a regression model as used in 2011, I simply plot average party identification and vote choice against environmental concern. Whilst this is less statistically rigorous, the results are still meaningful, and I leave it to future research to replicate my analysis with greater statistical rigour. For my 5th stage of analysis, I break down each of my four stages by province, a step further than the 2011 study, the importance of which is clear given the complexity of provincial interests in the fight against climate change (as discussed in the literature review). I begin the fifth stage of analysis by plotting average environmental concern by province, before continuing with the four prior stages. As done in the 2011 study, I do not analyze data from Quebec, due to the important differences in party systems and competition within Quebec compared with the rest of Canada. For this reason, Quebec is often excluded from study of political behaviour in Canada. As in the 2011 study, the use of Canadian Election Studies is appropriate due to its nature as a high quality source of public opinion data, which is a representative sample and large enough to perform statistical analysis on (Anderson and Stephenson, 2011). The sample for 2019 was far bigger than the sample for the 2015 survey, however this difference was not big enough to have a noticeable impact on the findings. All analyses are done using Excel and STATA 17.0.

Results and Discussion

Stage 1: Environmental concern vs Ideology

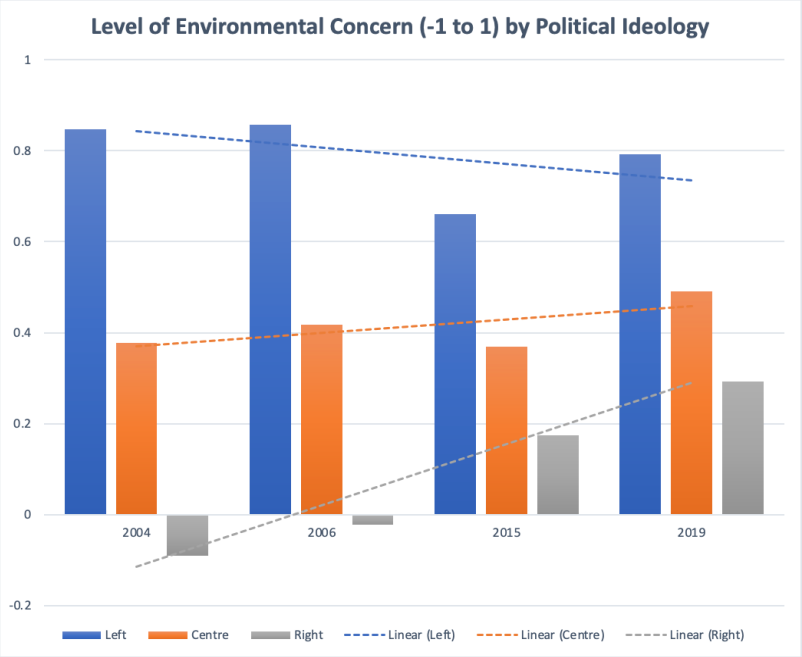

Figure 1

In Figure 1, combining data from both studies, we see that those who identify as on the 'left' of the ideological spectrum, from 2004 to 2019 across all four elections, display a higher level of environmental concern than those in the 'centre', with the lowest environmental concern shown by those who identify as on the 'right'. These results are unsurprising, as they show the ideological divide on the issue, which Anderson and Stephenson concluded to be 'positional' (Anderson and Stephenson, 2011). A more significant finding is just how much the size of the divide has reduced, as although those on the right still display the lowest environmental concern, this value has increased significantly since 2004, pointing to an overall increase in consensus for Canadians across the spectrum on environmental spending by 2019. This likely due to growing media attention towards climate change, and it's more frequent presence in the arena of political debate following 2015, under Trudeau. If this trend continues, it may suggest that voters will begin to vote for the party that handles the environment the best, as opposed to the party which traditionally followed ideological lines on the issue (NDP/Green left, Liberal centre, Conservative right). Whilst this may point to the environment becoming a 'valence' issue in the future as opposed to 'positional', this is unlikely given the effect of increased polarization in party identification on the issue found in later stages of analysis.

Stage 2: Party feeling vs Environmental Concern

In Figures 4 and 5, in 2015 and 2019 we see that as we increase the level of environmental concern of a voter, party feeling from 0-100 tends to increase for the Green Party, NDP and Liberal party, whilst it decreases for the Conservative Party. This is concurrent with the results from 2004 and 2006 in Anderson and Stephenson's study, as seen in Figures 2 and 3. However, as we progress from 2004 to 2019, we find that at each election, the gradient of the average difference between party feelings at increasing levels of environmental concern increases.

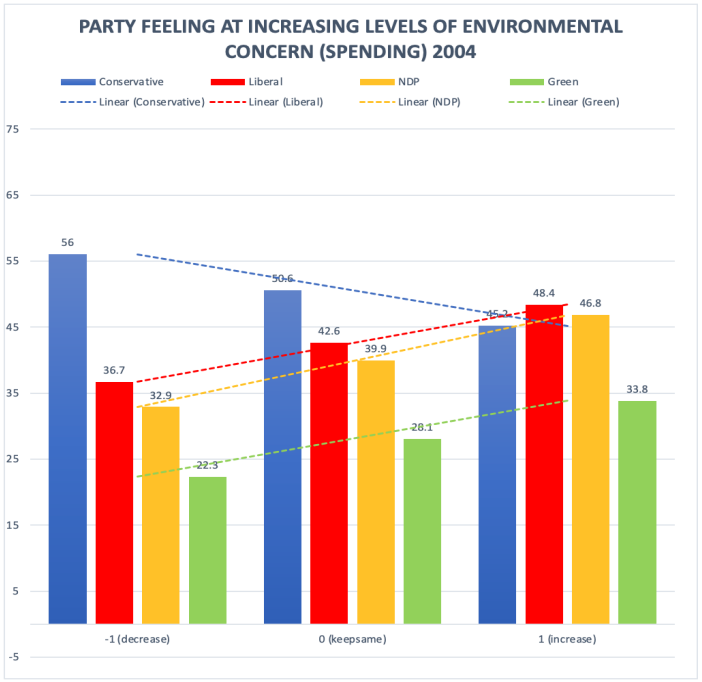

Figure 2

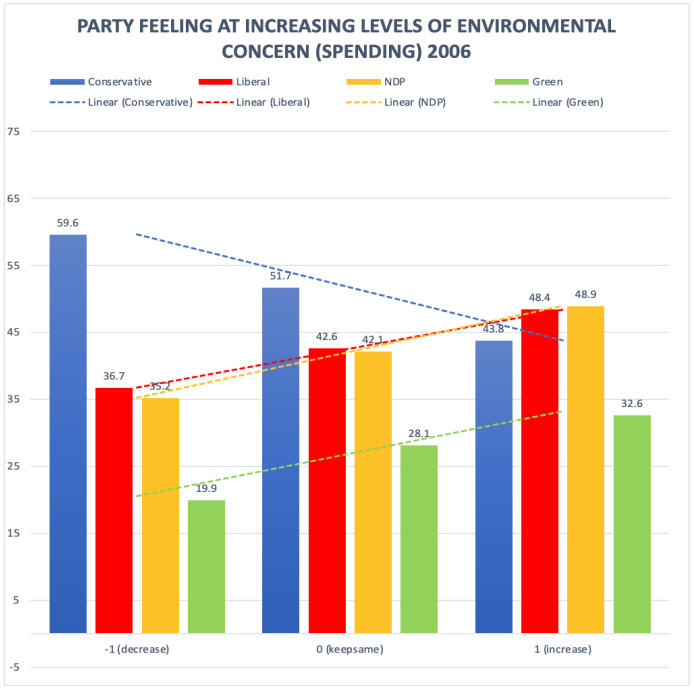

Figure 3

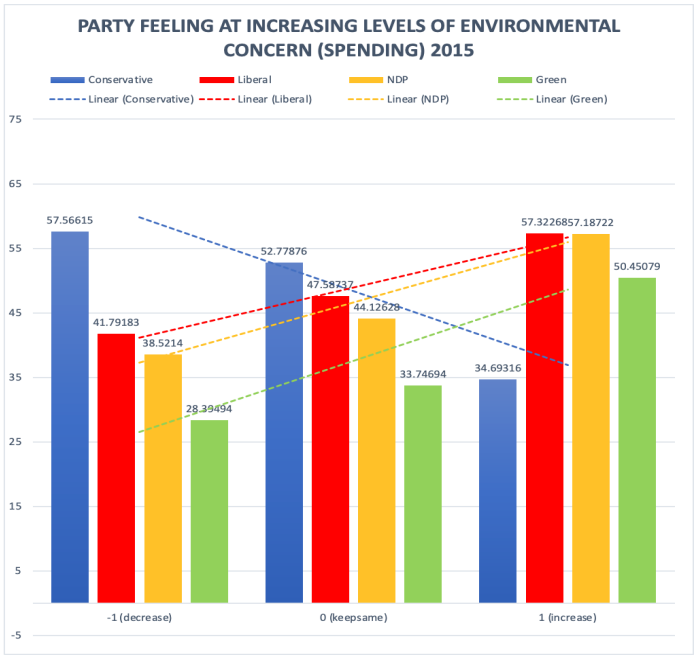

Figure 4

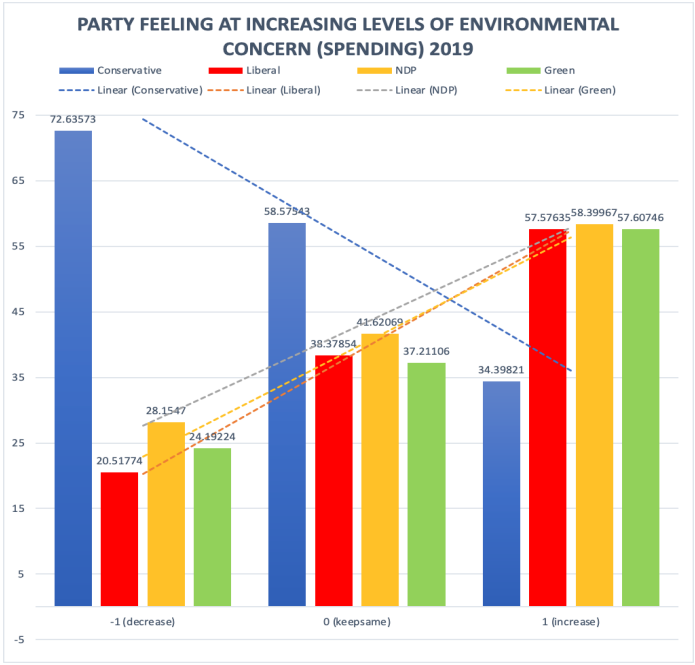

Figure 5

This can be seen where over time, there is a strengthening of party feeling for the Green, New Democratic and Liberal party for respondents who want to increase spending, with the opposite for party feeling towards the Conservative party. The inverse is seen for those who want to decrease spending, where average Conservative party feeling has increased over time compared to a reduction in party feeling for the other three parties. This suggests that the topic has become more polarized, with feelings on both ends of the party spectrum intensifying over time. The largest increase in this polarization can be seen from 2015 to 2019, which may be due to increasing media attention towards climate change under Trudeau accompanied by a rise in global Right Wing Populism which generally opposes environmental policy. This polarization is similar to that seen in the US over the same period following the election of Donald Trump. Furthermore, the growth of social media since the 2006 election has made it far easier for audiences to expose themselves to news stories that reinforce their own ideological viewpoints, which applies heavily to climate change and thus has also polarized the issue, making policy solutions more difficult to construct (Stoddart and Tindall, 2015).

Stage 3 and 4: Environmental Concern vs Party Identification and Vote Choice

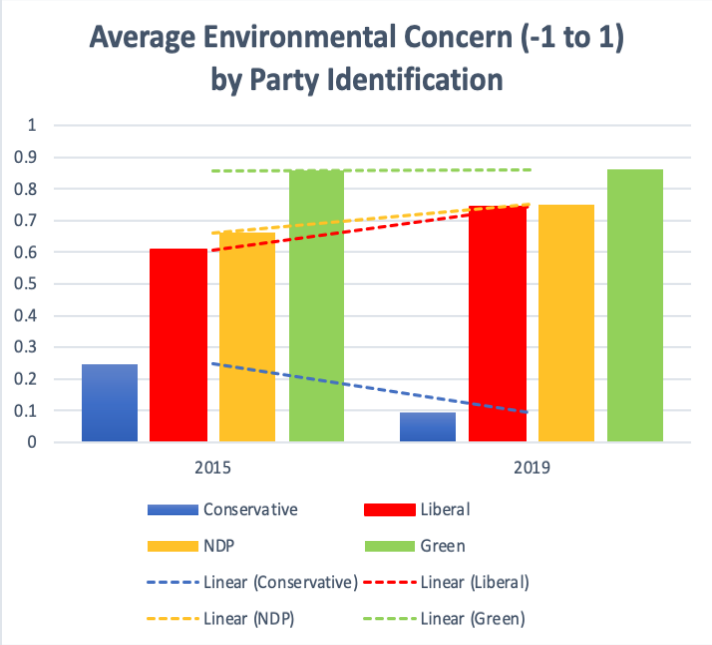

Figure 6

Similarly to Stage 2, in Figures 6 and 7 we see that in general there is increased environmental concern for those who identified with/voted for the Liberal Party, NDP, or Green Party, and decreased environmental concern for those who identified with/voted Conservative. This trend is bolstered between 2015 and 2019, with environmental concern falling for those who identified with/voted Conservative, and rising for the other three parties. This, along with findings from Stage 2, are interesting given that although there is an increased overall consensus towards environmental concern on the ideological spectrum, this consensus disappears and even diverges when applied to the party spectrum. This indicates that the partisan divide on environmental spending is significantly inhibiting the public consensus on the issue from being translated into a proportional policy response, suggesting partisan divide is a major limiting factor in progress on environmental policy in Canada.

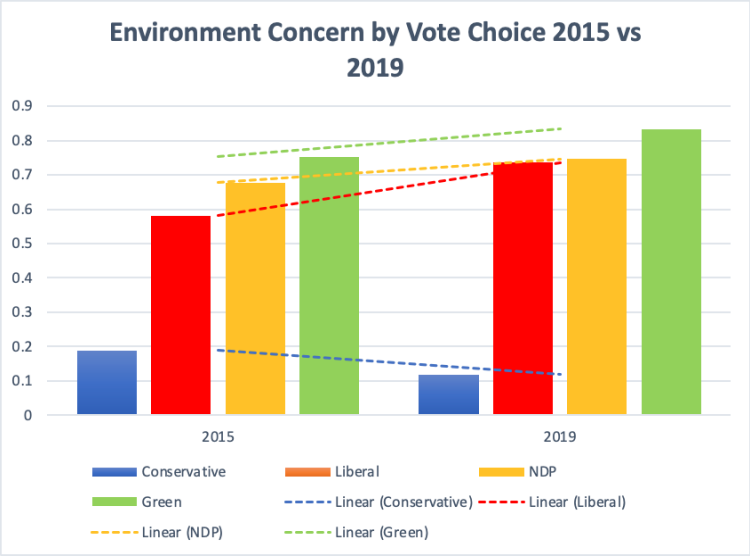

Figure 7

Stage 5: Provincial Breakdown

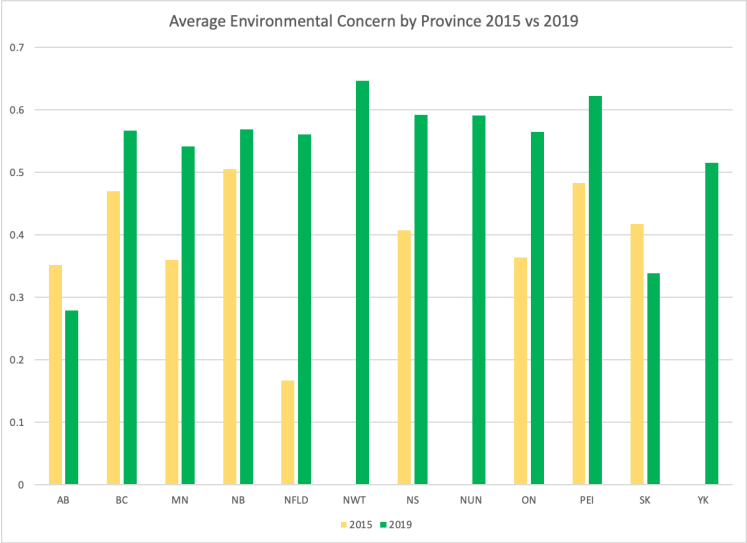

Figure 8

In Figure 8, we see that between 2015 and 2019, every province saw an increase in environmental concern, except for Alberta and Saskatchewan, which had significantly lower environmental concern in 2019. Furthermore, between 2015 and 2019, Alberta and Saskatchewan were the only provinces where those who identified as on the right of the ideological spectrum saw a decrease in their environmental concern (Figure 9,10 below), which goes against the general increase in consensus on the right over the same period (Figure 1). This shows that whilst there has been an overall improvement in environmental concern in Canada, it is not happening in the areas which have the greatest impact on its emissions through oil and other fossil fuel extraction. This is likely due to the heavy influence of carbon-intensive industry in these provinces, however, BC is also a resource-rich state which undergoes lots of extraction but whose respondents consistently indicate high environmental concern. This shows Alberta and Saskatchewan's fate is not sealed and can be improved, but certainly not without great difficulty.

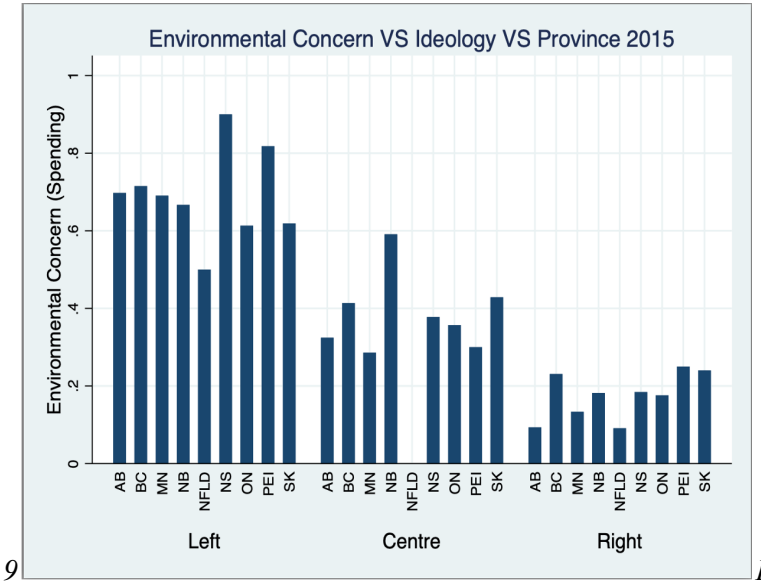

Figure 9

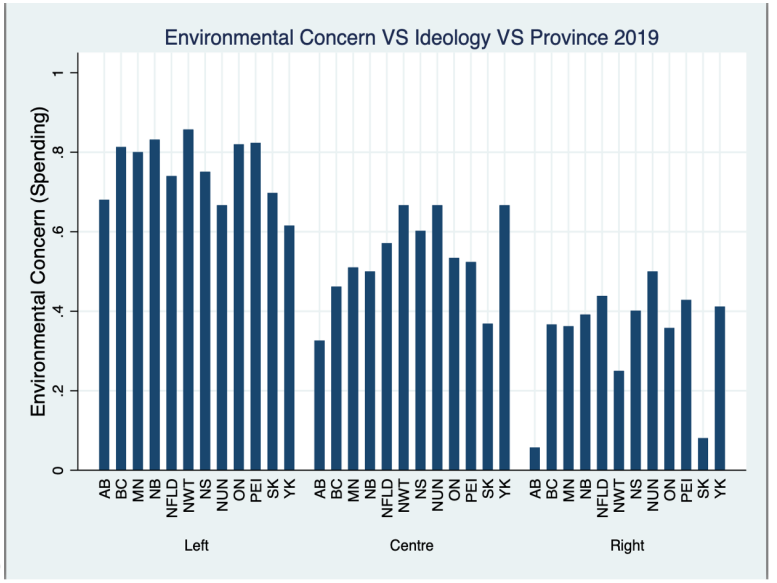

Figure 10

In Figure 11 (2015), we see that for those who want to increase spending on the environment, respondents in Alberta, Ontario and Saskatchewan posted the highest average party feeling for the Conservatives, a trend largely continued in Figure 12 (2019). As all three of these provinces have right leaning parties in control of legislature, it shows how policy preferences such as increased environmental spending have little impact on policy implementation if the party you support is opposed to your own policy preferences.

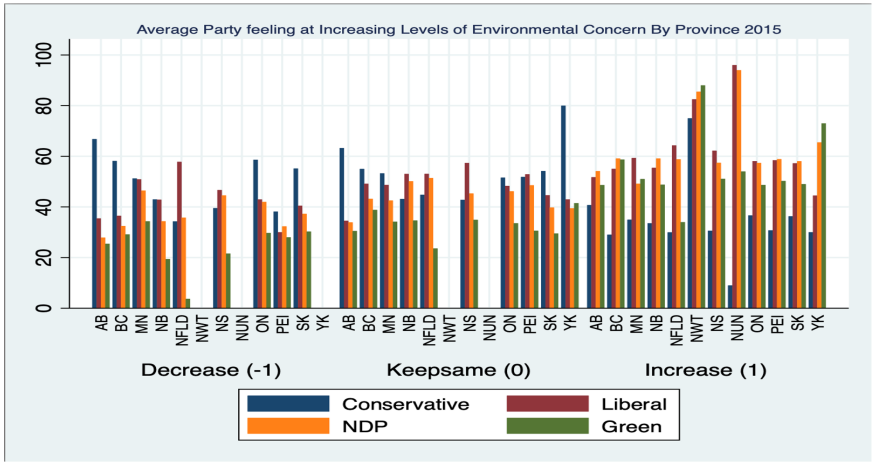

Figure 11

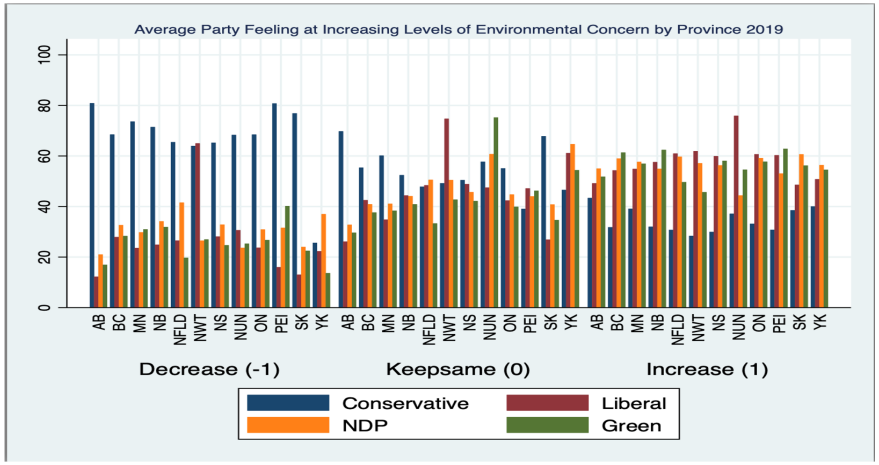

Figure 12

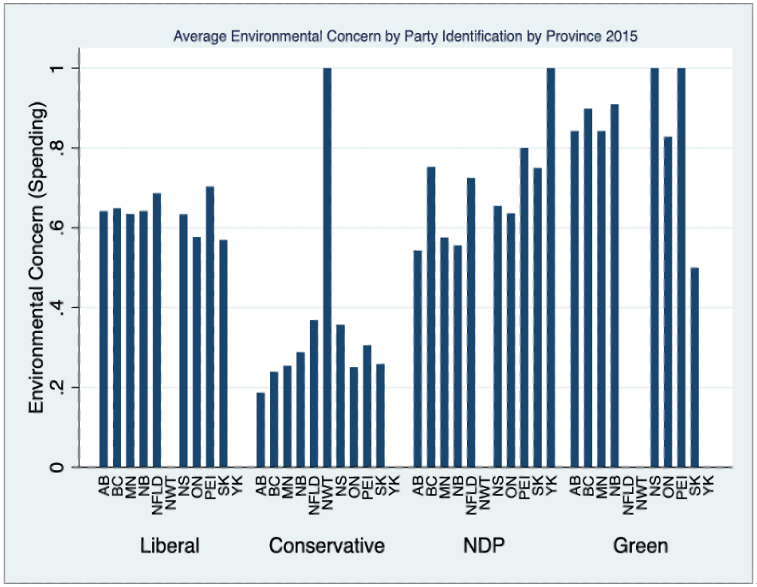

Figure 13

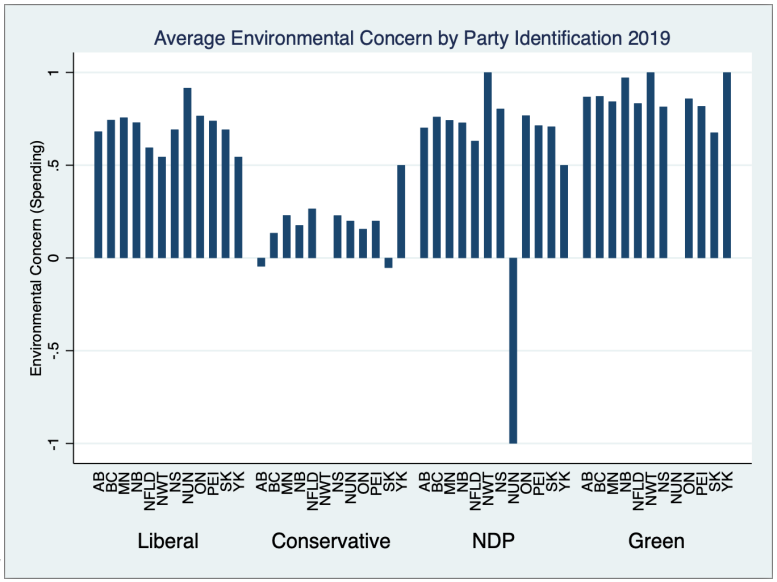

Figure 14

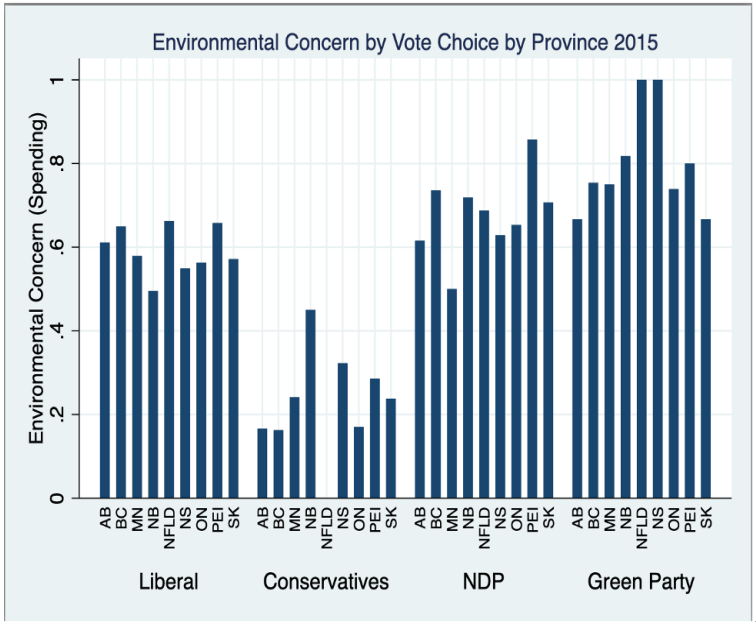

Figure 15

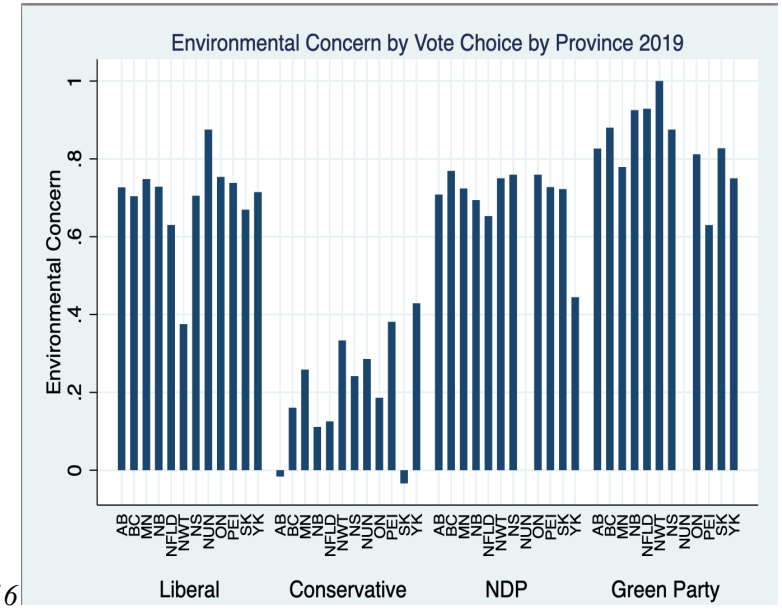

Figure 16

However, in Figures 11 and 12, we see that those who want to increase spending but support Conservatives are actually outnumbered by those who don't, as between 2015 and 2019 Conservative voters from Alberta and Saskatchewan became the only groups who would actually rather decrease environmental spending than increase it.

In Figures 13-16, we see that the provinces where there is a partisan consensus on environmental policy tend to post the highest scores on environmental concern for their respondents across the four parties (BC, NS, NWT, PEI), with lower scores in other provinces, and the lowest scores in Alberta and Saskatchewan. This divide in opinion across the country, and entrenchment of anti-environment views in Alberta and Saskatchewan, poses a massive challenge for Canada's ability to pose a unified front against climate change and emissions reductions in the future.

Conclusion

In conclusion, the link between political orientation and environmental concern has evolved significantly in the last 20 years, but the implications of this on Canadian environmental policy are varied. It appears that Canada is stuck with the problem of federalism and its detrimental impact in inhibiting the progress of environmental policy nationwide. Alberta and Saskatchewan remain consistently opposed to pro-environmental policy largely in the realm of policy elites, but also as found in the data, in the realm of public opinion. Whilst the data shows an improvement in consensus on environmental concern, there is a worrying increase in the polarization of attitudes from party supporters nationwide, especially in the most carbon-intensive provinces. Solutions to this likely lie in the solidification of public opinion in these provinces, matched with an increase in the political mobilization of pro-environmental groups in these areas, a historically successful method in forcing policy change. On a federal level, the government may consider implementing a far harsher carbon price backstop, or reduce subsidies and investment in oil sands to incentivize alternative energy production. Whilst this is unlikely, it is even more unlikely for there to be a policy shift in the carbon intensive provinces independent of federal involvement. Given Canada's poor trajectory in its aim to tackle its emissions problem, more radical solutions must be scoured to deal with the time-sensitive nature of climate change. It is clear that change in political arenas requires understanding and change in the arena of public opinion. This however is not enough. It also requires courage from policymakers to shift partisan divide and approach a consensus in order to pose a unified front against climate change. This has been successful in some provinces in the country, and has allowed for attention to shift away from debate on whether or not the issue deserves policy attention, and onto how the interests of the constituents of each province may be attended to alongside these policy shifts. Whilst the data suggests opinions on environmental spending based on party preferences are diverging, I hope that this trend is nullified, and Canada's parties may work together to tackle climate change and the risks it poses to the Canadian and global population.

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