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Letter from the Editors

From the continuing rise of populist rhetoric, deepening global concern on climate change, and the emergence of stronger feminist foreign policy, there are many policy challenges that Canada is facing today. Living in an information saturated culture, it is difficult to disentangle oneself and engage in critical dialogue.

This year we sought to understand Canada's current policy issues by opening up our call to not only policy graduate students, but also those within other specialties. We wanted to create a dialogue to better understand how these policy issues are affecting Canada and will affect our future.

We would like to take this opportunity to thank all of the authors who submitted papers, and the editors and faculty at the School of Policy Studies for their time and support in putting this journal together.

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Climate capitalism, development and the need for post-growth

Catherine St-Jacques

As the effects of climate change and global warming are increasingly being felt, it becomes evident that global development is intrinsically linked with the environment. While climate mitigation methods are being implemented, the most vulnerable populations are already witnessing the devastating effects of climate change, whether they take the form of droughts, floods, wildfires, the melting of sea ice, or the increasing sea level. This raises the question of whether or not climate mitigation efforts can also benefit the fight against poverty and can be implemented in such a way that would also benefit development efforts. This paper argues that climate capitalism, the system currently in place, not only hinders efforts to mitigate the effects of anthropogenic climate change but is also at the root of intersecting oppressive forces that create structural injustices and inequalities. Climate capitalism therefore does not provide us with a useful tool to eradicate poverty as it does not challenge the root cause of the problem: our consumption habits and our constant thirst for economic growth which harm both the environment and development efforts. By looking at the concept of climate capitalism itself and how it reinforces inequalities between the global North and South, it becomes obvious that there is a need for more radical climate policies and a socio-economic paradigm shift.

Climate capitalism: mitigating climate change and promoting growth

Among the most prominent methods of climate change mitigation is climate capitalism. This method can be described as having been developed

“within the bounds of neoliberal environmentalism, climate capitalism is founded on market mechanisms [...] The hope is that pricing access to the atmosphere’s sink capacity will foster the technical innovations needed to make “low emissions” production technologies and energy generation cost competitive so thus move investments away from fossil fuel dependent commodity production.”¹

¹ Sapinski, J.P. 2016. Constructing climate capitalism: corporate power and the global climate policy-planning network. *Global Networks*, 16 (1), 89.

It therefore mostly consists of establishing a platform for carbon trading, which usually takes the form of carbon taxes or cap-and-trade systems. Not only does carbon trade foster a sense of responsibility for major greenhouse gas (GHG) emitters and encourage emission reduction but the revenues it generates are used to invest in technological advancement which will help to de-carbonize the global economy.² Climate capitalism thus promotes a system which no longer relies on fossil fuels as a source of energy and which generates green growth from renewable sources of energy.

A green economy would look like a low-carbon, renewable-based energy supply which serves to lower GHG emissions and pollution, improve energy efficiency and attempts to mitigate further environmental degradation and loss of biodiversity.³ Critics of climate capitalism describe it as being a tactic to reconcile the protection of the environment with economic growth. Such critics call out methods such as carbon trading as being an attempt to “turn climate change mitigation into an instrument of capital accumulation”⁴, or in other words, turning “greenhouse gas pollution into a tradable, ownable commodity.”⁵ As this passage and the name of the economic model itself indicate, growth, resource efficiency and profit maximization are therefore still embedded at the core of green growth. It is however important to remember that we live in a finite world and that we are already seeing the problems related to resource scarcity and overexploitation. Our capitalist consuming habits have proven to be already unsustainable as we continue to try to push the limits of the planet further in a search for profit.⁶ This raises the question of why we chose to invest in a capitalist solution for a problem that stemmed directly from capitalism itself. Can new market mechanisms really bring forth meaningful change in the current economic order and environmental crisis without addressing the roots of the problem?

² Böhm, S. et al. 2012. Greening Capitalism? A Marxist Critique of Carbon Markets. *Organization Studies*, 33 (11), 1617-1638.

³ Schulz, Christian & Ian Bailey, “The Green Economy and Post-Growth Regimes: Opportunities and Challenges for Economic Geography”, *Geografiska Annaler: Series B, Human Geography* 96, (3), p. 277.

⁴ Sapinski, J.P., *op.cit.*, p. 90.

⁵ Lohmann, L. 2008. Carbon Trading, Climate Justice and the Production of Ignorance: Ten examples. *Development*, 51, 360.

⁶ Koch, M. 2015. Climate Change, Capitalism and Degrowth Trajectories to a Global Steady-State Economy. *International Critical Thought*, 5 (4), 439-452.

Authors such as Böhm *et al.* stipulate that people believe that climate capitalism is a viable solution because capitalism has a history of recovering from economic and environmental crisis it had itself created.⁷ Furthermore, it is becoming increasingly difficult to verify the credibility of such affirmation as networks of corporate-funded climate and environmental policy groups, who have been prominent promoters of climate capitalism are becoming more and more implicated in what Sapinski refers to as knowledge production and mobilization (KPM). These groups have been relying on their KPM to support their projects and legitimize their practices in a similar fashion as climate deniers have created their own think tanks to advance their agenda⁸. According to Sapinski, these organisations are more than simple lobby organizations as “these groups participate to create the discourse and practices of climate capitalism, and mobilize such discourses and practices by reaching out to the global elites.” These discourses promote the same mechanisms that have led to this crisis and provide elites with the tools necessary to maintain their power relation where control and dispossession of resources benefit the rich, perpetuating the cycle of redistribution of wealth from the poor to the rich.⁹

Deepening the North-South divide

Carbon trading and climate capitalism is not only unsustainable from an environmental viewpoint but it also hinders sustainable development as it implies unjust constraints on developing countries. The high cost of climate change mitigation highlights how the issue of capacity is linked to inequality, as costly restrictions and regulations are imposed on developing countries to lower their emissions move away from a carboniferous economy.¹⁰ Not only do such market mechanisms harm the most vulnerable populations but they also often privilege elite groups, both in developed and developing countries.¹¹

⁷ Böhm, S. et al. 2012. Greening Capitalism? A Marxist Critique of Carbon Markets. *Organization Studies*, 33 (11), 1617-1638.

⁸ Sapinski, J. P., *op.cit.* p. 95.

⁹ Lohmann L. *op. cit.*

¹⁰ Schor, Juliet. 2015. “Climate, Inequality, and the Need for Reframing Climate Policy.” *Review of Radical Political Economics*, 47(4), 525-536.

¹¹ Böhm, S. *et al.*, *op. cit.*

Furthermore, it is important to point out that there are major flaws in the methodologies used to calculate the carbon and material footprints of countries as most accounts do not take into consideration the energy consumed during the production of the transformed materials. This echoes Wallerstein's world system where the periphery countries extract raw materials to sell them to the semi-periphery where they get transformed and manufactured in order to sell the final products to the core countries. However, when calculating the carbon and material footprint of these countries, the energy consumption is associated to the periphery and semi-periphery, even though the transformed goods are consumed by the core: "the carbon 'embedded' in imports just doesn't make it to the balance sheet."¹² Schor also points out that this approach does not take into account what she refers to as carbon legacy or differentiated responsibility, by which she means that these calculations do not hold developed countries accountable for the accumulated emissions that date back to their industrialization period.¹³

Such observations have led scholars and activists to come up with the term "environmental colonialism" to describe the unjust dimensions of climate change mitigation. Environmental colonialism can be defined as the use of climate issues to "blame developing countries for global warming and perpetuate the current global inequality in the use of the earth's environment and its resources."¹⁴ Climate capitalism and carbon markets have shifted the costs and responsibility of global warming onto countries of the global South and such a shift, in a way, justifies the inaction and poor performance of industrialized countries in the fight against climate change.¹⁵ It is however Foran who hits the nail on the head in his analysis of the situation:

"the fact that historically the initial efforts to address climate change came out of a white, middle-class, Northern environmental movement means they share the

¹² Jackson, T. 2017. "The Myth of Decoupling." Pp. 84-102 in *Prosperity Without Growth: Foundations for the Economy of Tomorrow*. 2nd Edition. London, Routledge., p. 91.

¹³ Schor, J. *Op.cit.*

¹⁴ Agarwal, A. & S. Narain. 1991. *Global Warming in an Unequal World: A case of environmental colonialism*. New Delhi, Centre for Science en Environment., p. 1.

¹⁵ Lohmann, L, *op. cit.*

conceptual and political baggage of a centuries-old process of development that has systematically undermined the possibilities for social justice.”¹⁶

Since impoverished and marginalised communities are often the first to be affected by the consequences of climate change, the capitalist system currently in place not only hinders efforts to mitigate the effects of climate change but is also at the root of intersecting oppressive forces that create structural injustices.

Based on Foran’s observation, it is clear that a radical change is in order. This next section explores how we can best approach the issue and gives an alternative to capital accumulation and the constant search for growth.

Post growth and the need for more radical climate policies

As we have seen, climate capitalism and carbon markets have not been efficient in addressing the roots of the problem and have hindered the development of industrializing countries. Because of its economic logic based on endless growth and its high demand for natural resources, it is not a sustainable way to approach either the environment or development. Even if we were to achieve a de-carbonized green economy under climate capitalism, growth would still be a central component and resource overexploitation would still be problematic. Growth would most likely be uneven and inequalities would still be rampant.¹⁷ There has therefore been a call among scholars and activists for more radical climate policies and a need to move beyond the neo-liberal economy and capitalism, as eco-efficiency will not be enough to remediate such problems. It therefore boils down to the need to move away from a growth-dominated paradigm¹⁸ and to ultimately decouple growth from resource consumption.¹⁹

¹⁶ Foran, J. 2016. “Reimagining radical climate justice.” Pp. 150-165 in *Reimagining Climate Change*, edited by P. Wapner and H. Elver. London, Routledge. P. 152.

¹⁷ Böhm *et.al.*, *op. cit.*

¹⁸ Schulz & Bailey, *op. cit.* p. 280.

¹⁹ Hankammer, Stephan & Robin Kleer, 2018, “Degrowth and Collaborative Value Creation: Reflections on Concepts and Technologies”, *Journal of Clearer Production*, Germany, vol.197, 1711-1718.

Authors such as Gough call for the need to transition towards a state of post-growth, or degrowth, in order to mitigate climate change. He describes post-growth as the imperative to “reduce [...] consumption levels so as to move to a steady-state economy.”²⁰ This economic system would serve to distance ourselves from this constant need for growth and would entail that energy and material consumptions are balanced out with greener initiatives such as recycling, re-transforming goods, energy recovery, and radical lifestyle changes with a lower carbon footprint.²¹

Reducing emissions and moving away from carbon based energy has proven to be a difficult task. Improving eco-efficiency is part of the solution but it would not be sufficient to bring anthropogenic climate change to a halt. The roots of this problem run deeper and radical changes have to be made to our consumption patterns in order to decarbonise them. It is therefore crucial that we turn to the implementation of eco-social policies which he describes as policies that “simultaneously and explicitly pursue both equity/justice and sustainability/sufficiency goals.”²² The three eco-policies he suggests are taxing high carbon luxuries, widening social consumption and rationing personal carbon allowances.²³

This process, however, has to first be implemented in the global North in order to “free up ecological space” so that countries of the global South can develop. Ultimately, it implies a radical change in our consumption habits and that prosperity is possible without growth. Post-growth scholars therefore stipulate that ecological sustainability, social equity and individual wellbeing are compatible, so long as we choose to address the problems of capitalist development, global inequality and climate change as a whole. Finally, there is an important distinction that needs to be made: growth and development are not exactly the same thing. “[Growth] refers to a quantitative increase of GDP, and [development] to qualitative change.”²⁴

²⁰ Gough, Ian. 2017 *Heat, greed and human need: climate change, capitalism and sustainable wellbeing*. Cheltenham, UK: Edward Elgar, p. 171.

²¹ Schulz & Bailey, *op. cit.* p. 80.

²² Gough, Ian *op. cit.* p. 161.

²³ Gough, Ian, *op. cit.*, chapters 6-7.

²⁴ Koch, *op. cit.*, p. 433.

The greatest obstacle is therefore not to implement these changes but rather to convince countries of the global North to compromise and agree to accept these changes. This would entail that developed countries agree to “de-grow” in order to enable countries of the global South to develop. It requires a transition which would lead us to move beyond the neo-liberal economy and, as mentioned, challenge the capitalist model. While ecological investments such as green and renewable energy, energy networks, transport, communication, transformed cities and buildings and the preservation of natural resources is important, radical changes to our economy, consumption habits and policies need to be implemented.

Throughout this paper, it has been argued that climate capitalism is not a viable or sustainable solution to the climate crisis or global development. Not only does it choose to ignore the direct links between climate change and development but it promotes a solution – carbon markets and green growth – that fails to address the roots of the problem and generate the risk of worsening the current crisis as it reinforces inequalities and continues to put growth and capital accumulation at the forefront of its agenda. As Koch puts it, low-carbon economies are important but it is also primordial to include concepts of prosperity, welfare and the “good life” as they are compatible with both environmental security and efforts to eradicate poverty.²⁵ Reducing our carbon and material footprint, changing our consuming habits and aiming for a post-growth society represent viable and sustainable options addressing the problem as a whole.

The ever increasing desire for growth and economic expansion, combined with our current consumption habits are not sustainable and “life under capitalism will become unviable as resources are increasingly depleted, overworked, or made scarce by the impacts of climate change.”²⁶ It would therefore seem as though the best way to move away from climate capitalism is to distance ourselves from capitalism itself. Whether this takes the form of a revolution, of ecosocialism or of indigenous-led movements, radical changes to our consumption habits, way of life and economy are in order in order to both mitigate and adapt to the climate crisis.

²⁵ Koch, *op. cit.*

²⁶ Foran, *op. cit.*, p. 157.

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Girls Just Want to Have Fun(ding): A Gendered Analysis of Fiscal Policy in Canada

Shreya Ghimire

The following paper provides a gender-based analysis of fiscal policy in Canada, with particular focus on the federal budget. The paper begins with a brief description of gender-based analysis and a historical summary of the gender mainstreaming movement in Canadian public policy. It then provides a summary of fiscal policy in Canada as it has shifted from the post-war Keynesian consensus towards a neoliberal restructuring of economic priorities. The second half of this paper is dedicated to identifying the ways in which the shift to a neoliberal fiscal policy environment has affected women in Canada, and how the cloaking of the gendered subject in fiscal policy still creates gendered outcomes. I conclude with an analysis of the 2017 and 2018 federal budgets, considering the significance and limitations of the recent moves towards gender and diversity budgeting.

Introduction

Fiscal policy is one of the most significant tools the federal government has in shaping the social, political, and economic environment in Canada. Though it may sound like a subject of interest to only economists and policy practitioners, fiscal policy exercises its power in every aspect of our lives from standard of living to the quality of the public goods we value, such as education and healthcare. Additionally, all public policy operates in the context of socially dominant belief systems, paradigms, and structures of oppression. Consequently, public policy that is unaware of these structures work to reproduce and strengthen them, regardless of if doing so is the intended policy outcome. Public policy can thus be best described as a set of belief systems.¹ To demonstrate, this paper highlights the consequences that belief systems underpinning federal fiscal policy have had for women in Canada. In economic terms, fiscal policy uniquely affects women as a group because women have higher poverty rates and less income than men.² I have chosen to focus on fiscal policy because it, similar to technology, trade, and foreign policy, is a

1 Leslie A. Pal, *Beyond Policy Analysis: Public Issue Management in Turbulent Times* (Toronto: Nelson Education, 2014), 335.

2 Armine Yalnizyan, *Canada's Commitment to Equality: A Gender Analysis of the Last Ten Federal Budgets (1995-2004)* (Ottawa: Canadian Feminist Alliance for International Action, 2005), 5.

policy field that has remained the most gender-ignorant.³ The relationship between fiscal policy and gender in Canada is especially relevant in the current political context, given the Trudeau federal Liberal government's stated commitment to gender equality goals.

In this paper, I demonstrate that while fiscal policy has historically ignored women, its outcomes are nonetheless gendered. I begin with a brief explanation of the gender-based framework I utilize by defining its key terms and concepts and placing it in the context of the gender mainstreaming movement in Canadian public policy. I then provide a brief historical summary of fiscal policy in Canada as it has changed during the modern post-war era. I dedicate the second half of this paper to identifying the ways in which the post-Keynesian shift to a neoliberal fiscal policy environment has had particular consequences for women in Canada to demonstrate the gendered outcomes of fiscal policy. I conclude by considering what has and has not changed on the fiscal policy front in the context of a more gender-sensitive federal government by focussing on the policy field's paramount tool: the power to create federal budgets.

Framework: Gender Based Analysis (GBA) and Gender Mainstreaming

Gender based analysis "furthers the understanding of the ways that gender interacts with policy, how policy may reinforce existing power structures based on gender, or how policy may produce gender inequalities."⁴ This essay focusses on how a lack of gender analysis in the agenda setting and policy formulation stages of fiscal policy has resulted in an ignorance on the consequences of the policies on women's lives once implemented. As Yasmeen Abu-Laban notes in her critical study of Canadian public policy, "the dominant examination of governance and its consequences by political scientists has tended to be shaped by a selective understanding of Canadian society."⁵ In this paper, I employ a gender-based framework to expand this selective understanding and advocate for the necessity of a gender and diversity mainstreaming framework for fiscal policy in Canada. According to Olena Havinsky, the gender mainstreaming (GM) process

3 Olena Havinsky, "Gender Mainstreaming in the Canadian Context: 'One Step Forward and Two Steps Back,'" in *Critical Policy Studies*, eds. Michael Orsini and Miriam Smith (Vancouver, UBC Press, 2007), 116.

4 Havinsky, "Gender Mainstreaming in the Canadian Context," 115.

5 Yasmeen Abu-Laban, "Political Science, Race, Ethnicity, and Public Policy," in *Critical Policy Studies*, eds. Michel Orsini and Miriam Smith (Vancouver: UBC Press, 2007), 137.

assumes that women and men are differentially affected by policies; its overall aim is to integrate such knowledge and concomitant analyses into all dimensions of policy decision making. Specifically, GM requires that from inception all policies should be analyzed for their gendered impact so that they can benefit men and women equally.⁶

As Janine Brodie and Isabella Bakker state, “all macroeconomic policies are social policies with distributional consequences along regional, gender, race and class lines.”⁷ In this essay, I take up this assertion by focussing on distributional consequences along gendered lines.

It is important to acknowledge that a disconnect has grown between gender mainstreaming theory outlined above and the feminist theory that informed it.⁸ Gender mainstreaming is in part a product of a specific era of liberal feminism that has been slow to catch up with contemporary feminism. In contemporary feminist thought, the divisions between men and women are complex and fluid, and gender is understood as one of many structures, such as race, class, and sexuality, which reinforce inequality for women.⁹ A gender-based analysis alone may not be able to adequately address the differences *between* groups of women and the intersecting identities of individual women into its framework. For example, a policy that bases its analysis explicitly or implicitly on the standard of a white, straight, cisgender, able-bodied, middle-class woman will be ineffective because it will not reach most women, and will reproduce existing racial, class, and heteronormative power relations or social differences. This is a serious limitation to the gender-based framework.

Despite the limitations, this paper remains grounded in a gender framework due to its particular history in the context of Canadian public policy analysis. Diversity mainstreaming and intersectional analyses remain marginal in public policy analysis, especially in fiscal policy, and there are few frameworks to draw from to ensure the robustness of my analysis. Additionally, though gender is a privileged axis of analysis in unpacking social difference, it has remained on the

6 Olena Havinsky, “Gender Mainstreaming in the Canadian Context,” 111.

7 Janine Brodie and Isabella Bakker, *Where are the Women? Gender Equity, Budgets and Canadian Public Policy* (Ottawa: Canadian Centre for Policy Alternatives, 2008), 8.

8 Havinsky, “Gender Mainstreaming in the Canadian Context,” 112.

9 Havinsky, “Gender Mainstreaming in the Canadian Context,” 123.

margins in the fiscal policy field up until very recently. This speaks to the steps that still must be taken for the possibility of a comprehensive framework for analyzing difference in the fiscal policy field. I also acknowledge that categories such as gender and woman are socially constructed and dynamic identities which are constantly being defined and redefined on both an individual and social level. In the context of this analysis, my discussion of women as a social category is inclusive, referring to all those who identify as women.

Gender Mainstreaming in Canadian Public Policy: An Ambivalent History

The federal government of Canada was once viewed as an enabling environment for the gender mainstreaming project due a relatively strong national commitment to women's integration, beginning with the 1967 Royal Commission on the Status of Women.¹⁰ The Standing Committee on the Status of Women, the Women's Program, and the Canadian Advisory Council on the Status of Women were created as a result of this commission.¹¹ The federal government also entrenched gender equality rights in the 1982 *Charter of Rights and Freedoms*, and ratified international agreements that sought to challenge gender inequality such as the 1979 Convention on the Elimination of All Forms of Discrimination Against Women.¹² In 1995, in preparation for the 4th World Conference on Women in Beijing, the federal government developed a federal plan for gender equality which included an outline of Canada's commitment to gender based analysis in future policies and legislation.¹³

Despite these stated commitments in the 1990s, "there is little available analysis to explain why policies and programs continue to show limited and compartmentalized concerns with gender equality"¹⁴ in the Canadian political context. In most policy fields, "The differing socio-economic circumstances of women and men are not consistently considered . . . and an assumption is still often held that as long as both genders are treated equally, a policy has achieved its desired outcome."¹⁵ Status of Women Canada (SWC) is the only key pillar in operationalizing gender

10 Havinsky, "Gender Mainstreaming in the Canadian Context," 112.

11 Havinsky, "Gender Mainstreaming in the Canadian Context," 113.

12 Ibid.

13 Ibid.

14 Havinsky, "Gender Mainstreaming in the Canadian Context," 111.

15 Havinsky, "Gender Mainstreaming in the Canadian Context," 116

equality, but it has been understaffed and underfunded.¹⁶ The National Action Committee, which once represented over 500 organizations has essentially dissolved due to government funding cuts in the 1990s.¹⁷ The Canadian Advisory Council on the Status of Women closed in 1995, and the federal government's Women's Program was folded into SWC.¹⁸ These dissolutions have resulted in a chronic lack of representation of gender equality advocates and women's movements in the policy-making process, hindering the potential of gender mainstreaming.¹⁹ Under the Stephen Harper Conservative government, first elected in 2006, the political representation of women in government shrank further, the beginnings of a universal childcare program taken up by the previous Liberal government was dismantled, and the SWC budget was reduced significantly.²⁰ In 2006, the term "equality" was removed from SWC's mandate completely, and rules were changed to ensure that women's organizations could not use federal funding for advocacy or lobbying purposes.²¹ At the same time that a strong analysis of government spending was needed, the capacity of organizations such as the SWC was too weak to do so.²² The budget cuts that the federal government has pursued since the 1990s have thus played a key role in undermining gender mainstreaming in Canadian public policy.²³ There have been changes to this trend under Justin Trudeau's Liberal government, with Budget 2018 establishing SWC as a full department with increased funding.²⁴ It is yet to be seen what the long-term effects of this move will be for mainstreaming gender in Canadian public policy.

16 Havinsky, "Gender Mainstreaming in the Canadian Context," 121.

17Ibid.

18 Brodie & Bakker, 69.

19 Havinsky, "Gender Mainstreaming in the Canadian Context," 122.

20 Jane Jenson, "Writing Gender Out: The Continuing Effects of the Social Investment Perspective," in *Women and Public Policy in Canada: Neo-liberalism and After?*, ed. Alexandra Dobrowolsky (Don Mills: Oxford University Press, 2009), 25-26.

21 Jenson, 26.

22 Isabella Bakker, "Changing macroeconomic governance and gender orders: the case of Canada," in *Questioning Financial Governance From a Feminist Perspective*, eds. Brigitte Young, Isabella Bakker and Diana Elson (New York: Routledge, 2011), 44.

23 Olena Havinsky, "Gender Mainstreaming in Neoliberal Times: The Potential of 'Deep Evaluation,'" in *Public Policy for Women: The State, Income Security, and Labour Market Issues*, eds. Marjorie Griffin Cohen and Jane Pulkingham (Toronto: University of Toronto Press, 2009), 125.

24 Joanna Smith, "5 Ways The Federal Budget Aims To Boost Gender Equality," HuffPost Canada, February 27, 2018. https://www.huffingtonpost.ca/2018/02/27/federal-budget-2018-5-ways-it-aims-to-boost-gender-equality_a_23372629/.

Fiscal Policy in Canada

In Canada, economic policy is conducted through fiscal and monetary means. Fiscal policy refers to decisions regarding government spending to stimulate economic growth, while monetary policy refers to ensuring monetary stability through inflation and interest rate targeting, which is largely the responsibility of the Bank of Canada.²⁵ The stated objectives of fiscal policy in Canada are to spur economic productivity by pursuing full employment, price stability, economic growth, an equitable distribution of income, and reasonable balance of payments between imports and exports for continued trade.²⁶ However, these objectives cannot be pursued all at once, and policy-makers decide which to prioritize. Expanding employment and increasing growth rates will increase inflation, which affects the stability of prices and the exchange rate, and thus Canada's balance of payments.²⁷ In the reverse, this means that attempting to stabilize the exchange rate often requires deflationary policies that lead to higher unemployment and poverty, as well as discouraging domestic investment because of the higher interest rate. According to economists, low income citizens, who are disproportionately women, prefer when fiscal policy prioritizes low unemployment because they are less affected by inflation.²⁸ Individuals with more wealth, who are disproportionately men, prefer "hands-off" fiscal policy that prioritizes curbing inflation.²⁹

The class battle over what ought to be the priority of fiscal policy has been won by the deflationary enthusiasts. In the 1970s and 1980s, the post-Second World War consensus on economic policy began breaking down in favour of neoliberal economic theory, and the government's role in providing social services and programs that the private sector does not (or does at an unaffordable cost) was called into question.³⁰ Government spending at both federal and provincial levels began decreasing in the 1980s.³¹ In the 1990s, the federal government reduced income tax rates,

25 G.C. Ruggeri, *The Canadian Economy: Problems and Policies* (Toronto: Gage Educational Publishing Company, 1987), 423.

26 Ingrid Bryan, *Economic Policies in Canada* (Toronto: Butterworth & Co., 1982), 3-9.

27 Bryan, 11.

28 Ibid.

29 Ibid.

30 Bryan, 182.

31 Bakker, "Changing macroeconomic governance," 39.

deregulated telecommunications and transport, and undertook expenditure reductions.³² From the 1990s onwards, the federal government became committed to balanced budgets and fiscal discipline measures such as new rules on expenditure restraint and greater transparency.³³ This neoliberal restructuring saw both a new (and gendered) emphasis in the fiscal policy environment on employability as the primary means for Canadians to access social assistance and income security, as well as a downloading of federal responsibilities for public services onto the provinces.³⁴ These developments did not affect the Canadian population equally, and have had specific consequences on the lives of women in Canada.

The Economy, Fiscal Policy and Women: A Critical Assessment

The restructuring of fiscal policy in Canada detailed above has uniquely affected women as a group primarily because women in Canada are poorer than men in Canada.³⁵ Women in Canada today disproportionately occupy low-paid jobs in the service and retail sectors.³⁶ The wage gap between men and women has not closed, and Indigenous, racialized, and immigrant women face even larger wage and employment gaps.³⁷ Part of this is due to gender-segregated labour markets, with women working in sectors that pay less than male-dominated ones, but training women in male-dominated fields has not resulted in a significant increase of women's employment in these fields, and women who do work in these fields continue to make less than their male counterparts.³⁸ For example, the wage gap in the oil and gas sector is one of the largest in Canada, with women earning on average 64 percent of what their male coworkers earn.³⁹ Even as the Canadian economy grew by 62 percent between 1994 and 2004, "a growing number of women over the same decade were finding their pay rates virtually stagnant while the costs of basics like housing, tuition, child care, transit and utilities continue to soar."⁴⁰ Due to these material inequalities,

32 John M. Herrick and Paul H. Stewart, *Encyclopedia of Social Welfare History in North America* (Thousand Oaks: SAGE Publications, 2005), 93.

33 Ibid.

34 Genevieve LeBaron, "The Political Economy of the Household: Neoliberal Restructuring, Enclosures, and Daily Life," *Review of International Political Economy* 17, no. 5 (2010): 899.

35 Yalnizyan, 5.

36 Brodie & Bakker, 43.

37 Canadian Centre for Policy Alternatives, *2016 Alternative Federal Budget*, 72.

38 Canadian Centre for Policy Alternatives, 73.

39 Ibid.

40 Yalnizyan, 5

women remain more vulnerable than men to a host of social issues.⁴¹ Fiscal policy ought to be aware of these differences and infuse this awareness into its policy-making processes, as there is no indication that the material conditions of men and women in Canada are naturally moving towards convergence.

Despite the trends discussed above which indicate a clear gender gap in Canada's economic and social landscape, the landscape is also underpinned by discursive biases and assumptions that work to erase women from the policy agenda. For example, women's organizations have tended not to focus their efforts on finance ministries due to the technical macroeconomic assumptions that underlie fiscal policy.⁴² Fiscal policy can claim political neutrality more than other policy fields because it does not directly deal with individuals and social groups, but with variables, measures, mechanisms, regulations, and money supply.⁴³ The language of economic models and fiscal policy is largely inaccessible as it requires a previous knowledge in order to access its meaning, and its claims to objectivity and science increase its legitimacy in our society.⁴⁴ The appeal to the technical through fiscal policy also allows governments to reproduce social and economic inequalities without having to take responsibility for these inequalities.⁴⁵

There are a number of other gender biases underpinning fiscal policy in Canada aside from the discursive: the implementation and outcomes of fiscal policy contain deflationary and commodification biases that have specific effects on women as well.⁴⁶ Commodification bias refers to how the macroeconomic discourse which informs fiscal policy also works to minimize the extent to which goods can be provided through public spending, and where the "reduction of budget deficits . . . takes place primarily via reductions in public expenditure rather than through increases in tax revenue."⁴⁷ Budget cuts and reductions to social spending on public services

41 Canadian Centre for Policy Alternatives, 75.

42 Gita Sen, "Gender Mainstreaming in Finance Ministries," *World Development* 28, no. 7 (2000): 1379.

43 Ibid.

44 Philipps, 145.

45 Lisa Philipps, "Discursive Deficits: A Feminist Perspective on the Power of Technical Knowledge in Fiscal Law and Policy," *Canadian Journal of Law & Sociology* 11, no. 1 (1996): 142.

46 Brigitte Young, Isabella Bakker, and Diana Elson, "Introduction," in *Questioning Financial Governance from a Feminist Perspective*, ed. Brigitte Young, Isabella Bakker and Diana Elson (New York: Routledge, 2011), 2.

47 Ibid.

means that these social responsibilities fall to the unpaid sphere of family and community, which largely rests on women's shoulders, or for wealthy women, the hiring of migrant women whose labour is paid but heavily undervalued.⁴⁸

The deflationary bias towards austerity and price stability which has characterized fiscal policy has had disproportionate effects on women as well. The consequences of the decision to *not* spend or promote full employment is bared heaviest by those Canadian households who live below the low-income cut-off, which currently places after-tax poverty at \$22,000 for an individual and \$44,000 for a household of four.⁴⁹ The vast majority of these households are headed by women.⁵⁰ Referred to as the "feminization of poverty," the disproportionality of this trend continues to persist even as women's labour force participation rates increase, with the proportion of women in low income remaining consistent over the last four decades.⁵¹ The deflationary bias in Canadian fiscal policy overlooks Canada's poorest people, who are disproportionately women, children, Indigenous peoples and visible minorities.⁵²

The economic environment in Canada from 1993 to 2000, when federal spending as a share of the GDP shrank from 16 to 11 percent,⁵³ provides an illustrative example of how fiscal policies affect men and women differently. During this period, the federal government abandoned the Canadian Assistance Plan, which was a funding arrangement between the federal government and the provinces for the federal government to provide 50% of program costs for social services in each province. The Canadian Assistance Plan was replaced with the Canada Health and Social Transfer, which provided a lump sum from the federal government to the provinces with very few conditions attached.⁵⁴ With less federal funding available and fewer strings attached, provincial governments made significant changes to their employment and income assistance programs to

48 Young, Bakker & Elson, 3.

49 John A. Stapleton, *A Basic Income for Canadians: What would change?* (Toronto: Metcalf Foundation, 2017), 6.

50 Bakker, "Changing macroeconomic governance," 41.

51 Dan Fox and Melissa Moyser, "The Economic Well-Being of Women in Canada," *Statistics Canada*, May 2018, <https://www150.statcan.gc.ca/n1/pub/89-503-x/2015001/article/54930-eng.htm>.

52 Ibid.

53 Bakker, "Changing macroeconomic governance," 39.

54 LeBaron 899.

reduce the number of people accessing benefits.⁵⁵ This included making requirements for eligibility stricter and introducing the concept of welfare-to-work.⁵⁶ Cuts to public spending were harshest for low-income Canadians who rely more heavily on both levels of government for various social welfare benefits and programs, and due to the unequal distribution of income along gender lines, the everyday lives of low-income women became especially precarious.⁵⁷

In addition to the disproportionate impact federal spending cuts have had on low-income women, policy changes to social services such as employment insurance (EI) further exemplify the ways in which women are failed by gender-blind fiscal policy. New rules to EI established in 1995 resulted in coverage dropping for women workers from 69 percent in 1990 to 32 percent by 2004.⁵⁸ Under these new rules, only 3 in 10 unemployed women became eligible for EI coverage because EI expenditure did not account for gendered differences in employment.⁵⁹ Under the new EI rules, work was measured in hours instead of weeks even though women's work is more likely to be interrupted over the course of the day due to familial and child care responsibilities.⁶⁰ More women occupy jobs that are informal, short-term, temporary, contract-based or part-time, meaning if they become unemployed they often do not meet the work hour requirements to qualify for EI benefits as opposed to full-time, single employer jobs with pensions.⁶¹ Even spending directed towards women specifically, such as maternity leave benefits, tend to only benefit higher-educated women who are able to secure stable employment in larger firms.⁶² This example thus also highlights how macroeconomic policy tends to only address women's needs when they match up with dominant male norms.⁶³

55 Ibid.

56 Ibid.

57 Bakker, "Changing macroeconomic governance," 39.

58 Monica Townson and Kevin Hayes, *Women and the Employment Insurance Program* (Ottawa: Canadian Centre for Policy Alternatives, 2007), 4.

59 Bakker, "Changing macroeconomic governance," 40.

60 Ibid.

61 Ibid.

62 Bakker, "Changing macroeconomic governance," 40.

63 Brodie & Bakker, 92.

The neoliberal context in which Canada's fiscal policies operate has also fostered the disappearance of the gendered subject in policy discourse and replaced it with the "genderless market citizen."⁶⁴ The paradox of the neoliberal gender order is that it has made women poorer while simultaneously invisibilizing this poverty through individualist policy-making which treats men and women as equal subjects.⁶⁵ Fiscal policy in Canada has tended to prioritize its main unit of analysis as the "market participant" by ensuring Canada's business-friendly environment is sustained for those who can finance budget deficits through loans and credit.⁶⁶ Neoliberal policy places emphasis on individual responsibility, reducing government spending, decentralization, and increasing privatization.⁶⁷ These aims do not lend themselves easily to state-led gender mainstreaming and the feminist goals of gender equality that underpin them. When the primary subject of policy is the nebulous market citizen, gender (and any other political identity) become relegated to the realm of "special interest" or "identity politics."⁶⁸ However, heterodox economists have demonstrated that fiscal policies can achieve economic growth by promoting redistribution and government spending.⁶⁹ Feminist scholars and gender equality advocates are also seeking to change the discourse by highlighting that there are economic gains to mitigating inequality.⁷⁰

Federal Budgets and Gender Budgeting

Federal budgets are useful in analyzing fiscal policy through a gendered lens because budgets are essentially policy statements that indicate the economic priorities of a given government, and are "an important tool for redressing underlying inequalities and tackling them through the allocation of public resources."⁷¹ This is known as gender budgeting, which applies gender mainstreaming to

64 Bakker, "Changing macroeconomic governance," 46.

65 LeBaron, 900.

66 Brodie & Bakker, 102.

67 Havinsky, "Gender Mainstreaming in Neoliberal Times," 118.

68 Ibid.

69 Isabella Bakker, "'Show Us the Money': Tracking Gender-Equality Commitments and the 'Constraints' of Canadian Budgeting," in *Women & Public Policy in Canada: Neo-liberalism and After?*, ed. Alexandra Dobrowolsky (Don Mills: Oxford University Press, 2009), 228.

70 Ibid.

71 Bakker, "Show us the Money," 226.

the budgetary process.⁷² Armine Yalnizyan conducted a gender-based analysis of federal budgets from 1995 to 2004, arguing that “a commitment to greater equality cannot occur without a commitment of resources . . . fiscal policy is the way resources get raised and allocated, the way commitments become realities.”⁷³

As discussed above, the prioritization of balanced budgets in Canada’s fiscal policy environment have historically been a major constraint for gender mainstreaming and gender equality goals.⁷⁴ Feminist economists and scholars have indicated the ways in which the narrative of fiscal restraint and deficit reduction gets used to deprioritize certain spending obligations in favour of pursuing others. Some policy analysts have called balanced budgets a “politics of stealth,” where social benefits are cut inconspicuously and concealed through the secrecy of the budgetary process, and subsequently not addressed in times of budgetary surplus.⁷⁵ As Brodie and Bakker stress,

the federal government’s allocation of successive and large budgetary surpluses since 1998 demonstrates that poverty reduction and gender equality are no longer governmental priorities [...] the vast weight of the federal surplus has been directed to tax reduction, which tends to benefit the corporate sector and higher income earners, and debt reduction.⁷⁶

The question of how and where Ottawa spends is most discernible during periods of budget surpluses, as this reflects priorities without the obfuscating narrative of balanced budgets. Income security programs such as EI and social assistance tend to be more important in the lives of women than men since women have less income and higher poverty rates, and remain Canada’s main care-givers.⁷⁷ Federal spending cuts in social assistance and income security from 1995-1997 were thus especially harsh for women, and the surplus era of 1998 to 2004 did not redress these cuts.⁷⁸

⁷² Ann Mumford, *Tax Policy, Women and the Law: UK and Comparative Perspectives* (Cambridge, Cambridge University Press, 2010), 24.

⁷³ Yalnizyan, 5.

⁷⁴ Bakker, “Show us the Money,” 236.

⁷⁵ Brodie & Bakker, 12.

⁷⁶ Brodie & Bakker, 44-45.

⁷⁷ Yalnizyan, 5.

⁷⁸ Yalnizyan, 6.

Though federal governments have promised to undertake gender-responsive budgeting, no clear systemic effort can be identified as of yet, though frameworks for doing so have been created.⁷⁹ One reason as to why budgets have thus far not seriously undertaken gender budgeting is that access to budget-policy formulation by women's organizations is quite limited, and decisions regarding fiscal and monetary policy remain concentrated in the Department of Finance, the Bank of Canada, the Privy Council Office, and the Treasury Board.⁸⁰ The Privy Council Office coordinates the budget proposals of ministers, line departments, and the Treasury Board.⁸¹ The Main Estimates of government spending are tabled by the president of the Treasury Board, while a federal budget is prepared by the Minister of Finance.⁸² The Minister reviews the draft budget speech with the Prime Minister and the Cabinet learns of its contents a few days before it is presented to the public and the House of Commons.⁸³ In the mid-1990s, the process was opened up under Finance Minister Paul Martin with public pre-budget hearings.⁸⁴ However, the disparities in resources meant trade and business associations could rely on consultants such as tax experts to aid them in submitting to the hearings while women's groups and social justice organizations did not have the same resources and time to invest in the process.⁸⁵

The fate of gender mainstreaming and budgeting in Canada is yet not sealed, however. With the 2015 election of Liberal leader Justin Trudeau, a uniquely gender-sensitive federal government is at the helm. The government's stated commitments to pursuing gender equality is reflected in fiscal policy by both Budget 2017 and 2018 claiming to take on a gender-based framework, signalling a potential renaissance for gender and diversity mainstreaming in Canada.⁸⁶ Budget 2018 embraces a GBA+ framework, which is defined as "an analytical tool used to assess how different groups of women, men and gender-diverse people may experience policies, programs and initiatives. The plus acknowledges that GBA goes beyond biological (sex) and socio-cultural

79 Bakker, "Show us the Money," 226.

80 Bakker, "Show us the Money," 231.

81 Ibid.

82 Ruggeri, 425.

83 Ruggeri, 426.

84 Bakker, "Show us the Money," 231.

85 Ibid.

86 Government of Canada, *Equality + Growth: A Strong Middle Class* (Ottawa, Department of Finance, 2018).

(gender) differences to consider intersecting factors such as race, ethnicity, age, disability and sexual orientation."⁸⁷ GBA+ represents a modernization of the GBA framework by incorporating a number of axes of social difference into the analysis besides gender, thereby improving the accuracy of GBA as an analytical tool.⁸⁸ Some GBA+-informed policies in Budget 2018 include benchmarks and investments for tracking leadership, violence, and poverty reduction as it affects women and people in other axes of social location, expanding parental leave, including tax incentives to low-income Canadians, and encouraging women's access to STEM fields.⁸⁹

Though these developments point towards a renewed embrace of gender and diversity mainstreaming in Canadian public policy, commentators have noted that Budget 2018 falls short on two areas related to the everyday lives of women in Canada: reforming EI maternity and parental leaves, and building a comprehensive national child care system.⁹⁰ The eligibility for parental leave remains restrictive, with more than 30% of mothers in Canada not eligible for EI leaves.⁹¹ In addition, Canada's child care spending remains below the international benchmark of 1% of GDP despite the consensus that universal publicly-funded child care has been demonstrated to reduce women's poverty, create jobs for early-childhood educators who are disproportionately women, and improve social outcomes for children.⁹² On a more fundamental level, other critics point to the frameworks of GBA and GBA+ themselves as insufficient models for pursuing gender mainstreaming goals.

Through GBA and gender mainstreaming sound like synonymous terms, they refer to different methods available to governments and policy-makers to address gender issues and inequalities. The necessary distinction is that GBA does not pursue the same governance mechanisms as a

⁸⁷ Government of Canada, *Equality + Growth: A Strong Middle Class*, 18.

⁸⁸ Kathleen McNutt and Daniel Béland, "Implementing an Integrated Governance Strategy: The Quest for Gender Mainstreaming in Canada," *American Review of Canadian Studies* 45, no. 4 (October 2, 2015): 478.

⁸⁹ Government of Canada, *Equality + Growth: A Strong Middle Class*, 217-275.

⁹⁰ Kate Bezanson, "Why the Gender Budget Is Important to Canada - and What It Got Wrong." March 14, 2018. <https://www.theglobeandmail.com/opinion/article-why-the-gender-budget-is-important-to-canada-and-what-it-got-wrong/>.

⁹¹ Ibid.

⁹² Ibid.

gender mainstreaming approach.⁹³ As Kathleen McNutt and Daniel Béland argue, “Whereas the main function of GBA is to respond to gender issues, the main goal of GM is to alter gendered relations and structures.”⁹⁴ Because GBA+ represents a more inclusive update of GBA and not a new model of analysis, both work within already-existing budgeting frameworks to propose new programs, services, and funding, while a gender mainstreaming budgetary process would instead be designed to prevent inequalities in the first place through integrated planning, budgeting, and evaluation processes.⁹⁵ GBA+ as implemented by the federal government thus does not adequately address issues of systemic institutional biases nor organizational discrimination, which are analytical steps that a gender mainstreaming approach requires as means of rooting out gender inequality.⁹⁶ The GBA+ federal budget demonstrates that “Canada’s current gender equality policy regime advances the mainstreaming of GBA, and not the mainstreaming of gender equality in general.”⁹⁷ Given the limitations of the GBA+ framework adopted by the federal government, it remains unclear if the steps taken in recent federal budgets to address gender represent a fundamental shift towards gender mainstreaming in Canadian public policy-making in the long term.

Conclusion

As Abu-Laban observes, “There is probably no public policy that stands outside the influence of social context, and in Canada this social context has been shaped by race, ethnicity, gender, and class, amongst other variables.”⁹⁸ This applies to fiscal policy, which is especially important because it can determine the relative capacity of other social policy fields through its allocation of funds and spending in the domestic economy. In this paper, I have underscored some of the biases that underpin the fiscal policy-making process in Canada, and have argued that through its historical and contemporary “strategic silence”⁹⁹ on gender, the fiscal policy environment has

93 McNutt and Béland, 469.

94 McNutt and Béland, 481.

95 McNutt and Béland, 470.

96 McNutt and Béland, 478.

97 McNutt and Béland, 469.

98 Abu-Laban, 150.

99 Isabella Bakker, “Changing Macroeconomic Governance and Gender Orders: The Case of Canada,” 38.

reinforced existing material and social gender inequalities. Though my analysis took up gender as a missing variable in fiscal policy, a vital area for future study and analysis is to work towards a framework that can operationalize the intersections between gender, class, race, colonialism, sexuality, ability and other social variables to better understand how inequalities, biases, and histories of oppression inform fiscal policy-making and the belief systems that underpin it.

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Lessons from Reanalyzing Research on Children with Incarcerated Parents using Intersectionality-Based Policy Analysis

Linda Mussell

Intersectionality-Based Policy Analysis (IBPA) is a promising framework for policy researchers in a rapidly changing world, offering greater depth of analysis through guiding principles and questions. The researcher conducted capstone research on the social policy issue of children with incarcerated parents in British Columbia from 2014 to 2016, later reanalyzing the project and findings using the IBPA framework. IBPA is distinguished for presenting an innovative structure for critical policy analysis, capturing the multi-faceted nature of policy contexts, and producing transformative knowledge and action (Hankivsky et al., 2014). The policy area of children with incarcerated parents needs such analysis since assumptions underlying the “policy problem” may be taken for granted, perpetuating inaccurate conceptualisations and promoting ineffective policy solutions. This application of IBPA to the prior research has proven useful when moving towards enhanced understandings of the intergenerational effects of incarceration policy on families in the researcher’s ongoing dissertation work.

Introduction

Child welfare and development are enduring policy priorities in Canada, but not all groups of children are afforded the policy attention and supports they may benefit from most. Children with incarcerated parents are a hidden population at all jurisdictional levels, including the province of British Columbia (BC), Canada (McCormick et al., 2014; Robertson, 2012; United Nations, 2011).¹ In terms of scope, each year an estimated 350,000 children in Canada are separated from incarcerated fathers (Withers & Folsom, 2007), and 20,000 children are separated from incarcerated mothers (Cunningham & Baker, 2003).² Strengths for this population include an

¹ BC was chosen as a case study given the author’s history of volunteer work in the province with children of incarcerated parents, and the province’s past attention to women prisoners with young children (i.e., the Mother-Baby Program).

² The exact number of impacted children with incarcerated parents is unknown, as this information is not collected or collated by provincial or federal corrections organisations.

extraordinary capacity to overcome adversity with internal and external resources (Akesson et al., 2012). Challenges for impacted children include stigma, housing instability, poverty, difficulty of maintaining relationships with parents, struggling in school, and increased likelihood of incarceration themselves (McCormick et al., 2014). A lack of policy attention and action may leave this population without the supports that would help them navigate adversity and transition more smoothly to adulthood. This issue holds specific interest in the current historical moment given the vast overrepresentation of racialized individuals, especially Indigenous peoples, in the corrections³ and child welfare systems,⁴ and the Truth and Reconciliation Commission's (TRC, 2015) calls to action to address both of these injustices.

Intersectionality-Based Policy Analysis (IBPA) offers benefits as a framework to analyse the nature of this problem and policy outcomes in greater depth and nuance than “unitary” or “additive” models, namely models that focus on one factor of difference, or factors of difference as siloed phenomena (Hancock, 2007). This paper adapts my Master of Public Policy capstone research conducted from 2014 to 2016 using intersectional principles and descriptive questions from Hankivsky et al.'s (2014) IBPA framework. The initial capstone research found that there is opportunity for strength-based policy interventions (e.g., youth mentorship, parental skill building),⁵ and these findings were supported in analysis of overarching societal objectives, expert interview findings, existing policy at multiple jurisdictional levels, and emergent literature on resilience among this population. Through IBPA, an updated analysis offers improved understanding of how society can support the resiliency, wellbeing, and life outcomes of youth with incarcerated parents in BC and beyond. Key insights emerging from this recent application of IBPA to the research include acknowledging the complexity and nuances of individual experiences, supporting families instead of individuals as part of a more holistic approach, and promoting greater awareness of stigma and assumptions underpinning incarceration.

³ Indigenous adults accounted for 28% provincial and 27% federal admissions while representing 4.1% of the Canadian adult population (Malakieh, 2018).

⁴ In 2011, there were more than 14,000 Indigenous children aged 14 and under in foster care. Indigenous children account for nearly half (48%) of all foster children, yet only 7% of all children in Canada (Turner, 2016).

⁵ Namely policies that focus on the strengths and resilience of individuals and families, rather than on deficits or delinquency.

Original Methodology

The original capstone methodology entails background review of multilevel policies and programs, academic and grey literature review, interviews with experts from the field of practice (corrections and child welfare), and interviews with youth (Mussell, 2016). The capstone uses a constructionist paradigm (Guba & Lincoln, 1994),⁶ ecological lens (Blumberg & Griffin, 2013),⁷ and positive youth development (PYD) framework (Sesma et al., 2013).⁸ Tenets of intersectionality emerge in the capstone, but were not explicitly identified and discussed. Broadly, intersectionality⁹ is drawn from a rich history of Black feminism, Indigenous feminism, post-colonial feminism, eco-feminism, and post-modern feminism (Bunjun, 2010; Combahee River Collective, 1977; Crenshaw, 1989; King, 1988). There is no single intersectional methodology, but a series of principles and approaches have been developed to facilitate its use in policy work (Hankivsky & Cormier, 2011). Hankivsky (2014) synthesizes guiding principles common to intersectionality, which I examine below in relation to the capstone.

IBPA Framework

The original research paradigm and methodology of the project drew on tenets of intersectionality (see Appendix A), but it was not conducted using an intersectional policy analysis framework. Prior alignment with principles of intersectionality in the capstone include intersecting categories (Hankivsky, 2014),¹⁰ for example the understanding that children do not experience parental incarceration homogenously, rather experiences differ according to the unique circumstances of individual children (Turney & Wildeman, 2015). Further, the capstone uses a multi-level approach seeking to understand the differences between jurisdictional levels (Hankivsky, 2014), for example jurisdictional responsibility, awareness of the issue, and pre-existing policy that shape policy

⁶ Constructionism promotes interactive conversations between the interviewer and participants with the aim of developing understandings about experiences, challenges, strengths, and solutions (Guba & Lincoln, 1994).

⁷ An ecological lens guides holistic consideration of children's environmental networks, policy contexts, and societal views (Blumberg & Griffin, 2013).

⁸ PYD focuses on relationships and seeking to improve youth's wellbeing through multiple aspects present in youth environments (Sesma et al., 2013).

⁹ Intersectionality recognizes that interlocking and complex compositions of factors shape and influence human lives (Crenshaw, 1989; Dhamoon, 2011; Cho et al., 2013; King, 1988).

¹⁰ Intersecting categories are a rejection of single-axis frameworks, and entail analysing the various ways systems of oppression (e.g., gender, race, class) interact to shape human experiences (Crenshaw, 1991).

responses at the international, national, and provincial levels. Moreover, reflexivity¹¹ (Hankivsky, 2014) is a component of the capstone research, for example, through the use of a constructionist lens acknowledging multiple truths and the researcher's participation in the co-creation of knowledge (Guba & Lincoln, 1994).

Diversity of knowledge (Hankivsky, 2014) is also evident in the capstone, which sought to invite marginalized populations (youth of incarcerated parents) to participate in the study. Further, social justice (Hankivsky, 2014) is an aspect of the capstone, seeking to challenge inequities and power relations with strengths-based policy options to improve the situation and agency of youth. Equity (Hankivsky, 2014) is of focus, seeking to promote child rights that maximize equity for this population such as through the United Nations Convention on the Rights of the Child (UN, 1989). Resilience and resistance (Hankivsky, 2014) are also present in the capstone, which sought to shift the debate from a focus on challenges to a focus on strengths-based interventions. Principles of power, time, and space (Hankivsky, 2014) are not of specific focus in the capstone, aside from reflexive analysis. While these principles are important in this research, a cohesive application of IBPA is a further advancement in building understandings of this issue.

An IBPA framework presents both principles and guiding questions that work to present and unpack the interactions between multi-level social structures and policy that shape human experiences, including simultaneous privileges and oppressions (Hankivsky et al., 2014). This is applicable to the topic area, for instance, since the capstone research found that children of incarcerated parents do not experience parental incarceration homogenously and require tailored support. Children may have different experiences and strengths due to rural/urban residence, which parent(s) has a history of incarceration, age, gender, race, ability, and more. IBPA presents an innovative structure for critical policy analysis, capturing the multi-faceted nature of policy contexts, and producing transformative knowledge and action (Hankivsky et al., 2014). This is important since assumptions underlying the "policy problem" may be taken for granted, perpetuating inaccurate conceptualisations and promoting ineffective policy solutions.

¹¹ Reflexivity is the recognition of an individual as embedded in what they study, and active in the production of knowledge (or "truth") rather than an objective observer (Foucault, 1982).

Hankivsky et al. (2014) present twelve guiding questions to inform intersectional policy work (see Appendix A), encouraging the use of some or all of these questions in policy analysis. In the interest of space this paper explores a subset of five descriptive questions. These descriptive questions involve interrogation, diverse knowledges, exploring the impact of assumptions on policy, reflexivity, and examining contextual development and framings of the policy problem (Hankivsky et al., 2014). I will examine each of the five questions in turn, illustrating the applicability and usefulness of the framework.

IBPA Analysis

Q1. What knowledge, values, and experiences does the researcher bring to policy analysis?

My combination of identities, experiences, and training mean that I offer specific perspectives in relation to this research. A summative reflexive analysis was provided as an appendix to the capstone research, primarily focusing on gender and age, but not described in much detail or in relation to explaining research choices. Providing greater depth of positionality may offer improved insights into the creation of this knowledge. Most notably, my formative experiences lent to a strong focus on the resilience, development, wellbeing, and rights of children in the research.¹² These interests may have led to a child-centred focus in the research with less attention to the family units and communities to which children belong. Such attention may be myopic given understandings of the importance of supporting families cohesively and holistically (Te Puni Kokiri, 2018)¹³ using a family-centred approach¹⁴— a view that has become the focus of my current dissertation research.

As a woman of European settler heritage, I lack lived perspectives and experiences of Indigenous and other racialized people. The importance of remaining cognizant and avoiding stigmatization through framing and language was and is integral during the research process. For example,

¹² Challenges which precede my current position as a first-generation post-secondary student.

¹³ New Zealand developed Whānau Ora, a revolutionary model that targets services and support to families and devolves delivery of services to community-based commissioning agencies (Te Puni Kokiri, 2018).

¹⁴ Family-centred practice considers the family unit as the focus of attention, and practitioners are committed to preserving, empowering, and building upon the strengths of families (Lietz & Geiger, 2017).

questioning what is meant by terms such as children’s “best interests” and “families” is essential, as these concepts are euro-centrally inscribed and may delegitimize Indigenous conceptualizations (McKenzie et al., 2016).¹⁵ I am also privileged due to my education in Western ethnocentric material and institutions, ability, and occupation as a researcher, meaning I belong to those hegemonic identity groups as well, and must maintain awareness of influences in research choices and thought. Engaging with IBPA elucidates the importance of building cognizance of positionality as a researcher in this area.

Q2. What is the policy problem under consideration?

Representations and assumptions of the policy problem have several common themes, and some may obscure the complex experiences of children with incarcerated parents. There is little scholarship on the topic area in BC and Canada; the literature available generally focuses on challenges, the symptoms of a culture of incarceration, and the need for further academic exploration (e.g., Bayes, 2007; Cunningham & Baker, 2004; McCormick et al., 2014; Reid, 2018). This representation of the problem is also common in literature available internationally, including the United States. In much of the scholarship the emphasis is on the need to interrupt the cycle of parent-child incarceration and delinquency among children of incarcerated parents (e.g., Andersen, 2018; Aaron & Dallaire, 2010; Huebner & Gustafson, 2007; Murray et al., 2007). The literature may further present children as predisposed to follow in their parent’s footsteps, for reasons such as deficient parental role modelling and socialization (e.g., Besemer et al., 2016; Kopak & Smith-Ruiz, 2015).

Additionally, in the literature there is emphasis on the need to cease the cycle of incarceration among parents, who may serve multiple prison sentences over time (Bales & Mears, 2008; Morgan et al., 2013). Incarcerated women receive specific attention for a presumed role and identity as caregivers (e.g., Burgess & Flynn, 2013), incarcerated fathers are viewed as role models (e.g., Thombre et al., 2009), and other family members (e.g., uncles, aunts, grandparents) receive little to no attention (DeHart et al., 2018). In the capstone interview data, experts generally tend to

¹⁵ Children’s “best interests” and what constitutes “family” can be limited in scope and exclusionary of Indigenous cultural conceptualizations (McKenzie et al., 2016).

view incarcerated fathers as less interested, or even disinterested in their children, in contrast to incarcerated mothers. Moreover, younger children are generally the focus (e.g., Nesmith & Ruhland, 2008), providing less attention to adolescents or adult children of incarcerated individuals. Further, demography and identities are generally not distinguished. For instance, African American children are sometimes of focus, and a strengths-based model is occasionally employed (e.g., Luther, 2015; Miller, 2007); however, the literature and capstone interview research does not capture the range and complexity of experiences.

Synthesizing the dominant themes in the literature and capstone expert interviews, a problem statement is: “(national/state) governments should provide support (program-based not structural change) to (young) children with incarcerated parents (particularly mothers) to interrupt cycles of incarceration.” As I sought to focus on resilience, a population not consulted in Canada (impacted youth), and the capacity for youth development, I conceptualized the problem in the capstone research differently as: “how can governments support the wellbeing, resilience, and life outcomes of youth with incarcerated parents in BC?” The dissertation research going forward, following application of IBPA, shifts away from characterizing populations as a “problem” and focuses more holistically on breaking cycles of incarceration through empowering family strengths, agency, and relationships.

Q3. How have representations of the problem come about?

Academics and advocates seek to gain greater political and public awareness of this issue at all jurisdictional levels, and work to frame the topic area as warranting policy attention through international conventions (e.g., UN, 2011), academic research generally of incarcerated individuals, and local roundtables such as Bonding Through Bars in 2013 (Hargreaves & Sarra, 2013). Most literature and advocacy on this topic have only been emerging over the last 20 years. At least in the context of Canada, governments have not dedicated much attention to this issue nor provided much response to calls for greater action.¹⁶

¹⁶ Note also that the TRC (2015) called for reductions in the numbers of incarcerated Indigenous adults and youth, as well as numbers of children removed from families through child welfare systems.

Incarceration is a hidden issue in Canada, and less salient on the political agenda than elsewhere, specifically in the United States (US). In the US the population of incarcerated individuals is over two million, and there are debates regarding mass incarceration and privatization of corrections facilities (Foster & Hagan, 2015). Conversely, in Canada the population of adults in a custody or community program is approximately 140,000 (Malakieh, 2018)¹⁷ and debates regarding the laws and conventions of incarceration are less salient. Occasionally, events do reach public attention, often eliciting calls for greater punitiveness, such as the outcry in the Fall of 2018 around the transfer of a prisoner to the Okimaw Ohci Healing Lodge.¹⁸

The stigma, shame, and ostracism of incarceration is linked to a Western history of punishment, and the role of public shaming as a deterrent to crime. Foucault (1975) theorizes that prisons are part of a larger carceral system that has become an all-encompassing societal institution over time. Prisons belong to a network of social institutions in a panoptic society, characterised by pervasive observation and normalization, which require the creation of delinquents to continue (Foucault, 1975). The focus on parent-child incarceration in the scholarship is not grounded in robust data (Akesson et al., 2012), and may be linked to this social underpinning of crime and punishment. In Western society, “delinquents” are always present and generally drawn from vulnerable populations, and in this case may include those with incarcerated family members, particularly parents. The focus on parent-child incarceration is furthered by disciplines of criminology and psychology which traditionally seek to study psychopathology and symptoms, rather than strengths and perseverance (Wright et al., 2013). Stakeholders may also embrace specific narratives and language around incarceration, such as children being “victims” of incarceration (e.g., Reid, 2018) as persuasive counter-framing, which may still lose nuance and complexity of experience.¹⁹ Creating labels that individuals are grouped into, and providing discussion and labelling *of* rather than *with* them, may be fraught.

¹⁷ In 2016/2017, on any given day an average of 117,645 adult offenders were supervised in a custody or community program in the provinces and territories. Federally, the Correctional Service of Canada supervised an average of 23,006 adult offenders in a custody or community program (Malakieh, 2018).

¹⁸ Terri-Lynne McClintic was moved to an Indigenous healing lodge in Saskatchewan and soon transferred back to medium-security following public backlash and revised policy (Aiello, 2018; CBC News, 2018).

¹⁹ For example, more attention can be given to the complexity and blurred lines between categories of “victim” and “offender” (Balfour, 2012). Labelling with the term “victim,” can also carry immense stigma and may not match

The focus on individuals, rather than families more holistically, may be related to the neoliberal structure of policy and siloed service provision. For example, child welfare interventions centre minimizing risk management, with an emphasis on monitoring, limited benchmarks, compartmentalizing, and restricting services (Liebenberg & Hutt-Macleod, 2017). This neoliberal structure serves to limit holistic approaches and ignore a larger suite of strength-building resources in families and communities. In the capstone interview data, there is a focus on individuals within an expert's scope of work rather than more encompassing views of families and communities.

As an example of the myopic scope afforded under the current system, in discussion of incarceration and families, incarcerated mothers are generally the population of greater attention in the literature and capstone interviews in BC. This partly may draw on traditional gender norms enshrined in society, such as a mother's inextricable link with her children (Butler, 1990).²⁰ Butler (1990) contends that womanhood is not "natural" and that gender is only made to appear natural through repeated performance. These performances in turn reproduce traditional categories of sex and gender. Internalized values and assumptions of gender roles may manifest in understandings of the policy problem, and where interventions should be targeted. Overall, there is a focus on individuals rather than families more holistically in the literature and field of practice, and the reasons underpinning this focus may be based not only on data but also implicit assumptions and values.

Q4. How are groups differentially affected by this representation of the problem?

Current representations of the problem obscure the multiple identities, oppressions, privileges, and needs among children with incarcerated parents. Current representations generally do not explore in any detail how experiences may differ within the population, and the complex interplay of oppressions. Representations promote a uniform target population, which conceals the

with how people wish to identify themselves (Fohring, 2018). Labeling is not benign and people's behavior is influenced by the labels attached to them by society (Besemer et al., 2017).

²⁰ The focus on mothers also draws on literature regarding the benefits of infant-mother bonding (Granger-Brown et al., 2012), attachment theory as mothers are more likely to be primary caregivers (Poehlmann, 2005), and increasing numbers of incarcerated women in Canada (Malakieh, 2018).

experiences of members within this group. For example, capstone interview research found that children who live in cities and rural areas have different experiences, and rural children, especially those at great distance from relevant institutions, may find it more difficult to attain support, and maintain contact with parents. The literature does not discuss this in much detail (e.g., Cunningham & Baker, 2003), and when discussed in expert interviews it was generally connected to maternal incarceration and the women's institutions in BC which are few in number and may be geographically inaccessible for families. Maternal incarceration and the need to maintain maternal-child bonds is of greater focus than paternal incarceration, perpetuating gendered constructions, and also providing less attention to children with incarcerated fathers. The focus on specific parent-child relationships may also exclude experiences with other family members incarcerated (e.g., aunts, uncles, grandparents) (e.g., DeHart et al., 2018).

Further, the focus on younger children (e.g., under the age of 10) in the topic area may come at the unintended exclusion of adolescent or adult children of prisoners. Few studies include adolescents or adult children as interview participants (e.g., Bennett, 2015), and recommendations rarely include supports tailored to these populations. For example, opportunities for consultation and participation in the policy process are more appropriate for older participants (e.g., Cesaroni et al., 2018), but are generally not recommended, and options to promote parental bonding are favoured instead (e.g. Arditti & Salva, 2015; Blumberg & Griffin, 2013; Burgess & Flynn, 2013). Moreover, the focus on psychopathology, delinquency, and challenges obscure the experiences, needs, and voices of those who struggle but do not become involved with the justice or correction systems, yet may nevertheless benefit from policy attention and support (Morgan et al., 2013).²¹ Personal strengths are less often of focus, and challenges are more widely discussed; strength-based policy solutions are not underscored as much as they could be in recommendations.

The literature generally does not distinguish Indigenous children of incarcerated parents, and there is little academic or grey literature reports available on this intersection in Canada (e.g.,

²¹ The majority of children with incarcerated parents do not go on to later offend (Flynn et al., 2017).

Bennett, 2015). The importance of family, and ripple effects of trauma throughout generations may be especially relevant, yet the literature and expert interviews do not reflect this (e.g., Aguiar & Halseth, 2015). The current representation of the “problem” divorces it from the greater issue of racialized population’s experiences with incarceration, and histories of marginalization, racism, colonialism (e.g., Brien, 2016). In addressing this issue a more holistic view is required, and the understanding that oppressions are linked and must be dismantled together (King, 1988). Responsibility to create change lies not only with governments, but also with society in terms of how incarceration, parenthood, the rights of children, and the diversity of experiences and solutions are represented.

Q5. What are the current policy responses to the problem?

Internationally, the UN (2011) held a Day of General Discussion (DGD) on children with incarcerated parents, producing recommendations for member states to enact with the goal of ensuring child rights. This discussion did not identify specific oppressions and privileges that children may experience, but did require the adoption of cultural and ethnic sensitivity to the needs of children (UN, 2011). Predating the 2011 DGD, UN (2010) policy focused on incarcerated women (The Bangkok Rules) and furthered the narrative of meeting the needs of mothers and children together, aligning with traditional gender roles. The federal government of Canada and the government of BC created iterations of the Mother-Child Program (MCP) for incarcerated mothers in federal jail or provincial prison, allowing women to return from the hospital to cohabitate with their infant in a correctional facility (Brennan, 2014; CSC, 2003, 2015; Ministry of Justice, 2014).

Such policy direction also fits within traditional gender norms, and the vision that mothers are the best suited caregivers for infants and children. MCP policy is intended for infants, and little policy has been enacted targeting adolescents, adult children, and families. Private Family Visitation (PFV) is offered in federal institutions, but only available for children under the age of 12 and with several conditions (Cunningham & Baker, 2003; Correctional Service of Canada, 2012). ChildLink video conferencing is a recent measure for children with incarcerated parents (Sapers, 2014); however, capstone interviewees indicate there are issues in its application, including difficulty in

accessing video conferencing sites, limited hours of availability, and lack of staff buy-in and training.

Advocates such as the BC Advocate for Children and Youth, the federal correctional investigator, and non-profits (e.g., Elizabeth Fry Society, FEAT, Canadian Families and Corrections Network) have sought greater policy change, but little has been achieved. The stigma, shame, and discourse of punishment are strong, and generally produces the outcome that this is an issue which governments can ignore or even introduce counteractive measures around without much or any public outcry. Most saliently, in 2008 the government of BC closed the MCP, and only reopened it after a Supreme Court challenge by practitioners in the field and former women prisoners (Brennan, 2014). Moreover, current requirements can be so stringent that prisoners find it difficult to attain eligibility for programs, and children encounter barriers in accessing programs (Brennan, 2014). Overall, there is also a lack of interventions that focus on the impacts of incarceration policy holistically on families and communities.

Discussion

IBPA offers benefits in analysing this topic area by prompting closer examination of the assumptions underlying the policy problem, how groups are differentially impacted by current and proposed policy interventions, and author positionality in research. The descriptive questions of the IBPA framework reveal opportunities to remedy these issues and craft improved policy interventions. Application of the framework also highlights the interplay of power, in terms of how representations are created and perpetuated in Canadian society. The intersectional principle of time and space, which was not discussed in the original capstone, is also elucidated in terms of differences in experience according to geographical location within the province.

IBPA produces recommendations that differ slightly from those of the original capstone research. IBPA-informed insights include acknowledging the complexity and nuances of individual experiences, supporting families instead of individuals as part of a more holistic approach, and promoting greater awareness of stigma and assumptions underpinning both incarceration and caregiving. Furthermore, promoting greater awareness of the assumptions underlying

incarceration and caregiving may help individuals advocate, research, and select policy options to benefit families that are strengths-based, and applicable to a wider range of experiences. This was identified during the capstone research process, but not underscored as an area for analysis and recommendation in the capstone report. With IBPA, this focus becomes essential to achieving change. All of these insights are made with the goal of rendering analysis and decision-making in this topic area more sensitive to the multiple and intersecting components of identity among the population, with the goal of successfully addressing policy challenges, and avoiding reproducing problematic representations.

Conclusion

Applying an IBPA framework assists in unpacking the interactions between multi-level social structures and policies that shape child experiences, including simultaneous privileges and oppressions. While children of incarcerated parents are already a hidden population, current representations of the policy problem further obscure the heterogeneous experiences that children may experience within this population. Current representations may come in conflict with the need for nuance, and having policy discussions that acknowledge the existence of difference and multiplicative oppressions and privileges. The immense social stigma surrounding this topic means that it is often forgotten or unable to gain traction on political agendas in BC and elsewhere. Going forward, key recommendations from this paper include acknowledging the complexity and nuances of individual experiences, supporting families instead of individuals as part of a more holistic approach, and promoting greater awareness of the assumptions underpinning both incarceration and caregiving. The conversation is far from static, and narratives can shift through the work of advocates, practitioners, governments, families, and children with incarcerated parents to improve societal perceptions and policy outcomes.

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Industry 4.0 and the Competitiveness of Canada's Manufacturing Sector: Implications for Policy

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Industry 4.0 dominates discussions about the future of manufacturing. To many, it represents a means by which to sustain the manufacturing footprints of higher cost, economically advanced jurisdictions. In Canada, many observers have expressed concern that its manufacturers are not confronting the challenges – and opportunities – that Industry 4.0 represents. They fear that late adoption of Industry 4.0 technologies will have a significant impact on manufacturers' long-term capacity to compete. Even so, there exist several attributes within the fabric of the Canadian manufacturing sector, its labour market and educational system that make Canada and its manufacturers well-positioned to accept and catalyze the benefits that Industry 4.0 represents. While this paper cautions against Industry 4.0 being considered the remedy for Canada's declining manufacturing competitiveness, it describes why adoption of Industry 4.0 principles and the need for firms to increase their capacity to integrate into others' value chains is increasingly necessary. As such, it suggests a structure and process for Canada and its policy makers going forward.

Introduction

The emergence of data manipulation and analysis has facilitated the introduction of numerous technologies, many of which have found application in the industrial sector [1]. Developments in the fields of internet of things (IoT), cloud computing and big data analytics and their introduction to the field of manufacturing has allowed firms to migrate the management of their products, processes and services beyond the borders of a single establishment. This has permitted those firms to integrate processes aspects associated with the management of manufacturing operations and logistics [2, 3].

The rise of IoT and the cloud has also supported the advancement of manufacturing techniques which would not have been possible otherwise [4]. Terms such as "Industry 4.0" and "Cloud-Based Design and Manufacturing" have emerged, revolutionizing manufacturing paradigms [4,5]. Concepts and tools associated with Industry 4.0 support the introduction of interconnected

machines, sensors, assembly lines, computers and shipments and in so doing, enable broader, more visible and immediate control over operations [6].

Since the introduction of the concepts associated with Industry 4.0 in 2011, several countries have rushed to support the digitization and interconnectivity of products and systems in their industrial sectors [7]. Germany and the United States have been most active in this regard [7]. For many, the 2016 World Economic Forum represented a form of “coming out party” for Industry 4.0 as it was the dominant theme of the gathering. While Canada’s Prime Minister, Justin Trudeau used the meeting to emphasize Canada’s capabilities in several technological areas associated with Industry 4.0, many expressed concern then (and subsequently) that Canada was making minimal progress [8 - 10]. For example, according to the Organization for Economic Co-operation and Development (OECD), Canadian industry has lagged many developed nations in the adoption of emerging technologies that contribute to the integration of Industry 4.0 systems [11, 12]. Moreover, a survey conducted by the Business Development Bank of Canada (BDC) highlighted that almost 60% of Canadian manufacturers had not yet implemented technologies relevant to Industry 4.0 [12]. At its core, Industry 4.0 represents the integration of a set of constantly interconnected cyber-physical systems across a single network, [4] bringing customers, suppliers and manufacturers under a single umbrella. It facilitates customized mass production as well as reduced human intervention [4, 5]. The most significant aspect of Industry 4.0 is the potential it represents to integrate a firm’s aggregate value chain – i.e. extending knowledge and visibility of a firm’s or establishment’s actions beyond the boundaries of that firm or establishment [6]. Effecting such a change requires all value chain members to be capable of communicating and exchanging data and information over a coherent and unified protocol [13].

For most firms, particularly those in the Small or Medium Enterprise (SME) category, developing such capabilities is beyond their remit. In the absence of supportive measures, efforts by such firms to integrate industrial ecosystems to global standards may prove fruitless, a turn of events that would cause an Industry 4.0-enabled ecosystem to be accessible to only the largest, most well-capitalized firms. This would effectively eliminate many firms – primarily SMEs – from large firms’ ecosystem. Thus, Canada and its firms must increase their adoption of Industry 4.0 tools –

if not because of the firm level benefits Industry 4.0 provides, but because supply chains will increasingly demand that firms with whom they do business have the requisite capabilities. Thus, Canadian federal and provincial governments, in conjunction with Canadian manufacturing sector(s), must be involved: introducing and implementing a strategy to propel the adoption of Industry 4.0 technologies.

This paper will provide the basis for a guide for integrating Industry 4.0. To support that, a literature review is conducted, its purpose being to isolate technologies and tools considered essential to Industry 4.0. After that, an assessment is conducted of the preparedness of Canada to host and advance the incumbent technology. Doing so provides a basis for development of a policy path going forward; one that will position Canada to take systematic steps towards the advancements Justin Trudeau articulated at the World Economic Forum in 2016.

The Structure and Fundamentals of Industry 4.0

Industry 4.0 is the term given to self-automated cyber-physical systems connecting diverse elements of the manufacturing and management process [5]. It functions through real-time networking between technologies over the Internet of Things (IoT). The “Things” refers to the cyber-physical systems and technologies that are linked together by the internet, supporting decision making in real-time. The effect is improved visibility and efficiency of the overall supply chain [4]. By breaking down the technologies and tools associated with Industry 4.0 a basis is provided for capturing its complex nature.

a. Elements of Industry 4.0

Literature shows that Industry 4.0 is often associated with a range of contributing digital technologies, tools and methods which alter manufacturing value chains. These tools and technologies include those that enable product design, product customization, supply chain management, production, delivery and customer feedback [5,6,14,15]. However, in assessing core Industry 4.0 tools, it is necessary to distinguish between technologies fundamental to Industry 4.0 from those elements which merely contribute to other aspects of manufacturing. Failure to distinguish between the two types causes individuals and firms to delay progress in terms of

planning and implementing Industry 4.0. Through a review of literature, we identify nine commonly presented technologies labelled as fundamental to Industry 4.0 [5,6,14,15].

1. Cloud Computing
2. Big Data and Analytics
3. Internet of Things
4. Additive Manufacturing
5. Augmented Reality
6. Cyber Security
7. Smart Sensors
8. Autonomous Robotics
9. Simulation

Most studies and reports conducted on the structure and elements of Industry 4.0, present these technologies and tools as an Industry 4.0 package without highlighting the significance of specific elements [5,6,14,15]. In the aggregate, one could anticipate that the prospect of developing and implementing a comprehensive, integrated strategy involving all nine would be overwhelming. By contrast, the provision of a supporting guide or framework for an incremental and gradual transformation would be more manageable, allowing firms to plan investments over a prolonged timeframe.

b. Industry 4.0's Fundamental Elements

The pivotal technologies and tools of Industry 4.0 are those that support the underlying architecture [16]. Without them, any subsequent overhaul of a firm's manufacturing system(s) cannot occur. This section describes those aspects.

Bagheri et al. (2015) present a five-level architecture for Industry 4.0 systems, describing the major operational steps involved [16]. They are:

- a. Smart Connection: Represents the collection of data from modules and instruments such as sensors, controllers, machines and enterprise management systems
- b. Data-to-information conversion: Here data is gathered, organized and converted into usable material and information

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- c. Cyber: This step captures the exchange of information that occurs among interconnected components over the manufacturing network
 - d. Cognition: Represents the process of knowledge-generation and decision-making as a result of the information acquired
 - e. Configuration: This step translates the cyber-decision of cognition level into a physical feedback through intelligent and self-adaptive machines and controlled systems

c. Analysis

Based on Bagheri's model, several elements can be identified as primary technologies and tools. Critically, the Bagheri model strips Industry 4.0 down to its core elements. The collection of data at the first stage is accomplished the presence of digital sensors, machines, programmable logic devices and controllers along the assembly line. Also, management and logistics data, along with data from suppliers and consumers is collected. According to Bagheri et. al, the ever-growing network of machines and sensors, and the constant generation of large sets of data has resulted in

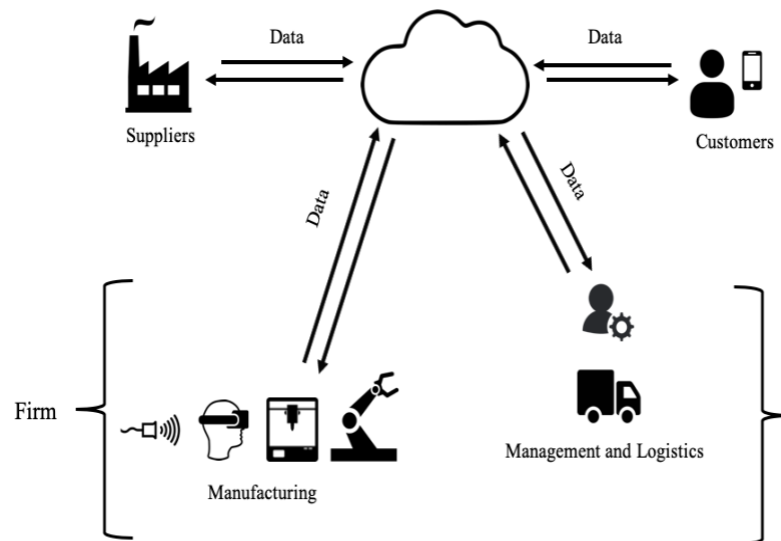


Fig. 1 - Reorganized structure of Industry 4.0

While the Cloud can act as the central bridge of the Industry 4.0 system – where data is stored, analyzed and exchanged across the network of devices – it is also important to acknowledge the role of data in the overall process. From the first level of data generation and collection using sensors, controllers and machines, to the analysis and intelligent decision-making process, data is

constantly generated, analyzed and exchanged over interconnected systems. This makes the presence of data and information essential to the system's functionality.

Industry 4.0 expands the spectrum of data generation and utilization in an attempt to enhance the process, extending its role beyond the assembly line. Suppliers and customers are also direct contributors to the network. For this reason, we identify data as the fundamental element for the functionality and structure of Industry 4.0. Therefore, capabilities for understanding and managing “Big Data and Analytics” at firms and companies is essential for the integration and the operation of Industry 4.0 systems.

Though other elements of Industry 4.0 such as additive manufacturing and augmented reality may convey the advancement and modernity of new manufacturing, they are not essential to Industry 4.0. The tendency to associate ancillary elements, which do not enter or contribute at all levels of the functionality of Industry 4.0 system, may leave organizations – especially SMEs – with the impression that Industry 4.0 is beyond their reach. For this reason, the storage and management of data is the core of Industry 4.0. The tendency to add “Advanced Manufacturing” tools to the fundamental elements of Industry 4.0 undermines Industry 4.0 progress at the firm and sector level.

Industry 4.0: The Canadian Case

At the World Economic Forum of 2016, Canadian Prime Minister Justin Trudeau presented characteristics of the Canadian industry that made it uniquely capable of hosting Industry 4.0 [7, 10]. According to the Prime Minister, Canada's economy, its infrastructure, population, education system and organization of governance combined to provide attributes facilitative of Industry 4.0 [7]. However, according to several observers, Canada does not possess an integrated and comprehensive national strategy to assist the Canadian manufacturing sector in transitioning its industrial network to the kind of new manufacturing systems and procedures that Industry 4.0 represents [11]. By contrast, seven of the top 10 global economies (by Gross Domestic Product), have developed national strategies to accelerate industrial transformation [26 - 28]. Figure 2 lists those jurisdictions and the budgets they have assigned to Industry 4.0 endeavours. For example,

Germany, in 2011 earmarked €400 million to its “Industrie 4.0” program. By 2015, the UK, Italy, the US, Japan and China had also enacted strategies [29 - 32]. As for Canada, an overview of its support programs and funds shows that the presence of the Industry 4.0 concept in its industrial programs has been minimal. Thus, unlike its major competitors, Canada has not yet set a national strategy to fast track industrial transformation.

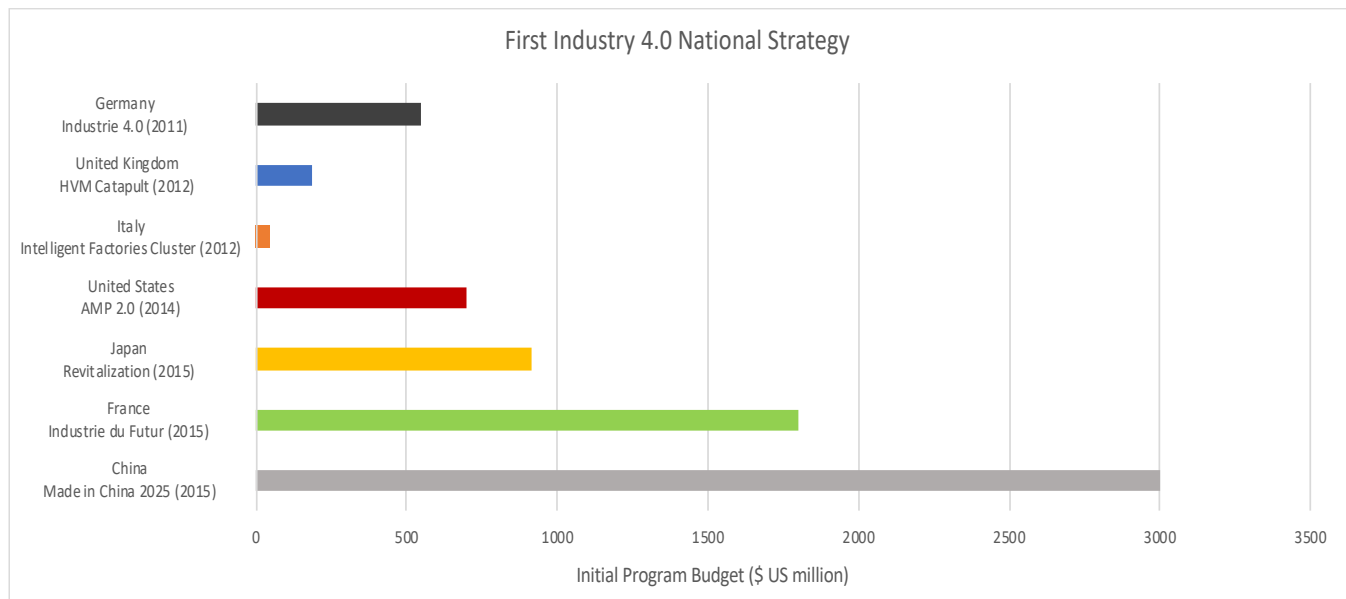


Fig. 2 - First Industry 4.0 Governmental Program by Country

A review of the Canadian and US manufacturing sectors shows that based on the Gross Domestic Product (GDP) of the manufacturing sector, the United States spends more than twice as much as Canada on information, communication and technology (ICT) equipment and applications (Table 1) [33, 34].

Country	Manufacturing Sector		
	GDP Manufacturing (USD billion)	ICT Investment (USD billion)	ICT Investment as a Share of Manufacturing GDP (Percentage)
United States of America	2,017	55	2.72%
Canada	178	2.22	1.24%

Table 1. ICT Investment in the Manufacturing Sector in US and Canada

The absence of industrial programs and funds aimed at accelerating the adoption of Industry 4.0 technologies and systems, combined with low ICT investment in Canada's manufacturing sector, provides evidence that Canada has insufficiencies related to Industry 4.0 readiness and implementation. Despite its direct shortcomings, Canada does possess several attributes facilitative of Industry 4.0. The sections that follow document several of those features.

a. Canadian Educational System

In 2016, the OECD ranked Canada at the top of its member countries (educational index) with 54% of the population being a university or college graduate [35]. Almost 20% of Canadian academic institutions, and 55% of the 20 largest Canadian universities offer a data-related program structured to engage students in gaining expertise in the management of data [36]. Additionally, there exists several tools and programs to engage university and college students with Canadian industry. These programs include Mitacs Canada and the Co-operative Education program [37, 38].

b. Government of Canada Initiatives

In the federal budget of 2017, Canada allocated \$950 million over five years towards an "Innovation Superclusters Initiative," [39] aiming to increase collaboration among institutional and industrial actors in the areas of research, innovation, and job creation [39]. Among the five superclusters, we identify two which have application to the support and promotion of Industry 4.0. The Digital Technology Supercluster in British Columbia brings together more than 250 Canadian and international industrial and academic partners to tackle issues and challenges related to service delivery in the natural resources, health and manufacturing sectors, through the incorporation of big data applications, cloud computing and machine learning [40]. Meanwhile, the Advanced Manufacturing Supercluster in Ontario concentrates on manufacturing-oriented technologies such as 3-D printing, advanced and autonomous robotics, machine learning, IoT and cybersecurity [41].

The superclusters are currently at the stage of setup. As such, it is too early to draw conclusions about their ultimate relevance towards the advancement of Industry 4.0. However, both

superclusters, carry potential for creating opportunities. Even though the language associated with their establishment contains minimal mention of Industry 4.0, their technology focus areas are pivotal to engaging the manufacturing sector in the Industry 4.0 paradigm. The extent to which these clusters are able to collaborate on projects will also support advancements in Industry 4.0 and generate additional opportunities. (Note: Table 2. summarizes the focus areas of each of the two superclusters along with the technologies and tools associated with Industry 4.0.)

Technology Focus		Structural Elements
Digital Technology Supercluster	Advanced Manufacturing Supercluster	Industry 4.0
<ul style="list-style-type: none"> - Virtual, Mixed and Augmented Reality ★ - Data Collection and Analytics ★ - Quantum Computing 	<ul style="list-style-type: none"> - Internet of Things ★ - Machine Learning - Cybersecurity ★ - Additive manufacturing ★ 	<ul style="list-style-type: none"> - Cloud Computing - Big Data Analytics - Internet of Things - Additive Manufacturing - Augmented Reality - Cyber Security - Smart Sensors - Autonomous Robotics - Simulation

Table 2. Technology Focus of the Two Superclusters and the Structural Elements of Industry 4.0

c. Governmental Policy

Beyond the superclusters, the Canadian federal and provincial governments offer subsidies and loans aimed at development of Canada's industrial sector [42]. For example, the National Research Council of Canada (NRC) promotes research in areas of data science and analytics, machine learning, deep learning and artificial intelligence [43]. In January 2018, NRC's Industrial Research Assistance Program (IRAP) announced the "Canada-Germany Industry 4.0 Partnering Mission",

which later developed to a joint Canada-Germany call for R&D projects in Industry 4.0 technologies involving SMEs and academic and research partners in Canada and Germany [44, 45]. Other programs such as the Automotive Innovation Fund (AIF) and Canada's Small Business Financing Program also offer financial support to Canadian companies to invest in new machinery and equipment [46, 47]. While there are no explicit requirements stipulating what technologies or tools should be acquired [46, 47], Industry 4.0-oriented projects are eligible.

d. Non-Governmental and Private Initiatives

Several innovation hubs and incubators have surfaced to accelerate advancements directly and indirectly related to Industry 4.0. Among these is Catalyst 137, an innovation space for manufacturing technologies and the IoT in the Region of Waterloo, strategically located to attract contributions of major companies such as Google and Toyota as well as academic institutions like the University of Waterloo [48]. The hub is not focused exclusively on Industry 4.0, but collaboration involving technologies and tools associated with Industry 4.0 are possible.

Another hub is the MARs Discovery District, a non-profit corporation in Toronto aimed at promoting partnerships among more than 120 Canadian and international public and private organizations [49]. Like Catalyst 137, MARs do not directly relate to manufacturing technologies or Industry 4.0, but data-related technologies and methods, along with AI and machine learning are integrated in the research and operations of more than 25 percent of its members [50]. The hub has also been successful in supporting more than 50 ventures in the field of data science and analytics [51]. Other Canadian hubs and innovation centres include McMaster University's Innovation Park in Hamilton, Ontario and the University of Calgary's "Innovate Calgary", in Calgary, Alberta [52, 53].

e. Technology Companies and the Canadian Job Market

Canada is a hub for technological advancement, recently developing and major international firms [54]. Several companies have recently announced plans to establish or expand their presence [54]. In 2018 for example, Microsoft, Uber, Alphabet and Samsung announced investments in Toronto [54- 57]. Montreal's Artificial Intelligence and Deep Learning Hub, along with the recent

announcement of the Quebec-based Scale AI supercluster, have encouraged Microsoft, Google and QuantumBlack (the data analytics subsidiary of McKinsey & Co.) to establish or increase their AI and big data R&D activities there [58, 59].

In 2017, Toronto was the fastest growing North American tech job market, adding approximately 29,000 tech jobs, 3.5 times more than the second ranked city, Seattle [54, 60]. Ottawa ranked first on the list of the highest North American tech-labour concentrated cities, with tech jobs constituting 11.2 percent of its job market. The share of tech jobs in the Canadian job market is almost 1.5 times higher than the share of tech jobs in the U.S. (Table 3).

Country	Labour Market (Full-time employees)	Tech Jobs	Percentage of Tech Jobs to Labour Market
United States of America	127 million	5 million	3.9%
Canada	14.8 million	0.83 million	5.6%

Table 3. Share of U.S. and Canadian Tech Jobs

Policy Discussion

The 1970s were associated with digitalization and mechanization of industrial production [5, 61]. Since then, sensors, controllers and machines have become an integral part of manufacturing systems, providing real-time data and continuous monitoring and feedback [62]. However, the data generated from earlier-designed systems has been limited to their placement in discrete, isolated machines or production lines [16, 62]. Industry 4.0 is distinguished from that by virtue of the fact that data is extracted, analyzed and distributed across a network. Since data plays a fundamental role in the structure of Industry 4.0, it is the essential and primary step for manufacturing companies (and policy makers) to consider as they build an Industry 4.0 compatible infrastructure.

Based on the data and trends described above, Canada possesses resources and skills to support an Industry 4.0 transformation. However, research undertaken in the course of this project has suggested that Canadian industrial policy reflective of the nature and scale of Industry 4.0 lacks structure and focus. With no national strategy or consolidated support programs in place to

promote digitization and interconnectivity, Canadian companies, especially SMEs, will be challenged. The globally accelerating adoption of Industry 4.0 systems places Canadian firms in general and SMEs in particular in a vulnerable position; one where a risk exists of them being excluded from the emerging ecosystem.

This paper has sought to underscore the fact that firms will increasingly be compelled to integrate key aspects of Industry 4.0, not necessarily because doing so will make them more productive or because Industry 4.0 tools will transform the quality of their outputs (although it may). Rather, Industry 4.0 will increasingly reach the status of “table stakes.” Firms wishing to be part of other firms’ global value chains will be required to possess Industry 4.0 capabilities. Thus, it can be anticipated that the requirement for Industry 4.0 capability will accelerate.

Despite the resources, initiatives, skills and expertise present in the Canadian market, Canadian firms in general and SMEs in particular, will struggle to affect the transition necessary. Consistent with other economically advanced jurisdictions, Canada requires an overarching strategy to coordinate and synchronize its efforts with respect to Industry 4.0. This is important for all firms, but for SMEs, which by their nature lack access to the range of skills and knowledge necessary to effect the transition, this is particularly important. We believe that developing a national strategy for tackling this issue can be manageable and economically viable. It must coordinate and harness existing resources and assets while following an agenda of gradual integration of ancillary technologies and tools. Moreover, because Canada’s national and subnational governments already offer a set of support programs and funds aimed at building the capacity of the manufacturing sector, a basis for a tighter Industry 4.0 strategy exists.

Conclusion

For firms, the implementation of Industry 4.0 can represent a complex, imposing undertaking. As currently represented, Industry 4.0 consists of a collection of disparate technologies and concepts that, in the aggregate, can overwhelm firms, both large and small. This paper has demonstrated that a more strategic and systematic approach – one that is incremental and supported by a

broader government strategy or approach -- can mitigate the challenges and risks for individual firms.

This paper has argued that the starting point for both firms seeking to implement Industry 4.0 and governments seeking to support and guide firms as they do so, is data science and analytics. Other tools – e.g. additive printing, augmented reality or autonomous robots – while useful, do not represent core, requisite aspects of Industry 4.0 and therefore should be isolated from an consolidated Industry 4.0 strategy. The transition towards a revived manufacturing system is more likely if key stakeholders, including national and subnational bodies and institutions are aligned and centred on core elements.

This paper has confirmed that Canada contains many of the necessary attributes associated with a successful transition to Industry 4.0. It has a well-educated workforce, well-capitalized firms, and capabilities in technologies facilitative of its key aspects. However, it is also challenged in that does not yet offer a comprehensive and integrated Industry 4.0 strategy, nor does it appear that one is imminent. Meanwhile, its major competitors among highly advanced, economically developed nations have implemented strategies and programs that are well-ingrained. Canada must move rapidly, otherwise it risks losing the opportunity to leverage the benefits of the investments it already possesses in aspects foundational to Industry 4.0 success.

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Canada's 'ethical' foreign policy dilemma: Good Samaritans and bad policy

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After coming to power in 2015, the Trudeau administration, has greatly focused on guiding Canadian foreign policy towards a reconciliation of ethical standards with realpolitik. One of the most prominent expressions of this has been in the pursuit of a gender-just foreign policy. However, the attempt to reconcile two often-conflicting norms have only resulted in the formalization of bad policy and unmet expectations. This paper studies two major policies emerging from the pursuit of a value-based foreign policy – the Progressive Trade Agenda and the Feminist International Assistance Policy. The paper finds that the major constraints in the conceptualization of such a foreign policy lies in a fundamental schism between ideas and interests. It concludes that Canada can become a global pioneer in conceptualizing foreign policy that adequately works towards its intended goal, however, it must first foster greater unity among like-minded states and seek to better align its policies with that of its target nations where the intended beneficiaries of such policies reside.

Introduction

In December 2017, Prime Minister Trudeau visited Beijing to hold formal talks on fostering greater bilateral ties between Canada and China. Given the inconsistencies of the Trump administration's foreign policy, both countries sought to foster greater bilateral ties particularly in the realm of trade by setting up a framework for a China-Canada Trade Deal. However, a year since Trudeau's visit, little progress has been made on the deal. Notwithstanding the recent breakdown of China and Canada's bilateral ties, the trade deal had remained stagnant for nearly a year. According to Chinese officials, this was due to Canada's pursuit of a 'progressive' deal that covered issues like gender, environment and governance (Bickis, 2018). Canada faced disinterest and pushback from China on the so-called 'progressive' aspects of the deal which resulted in talks halted and little progress being made either on an economic or ethical front.

This example is symptomatic of a broader challenge Canada faces in recent times in the formulation of effective foreign policy. After coming to power in 2015, the Trudeau government

has committed itself to adopting a challenging form of foreign policy. This challenge exists in meaningfully conceptualizing a foreign policy on ethical considerations, primarily focusing on value-based goals such as gender equality and social justice. This is not a 21st century dilemma but one that has centuries of thought behind it, from Aristotle's tracts on *Politics and Ethics*, to the comprehensive manual on statecraft *Arthashastra* compiled by the ancient Indian scholar Kautilya, to Machiavelli's *Prince*. The issue of morality in politics has been studied throughout history. For years International Relations (IR) and foreign policy have been considered mutually exclusive to ethics and morality. Regardless, Canada and several other nations have attempted to disrupt this status quo, however challenging it has proven.

My research posits that in the Canadian context, this attempt has resulted in a dubious 'no-man's land' where neither ethical standards are properly upheld nor are policy objectives achieved. In the clash between the 'idea' of ethical foreign policy and Canada's national 'interest', the latter has most prominently emerged triumphant. In the first section of the paper, I provide an overview of Canada's attempts to reconcile ethics with foreign policy, particularly with reference to Canada's pursuit of gender equality through foreign policy. I highlight the Progressive Trade Agenda (PTA) and the Feminist International Assistance Policy (FIAP), both policies introduced under the current Trudeau administration. In the second section, I discuss how the attempt to reconcile ethics in the formulation of foreign policy has impeded the latter and exposed Canada to criticisms of hypocrisy and inefficiency. I explore the fallacies in Canada's ethical policy formulation and evaluate its limitations. Finally, in the third section, I consider what changes Canada needs to make to its strategies and policies to better advocate its ethical stance through a practical policy perspective.

Ethics and Foreign Policy: The Canadian Case

After being elected to office, Trudeau has often declared that 'Canada is back', referring to Canada's 'return' to its liberal internationalist roots. Canadian foreign policy under this administration has been marked by the traditions of liberal democracy, social justice, equality and freedom. The Trudeau government has engaged with other nations in terms of these shared values which, in the Prime Minister's view, reflect a 'Canadian ethos'. This was made evident in

Foreign Minister Chrystia Freeland's speech to Parliament in 2017 when she declared that "Canadians are safer and more prosperous when more of the world shares our values" (Global Affairs Canada, 2017).

Among the values Freeland referred to, the empowerment of women has been at the forefront of Canada's foreign outreach since 2015. As far as domestic policy is concerned, the Trudeau government has implemented a 'gender-based analysis plus' framework in the formulation of the federal budget, to investigate how, among others, women are affected by the nation's economic and political policies. At a United Nations (UN) Conference for women in 2016, Trudeau declared, "I'm going to keep saying, loud and clearly, that I am a feminist" (Panetta, 2016). The Prime Minister has rarely shied away from advocating a feminist agenda, whether at home or abroad. Integrating it into foreign policy is something he has also attempted with varying results.

One of the starkest manifestations of the Trudeau government's determination to reconcile the 'Canadian ethos' into foreign policy is the Progressive Trade Agenda (PTA) championed by then International Trade Minister Francois-Philippe Champagne at the World Trade Organization (WTO) Ministerial Conference in 2017. The PTA is rooted in the belief that global trade should have an "inclusive and progressive approach" (Government of Canada, 2017). One of its main focus areas is trade and gender. The Trudeau administration argues that, "trade is not gender neutral" (Government of Canada, 2018) and that gender equality and the end to gender-based discrimination is not merely a social goal, but has significant positive economic impacts (Government of Canada, 2018). The PTA encapsulates the Trudeau government's belief that global trade can bring about not just economic benefits but social upliftment of women.

Integrating a 'gender chapter' into bilateral trade agreements is one of the main ways in which the Trudeau government has sought to implement its PTA into foreign policy. The updated Canada-Israel Free Trade Agreement (CIFTA) for instance, dedicates a chapter to trade and gender. It begins by both parties acknowledging, "the importance of incorporating a gender perspective into the promotion of inclusive economic growth" (Government of Canada, 2018). As part of the CIFTA, both parties agreed to establish a Trade and Gender Committee and reiterate their commitments

to the UN's Sustainable Development Goals (SDGs) relating to gender equality. This update was largely seen as 'giving teeth' to gender provisions in the CIFTA and allowing either party to challenge what they might consider gender discriminatory trade policies in the other country (Simpson, 2018).

Canada's free trade agreement with Chile was also updated in 2017 when the Minister for International Trade met his Chilean counterpart and stressed the importance of the PTA. Swift negotiations then resulted in a trade and gender chapter being included in the revamped Canada-Chile Free Trade Agreement signed by the respective Heads of State in June 2017 (Government of Canada, 2018). There was also a strong attempt by Canada to promote gender provisions in the negotiations for the United States-Mexico-Canada (USMCA) Agreement. However, while gender language was included to prevent discrimination and promote diversity, it remained largely symbolic.

A second prominent policy expressions of the Trudeau administration's intent to have Canadian values as the basis of its foreign policy is the Feminist International Assistance Policy (FIAP). The FIAP is a policy that is enshrined in the SDGs and primarily aims to refocus 95% of Canadian development aid towards gender equality and the empowerment of women by 2021-22 (Global Affairs Canada, 2017). The FIAP report published by Global Affairs Canada argued that Canada's foreign aid policy must be guided by considerations of closing the gender gap and fostering a more conducive and egalitarian world order for young girls and women especially in the Global South (Global Affairs Canada, 2017).

The FIAP focuses not only on gender justice but contains six 'action areas' that it highlights in terms of aid funding. These include broad targets like poverty, climate action, good governance, peace and security among others (Global Affairs Canada, 2017). The entire framework is part of a new 'feminist' focus of foreign policy that Canada adopted soon after Sweden pioneered a feminist foreign policy in 2015 under the auspices of foreign minister Margot Wallström (Aggestam and Bergman-Rosamond, 2016, p. 323). In doing so, Canada has attempted to develop a 'progressive agenda' in dealing with other nations and representing Canadian values beyond its borders.

However, the decision to instrumentalize women as motors of economic growth without increasing funds for international development (Brown, 2018) has received criticism. Promising a policy that is, “the most ambitious and progressive in the history of Canada's diplomacy” (Bibeau, cited in Wattie, 2018), in this context, has largely been perceived as disingenuous.

Standing for and propagating its values, believing in a ‘human rights’ approach to foreign policy, supporting progressive initiatives abroad and dealing with other nations on a so-called ‘progressive’ agenda, has proved to be an attractive new paradigm for conceptualizing foreign policy. However, such an approach to foreign policy has not fared equally well in terms of implementation and efficacy. As I explore in the subsequent section, Canada’s progressive rhetoric has laid bare the real difficulties of reconciling ethics with realpolitik.

Canada’s Foreign Policy Schism: The Clash of Ideas and Interest

Conceptualizing a coherent foreign policy involves taking into account diverse and often conflicting variables and making a cost-benefit analysis of how these variables require a nation to react in order for it to adequately achieve its national interest. Herein lies the obstacle to Canada’s attempts to reconcile ethics with its foreign policy. Canada’s foreign policy, at least in rhetoric, is based on the value of ideas such as gender equality, human rights and environmental protection. While such an approach may work with the few nations that share similar values, it is exceedingly difficult to reconcile with the rest of the world, which would rather prioritize interest.

A sovereign nation in an anarchical, ‘self-help’ world system must pursue its interests when conceptualizing a foreign policy. National interest remains the foremost consideration for a nation when dealing with other nations, sometimes even if it violates personal or ethical standards. President Trump’s decision to support the Saudi Crown Prince Bin Salman, despite increasing evidence of his involvement in the assassination of the journalist Jamal Khashoggi (Borger and Chulov, 2018) was a perfect instance of a politician ignoring ethical considerations and instead choosing to defend what he interpreted as the US’ economic and geopolitical national interest. China’s decision to ignore a Hague court tribunal ruling in 2016 against its interests in the islands of the South China Sea (Phillips et al, 2016) revealed its disregard for the idea of international law

over national interest. Japan's recent drive towards remilitarization (Rich, 2017) similarly subordinates the idea of pacifism that defined its constitution post World War 2, for its national interest in securing itself against China and North Korea. National interest, thus, remains foremost in the formulation of both domestic and foreign policy.

Nowhere is this more evident for Canada and its progressive foreign policy peers than the issue of arms sales to Saudi Arabia, a state renowned for its oppression of women, poor civil rights record and belligerent actions in its neighbourhood. For a nation like Canada that stands for values such as a rules-based international order, liberal democracy, women's empowerment and human rights, Saudi Arabia should represent the very antithesis to everything the idea of the 'Canadian ethos' stands for. However, in 2015, soon after the Trudeau government came to power, then Defence Minister Stephen Dion signed off on a number of permits for the sale of combat vehicles to Saudi Arabia in a deal valued at \$15 billion (Chase, 2016; Vucetic, 2017, p. 504). This was in contrast to the impression the Trudeau government sought to create that they were bound by law to honour an arms deal made during the Harper era.

Vucetic (2017) found that not only were there few differences since 1970 on volume of arms sales but also relatively little difference between Canada and its peers like Sweden and the Netherlands on volume of arms sales. At least 15% of Canada's arms sale in recent years has gone to countries which hold extremely poor records on human rights (Vucetic, 2017, p. 513). While some may argue that 15% is a relatively low figure, it is worth noting that even here one cannot remain assured of Canada's commitment to ethical standards. Canada was found to be distorting figures of arms sales by counting down small-scale transfers and excluding sale of components to major arms exporters in the US like Boeing and Lockheed Martin (Vucetic, 2017, p. 511). Arms from these companies are shipped to the Middle East (Davenport and Gregg, 2018) and are used in conflict zones like the West Bank, Gaza strip and Yemen.

In this case, the lucrative nature of the Canadian arms industry which contributes close to \$10 billion to the economy annually (Vucetic, 2017, p.511) and the benefits of arms trade with a rich country willing to pay billions to procure them took precedence over Canada's commitment to

ethics and values. For Canadian lawmakers, considerations of Human Rights violations and war crimes in Yemen were subordinated to Canada's national interest in generating billions of dollars in annual revenue and thousands of jobs for Canadian citizens. This has been a lasting trend and though there has been talk of monitoring where Canadian arms end up, restricting the volume of arms sold to non-democratic countries or even ending the Saudi arms contract, no concrete policy has been conceptualized to this effect.

Canada also faces considerable difficulties in the formulation of an effective foreign aid policy. The FIAP, for instance, depends upon Canada's Official Development Assistance (ODA) which has been criticized for being insufficient by the UN and the OECD's standards. In fact, Canadian ODA proportional to Gross National Income (GNI) stands at only about 0.26% which is below the OECD's average of 0.32% and significantly lower than the UN's target of 0.70% (CBC, 2017; Brown, 2018). In September 2018, the OECD's Development Assistance Committee (DAC) released an evaluation report for Canada and stated that despite robust economic growth since 2015, Canada's ODA proportional to GNI had remained well below the OECD and UN average (OECD, 2018, p.7). The report highlighted that the Trudeau government's allotment of a two billion dollar increase in ODA would still leave Canada well below its ODA levels in 2012 and advised that "Canada should scale up its official development assistance" (OECD, 2018, p. 7).

The government has received significant criticism from diverse fields for setting out a foreign aid policy that has reduced Canada's role in the development assistance sector. Ottawa has no plans to meet the UN's target goal of 0.7% of ODA per GNI and a House of Commons foreign affairs committee report recommending that Canada at least aim to increase its ODA to 0.35% of GNI by 2020 has been effectively rejected by the government (Zilio, 2017; Blanchfield, 2018). The government presented a host of reasons why its ODA per GNI decreased from that of previous administrations including arguments that meeting the UN target would be too costly and blaming exchange rate fluctuations between the Canadian and US dollars. However, the subordination of ethics to interest was made evident in the 73% hike in Canada's military budget over the next decade.

Just hours after the Foreign Minister stood in Parliament to announce Canada's new international assistance policy, the Defence Minister announced an increase for military spending by 13.8 billion dollars by 2026-27 (The Guardian, 2017). The spike in military expenditure was largely seen as a response to safeguard Canada from potential punitive action from President Trump who has repeatedly chided NATO allies for not spending enough on defence. If the reasons given for not raising development assistance funds are to be believed, it is inconceivable that Canada can afford to increase its military budget by 73% over the coming years and be unable to afford even a slight increase in ODA by 2020. In the words of one veteran development worker, "We are scraping the bottom of the barrel with our aid budget. We talk a good game, but we're at half the level we were when Pierre Trudeau was prime minister" (Blanchfield, 2018). Once again, Canada's interest in shielding against the anger of President Trump took precedence over the idea of spreading gender equality across the world.

Canada's ethical foreign policy faces further challenges as well given that ethical outreach cannot be one-sided. Merely one actor displaying interest in engaging on ethical terms is unlikely to produce any meaningful results. Partner states that Canada engages with need to have the willingness, and more importantly, the institutional capacity to accept and implement Canada's ethical outreach. Very often this is not the case. Most successful instances of Canada's PTA have been with states which have already made strides in empowering women, or at the least, have the institutional capacity to do so. Policies like the FIAP are inherently disadvantaged because they are implemented in countries where women are poorly represented and hold little chance of being inducted into the political framework of the nation in question. Indeed, in many states, it is against the interest of the ruling elite to see the empowerment of women and minorities.

What further exacerbates this problem is the process of 'country ownership'. According to the OECD, 'country ownership' refers to developing countries setting their own strategies for tackling issues requiring aid such as corruption, pollution or poverty (OECD, 2005). This implies that between well-intentioned aid-givers like Canada and the disadvantaged aid-receivers lies a middle man: the aid-receiving state. Many of these states have poor institutional integrity and are disinterested in issues like gender equality and have very poor levels of female representation at

the national level (Campbell and Teghtsoonian, 2010). Given that Canada intends to administer the FIAP in confluence with partner countries, this presents a challenge for any meaningful change for women in these countries. There is also little to stop these recipient countries from disavowing western 'ethical' aid and turning to other less ethics-oriented aid providers.

In November 2018, for instance, Denmark ceased aid to Tanzania over homophobic comments made by the Tanzanian President John Magufuli after which Magufuli openly spoke about preferring aid from China, stating, "...it is not tied to any conditions. When they decide to give you, they just give you" (BBC, 2018; Mohammad, 2018). Canada, must then, also reconcile how other countries who prioritize interest over ideas, may be able to effectively work with Canada. So far, it has been unable to do so effectively.

The Way Forward

If Canada is serious about wanting to integrate ethical considerations into foreign policy and maintain a competitive edge over states which offer 'conditions free' aid to developing countries, it needs to re-evaluate its approach to foreign policy. One of the major concerns with ethical considerations of foreign policy is the lack of unity among nations that share these values. While states like Sweden, Norway, Canada, Luxemburg, Denmark and the Netherlands among others share an understanding of common operations in reconciling foreign policy with ethics, when it comes down to needing support there is often a lack of fraternity. Sweden and Canada's diplomatic spats with Saudi Arabia stand as a perfect example of this. The silence of Canada and the aforementioned states when Sweden faced diplomatic pushback in 2015 was a glaring example of national interest being prioritized over ethical ideas. Canada found itself in a similar situation in 2018 and received little diplomatic support from the Scandinavian or other European nations which share similar values.

The objective of this paper is not to assert that ethics and foreign policy are irreconcilable. Instead, applied together, they can become a powerful form of foreign policy in the years to come and it is my belief that it should. However, the confluence of ethics and foreign policy can never make a meaningful impact if the nations that practice it remain divided and self-serving. Before targeting

countries with different values, Canada should place its efforts in targeting countries with similar values and fostering an international coalition of like-minded nations that share this interpretation of foreign policy. By pooling diplomatic presence, it becomes far more difficult for states to threaten pressure and ward off criticism by sheer diplomatic force.

Further, Canada needs to re-evaluate its top-down approach to providing aid. While the FIAP report states that Canada intends to work with women's organizations and activists in partner countries, it fails to explain in clearer terms how this may be achieved. Instead, Canada should focus its attempt on providing its aid in a form and manner that is mutually beneficial to the people of the target state and the state itself. Without this there will always be a possibility of institutional corruption, funds not reaching the intended targets, aid being misappropriated and so on. Incentivizing target states to use foreign aid in their domestic programs stands as an excellent opportunity for these states to not only do something for their people, but to also present a policy victory that is beneficial to the government in power.

In April 2016, the ambassadors of Bosnia & Herzegovina, Serbia, Guatemala and Chile India raised around \$39000 (a significant sum in Indian rupee), for the Indian government's flagship Swachh Bharat policy that aims to achieve a cleaner India with greater hygiene and sanitation facilities across the country (Roy Chaudhury, 2016). All four aforementioned states had interests in fostering greater military and diplomatic ties with India. Their effort was greatly lauded and supported by the Indian government who received an opportunity to present the legitimacy of their policy to its critics within the country.

This example should serve as a model for Canada in how it administers its development aid. It is difficult for Canada, with its values, to foster similar values in all its partner states. However, by reconciling its aid with the policies already existing in the target countries, Canada not only spends its aid judiciously and relatively more ethically, but also allows it to foster greater bilateral trust with the nation in question as opposed to pushing it away towards states like China. No state wants to be lectured to and imposed upon. Instead, they must be adequately incentivized to take advantage of the opportunities provided by foreign states in terms of funding and support for

domestic policies. Eventually, it may also encourage states to work towards formulating more ethical policies which may be developed in confluence with expertise from states like Canada and allow for goals like egalitarian representation and greater participation of women in politics at the national level.

Conclusion

Canada's focus on conceptualizing foreign policy on ethical terms is a welcome move and should be fostered in the coming years. With more states functioning on the basis of *realpolitik* and national interest, an ethical interpretation of foreign policy is a breath of fresh air and needed for the most disadvantaged and marginalized people in the world. However, merely being well-intentioned cannot sustain an effective foreign policy. In order to achieve the laurels of what it has set out to do, Canada's foreign policy must be smart before being righteous. While many scholars in the past from Kautilya to Machiavelli have argued against ethics in international politics, the modern rules-based international order at least gives Canada a premise to build its foreign policy platform upon.

Thus far, Canada's attempt to reconcile its foreign policy with its ethical standards has produced limited results. While engagements with certain states like Chile and Israel have been a start, Canada has struggled to meaningfully export its progressive trade agenda beyond a handful of partner states. Similarly, the FIAP faces a host of administrative and monetary challenges that prevent it from achieving its full objective in a meaningful manner. Moving forward, Canada will need to consider seriously re-evaluating its foreign policy and streamlining it to be more effective. While this will take much work and dedication from the Trudeau administration to achieve, it is not impossible. Canada may yet become a global pioneer championing an ethical cause in its foreign policy and emerge as a standard for other nations to aspire towards.

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