The Susceptibility of Policy Analysis to Cultural Bias:
Policy Analytic Methods and Cultural Theory

by

Shawn Christopher Drake

A thesis submitted to the Faculty of Graduate and Postdoctoral Affairs in
partial fulfillment of the requirements for the degree of

Doctorate

in

Public Policy and Administration

Carleton University Ottawa, Ontario

© 2023

Shawn Christopher Drake
ii. Abstract

This dissertation is a research study which identifies and explores the causality between “social unit” cultural bias (as the independent variable) and the core systematic methods of policy analysis (as the dependent variable). The study is based on two theories: The “Stages” Approach to Policy Analysis and Grid/Group-Cultural Theory. Each is operationalized through a comparative research design that applies for the first time, the Geva-May Model of Policy Analysis by Cultural Bias. The findings obtained support the Hypothesis that policy analysis is susceptible to cultural bias. The primary contributions of the dissertation are the operationalization and testing of this theoretical model, the advancement of theories of policy analysis and culture, and the identification of implications for practice and additional perspectives towards a future research agenda.

Keywords: policy analysis methodology, cultural theory
iii. Acknowledgements

I dedicate this Dissertation to Professor Iris Geva-May for her unwavering support, and inspiration.
## Contents

**The Susceptibility of Policy Analysis to Cultural Bias:**

- Policy Analytic Methods and Cultural Theory ................................................................. 1
  
  - ii. Abstract ........................................................................................................................ 2
  
  - iii. Acknowledgements ...................................................................................................... 3
  
  - iv. List of Tables ............................................................................................................... 8
  
  - v. List of Tables in Appendix .......................................................................................... 9
  
  - vi. List of Illustrations ...................................................................................................... 10

**Chapter 1: Rationale for the Study and Overview** .......................................................... 11

  - The Geva-May Model of Policy Analysis by Cultural Bias .............................................. 16
  
  - Contextual Heuristics Affecting Policy Analysis Methods Use ........................................ 20
  
  - Causal Arguments for Cultural Bias Affecting Policy Analysis Methods Use .................. 21
  
  - Model Application .......................................................................................................... 23
  
  - Study Design and Methodology ...................................................................................... 24
  
  - General Findings ............................................................................................................ 27
  
  - Contributions .................................................................................................................. 32

**Chapter 2: Review of the Literature** ............................................................................ 33

  - Policy Analysis ................................................................................................................ 34
    
    - *The “Stages Approach” to Policy Analysis* .................................................................. 38
      
    - *Iterative Nature of the “Stages Approach” to Policy Analysis* ................................. 44
      
    - *Use of Core Systematic Methods at Each Stage of Policy Analysis* ......................... 45
  
  - Cultural Bias .................................................................................................................... 49
    
    - *Cultural Bias and Jurisdictions* .................................................................................... 50
    
    - *Cultural Bias and Institutions* ..................................................................................... 51
    
    - *Cultural Bias and Policy Analysis* .............................................................................. 52
  
  - Grid/Group Cultural Theory ............................................................................................. 54
    
    - *High Grid/High Group (Hierarchical Cultural Bias)* ................................................... 57
    
    - *Low Grid/High Group (Egalitarian Cultural Bias)* ....................................................... 58
    
    - *Low Grid/Low Group (Individualist Cultural Bias)* ..................................................... 58
    
    - *High Grid/Low Group (Fatalist Cultural Bias)* ............................................................. 59
  
  - Applicability of gg-CT to Social Units in Which Policy Analysis Occurs ....................... 59
  
  - Applying gg-CT as a Tool of Policy Analysis .................................................................. 61
  
  - The Geva-May Model ...................................................................................................... 63
Chapter 3: Methodology and Research Design ................................................................. 71

The Comparative Multiple Case Study Approach ......................................................... 73

Operationalizing the Variables in the Study ................................................................. 74

Operationalizing gg-CT ................................................................................................. 75

Operationalizing Core Systematic Methods of Policy Analysis .................................... 77

Battery of Tools ........................................................................................................... 80

Criteria .......................................................................................................................... 82

The Questionnaire ........................................................................................................ 83

Additional Methodological Considerations in Questionnaire Design ......................... 86

Scales ............................................................................................................................. 86

Demographic Data ........................................................................................................ 86

Open-ended Semi-Structured Interviews ..................................................................... 87

Part 1 of the Interview .................................................................................................. 87

Part 2 of the Interview .................................................................................................. 88

Content Analysis of Documents .................................................................................... 89

Analysis of Data Collected by the Battery of Tools ...................................................... 91

Analysis of Questionnaire Data ..................................................................................... 91

Analysis of Interviews Data .......................................................................................... 92

Analysis of Content Analysis Data ................................................................................ 93

Validity .......................................................................................................................... 94

Reliability ....................................................................................................................... 95

Questionnaire Reliability ............................................................................................... 95

Interviews Reliability ..................................................................................................... 97

Content Analysis Reliability ......................................................................................... 97

The Field Study ............................................................................................................. 98

Battery of Tools Administration .................................................................................... 99

Questionnaire Administration ....................................................................................... 99
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Finding Nuanced Observations</td>
<td>99</td>
</tr>
<tr>
<td></td>
<td>Answering Research Question 3</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Answering Research Question 2</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Susceptibility of All Approaches, Strategies, and Techniques to Each Dimension of Cultural Bias</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Answering the Research Questions</td>
<td>109</td>
</tr>
<tr>
<td></td>
<td>Answering Research Question 1</td>
<td>110</td>
</tr>
<tr>
<td></td>
<td>Quantitative Questionnaire re: Cultural Bias</td>
<td>114</td>
</tr>
<tr>
<td></td>
<td>Triangulation of Questionnaire Data through Interviews and Content Analysis re: Cultural Bias</td>
<td>117</td>
</tr>
<tr>
<td></td>
<td>Answering Research Question 2</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>Approaches: Policy Analysis Use Intensity by per Five Social Units Cultural Bias</td>
<td>121</td>
</tr>
<tr>
<td></td>
<td>Strategies: Policy Analysis Use Intensity by Five Social Units and Cultural Bias</td>
<td>122</td>
</tr>
<tr>
<td></td>
<td>Strategies: Interviews and Content Analysis: Triangulation of Questionnaire Data through Interviews and Content Analysis for Reliability and Validity</td>
<td>125</td>
</tr>
<tr>
<td></td>
<td>Techniques: Policy Analysis Use Intensity by per Five Social Units’ Cultural Bias</td>
<td>126</td>
</tr>
<tr>
<td></td>
<td>Techniques: Interviews and Content Analysis: Triangulation of Questionnaire Data through Interviews and Content Analysis for Reliability and Validity</td>
<td>129</td>
</tr>
<tr>
<td></td>
<td>Overall Use of All Core Systematic Policy Analysis Methods: All Policy Analysis Stages by all Social Units’ Cultural Bias</td>
<td>130</td>
</tr>
<tr>
<td></td>
<td>Answering Research Question 3</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>Causation: Cultural Bias and the Susceptibility of Core Methods Use by Each Respective Stage of Policy Analysis</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>Causation: Susceptibility of Core Methods Use by Each Respective Stage of Policy Analysis to the Grid Dimension and the Group Dimension of Cultural Bias</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>Causation: Susceptibility of Core Systematic Methods Use of Each Stage of Policy Analysis, by Each Social Unit’s Cultural Bias</td>
<td>138</td>
</tr>
<tr>
<td></td>
<td>Triangulation of Questionnaire Data through Interviews and Content Analysis re: Use of Core Systematic Methods per Social Unit Cultural Bias</td>
<td>139</td>
</tr>
<tr>
<td></td>
<td>Nuanced Observations</td>
<td>141</td>
</tr>
<tr>
<td></td>
<td>Subtle Differences in Social Unit Cultural Bias</td>
<td>141</td>
</tr>
</tbody>
</table>

The Susceptibility of Policy Analysis to Cultural Bias: Policy Analytic Methods and Cultural Theory [Drake, under Geva-May]
iv. List of Tables

Table 1.0 Example of Operationalization of Variables Across Tool Battery ......................................... 25

Table 2.0 Example Policy Analysis Usage: Degree of Utilization Intensity by Each Policy Analysis Stage, per Each Social Units Cultural Bias ......................................................... 30

Table 3.0 Causation: Susceptibility of All Core Systematic Methods Utilization by Policy Analysis Stage, to Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity) Across All Object Social Units ....................................................... 31

Table 4.0 Per Policy Analysis Stages Approaches (A), Strategies (S), Techniques (T) - Core Methods Operationalized by the Battery of Tools ................................................................. 79

Table 5.0 Causation: Susceptibility of All Core Systematic Methods to All Social Units by Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity). 105

Table 6.0 Causation: Susceptibility of Approaches, Strategies, and Techniques by All Social Units Grid (Imposition/Restraints) and Group (Acceptance/Conformity) ............. 107

Table 7.0 Mapping the Cultural Bias of Each Social Unit ................................................................. 112

Table 8.0 Approaches: Policy Analysis Degree of Utilization Intensity per Each Social Units by Cultural Bias ........................................................................................................... 120

Table 9.0 Strategies: Degree of Policy Analysis Utilization Intensity per Five Social Units by Cultural Bias ........................................................................................................ 124

Table 10.0 Techniques: Degree of Policy Analysis Utilization Intensity by per Each Social Units Cultural Bias ..................................................................................................... 129

Table 11.0 Policy Analysis Usage: Degree of Utilization Intensity by All Core Systematic Methods by Each Policy Analysis Stage ......................................................... 131

Table 12.0 Causation: Susceptibility of All Core Systematic Methods Utilization by Policy Analysis Stage, to All Cultural Bias Across All Object Social Units ......................... 133

Table 13.0 Causation: Policy Analysis Utilization Susceptibility at all Policy Analysis Stages by all Social Units Grid (Imposition/Restraints) and Group (Acceptance/Conformity) 135

Table 14.0 Causation: Policy Analysis Utilization Susceptibility: Policy Analysis Stages, per Each Social Units Cultural Bias ................................................................................ 139

Table 15.0 Causation: Susceptibility of All Core Systematic Methods to All Social Units by Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity).. 153

Table 16.0 Causation: Susceptibility of All Core Systematic Methods Utilization by Policy Analysis Stage, to Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity) Across All Object Social Units ............................................. 159

Table 17.0 Example: Summary of Core Systematic Methods with a Low Intensity of Utilization 167
v. List of Tables in Appendix

Table A1 Improvements to Potentially Unreliable Questionnaire Entries............................................. 172
vi. List of Illustrations

| Figure 1.0 The Geva-May Model of Policy Analysis by Cultural Bias                      | 17         |
| Figure 2.0 Linear Regression of Policy Analysis Methods vs. Cultural Bias             | 28         |
| Figure 3.0 The Intensity of Dimensions of Cultural Bias of Social Units               | 56         |
| Figure 4.0 The Geva-May Model of Policy Analysis by Cultural Bias                    | 65         |
| Figure 5.0 Causation: Susceptibility of All Core Systematic Methods to All Social Units Grid (Imposition/Restraints) and Group (Acceptance/Conformity) | 105        |
| Figure 6.0 The Geva-May Model of Policy Analysis by Cultural Bias                    | 148        |
| Figure 7.0 The Intensity of Dimensions of Cultural Bias of Social Units               | 150        |
| Figure 8.0 Causation: Susceptibility of All Core Systematic Methods to All Social Units Grid (Imposition/Restraints) and Group (Acceptance/Conformity) | 1524       |
Chapter 1: Rationale for the Study and Overview

In this chapter I provide an overview of the study and its assumptions and discuss the study design and main concerns. I also share some key findings and initial contributions which are further developed in the following chapters, each devoted to one of the aspects outlined above.

The premise of the study is that policy analysis is an evidence-based, systematic way of informing public policy (Dror, 1973; Dunn, 2015; Geva-May, 2023; Laswell, 1956; Pal, 2005; Weimer & Vining, 2014; Wildavsky, 1986).\textsuperscript{1} Its development was initiated in the United States in the 1960s (Geva-May & Howlett, 2018), with adoption occurring thereafter in Canada in the 1970s at the federal and subsequently provincial levels (Dobuzinskis & Howlett, 2018; Sayeed, 1973). Given divergence in bureaucratic traditions in other parts of the world however, it took more than two decades to cross the Atlantic. Policy analysis initiating in Europe in the 1980s (Botha et al., 2018; Van Nispen, 2019), and arriving later still in the 1990s and beginning of the new millennium in Asia (Adachi, 2019; Kuo, 2018) and elsewhere (Rubaii & Fontaine, 2019).

In those contexts, public policy alternatives were of course still developed and debated to varying extents. This occurred in different ways under diverse sets of traditions, values, and norms (Howlett & Lindquist, 2004; Lindquist, 2006). In different contexts, these traditions, values, and norms are characterized in different ways. This can lead to multifarious degrees of rigor and participation potentially less prescriptive, less systematic (Dror, 1973) analytic methods (Mayer & van Daalen, 2004; Mayer et al., 2013). The variance in how policy solutions are analyzed and brought forward is due in part to institutional (Glied, 2018) or administrative

\textsuperscript{1} Policy analysis has been pointedly defined as “the disciplined application of intellect to public problems” (Pal, 2005).
traditions (Levi & Zahevi, 2017), and to political or epistemological cultures influencing policy advice (Brans et al., 2017).

As the world globalizes, a higher intensity of coordination, cooperation, and competition is required in order to create greater efficiency and effectiveness in policy advice. Accurate, decisive decisions need be informed and taken with a higher pace. Timeliness is more and more a central criterion for any policy analysis client who requires sensitive recommendations quickly. Achieving this compels the use of basic core methods of systematic, transparent, prescriptive, data-driven and evidence-based policy analysis.

Recently, Gofen and Lotta’s (2021) Special Issue of the Journal of Comparative Policy Analysis: Research & Practice, “Street-Level Bureaucrats at the Forefront of Pandemic Response: A Comparative Perspective,” magnifies the significance of the speed and agility of analytic process and outputs. They focus on “fast” policy-making cycles, and the influence of street-level bureaucrats in alternative creation and delivery. The editors note differences in the ability to manage “crises” and discuss countries’ experiences facing the COVID-19 pandemic.

A common observation during the pandemic was, and continues to be, senior bureaucrats providing tremendous amounts of data, at times resulting in contradictory information being provided to the public. These reports varied in accuracy and in the intensity of the rigor of its data, facts, and evidence referred used. Which in part, reflects the intensity of use of core systematic methods of policy analysis because a weaker use of systematic evidence-based policy methods may underpin inconsistency in policy decisions within and between like jurisdictions.
The public witnessed the dire results of rapid dissemination of poor information (i.e., confusion, lack of coordination and cooperation, and unintended consequences).²

Over the last half century, policy analysis methods had been identified to the extent that we can now say that there are acceptable core systematic methods, which facilitate robust policy analysis providing “truth to power” in policy-making (Bardach & Patashnik, 2019; Dunn, 2015; Patton et al., 2016; Wildavsky, 1979). Geva-May with Wildavsky (1997, 2011) and Geva-May (2023) go a step further and regard these acknowledged core systematic methods as a deliberate and prescriptive methodology, which policy analysis as an academic field and profession should recognize as such.

I surmise that if core, entrenched, and widely accepted systematic methods of policy analysis are not used, the precision of policy recommendations may be weakened. This is because the less systematic and prescriptive the approach taken by social units analyzing policy, the less evidence-based and robust the policy analysis. The less robust the policy analytic process, the less rigorous the identification of the problem, the forecasting of scenarios of potential solutions, the selection of the ultimate alternative, its argumentation, and the design and planning of implementation.

This concern is topical and rooted in recent observations on the evolution of the broader policy sciences field. Levy et al. (2023) map the development of policy studies with such interchangeable fragments such as “policy sciences,” “policy studies,” and “public policy.” The authors’ perspective suggests that in order to become established as fields, and as they continue

---

² Empirical examples can include access to vaccines and various criteria for priority, immediate families separated across borders, various travel restrictions with inconsistent loopholes.
to progress towards being a discipline, a specific methodology needs to be established. As they mention, this is also the case in policy analysis (p. 3).

Given my academic and professional exposure involving a range of institutions across a wide variety of jurisdictions, my appreciation of culture is the extent to which intended “methodological practices” of policy analysis, are inhibited or accelerated by the institutional cultural context. I am interested in the methods of policy analysis as a key process in policy making. Hence, my interest lies in the extent to which the use of core systematic policy analysis methods intensifies or deteriorates under various cultural “conditions.”

As Levy et al. (2023, p. 3) point out, in order for a sub-field of policy sciences to mature towards becoming a “discipline,” it needs be marked by “shared academic standards in terms of methods & techniques and institutional practices, structure, and career trajectories.” There is a strong need for a methodology (as in a scientific, social sciences methodology), primarily as a means of control and to acknowledge deviations in policy analysis. Refer to Radin’s (2006, 2013, 2020) observations as policy analysis “comes of age.” Her research trajectory over the past two decades comments on a so-called reduction of comprehensiveness in policy analytic practice.

Recent works by Fobé et al. (2017, 2018) discuss the diffusion and use of complex policy analysis methods as a function of Europeanisation and formal scientific protocol enforced by the EU pertaining to member state “analyses.” Their study aims to help move “beyond merely describing what policy analysts do…[and further] can provide insight into the drivers of policy analytical practices” (Fobé et. al, 2018, p. 16).

Geva-May’s 2023 *Logic and Methodology of Policy Analysis* advances the notion of policy analysis as science based on and grounded in its own acknowledged methodology. She contends
that the field of policy analysis has indeed come of age and therefore should acknowledge its own core methodology in order to be a discipline.

Indeed, to do so the field must first agree on core approaches, strategies, and techniques (ASTs) as methods, and subsequently attach them to a common methodological sequence or steps in the analysis for public policies. Such a methodology must at minimum be enabled by strong logic at each step of analysis. As Geva-May (2023) contends, having a sound methodology allows for cognizant diversion, without losing the validity and reliability of the process!

Respecting intra-jurisdictional variance in culture, my more finely grained contention, then, is that the adoption of core systematic policy analysis methods as a dependent variable is affected by the contextual cultural bias (independent variable). More pointedly, that given the cultural bias of the institutional social unit in which policy analysis occurs, the use of core systematic methods of policy analysis, and the usage of policy analysis, may differ across analytic component stages. The susceptibility of policy analysis may be more or less intense in accordance with the contextual cultural bias in which the policy analysis occurs.

Notwithstanding differences or similarities among bureaucratic traditions, whether international or local, the process and craft application of policy analysis is bound to be affected by sets of values, norms, and routines (Geva-May, 2002; Ingram et al., 2007), that is, cultural bias.

Hence, the Hypothesis of this study is that policy analysis is susceptible to cultural bias. The findings of this study provide significant support for the Hypothesis in terms of statistical significance, causal relationships between the variables, highly reliable findings, and internal and

---

3 The term “social unit” has been coined by Ragin and Zaret (1983). In their terms, a social unit is justified at the level of a nation, a particular geography or region, or any micro level context such as shared membership of persons in a church, a community organization, or a profession.
external validity (refer to Chapter 3: Methodology & Research Design, on the research design and for information on the Battery of Tools constructed to operationalize the variables in this study; refer to Chapter 4: Findings & Presentation of Data, for evidential data).

My Research Questions (RQs) are:

- **RQ 1:** What is the identified cultural bias of each one of the object social units?
- **RQ 2:** Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity of use by social unit by cultural bias?
- **RQ 3:** Whether and to what extent is the use of policy analysis methods (i.e., approaches, strategies, and techniques), by each particular policy analysis stage, susceptible to cultural bias?

These research questions are sufficient to meet the informational needs of the study as answers to them isolate the intensity of cultural bias (independent variable), the intensity of use of core policy analysis methods (dependent variable), and the direction and intensity of the causal forces between those variables (Geva-May & Fontaine, 2021; Mills, 1948; Peters, 2022).

**The Geva-May Model of Policy Analysis by Cultural Bias**

In 2002, a Special Issue of the Journal of Comparative Policy Analysis: Research & Practice, titled “Cultural Theory and Its Contribution to Policy Analysis,” was devoted to exploring the synergy of this theory (Douglas, 1982, 1986; Douglas & Wildavsky, 1983; Thompson et al., 1990) to enable systematic policy analysis and explain policy preferences and value frames of reference. Within that special issue, Geva-May (2002) presented a theoretical model meant to identify and assess policy analysis adoption, by contextual cultural bias.
Figure 1.0

The Geva-May Model of Policy Analysis by Cultural Bias

<table>
<thead>
<tr>
<th>Stage</th>
<th>Range of Bias During…</th>
<th>Social Unit 1 Cultural Bias</th>
<th>Social Unit 2 Cultural Bias</th>
<th>Social Unit 3 Cultural Bias</th>
<th>Social Unit 4 Cultural Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Policy Making Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Problem Definition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Forecasting Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Alternative Selection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Advocacy &amp; Argumentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Designing Implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


The Geva-May Model asserts a causal explanation for a craft routine of policy analysis. It proposes that core methods crucial to the policy analysis process may be more or less susceptible to the context within which the policy analysis takes place. As such, different composition of methods use can occur and thereby impact the nature and potentially the quality of advice.

Specifically, the Geva-May Model addresses the causality between the independent variable of cultural bias and the dependent variable of policy analysis, proposing a way of acknowledging the impact of the intensity of dimensions of culture. Through the lens of gg-CT, social relations are characterized by an intensity of imposed contextual restraints (the grid) and also by the acceptance of those restraints by the group within a social unit (the group) (See “Grid/Group Cultural Theory” in Chapter 2: Review of the Literature for an in-depth introduction to the concepts of grid and group, their intensity, and the resulting cultural typologies).
These social relations reflect ways of life which are based on inherent beliefs, norms, and values. In turn, the intensity of those dimensions characterizes the cultural bias of social units. Although the objects of analysis within the context will hold an individual worldview, aligned with a cultural bias, the worldview may or may not correspond with the cultural bias associated with the context. As Swedlow (2012) contends, gg-CT’s four typologies “may be associated with particular patterns of social relations or social order.” He continues that:

Since scientists are centrally involved in constructing beliefs about the physical environment… in modern societies, and cultural theory claims that these beliefs are coproduced with functionally related political values, beliefs about human nature, and patterns of social relations… Douglas’s cultural theory would appear to get a purchase on some major constituents of co-productive processes. (p. 161).

The Geva-May Model sees policy analysis as a co-productive process among the policy analysts (group) within the social unit in which the analysis occurs, and also between the client(s) (or their representative) of the policy analysis and their imposed restraints pertaining to the process (grid).

Johnson and Swedlow (2021) remind us that scholars using gg-CT do not claim that its two dimensions (grid and group) are the only dimensions of cultural variation, or the only sources of cultural variation. In their causal discussion on cultural bias and risk analysis, they state that:

While cultural types in the United States are predicted by CT’s dimensions grid and group are similar to those generated inductively by the best-known approach to studying U.S. political subcultures (Elazar, 1994; compared to CT in Thompson et al., 1990)…there is a reasonable basis for a CT-based specification of cultural effects on RA [risk analysis] both cross-nationally and in the United States (p. 2).
Swedlow’s (2007) previous observation that science, society, culture, and politics constitute and influence each other simultaneously is important, as this suggests causal relationships between these elements being foundations of public policy. This is similar to Geva-May’s conception of cultural bias’ effect on policy analysis as encapsulated in her model.

Through the conceptualization of the Geva-May Model, it is the policy analysis methodology that is affected as it occurs within the context as an amalgam of factors including preferences for methods used by the higher echelons (the grid), the biases of the actors involved, their values, norms, and beliefs (the group).

It is these aspects of the Mary Douglas theory that Geva-May found suitable to use for the causal interplay between contextual cultural bias and policy analysis methodology, as carried out by analysts within a social unit (refer to Chapter 2: Review of the Literature, “grid/group-Cultural Theory”).

While there may be other ways to undertake a study on the impact of culture or cultural bias on policy analysis utilization, I decided to use the Geva-May Model as the basis of this study and operationalized it following its contentions. In response to observations in the literature such as Klitgaard (1995) (who argues that accuracy in measuring culture is as difficult as psychological assessments), the Geva-May Model attaches ranges of cultural bias, to ranges of utilization of policy analysis. This enables insights into degrees of intensity of policy analysis methodology susceptibility to culture.

To sum up: The causation proposed by the Geva-May Model concerns causal relations and patterns in methods use intensity vis-à-vis the espoused contextual cultural bias of a social unit.
The Geva-May Model’s conceptualization juxtaposes policy analysis activity occurring within policy analysis stages with multiple social units’ contextual cultural bias (exhibited given the social relations experienced within the social unit). The model uses the “Stages Approach to Policy Analysis” (deLeon, 1997) which views policy as comprised of a set of sequential yet iterative stage components.\(^4\) Each social unit may have similar or different types of so-called contextual cultural bias given patterns in social relations (refer to Chapter 2: Review of the Literature, “The Geva-May Model”).\(^5\)

**Contextual Heuristics Affecting Policy Analysis Methods Use**

The idea that context affects methods use during complex tasks has been raised previously, in other disciplines, and by other scholars. Gigerenzer (2008, in Geva-May, 2005) refers to the concept of a pair of scissors, where each blade ultimately sets both the context and the cognition occurring within the context. Gigerenzer’s (2008) contribution conceives of models of heuristic cognition affected by the context. In the case of policy analysis, this contention would pertain to task organization and methodology use. The mind of the subject acts as an “adaptive toolbox” in activating heuristics (Gigerenzer & Selten, 2001). The “toolbox” is full of various tailored tools/methods (heuristics) ready to tackle specific issues, similar to the adoption of particular “hammers and screwdrivers in a handyman’s toolbox (20).” Thus, if the context affects cognition, surely the heuristics of a policy analyst in her policy analyses are affected. As a result, the preference to use, or not use, or use to a certain extent the core systematic methods/tools of

---

\(^4\) The policy analysis stages within the model are: problem definition; intervention and prediction of solutions (modeling); selecting policy alternatives; communication, advocacy, and argumentation; and the stage of and designing implementation.

\(^5\) The view of the policy process as defined by deLeon (1997) and pursued by others (Anderson, 1975; Bardach, 2010; Dunn, 2015; Geva-May, 2000, 2005b; Geva-May with Wildavsky, 1997; MacRae & Whittington, 1997; Majone & Quade, 1980; Patton & Sawicki, 1993; Vining & Weimer, 2014) identifies the policy analysis process as comprising several iterative stages, generally between four and seven. Further adding validity to the model is that the five core stages as conceptualized by Geva-May with Wildavsky (1997) are each common conceptualizations.
the profession. There is no logic as to why policy analysis would be unsusceptible. In fact, the profession is equipped specifically to face situational unknowns, such as multiple problem variables and potentially unclear logic.\(^6\)

In sum, the literature finds that heuristics in methods/tools selection are responsive to the context. A specific contribution of the lens of the Geva-May Model, in fact, is the use of gg-CT to characterize and explain dimensions of the context defined by corresponding social relations, which by inference are bound to affect policy analysis practice.

**Causal Arguments for Cultural Bias Affecting Policy Analysis Methods Use**

Fobé et al. (2017, 2018) contribute to the argument above. Purposely measuring the contextual cultural bias exhibited by the social relations within the context closes a knowledge gap. This gap pertains to causation affecting policy analysis methods use, as pointed out by studies such as those as by Fobé et al. (2017, 2018). Although their findings on policy analysis methods use relate to context as a causal variable, and to institutional pressures imposed by EU member state requirements,\(^7\) they do not explicitly explore the effect of the contextual social relations and corresponding cultural bias on methods use.

From the causal perspective, refer also to the previous discussion regarding the case of culture influencing the hard sciences (Swedlow, 2012, 2017) and risk analysis (Johnson &

---

\(^6\) See also: Marewski and Gigerenzer (2012) demonstrate decision optimisation in a professional context. A classical, context-specific case presents the detailed account of an emergency room physician exercising her heuristics, digging into her adaptive toolbox in treating potential heart failure. This context is one of applied heuristics, similar to the application of methods through the procession of a policy analysis — heuristics affecting the core methods use.

\(^7\) Findings by Fobé et al. (2018) identify that requirements related to receiving EU funding were found to affect the use of certain analytical tools such as cost-benefit analysis or SWOT analysis at the sectoral level.
Swedlow, 2021). The latter is an applied professional discipline with many similarities to policy analysis as an applied science informing policy analysis.

From my professional perspective and that brought-up by the Geva-May Model the social and relational contextual bias of the social unit reinforces the similar intensity of the dimensions of grid and group, which either underpin or are a function of the cultural bias of those objects embedded within the social unit. In this view, and given Swedlow’s arguments, I consider the contextual social relational aspects which reflect the intensity of the grid and the group to exist in a mutual relationship. Thereby, I chose to address the Hypothesis of my study, and to answer the related research questions by purposefully adopting and applying the Geva-May Model.

In so doing, I operationalize the Geva-May Model to assess culture, the use of basic policy analysis methods, and the relationships between these variables. In the end, this follows Dame Mary Douglas’s logic: she distinguishes institutional from individual sources of cultural biases (Douglas, 1986). Considerate of the interplay between an individual’s worldview/corresponding cultural bias and the impact of the context on the individual, Douglas (1986) shares her view on “stability,” wherein institutions continue to influence the thoughts and actions of individuals when they step outside those institutions. There is also the “mobility hypothesis” advanced by Rayner (1992) in which an individual can hold different cultural biases given the context in which they find themselves (Rayner, 1992, pp. 107–108). In both perspectives, the point is that context does matter!

The object of analysis identified by the Geva-May Model is the contextual social unit in which there are active social relations. This study brings a convergence to the views of Douglas and Rayner, by operationalizing the contextual social relations which exhibit cultural bias based
not on individual worldviews, but on context. This is a distinct view and as such a key contribution provided by this study through the operationalization of the Geva-May Model.

**Model Application**

Although in 2002 Geva-May called for the application and validation of the model, to the best of my knowledge it has never been tested before.

1. I identify and measure core systematic ASTs, per intellectual policy analysis stages. These are crucial to the policy analysis process, thus significantly affecting (or not) the systematic, prescriptive nature of policy analysis and hence the robustness, results, and outcomes of the policy analysis process.

2. I further seek to measure dimensions of culture, the “grid” manifesting as the degree of contextual restraints and their imposition within the social unit (i.e., circumscription and rigidity of rules and directives pertaining to policy analysis method), and the “group” dimension characterized by the acceptance or cohesion of conforming to such restraints, by the group of policy analysts comprising the social unit.

Given the nuances of iterative policy analysis methods (Geva-May, 2022), difficulties in measuring culture (Corritore et al., 2020; Gow et. al, 1989; Klitgaard, 1998) and specific difficulties measuring gg-CT dimensions of culture (Langford et al., 2000; Maleki & Heniks, 2015; Ripberger, 2014; Swedlow, 2020), both quantitative and qualitative methods are required.

To operationalize the Geva-May Model I have developed a study-specific battery of tools to detect the cultural bias of each social unit, and the use of core systematic methods of policy analysis occurring at each stage of policy analysis. These tools also measure the susceptibility of policy analysis, and thereby causation between the variables (i.e., policy analysis methodology
use by social unit cultural bias) (refer to section “Study Design and Methodology” immediately below and “[Battery of Tools” in Chapter 3: Methodology & Research Design].

**Study Design and Methodology**

As the design of the study is based on the conceptualization of the Geva-May Model, I employ a multiple case-study approach. This is a comparative approach seeking to identify differences and/or similarities in the cultural bias between social units. This reveals any resemblances or disparities in the intensity of use of policy analysis methods per social unit.

The multiple case study approach is conducive to a rigorous assessment of the variables across multiple objects, in administering and triangulating data across tools. Having access to multiple cases thereby underpins the reliability and validity of the findings.

The objects of analysis are five social units undertaking policy analysis at governmental levels in different Canadian provincial and territorial jurisdictions (i.e., the context or the “grid” wherein imposition of restraints occurs) and the policy analysts within those units (i.e., the cohesiveness in conforming to those restraints by the policy analyst “group”) and their policy analysis practices.

The battery of tools is derived from the Geva-May Model’s components, operationalizing and measuring policy analysis (independent variable) and cultural bias (dependent variable). The battery of tools consists of a questionnaire (quantitative Likert scale) identifying cultural bias, use of core systematic methods of policy analysis, and the causation between the independent

---

8 Note: A study on Canadian policy analysts’ backgrounds undertaken by Howlett & Wellstead (2018) echoes Geva-May (2002), who suggests leveraging the homogeneity of policy analysts to advance comparison, hence we consider policy analysts from different regional jurisdictions in Canada as comprising a “social unit.”
The Susceptibility of Policy Analysis to Cultural Bias: Policy Analytic Methods and Cultural Theory [Drake, under Geva-May]

and dependent variables, respectively. The qualitative tools developed are open-ended interviews, and content analysis of documents.

The battery administered the exact set of tools across all five social units. In addition to the responses to the quantitative questionnaire (N=85), 21 interviews were completed, and 62 documents analyzed.

Table 1.0 below provides an example of (a) how the Geva-May Model was translated into the battery of tools, and (b) how consistency was addressed in operationalizing and measuring variables across the tools. The columns present the variables and corresponding sub-variables measured by analogous questionnaire entries, interview questions, and content analysis keywords.

Table 1.0

Example of Operationalization of Variables Across Tool Battery

<table>
<thead>
<tr>
<th>Variable</th>
<th>Sub-Variable</th>
<th>Questionnaire Entry</th>
<th>Interview Question</th>
<th>Content Analysis Keyword</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural Bias</td>
<td>Imposition of restraints</td>
<td>At my workplace there are strict rules which guide how we do our work.</td>
<td>Do you get any direction on your policy analysis?</td>
<td>schedules, deliverables, timelines, rules</td>
</tr>
<tr>
<td></td>
<td>(“grid”)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cultural Bias</td>
<td>Acceptance to conform</td>
<td>Colleagues bounce ideas off of one another before we bring them to our superiors.</td>
<td>Do you work with other analysts on your analyses?</td>
<td>choice, preference, templates, format</td>
</tr>
<tr>
<td></td>
<td>(“group”)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Policy Analysis Methods</td>
<td>Problem definition — structure required within the problem definition</td>
<td>Loose formulations of the problem don’t work for me. *</td>
<td>How are problems identified?</td>
<td>problem, issue, structure, accuracy, “too”, mapping, values</td>
</tr>
<tr>
<td>Policy Analysis Methods</td>
<td>Forecasting solutions — trade-offs among lab solutions assessed against feasibility criteria</td>
<td>Before draft solutions become formal alternatives, I compare them on a number of dimensions and trade-offs.</td>
<td>How do you test solutions?</td>
<td>model, forecast, resilience, criteria, benefit, weighting, quantitative, qualitative</td>
</tr>
<tr>
<td>Policy Analysis Methods</td>
<td>Alternative selection — straw options avoided</td>
<td>I craft weak solutions when I want to make other policy</td>
<td>How many alternatives do you usually create?</td>
<td>alternative, solution, feasibility, equality, change,</td>
</tr>
</tbody>
</table>
The Susceptibility of Policy Analysis to Cultural Bias: Policy Analytic Methods and Cultural Theory [Drake, under Geva-May]

<table>
<thead>
<tr>
<th>Policy Analysis Methods</th>
<th>Alternatives appear stronger. *</th>
<th>Compare, matrix, standardization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argumentation &amp; advocacy — acknowledging weaknesses of argument</td>
<td>I think it is strategic to refer to a weakness of my preferred solution, when communicating about it.</td>
<td>Do you advocate for your alternative?</td>
</tr>
<tr>
<td>Design of implementation — trial balloons floated</td>
<td>I always share my ideas in advance on how to implement, in order to test the waters.</td>
<td>What do you think about when it comes to implementation?</td>
</tr>
</tbody>
</table>

The development of the study design and each tool in the battery was tested in accordance with the statistical results obtained, and the triangulation of data from each tool, with the data from the other tools (refer to Chapter 4: Findings & Presentation of Data). The battery administered in the final study was informed by their initial application in a pre-pilot and a pilot study (refer to Appendix 1.0: Improvements to Tools). Those insights allowed me to calibrate the tools to ensure heightened validity and reliability in advance of their final application.

The key features of the battery of tools supporting reliability and validity are as follows:

**Questionnaire**: A statement-based, split-half design, random reversed coding, using a 4-point Likert-type scale and collecting key demographic data. A Cronbach Alpha procedure was undertaken to assess reliability and descriptive elements such as mean scores and standard deviations, to assess the intensity of use of core systematic methods and of the dimensions of culture (for further detail on the statistical tests applied, see Chapter 3: Methodology & Research Design, “Analysis of Data Collected by the Battery of Tools”). A regression analysis is applied to assess the direction, intensity, and statistical significance of relationships between independent and dependent variables. An analysis of variance procedure involving demographic data compares the susceptibility of policy analysis to demographic variables.
**Interviews:** Open-ended and semi-structured, using standard questions, prompts to better elicit the context and elicit adjacent attitudes, double-raters, and triangulated statements with questionnaire and content analysis.

**Content Analysis:** Combing of relevant documents that referenced policy analysis methodology and/or referred to the values, traditions, norms, and strategies of the context (i.e., culture). Double raters used standardized coding and collection instruments and the data was triangulated with questionnaire and interview findings.

The findings were analyzed against the research questions underlying the study and whether they support the study’s Hypothesis.

**General Findings**

The findings of the study support the Hypothesis of the study. The data across the entire sample confirmed policy analyst usage of policy analysis at distinct policy analysis stages, and use of core policy analysis methods are susceptible to cultural bias. This causation is reflected by a positive, linear relationship between the independent and dependent variables. For all social units, all cultural bias (grid and group intensity) and all policy analytic core methods use intensity, the questionnaire’s quantitative regression analysis identified a moderate causation (r=0.58) at a high degree of statistical significance.9

---

9 A Pearson’s correlation co-efficient (denoted as “r”) having a value > |0.7| can be assessed as a strong correlation; a co-efficient between [0.4 – 0.7] a moderate correlation, a Pearson’s r below |0.4| suggests a weaker relationship. Note: although Pearson’s r below |0.3| may be statistically significant, it is not a practically significant result worth exploring. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant.
Figure 2.0

Linear Regression of Policy Analysis Methods vs. Cultural Bias

This is a visual example of the direction and intensity of the relationship between all social units’ cultural bias (grid and group intensity), the independent variable, and intensity of use of all core systematic methods (i.e., ASTs) of policy analysis, the dependent variable. This linear regression positions the responses to both variables measured. The closer the cluster of the responses to the line, the more cohesive the responses.

The upward slope and trajectory of the line plotted shows a positive causal relationship between the variables. This indicates that the greater the intensity of imposition of the restraints (grid) in the social unit and the greater the intensity of cohesiveness in conforming to those restraints (group) by policy analysts, the greater the intensity of use of core systematic methods of policy analysis.
In terms of answering RQ1\(^{10}\), findings from the data for the five social units assessed identify both a more intensive imposition of restraints (grid) and cohesiveness in conforming to them (group) in social units 1, 3, and 4 (Social unit 1: mean [grid/imposition] = 21.15; mean [group/conformity] = 17.90; Social unit 3: mean [grid/imposition] = 21.60; mean [group/conformity] = 18.84; Social unit 4: mean [grid/imposition] = 21.90; mean [group/conformity] = 20.80). In social units 2 and 5, we find a similar intensity with respect to restraints, but a weaker degree of cohesiveness in conforming (Social unit 2: mean [grid/imposition] = 20.81; mean [conformity] = 17.24; Social unit 5: mean [grid/imposition] = 17.75; mean [group/conformity] = 16.25). For all variables measured, the small values of the standard deviations (Std) relative to the mean scores indicated a high consensus in the responses obtained (For interpretation of mean score criteria and additional detail refer to Chapter 4: Findings & Presentation of Data, “Answering Research Question 1”).

The findings related to RQ2\(^{11}\) are primarily descriptive in nature. As with culture there are standard criteria on which to interpret the mean scores (For interpretation of mean score criteria and additional detail refer to Chapter 4: Findings & Presentation of Data, “Answering Research Question 2”). There are, however, patterns that indicate causation among similar and different social units’ cultural biases. The findings show variation of intensity of use of core systematic policy analysis methods overall for different social units (which, as we have seen, have different cultural contexts). This is a high-level view assessing use of all core methods at each stage. Despite the cultural bias, social units are mostly using core systematic methods “somewhat-regularly.”

---

\(^{10}\) RQ1: What is the identified cultural bias of each one of the object social units?

\(^{11}\) RQ2: Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity by social unit by cultural bias?
Table 2.0

Example Policy Analysis Usage: Degree of Use Intensity by Each Policy Analysis Stage, per Each Social Units Cultural Bias

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Unit Cultural Bias</td>
<td>“stronger” imposition / “stronger” conformity</td>
<td>Problem Definition</td>
<td>Forecasting Outcomes</td>
<td>Alternative Selection</td>
<td>Argumentation &amp; Advocacy</td>
<td>Engineering of Implementation</td>
</tr>
<tr>
<td>Social Unit 1 high-grid / high-group</td>
<td>50.36 (Std 4.14)</td>
<td>Somewhat Regular</td>
<td>Somewhat Regular</td>
<td>Somewhat Regular</td>
<td>49.43 (Std 3.94)</td>
<td>61.93 (Std 4.19)</td>
</tr>
<tr>
<td>Social Unit 2 high-grid/ low-group</td>
<td>46.88 (Std)</td>
<td>Somewhat Irregular</td>
<td>Somewhat Regular</td>
<td>Somewhat Regular</td>
<td>50.27 ((Std 2.31)</td>
<td>60.00 (Std 4.28)</td>
</tr>
<tr>
<td>Social Unit 3 high-grid / high-group</td>
<td>56.14 (Std 3.85)</td>
<td>Somewhat Regular</td>
<td>Somewhat Regular</td>
<td>Somewhat Irregular</td>
<td>50.20 (Std 2.17)</td>
<td>64.20 (Std 5.31)</td>
</tr>
<tr>
<td>Social Unit 4 high-grid / high-group</td>
<td>50.64 (Std 3.63)</td>
<td>Somewhat Regular</td>
<td>Somewhat Regular</td>
<td>Somewhat Regular</td>
<td>51.45 (Std 2.89)</td>
<td>61.55 (Std 4.28)</td>
</tr>
<tr>
<td>Social Unit 5 high-grid / low-group</td>
<td>48.43 (Std 2.07)</td>
<td>Somewhat Irregular</td>
<td>Somewhat Regular</td>
<td>Somewhat Irregular</td>
<td>45.29 ((Std 5.76)</td>
<td>59.29 (Std 4.82)</td>
</tr>
</tbody>
</table>

There are, however, patterns which begin to emerge in the degree of intensity of use of core systematic methods. These patterns are given the relative intensity of the imposition of restraints characterizing the social unit context, and the acceptance to conform by social units’ policy analysts. For instance, in social units characterized by a “looser” conformity of the group (of policy analysts) accepting the imposition of restraints we find “somewhat irregular” use for problem definition: social unit 2: mean = 46.88; social unit 5: mean = 48.43.
For RQ3,\textsuperscript{12} the susceptibility of policy analysts’ usage of systematic, prescriptive policy analysis was identified at each policy analysis stage. With respect to the questionnaire data across the entire sample, the regression analysis provided insights on the direction and intensity of causation between the variables, and difference at each policy analytic stage.

**Table 3.0**

*Causation: Susceptibility of All Core Systematic Methods Use by Policy Analysis Stage, to Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity) Across All Object Social Units*

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy Analysis Stage</strong></td>
<td><strong>Susceptibility of Core Systematic Methods to All Social Units Cultural Bias</strong></td>
</tr>
<tr>
<td>Problem definition</td>
<td>0.42019 (moderate)</td>
</tr>
<tr>
<td></td>
<td>0.0004 (significant)</td>
</tr>
<tr>
<td>Intervention and prediction of solutions (modeling)</td>
<td>0.46076 (moderate)</td>
</tr>
<tr>
<td></td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
<tr>
<td>Selecting policy alternatives</td>
<td>0.13162 (weak)</td>
</tr>
<tr>
<td></td>
<td>0.2960 (insignificant)</td>
</tr>
<tr>
<td>Communication, advocacy, and argumentation</td>
<td>0.38964 (moderate)</td>
</tr>
<tr>
<td></td>
<td>0.0015 (significant)</td>
</tr>
<tr>
<td>Designing implementation</td>
<td>0.51650 (moderate)</td>
</tr>
<tr>
<td></td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
</tbody>
</table>

 criteria A Pearson’s correlation co-efficient having a value > |0.7| can be assessed as a strong correlation; a co-efficient between |0.4 – 0.7| a moderate correlation, a Pearson's r below |0.4| suggests a weaker relationship. Note: although Pearson’s r below |0.3| may be statistically significant, it is not a practically significant result worth exploring. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of \(<0.0001\) confirms a highly statistically significant relationship; p-value of \(<0.05\) is significant and values \(>0.05\) are insignificant.

The use of core systematic methods of policy analysis is most highly susceptible at the stages of modeling outcomes/forecasting solutions \((r=0.46; \text{p-value}=<0.0001)\) and the design of implementation \((r=0.52; \text{p-value}=<0.0001)\). The causal relationships are positive and moderate.

\textsuperscript{12} RQ3: Whether and to what extent is the usage of policy analysis methods (i.e., approaches, strategies, and techniques) at particular policy analytic stages, susceptible to social unit cultural bias?
their intensity, and both are highly statistically significant. Problem definition (r=0.42; p-value=<0.05) and argumentation and advocacy (r=0.39; p-value=<0.05) are each moderate in their strength, and statistically significant. The use of systematic, prescriptive policy analysis at the stage of alternative selection is the least susceptible. Although a positive relationship was identified, it is very weak (r=0.132). The finding is not significant however (p-value=0.0015), so it is unclear whether this should be taken into account (On causality: Chapter 4: Findings & Presentation of Data, “Answering Research Question 3”).

With respect to the reliability and validity of findings, the results of the content analysis supported interview data, and vice versa, adding insight into the quantitative questionnaire data.

Contributions

Major contributions of this study have been:

1. The assessment of policy analysis by social unit cultural bias. No such study is known to the author.

2. The application and testing of the Geva-May Model. The study’s reliability and validity demonstrate its veracity and contribution to the field.

3. The development of a Battery of Tools able to validly and reliably assess a social unit’s existing cultural bias that may affect the degree of use of core systematic policy analysis methods.

4. Contribution to gg-CT and its application to policy analysis.

In this chapter I have given an overview of the study and will now further develop these contributions them in the following chapters.
Chapter 2: Review of the Literature

My appreciation of cultural bias is the extent to which intended “methodological practices” of policy analysis are inhibited or accelerated by the institutional cultural context.

This chapter presents the literature supporting my Hypothesis and research questions, as well as Geva-May’s Model of Policy Analysis by Cultural Bias, the theoretical background and conceptualization of which drive this study. In fact, the Hypothesis and the Research Questions (RQs) are based on the operationalization of the Geva-May Model and test this model’s validity and reliability for research and practice. By way of applying the gg-CT and the “stages approach” for policy analysis, the study seeks to restore the view of the stages approach in policy analysis despite controversies in literature, as well as the applicability of the gg-CT theory for public policy and policy analysis. The chapter will therefore engage in:

1. A discussion of the literature on the stages approach to policy analysis, and perceptions of core systematic methods of policy analysis at each stage of policy analysis.

2. A discussion of the literature on cultural bias and cultural theories with specific reference to the choice of gg-CT and applicability to the study.


4. Supporting literature on the methodology applied in this study’s research design operationalizing the Geva-May Model.

5. As part of the methodological design, a discussion of the development of a Battery of Tools applied to identify the causality asserted by the Hypothesis.

The two primary causally related domains and corresponding literatures pertaining to my study are policy analysis (dependent variable), and cultural bias (independent variable).

---

13 My Research Questions (RQs) are: RQ 1: What is the identified cultural bias of each one of the object social units?; RQ2: Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity of use by social unit by cultural bias?; RQ3: Whether and to what extent is the use of policy analysis methods (i.e., approaches, strategies, and techniques), by each particular policy analysis stage, susceptible to cultural bias?
Policy Analysis

Literature in the field supports the contention that the importance of policy analysis for public policy and policy making lies in its purpose to extend a systematic, evidence-based, and transparent process, facilitating the making and adoption of accountable public policies (deLeon, 1998; Geva-May with Wildavsky, 1997; Radin, 2011; Weimer & Vining, 2014). It is a method of provision of evidence-based advice to decision makers, the clients of a policy analysis. The acknowledged methods of policy analysis are widely accepted (Dunn, 2015; Geva-May, 2022; Geva-May with Wildavsky, 1997; Patton et al., 2018; Weimer & Vining, 2014). In this study I refer to the core systematic methods of policy analysis as the approaches, strategies, and techniques (ASTs) identifiable at each unique stage of policy analysis. These are described in this chapter as the dependent variables operationalized in this study.

Policy analysis is an evidence-based, systematic, and prescriptive way to inform public policy (Dror, 1973; Dunn, 2015; Geva-May, 2022; Laswell, 1956; Pal, 2005; Weimer & Vining, 2014; Wildavsky, 1986). It has been pointedly defined as “the disciplined application of intellect to public problems” (Pal, 2005). Others refer to policy analysis as a solution-bearing method, a “problem solving process” (Bardach, 1992, p. 1), leveraging “reason and evidence to choose the best policy among a number of alternatives” (Macrae & Wilde, 1985, p. 14). Some discuss the advisory nature of this problem-solving discipline (Laswell, 1956) as resulting in “client-oriented advice relevant to public decisions” (Weimer & Vining, 2011, p. 1) as well as emphasizing the role of the client and her involvement throughout the policy analysis process (Geva-May, 2022; Geva-May with Wildavsky, 1997). Others refer to the application of policy analysis methodology in seeking “feasible courses of action, generating information and marshaling
evidence of the benefits and other consequences that would follow their adoption and implementation” (Quade, 1975, p. 5).

Beyond the academic literature, field definitions refer to policy analysis as “the process of identifying potential policy options that could address your problem and then comparing those options to choose the most effective, efficient, and feasible one” (Centers for Disease Control and Prevention, 2023). Encyclopedia Britannica defines policy analysis as “concerned primarily with policy alternatives that are expected to produce novel solutions,” contending that “policy analysis requires careful systematic and empirical study.”

As a final description, I refer to Majone’s (1989) definition appearing in Geva-May with Wildavsky’s (1997) contribution, presenting the “operational approaches” and craft nuances of policy analysis methodology. Majone (1989) suggests a susceptibility of the policy analysis process:

Policy analysis is best appreciated in relation to the craft aspects of the field while the craft skills of an analyst are a repertoire of procedures and judgments that are partly personal and partly social and depend as much on his own experience as on professional (policy analysis) norms and culturally determined criteria of adequacy and validity (3).

This is precisely the connection this study makes — looking into the degree of causality and degree of affected culture related norms, standards, and routines on the various aspects of policy making. Those routines referred to as core systematic methods comprised of sets of ASTs at each distinct stage of policy analysis.

In part, given local traditions and disparities in the style and type of methods applied, it is recognized that policy analysis has evolved in different ways, in different regions (Geva-May &

---

Howlett, 2017; Hamelin, 2018; Hoppe, 2002, 2007, 2018; Hosono, 2018; Mendez, 2017; Oser & Galnoor, 2018; Radin, 2020). There is a limited yet growing literature investigating how policy analysis occurs and the activities that take place in various localities (Colebatch, 2006; Colebatch, 2015; Connaughton, 2010; Hoppe & Jeliazkova, 2006; Howlett & Wellstead, 2011). Recent contributions have focused explicitly on this intersection, noting variations in policy analysis styles and methods within (Craft & Wilson, 2017) and between regions (Andrews, 2018; Fobé, 2017; Gül & Acar, 2018; Hejzlarová, 2018) emphasizing the process-related, task-based activities of a policy analyst (Connaughton, 2010; Page & Jenkins, 2005; Tiernan, 2011).

Simultaneous to the literature acknowledging divergence in craft routine, there has been a global trend noting the diminishing contiguous nature of policy analysis. That is to say, the trend views policy analytic functions as being absorbed piecemeal by specialized advisors. This exclusivity of focus on distinct policy analysis stages is concerning given the iterative nature of policy analysis as a clinical profession (Radin, 2000, 2011, 2013).

Although these nuances in policy analysis craft routine are identified, they have not been thoroughly evaluated in the literature with respect to a specific causality approximating for variance between them. Howlett and Lindquist have discussed this variance, contending that “contextual elements of the policy-making cultural and institutional context may combine,” and “constrain or create opportunities for different policy analysis activities and produce discernable policy analytic styles and movements in different countries and contexts” (2004, p. 4).

Difference in the preparedness, education, and training of policy analysts is one factor accounting for variance (Brans et al., 2017; Geva-May & Gofen, 2017; Hassenteufel & Zittoun, 2017; Veselý et al., 2018). Policy analysis education has been noted to differ in institutional contexts (Kuo, 2018). For instance, in some institutions, curriculum can be highly rational in
nature and focused on cost-benefit and economic forecasts. Under other local traditions (O’Hare, 2019; Rubaii, 2017). Scott (2017) points out that that rational approaches primarily characterized the 1960s and policy analysis profession has begun to transition to a greater qualitative focus, and softer participatory exercises (44–47).

Regardless of the methods characterizing policy analysis, it is a process generally plagued by great uncertainty. Despite evidence and data, when deciding on courses of policy action or inaction, clients and analysts alike can be highly uncertain. Early commentary by Thompson (1984) mused that model scenarios are built “not of decision-making under uncertainty but of decision-making under contradictory certainties” [emphasis original] (p. 336) (See also Walker et al., 2013). This is similar to Geva-May’s (2005) discussion regarding policy analysis as a clinical profession, acknowledging that uncertainty is a factor which binds all clinical professions. Nair and Howlett (2017) argue that uncertainty limits alternative creation and selection by triggering a “myopia” of sorts.

Under such uncertain contexts, then, the analyst often relies on inherent bias, whether driven by education, age, experience, or cultural bias cumulating as craft judgements. A framework such as the “Stages Approach” to policy analysis may help guide iterative transgression and reduce uncertainty to a more mentally palpable configuration. This can break down complexity, and hence uncertainty. Ultimately this provides greater clarity both for the policy analyst and for a client of a policy analysis.
The “Stages Approach” to Policy Analysis

In this study I use the stages approach as a platform enabling the ability to isolate methodological toolboxes per stage and address the impact of “culture” across contexts. This is an attempt to respect the iterative flair of policy analysis, yet it seeks confirmation of core systematic methods as attached to the key stages of a policy analysis. This supports the theoretical weight of the stages approach as a causal theory of the policy process as at one stage, methods deployment advances the policy analysis and can trigger iterative actions such as revisiting stages.

It was Laswell (1951) who initially offered the field a conceptualization of a “policy framework,” which concerned broad methodological components, in categorizing the generation of rigorous policy advice: intelligence, promotion, prescription, innovation, application, termination, and appraisal. He expressed that his framework was specific to the “problem oriented” component of the broader policy sciences, disposed to identifying and solving policy problems. These considerations are concerned primarily with improving the quality of advice to government, hence the overall utility of a policy analytic process for society at large.

In the decades that followed, scholars modernized the language and revisited Laswell’s conceptualization, advancing terminology as we broadly refer to it today. For instance, Brewer (1974) wrote in terms of initiation, estimation, selection, implementation, evaluation, and termination, whereas deLeon (1988) discussed the strengths and weakness of a compartmentalized view of the generation of policy advice. His critique refers to such conceptualizations of the policy analysis process as a way to break down complexity. A key contribution of such a view, coined as the “stages approach,” is the enhanced ability to generate assumptions about the policy problem to be solved and causal theories of the policy process. In
his *Advice and Consent* (1989), deLeon argued this key observation had been overlooked by the field at that time.

At a later period of time, different scholars identified different stages of policy analysis, to contain the multitude of tasks and information about the policy problem and ways to solve it. This gating or approach to systematically organizing and aligning core methods also aims to address the sheer magnitude of information and analyst capacity to sequence tasks and to avoid being overloaded in their analytic procession.

DeLeon further noted that although the literature, which was largely political science and public administration-based at the time, was concerned with administration and the role of institutions, it had not accounted for culture, social norms, or values. Again, a processual view, as posited by his revisionist “Stages Approach” to policy analysis, was better able to acknowledge these factors at specific intervals as affecting components of policy advice. In his description, deLeon also contended that this view facilitates further research on those components of policy analysis (1999, p. 19). Each of these critiques has been considered in forming the Hypothesis and defining the research questions in this study.

Although Sabatier and colleagues (see below) worked to discredit this approach by claiming that the lack of causality dismissed this approach as a theory — generally, there exists broad agreement on the “stages” of policy analysis, the normative methods at each stage, and the benefits of this conceptual framework. In fact, a core challenge to gaining legitimacy is the failure of both iterative views (Sabatier, 1991, 2007) which call for addressing core systematic methods alignment to particular stages. A key cornerstone of Sabatier’s (1991) critique is that
the stages approach fails the test of empirical theory, because it lacks causal explanations accounting for the policy process (see Chapter 5: Conclusions).

The core systematic ASTs of policy analysis, whether applied or taught, recognizably correspond to a “stage” of policy analysis (deLeon, 1998, 1999; Geva-May, 2002, 2022; Geva-May & Wildavsky, 1997; Gofen & Lota, 2022).

Despite agreement in the field, there are different classifications or conceptualizations of the stages approach that have been suggested. It is important to identify and discuss these theoretical nuances with respect to the selection of a specific “Stages Approach” adopted in this study, and to which the dependent variable is operationalized.

Primarily, the literature views the policy analytic process as comprising between four to six components (Anderson, 1975; Bardach, 2000; Dunn, 2015; Geva-May, 2005b; Geva-May & Wildavsky, 1997; MacRae & Whittington, 1997; Majone & Quade, 1980; Patton & Sawicki, 1993; Weimer & Vining, 2017). Conceptualizations range from being quite broad to rather succinct in their representation of various components of policy analysis and the policy cycle. For instance, Brewer and deLeon (1983) and deLeon (1989) suggest six component stages: initiation (recognizing the problem and creating tentative solutions), estimation (modeling impacts), selection (choosing alternatives and compromise), implementation (considerations), evaluation (outcomes and key performance indicators/assessment), and finally determination (essentially termination). Majone and Quade (1980) reflect on the pitfalls of analysis across the key steps of (a) formulation, (b) modeling and extending the breadth of these concepts (in an iterative manner), and (c) analyses of various data points and costs “optimization”, transitioning

Note: The Cronbach Alpha test of reliability was applied in order to validate the core methods operationalized as aligned to policy analytic stages. The results which in essence confirm activities and interactions at particular stages of the policy process (Refer to Chapter 3: Methodology & Research Design, “Questionnaire Reliability”).
to (d) communication, (e) implementation, and (f) evaluation, as a distinct component. The alternative selection stage is not as formalized as within other frameworks.

Those conceptualizations are broad, some inclusive of evaluation, although evaluating the impact or performance of a policy alternative happens post-implementation. Evaluation is in fact a distinct function from policy analysis (Geva-May & Pal, 2004; Weiss, 1985). As early as 1974, in his transition to editor in chief of Policy Sciences, Edward Quade positioned policy analysis in the field: “as contrasted with the previous phases [evaluation] is somewhat more backward looking in practice.” In an era without reference to the “Stages Approach,” he expressed that initiating and estimating the impacts of policy solutions are “anticipatory,” and stressed the present, active, solution-seeking characteristics of policy analysis (p. 241). In reference to implementation, the editorial continues, referring to Brown and Wildavsky (1984), who in a similar vein identified that implementation has also been confused with the analysis of policy, summarizing that “they [implementation and evaluation] protect against absorption of analysis into action to the detriment of both” (p. 205).

This latter point supports the conceptualization of implementation as in its engineering, purposeful design, and planning (see Geva-May, 2023; Geva-May & Wildavsky, 1997). This makes the design of implementation a distinct intervention, reinforcing that termination is a separate activity (see also Franz, 2002). The literature encourages thinking about implementation from the onset of policy analysis, initiating at problem definition (Geva-May & Wildavsky, 1997) and ending with the development of distinct guidelines or stepping-stones (Geva-May 2023), and activation through baselining compliance metrics (Lindquist, 2006).

Other conceptualizations include Bardach’s (2000) eight-step “path” which adopts many principles of journalism: (a) define the problem, (b) assemble the evidence, (c) construct the
alternatives, (d) select the criteria, (e) project the outcomes, (f) confront the trade-offs, (g) decide, and (h) tell your story. This conceptualization is narrower in its dissection of a methodology. As well, some of the stages appear peculiar and somewhat unnatural in their division. For instance, criteria selection is identified as a unique step following the construction of the alternatives which suggests minor emphasis on modeling and scenario forecasting, and lack of alternative development with criteria in mind. The step in which outcomes are projected pertains to shortlisted alternatives, but again it is not situated to project outcomes of scenarios which do not survive as potential alternative recommendations. The final step points at advocacy and communication, which needs to be initiated earlier in the process. Finally, there is no explicit mention of planning for implementation.

In the early days of the field, MacRae and Whittington (1997) focused primarily on policy analysis as providing advice at two stages: (a) modeling and (b) forecasting solutions and outcomes. Weimer and Vining (2014) discuss three key stages: (a) identifying and analyzing problems, (b) creating and selecting alternative solutions, and (c) subsequent argumentation. Note that this view is not as succinct in its treatment of forecasting implications of policy alternatives, nor does it explicitly separate advocacy from implementation.

Patton and Sawicki’s (1993) conceptualization (a) defines the problem, (b) establishes evaluation criteria, (c) identifies alternative policies, (d) evaluates alternative policies, (e) presents impacts across potential alternatives, and (f) monitors the implemented policy, respecting evaluation as distinct from policy analysis. Yet again, their method does not identify argumentation as a separate policy analysis stage. It focuses primarily on monitoring of policy performance as part of implementation.
Each of these many conceptualizations buffer a teasing out of any susceptibility of policy analysis to culture at the right level of detail. Each view acknowledges Laswell’s (1951) emphasis on “problem orientation,” beginning with the identification and definition of the problem at hand. Yet thereafter the subsequent stages are either too broad (MacRae & Whittington, 1997; Weimer & Vining, 2014), or quite contrite (Bardach, 2010), and in some instances, ignore methodological components which other scholars consider as core (Majone & Quade, 1980; Patton & Sawicki, 1993). These conceptualizations also do not account for argumentation as a distinct stage and area of focus. These various conceptualizations can prove challenging in their broadness or narrowness for purposes of operationalizing core systematic methods of policy analysis, by each policy analysis stage. They also tend to confuse analysis with subsequent measurement and evaluator activities or policy decisions (Brewer & DeLeon, 1983; Deleon, 1989). This creates notable complexity, ambiguity, and confusion in assessing the intensity of use of the acknowledged but scattered core methods.

In this study, I adopt the view of the “stages” of policy analysis advanced by Geva-May with Wildavsky and more evocatively titled by Geva-May 2023 as The Logic & Methodology of Policy Analysis: (a) in-context problem diagnosis and definition; (b) intervention and prediction of lab-solutions (modeling); (c) policy alternatives selection; (d) communication: reporting, lobbying, advocacy, argumentation; and (e) implementation design. Their conceptualization offers a succinct compartmentalization to which core systematic methods can clearly be aligned. The variation in the literature confirms itself that the proposed stages are comprehensive in nature, across each stage of policy analysis.
**Iterative Nature of the “Stages Approach” to Policy Analysis**

The iterative nature of policy analysis was initially noted at the onset of distinct study of policy analytic stages by Laswell (1951) in his conceptualization of a “policy framework.” This view stipulated interaction effects as a key feature of the analysis of policy, as well as the multidisciplinary skills required in generating policy advice for government. Despite this emphasis on an iterative view, deLeon (1988) identified the tendency of scholars to view them as linear as a main critique of the stages approach. Although the early focus on studying distinct stages enriched the understanding of each stage (Fischer et al., 1993; Frantz, 1992; Kingdon, 1984; Pressman & Wildavsky, 1973; Weiss, 1985), an obsessive focus at one stage comes at the expense of another. In fact, in defense of the stages approach as theoretical lens, deLeon (1988) warned against the implied linearity of the stages approach, cautioning the field to avoid “disjointed,” “episodic” views, that lacked “recursive loops.”

The various conceptualizations of the stages of policy analysis showcase that policy analysis activities are in fact not only linear nor completely iterative. This is important to recognize as this reality poses challenges for the measurement of core systematic methods at distinct stages of policy analysis. It is widely observed that policy analysis is an iterative process (Geva-May & Wildavsky, 1997; Head, 2019; Kim et. al, 2020; MacRae & Whittington, 1997; Majone & Quade, 1980) in part because of the context in which policy analysis takes place. Rapid political developments, new data, and shifting client priorities\(^{16}\) can bring fresh perspectives to the context and view of the problem situation. Stakeholder reactions to proposed solutions can impact alternative design and shift key messages, and new information can force

---

\(^{16}\)For in-depth discussion of the client review, see: Brans et al., 2017; Lindquist, 2005; Tiernan, 2018.
one to rethink implementation approach and speed. These are all components of policy analysis which social units undertaking policy analysis re-visit regularly (Etzioni, 1967, 1985). For example, the forecasting of a scenario through modeling can identify unintended impacts, triggering analysts to recast the problem statement, leading back to updated scenario forecasts, criteria guiding alternative selection, and so forth.

**Use of Core Systematic Methods at Each Stage of Policy Analysis**

Geva-May with Wildavsky (1997, 2011) and Geva-May’s (2023) conceptualizations of the policy analysis stages methodology allows for use of core systematic methods of policy analysis to be clearly and systematically benchmarked across distinct stages and analytic contexts. These stages are also conceptualized within the Geva-May model, which this study operationalizes in order to identify causation between cultural bias and the use of core systematic methods of policy analysis. While so divided, these stages are comprehensive, and contain the same components that other literature addresses in isolation, such as the literature on agenda setting (Birkland, 2007), argumentation (Fischer et al., 1993), and implementation (Pressman & Wildavsky, 1973), with reference to subsequent activities such as evaluation (Chelimsky, 1985; Weiss, 1985) and termination (Frantz, 1992).

The following are the core systematic methods of policy analysis, at each stage of policy analysis, that are supported by literature and operationalized in this study. To identify causality between contextual cultural bias as an independent variable and the use of policy analysis as dependent on the cultural bias context I will follow the stages approach as identified by Geva-May (2023) below. It allows the isolation across contexts required to analyze the application of policy analysis methods as affected by the independent variable. This is also the reason why I adopted (and tested) the Geva-May Model (2002) to direct this study.
Problem definition stage: The problem definition stage is comparable to a contextual diagnosis in medicine or other clinical professions such as psychology, and is key in driving the analytic process Geva-May (2005, 2007, 2023). It is a diagnostic process driving solution seeking (Geva-May 2005).

This presents an opportunity for the analyst to “create a problem that can be solved” (Coyle & Wildavsky, 1987). In so doing, this stage sets up the analytic focus, problem variables, and the definition(s) of the problem. This framing subsequently drives the search for data and evidence gathering (Geva-May, 2020, p. 33). Defining the problem variables and the causality among them can support the client in their understanding of the issue at hand (Dunn, 2015; Geva-May, 2020; Hoppe, 2018; Wolfe et al., 2013), and inform criteria used when forward mapping (Elmore, 1987; Geva-May, 2005b; Hoppe, 2018; Weimer & Vining, 2017) and/or backward mapping (Levin & Ferman, 1985; Mintrom & Luetjens, 2017; Overholt, 2000) the problem situation in order to secure a robust definition of the problem. Without an adequate “diagnosis” (a working definition of the policy problem), the policy problem cannot be adequately solved. Inadequate diagnosis may include the absence of defined variables, causality identification among variables, or a lack of parameter values concerning deficit or excess, snowballing into the selection of inaccurate or meaningless feasibility criteria.

Stage of intervention and prediction of lab-solutions (modeling): Here, the scenario modeling and testing of solutions begins. This process starts with a mental manipulation of the causal relations between the variables of the problem situation.

There are several formal model types at the analyst’s disposal and once calibrated with specific inputs, models produce consequence and interactions effects (Ferretti, 2019) whether social, scientific, economic, cultural, financial, or technical in nature (Dunn, 2015; Geva-May,
Policy analysts select the ideal types of models for the issue at hand and may choose to complete a subsequent validation and calibration of models with internal and external stakeholders, or not (Atkinson et al., 2015). Analysts may also choose the inputs to the models and thereby influence the model outputs (Janssen & de Vries, 1998; Thompson, 1984; Van Asselt & Rotmans, 2002). The manipulation of causal variables (Frantzeskaki, 2013) strengthens feasibility and “lab solutions”\(^{17}\) based on the initial models, which may proceed to alternatives, such as the laboratory solutions that have passed through various feasibility filters as a test of reality (i.e., administrative, political, among others) pointing to potential adoption (avoiding disqualification) (Galston, 2008).

Selecting policy alternatives stage: At this third stage, the selection of those lab solutions validated as feasible fits for survival in the real world become the main preoccupation of analysis.

The trade-offs of each alternative are key. Alternatives are readied for client consumption, external inspection, and ultimate selection based on formal selection criteria and corresponding advocacy. Exhaustive (Dhanisetty et al., 2018), standardized (MacRae & Whittington, 1997; Öberg et al., 2015) selection criteria is used to transparently assess each alternative put forth (Gagatsi et al., 2017; Garb et al., 2007; Larsson et al., 2018; Pal et al., 2004) and is likely to trigger a costing analysis as part of selection (i.e., cost effectiveness, decisions on discount rates) (Boardman, 2001; Friedman, 1993). Typically, a subsequent weighting of alternative selection criteria occurs (Vining & Weimer, 2014) and/or a more comprehensive multiple account cost benefit analysis is deployed (Shaffer, 2002).

\(^{17}\) Note: term coined by Geva-May with Wildavsky (1997).
Stage of communication, advocacy, argumentation: The social unit now enters a phase of focused communicative awareness regarding the chosen alternative.

Although advocacy and communication can start at problem definition, the iterative sequence now formalizes presentation of arguments to capture buy-in and support, and to minimize and/or skillfully mitigate resistance. Core systematic methods encourage the acknowledgement of weaknesses and opposing arguments (Barry et al., 2019; DeMarchis et al., 2018; Fischer, 1995; Fischer & Gottweis, 2012, 2013; McGinty et al., 2016), in order to legitimate the alternative choice (Boydstun et al., 2013; Coontz, 2015; Mulderrig, 2017; Nowlin, 2016; Zarefsky, 2008). Analysts can plan interaction with a number of venues, that is, legislative, judicial, or media channels (Buffardi et al., 2015; Huwyler et al., 2018; Langer & Brace, 2005), and use strategies such as co-optation to further secure a preferred alternative choice (Coyle & Wildavsky, 1987; Dickinson, 2001; Gandhi & Przeworski, 2006; Stratigaki, 2004).

Design of Implementation stage: The last step is primarily about designing the penultimate execution. Implementing change is risky, prone to failure, and can face resistance (Pressman, 1973) and issues of compliance. This is the stage component in which all attitudes, salient or unknown, converge (Bardach, 1977) and where the chosen alternative will be activated creating a new reality among policy targets and within the delivery system.

The sheer number of actors, informal “requirements” to negotiate and exchange, reactions to instruments and issues surrounding ambiguity, conflict, and communication, become real. Some stakeholders gain, and others experience a loss given the termination of the current state (Matland, 1995; Schneider & Ingram, 1990). The determination of “fixers” (Kingdon, 1995; May, 2015) can connect to the monitoring and establishment of warning systems for compliance (Lindquist, 2006; Rose, 1993; Rose & MacKenzie, 1991; Rhodes & Tiernan, 2014; Tiernan,
Guidelines need be identified to support implementation advancement in operations (Geva-May 2023; Gassner & Gofen, 2018), using robust communication pathways identified to use the most suitable mediums (Bridgman & Barry, 2002; Lewis, 2006; Martin & Huq, 2007). Underpinning engineering is the strategy of floating trail balloons to help test the waters (Behn, 1981; Erekat, 2012).

The above examples refer to the linkages between core systematic methods of policy analysis at each stage of policy analysis. Their interconnectedness demonstrates, on the one hand, the potential domino effect that weak use of core systematic policy analysis methods may trigger. On the other, they provide insight into the use and overall robustness of said policy analysis. These observations support the application of a method to detect deviation from core systematic methods of policy analysis, and their susceptibility. Given that the descriptive accounts above lack causality, I operationalize the variables comprising the Geva-May Model (cultural bias and use of core systematic methods of policy analysis) in order to assess the intensity of their respective components. The systematic policy analysis methods presented above (and others) have each been operationalized and are the dependent variables in the study. For a listing of each approach, strategy, and technique operationalized and measured at each stage of policy analysis refer to, Chapter 3: Methodology & Research Design, “Operationalizing Core Systematic Methods of Policy Analysis.”

Cultural Bias

Cultural Bias is the independent variable in this study, affecting the use of policy analysis core systematic methods, with some more susceptible that others, inclusive of variation in susceptibility in different contexts, and thus affecting the process and product of the analysis to a greater or lesser degree.
To be able to measure “degrees” and a type of cultural bias across contexts, I concur with the Geva-May Model and its theoretical conceptualization of the gg-CT cultural theory by Dame Mary Douglas. I advance the application of gg-CT from broader studies of public policy by Douglas and Wildavsky (1982, 1986), to operationalize gg-CT as the lens through which to identify and understand the cultural bias exhibited by the social relations of social units, in which policy analysis occurs.

Below, I introduce Mary Douglas’s gg-CT (1982, 1986, 2005) and describe its appropriateness to broader studies concerning public policy and policy analysis, and gg-CT’s operationalization in this study.

**Cultural Bias and Jurisdictions**

Different social units in which policy analysis occurs hold and promote varying cultural orientations (Geva-May, 2002). This is the case even within the same country or geographic region or sets of social units comprising an institution for instance. It is critical that the cultural theory chosen to be operationalized in this study can measure cultural bias at the level of the social unit, and be malleable enough in terms of characteristic features, to set out the traits of a cultural bias and assess how it affects a certain methodological use of policy analysis.

To begin, early cultural theory scholars isolated types of culture per nation. In order to understand why emerging democracies differed after the Second World War Almond and Verba (1963), in their *Civic Culture*, identified participant, subject, and parochial political cultures, defining national characteristics by assessing approaches and attitudes towards the degree and type of political participation and politics.

Their comparison of Britain, Germany, Italy, Mexico, and the United States assigns a single overarching culture to each nation. Their descriptions provide a comparative frame of
reference between nations, but not within nations. This assumes that national boundaries account for singular cultural characteristics.

Elazar (1966) had discussed political culture recognizing intra-nation variance. He argued that the predominant political culture in the United States is a synthesis of three typologies — individualistic, moralistic, and traditionalistic (p. 86). The country segregated into eight social unit groupings, reflecting a culture of states and their cohesiveness and divergence from national patterns (p. 15). The case of a culturally homogenous New England is used to explain culture as an explanatory variable.

Almond and Verba’s and Elazar’s contributions each stop short of discussing intra-cultural bias at the level of a social unit, in which public policy making or policy analysis occurs. They provide specific indications that culture is a causal variable affecting regions and jurisdictions.

**Cultural Bias and Institutions**

It is noteworthy that subsequently, Almond and Verba (1980) re-examined their own work in their critique, *Civic Culture: Revisited*. A main preoccupation of that analysis is their recognition that cultural categories, or biases, could be active within the same jurisdiction, and hence prescribing different cultural biases to different social units with a common society.

Some years later scholars such as Yesilkagit (2010) created a link between political culture and the level of the institution, claiming that political cultures influence specific administrative traditions. This is a significant step forward with respect to causal impacts of culture. Cultural factors were further noted as playing an important role in regional political and economic amalgamation patterns (Inglehart, 1990). In terms of North American integration (Inglehart et al., 1996) culture was argued to drive policy formulation, adoption, and choice, and impacts are
simply underestimated. Inglehart and Baker’s (2000) later work concerned the persistence of traditional values, in which they claim that culture is “transmitted” through institutions.

Recently Levi and Zehavi (2017) discuss “administrative” cultures claiming that administrative traditions “bridge [both] cultural and institutional dimensions… and is more suitable for analysis than standard cultural factors.” They continue that this conceptualization “avoids the common institutionally detached investigations of culture” (p. 230).

Of interest, this depiction of administrative cultures exhibits traits similar to the intensity of the imposition of constraints (grid) and intensity of cohesiveness in conforming to them (group):

(a) a “Rechtsstaat” administrative culture characterized by strict adherence to precedents, operating under rigid established procedures, and rule-oriented administrators (Levi & Zehavi, 2017, p. 230); and (b) an “Entrepreneurial” administrative culture characterized by looser protocols and more intensive leeway in how operations occur, where administrators have more flexibility in their actions and methods deployed. The authors note that administrators are more rule-oriented, and less “effectiveness-oriented” in Rechtsstaat systems. They posit that because policy-makers in entrepreneurial systems enjoy greater institutional autonomy, policy reform and adoption is more likely in entrepreneurial than in Rechtsstaat administrative cultures (Levi & Zehavi, p. 231). These contentions advance the causal claims pertaining to cultural bias as an independent variable, placing policy reform and adoption as dependent on the administrative cultural bias. This too is a step ahead, regarding the causal influences of cultural bias.

**Cultural Bias and Policy Analysis**

Yet still, there is no detectable applied research to date assessing the impact of causal institutional contextual cultural bias on the use of core systematic methods of policy analysis. The closest, concerning policy analysis methodology, are descriptive, categorical studies which
essentially inventory analytic skill use. Those contributions pivot from observations such as Howlett and Lindquist’s (2004), who argue that modes of policy analysis are congruent with broader institutional contexts and that the choice of techniques is conditioned by affinity to particular “analytical styles.”

Other reflections assign an “analyst typology” to an individual (negating the broader social unit) and categorize the subject’s preferred analytic approach (Behn, 1981; Durning & Osuna, 1994; Mayer et al., 2004; van Daalen et al., 2001). Similar to the cultural theories above, these accounts may identify a policy analytic “typology” but do not demonstrate causation with respect to core systematic methods use and cultural bias.

Although typologies create causal linkages between preferred policy analysis approaches, this conceptualization lacks a measurable intensity of values, norms, and culture by definition along a gradient (see Chapter 5: Contributions “beyond ambiguous typologies of policy analysts”) as well as use of analytic methods. Unfortunately then, when operationalizing administrative or typological cultural theories like those identified above, it is not possible to show causation other than by identifying general pattern analysis between categorical descriptions. Further, none of these theories address policy analysis methodology specifically as susceptible to culture. Hence, in alignment with Inglehart (1990), these models of the policy process which ignore cultural factors are incomplete.

A growing literature discusses academic involvement in policy analysis (Brans et al., 2017; Cohn, 2017) and differences in analysis between the academy and the operational field (Mayntz, 2018). Glied’s (2018) observation seeks to address differences in cultural bias and policy analysis “style” (by academics as opposed to practitioners). She (2018) argues that a better
understanding of the differences between the institutional cultural bias to which policy analysts are attached, may improve links between academic researchers and government officials.

All in all, this suggests that an awareness of culturally-induced variation in the policy analysis approach can support more frequent translation of policy recommendations from academics into consumable alternatives for practitioners. After all, different cultures “see” the world in different ways (Jasanoff, 1986; Jones & Dunlap, 1992; O’Riordan & Jordan, 1999; Steg & Sievers, 2000; Woodgate & Redclift, 2005), and to Glied’s (2018) point, field agencies and academic institutions will rationalize courses of action uniquely (Greenberg, 2007; Jasanoff, 1986, 2005; Vig & Kraft, 1984). In recognition of the way that cultural bias characterizes all institutions, Thompson et al. (1990) pen that “an organizational act is rational if it supports one’s organizational culture, one’s way of life” (p. 276) (c.f. Geva-May, 2002).

Aside from writings on gg-CT, the various cultural theories which concern the public policy cycle are vague and do not imply a specific susceptibility of policy analysis.

**Grid/Group Cultural Theory**

Why gg-CT? The theory of “culture” adopted for this study is as conceived by Douglas (1982, 1986, 1996, 2005) and subsequently adapted as a lens for public policy studies (Douglas & Wildavsky, 1983), and as an independent variable in Geva-May’s Model (2002). The inclination towards this cultural theory is rooted in the premise that this theory (a) concentrates on patterns of contextual social relations within social units; and (b) that cultural bias can be measured given intensity gradients allowing for degrees of impact on the policy analysis process, among others.

Mostly in the last decade, Douglas’s cultural theory has been applied to the policy preferences of policy targets, to expansive security policies (Tsohou et al., 2015), to how nations
go about setting exchange rates (Zhongyu & El Ghoul, 2018), to preferences towards high-voltage power line installation (Moyer & Song, 2016), and also to attitudes toward nuclear power (van de Graaff, 2016).

Scholars contend that Douglas’s cultural theory has been a specific “gift” as a tool for policy analysis (Hoppe, 2002; Geva-May, 2002; Stenvoll, 2002; Swedlow, 2002). Policy analysts can use its lens as an instrument in examining those policy “preferences,” that is, the biases of targets given their individual cultural bias, or that of a representative social unit to which they belong (Conner et al., 2016; Knaak et al., 2019; Li et al., 2015; Patel & Rayner, 2015).

Douglas’s cultural theory is known as grid-group theory or gg-CT because it considers the “grid” or what in policy analysis we would call the context, and the “group,” that is, the individuals (clients, stakeholders, etc. in policy studies) acting in degrees of intensity of cohesion within that context. According to this theory, the cultural bias is defined by the relative intensity of two dimensions: one characterized by the intensity of the imposition of restraints by the context (referred to as “grid”), and the other concerned with the intensity of the social unit members’ cohesiveness in accepting and conforming to those restraints (referred to as “group”) (Thompson & Hastie, 1990; Thompson et al., 1990).

Mary Douglas’s gg-CT addresses degrees of impositions of restraints (grid) as represented by circumscription, the degree to which the context prescribes and restricts; and rigidity, the degree to which there is leeway from the restraints (i.e., the extent to which daily work is strictly governed and observed, to which methods use are pre-determined). According to this theory, the group is characterized by how intensely cohesive social unit policy analysts are in conforming to the restraints. This dimension refers to the degree to which policy analysts are integrated into groups (cohesiveness), and the degree to which the which the choice to conform is subject to
group determination. An example would include the extent to which policy analysts collaborate, check in on each other’s work, or ask for advice.

Therefore, cultural bias and the strength of cultural bias are measured by the intensity by which each dimension, grid and group, are juxtaposed, and by their relative combinations of strength. The intensity of imposition of restraints, and cohesiveness in conforming to them, demonstrates, according to this theory, the four relational patterns and accompanying cultural bias denoted as “high” grid/“high” group (hierarchical), “low” grid/“high” group (egalitarian), “low” grid/“low” group (individualistic), and “high” grid/“low” group (fatalistic) ways of life (Thompson et. al, 1990).

**Figure 3.0**

*The Intensity of Dimensions of Cultural Bias of Social Units*

Mary Douglas’s cultural theory offers the flexibility, not offered by other theories, to move up or down gradients. Moving up the gradient of restraints (grid), we find that numerous rules and prescriptions are imposed (Douglas, 1982; Douglas & Wildavsky, 1983; Hoppe et al., 2007).
Moving down the restraints (grid) axis, we find looser restraints, a lower intensity of imposition and fewer binding rules which people negotiate among themselves (Hoppe et al., 2007, p. 290).

To the right, the axis concerning the group dimension of cultural bias reveals more intensive cohesiveness in conforming to imposed constraints by the group of policy analysts. These are contexts in which people identify strongly with group members and have higher levels of collaboration and counsel (Hoppe et al., 2007). On the left-hand side of the axis, the gradient portrays contexts less accepting of those constraints. There we find a weaker cohesiveness in conformity, and people caring less about group determination. Such bias prefers independent approaches, reminiscent of lower levels of collaboration and counsel (Hoppe et al., 2007).

The beauty of this theory is that, as compared to the macro view of one nation, one region, one culture (Almond & Verba, 1963; Elazar, 1966; Inglehart, 1990, 1996), the gg-CT allows for intensities moving up or down the axes, that is, degrees of cultural bias by contextual constraints, (i.e. grid, or cohesiveness within the context in ultimately adapting to them, i.e., group).

Furthermore, the distinct relational patterns, intensities of imposition (grid) and cohesiveness to conform (group), lend themselves to comparative cross-jurisdictional cultural analysis at the level of the social unit as well (Hood, 2000). The following section describes the characteristic features of each type of cultural bias and the related degree of bias determined by degrees of imposition and acceptance.

**High Grid/High Group (Hierarchical Cultural Bias)**

(high intensity of imposition/high intensity of cohesiveness in conformity): The hierarchical bias dwells in a social unit where “hierarchy” is strongly rooted, things are done in a certain pre-established manner, and established practices are relied upon. Actions are based on a defined set of established norms. Thus, it is expected that problems will be indentified in a
systemic manner, and that policy analysis should be characterized by high levels of team work. Adherence to prescribed systematic policy analysis methods and practices is characteristic of this bias, as well as predetermined collaboration among social unit stakeholders and regular consultation with external experts (Thompson & Hastie, 1990; Thompson et al., 1990).

**Low Grid/High Group (Egalitarian Cultural Bias)**

(low intensity of imposition/high intensity cohesiveness in conformity): The egalitarian bias encompasses strong group ties in which alliances and negotiations within and among groups in this “loose” context move things forward. The most affable discourse characterized by alliance, integrated teams, will bring the best outcomes and resource allocations. The context in which the policy analysis occurs is unconstrained by lack of imposition of routine, and institutionalized form. The methods to which the policy analysis uses are negotiated and selected by the group in order to stabilize the external community (Thompson et al., 1990).

**Low Grid/Low Group (Individualist Cultural Bias)**

(low intensity of imposition/low cohesiveness in conformity): The individualistic bias occurs in a context driven by the interests and capabilities of individuals where everyone acts for themselves. Nature encourages and justifies trial and error, innovation, and bold experimentation in the face of uncertainty. As long as we all do our individualistic things, a hidden hand will inevitably lead us towards the best possible outcome. For our purposes, the context would celebrate the highest degree of flexibility in picking and choosing select methods of policy analysis suited to presenting, for instance, a strongly preferred pet alternative at the cost of others. Policy analysis is characterized by low levels of team work and irregular usage of external experts (Thompson et al., 1990).
High Grid/Low Group (Fatalist Cultural Bias)

(high intensity of imposition/low intensity of cohesiveness in conformity): Changes are rare and there is little influence over them by anyone but tenured voices. Similar to the high imposition of the hierarchical context, patterns in the organization are pre-set and driven by senior objectives. This fatalistic bias ensures that initiatives happen in a series of linked stages, and that the upper echelons decide the way things will ultimately be done. For instance, there is irregular or frequent usage of external experts depending on the preference of the client or senior level representatives. If a solution is not actioned, externals can patch it up.

Applicability of gg-CT to Social Units in Which Policy Analysis Occurs

According the Geva-May Model, the gg-CT theory is applicable to categorizing social units in which policy analysis occurs because (a) the conceptualization of culture pertains to contextual relational social settings similar to a social unit in which policy analysts work; (b) the theory is adaptable to circumstance, that is, a central tenet of gg-CT is that one can experience multiple cultural biases, dependent upon the context and setting, for example, a hierarch at home, an individualist at work, etc.\(^\text{18}\); and (c) gg-CT can be used to interpret preferences for public policies. Thereby, policy analysts can use gg-CT as an instrument in their analyses to guide their recommended courses of action or inaction; and the conceptualizations of cultural bias are sensitive and measurable in reflecting intensity.

This interpretation lends itself to assessing causal relations between culture as an independent variable and dependent variables (Dake, 1991, 1992; Kahan, 2012; Langford et al.,

\(^{18}\) Although this study operationalizes and measures the cultural bias exhibited by the social relations within the social unit, it is worth mentioning individuals’ worldviews as contextual, as far as an individual’s cultural bias. For instance, “mobility” and “stability” theorems consider cultural bias stability or transitivity between contexts (Gross & Rayner, 1985; Lockhart, 2011; Rayner, 1986; Rayner & Cantor, 1987; Ripberger, 2014). The “stability” version maintains that individuals adhere to the same cultural bias over time, regardless of the social context. The “mobility” version argues that individuals will adopt different cultural biases as they move between contexts.
2000; Lockhart, 2011; Marris et al., 1998; R. A. Ripberger, 2014; J. T. Ripberger et al., 2011; Verweij et al., 2011).

Although peripheral to the use of core systematic methods of policy analysis, in recent years there have been causal studies that use gg-CT as an independent variable and assess the impact of culture on institutional processes. These have adopted quantitative and qualitative research methods to assess the relationships between cultural bias and features of a policy alternative and its implementation (Conner et al., 2016; Jenkins-Smith et al., 2014; Jones, 2011; Patel & Rayner, 2015; Ripberger et al., 2011).

A recent contribution presented by Paesen et al. (2019) used the lens of gg-CT and involved 64 Belgian police force social units (N=3,847). Their study assessed the internal and external perspectives of social unit members in order to assign a cultural bias. Descriptive measures included variables such as degree of supervisory support, organizational reputation, internal distrust, internal solidarity, and perceptions of external attitudes such as distrust of the social unit by members of the public. In contrast to applying the gg-CT theory, this descriptive study is not causal in nature and does not assess the susceptibility of a dependent variable.

Swedlow et al. (2020) and others have purported that gg-CT possesses predictive and explanatory powers (Gastil et al., 2011; Swedlow & Johnson, 2019). In a causal study, this assumes that culture can predict and explain a dependent variable.-Some studies go only so far as to suggest causation. Take for example the qualitative investigation by Patel & Rayner (2015), who assess the susceptibility of corporate sustainability and reporting practices, to cultural bias in six Indian organizations. The findings suggest causal relationships between cultural bias and reporting practices (and also affirm that an awareness of bias across stakeholders is helpful for line managers). Simmons (2016) has examined user-provider relationships in a selection of
public services/programmes in the UK. Statistical analysis shows the greater the service delivery alignment with the cultural preferences, the more positive users are about program performance.

**Applying gg-CT as a Tool of Policy Analysis**

There is also an applied literature grounded in policy analysis field work. This concerns how policy analysts can strategically apply the lens of gg-CT in their policy analysis as an instrument. Given the cultural bias of the context in which they act, this may pertain to a greater targeted problem definition, a more cohesive forecasting and purposeful development of models, subsequent presentation of alternative choice, communication and legitimization, and the best ways to plan for policy implementation, given the cultural bias and corresponding policy preferences of potential policy targets.

One applied example involves the deployment of gg-CT to supporting the reframing of the problem of multilingualism, heavily debated inside the European Commission organization. Using the lens of gg-CT to explore frames of reference addressing cultural biases helped Mamadouh (2002) to successfully reframe of the problem statement. Her application avoided a previous marginalization of certain preferences which appeared irrational and to some stakeholders and had dead-locked finding a solution. The literature claims that model assumptions (inputs) and scenarios (outputs) “operate under cultural concepts rationalizing different ways of life” (p. 326) (Keepin, 1984; Wynne, 1984).

Concerning the preference of policy targets and scenario forecasting, take an Austrian case of hazardous waste disposal/exportation policy. Linerooth-Bayer’s (1996) questionnaire survey results reveal that citizens rejected a policy alternative to export 90% of Austrian waste abroad. Respondents more strongly weighted the criterion of “fairness” with respect to export to poorer recipient jurisdictions over the criterion of “economic efficiency” (Thompson, 1997, p. 211–
212).\footnote{Note: survey respondents were subsequently coded as possessing a low intensity of imposition/high intensity of conformity, i.e., as exhibiting a primarily egalitarian bias.} It had been proposed that applying the lens of gg-CT helps avoid the sole cultural bias of modelers themselves from showing up within models (Thompson, 1984).

Hendrick (1994) applied gg-CT to interpret the construction of the Birmingham Ring Road and Munich’s Altstadtring. He demonstrates how a “cultural pluralist” approach as adopted by the Germans allowed for movement from a “one or the other” single-solution orientation to a “multiple-solution” perspective. This outcome, as opposed to the high intensity of imposition/high intensity of conformity (hierarchical) British case, resulted in a hierarchical top-down solution (p. 66) which unlike the German innovation failed to balance preferences.

In Korea, Kim (2003) applied gg-CT to the building of the Saemangeum Dam. He used gg-CT to assess arguments between high intensity of imposition/high intensity of cohesiveness (hierarchical) and low intensity of imposition/high intensity of cohesiveness (egalitarian) positions, in their divergent interpretation of the same facts (p. 126). By acknowledging that different cultural biases were active among the targets, argumentation became more robust and deliberate, and targets ultimately more receptive. Sketching out a discourse analysis in a matrix to identify argumentative patterns, Hoppe (2000) also builds on this assumption.

Finally, the review identified an application of gg-CT by Hoppe et al. (2007) that supported the analyst to anticipate “normally” overlooked side effects at implementation (p. 297). He drew on Smit’s (1997, c.f.) discussion of noise abatement at Schiphol airport where top-down hierarchical programs led to “egalitarian protest, individualist-induced lawsuits, and fatalist withdrawal” (Hoppe et al., 2007). The application of gg-CT in that policy analysis identified distinct stepping-stones to implementation favourable to different cultural biases.
Although the use of gg-CT within an analytic toolkit is different from the goals of this study, the applications above signal a causation of cultural bias and preferences towards the content of public policies net large.

The Geva-May Model

The Geva-May Model of Policy Analysis by Cultural Bias is a causal model of the policy analysis process. It contends that there is causation between the culture of the social unit in which policy analysis occurs, and the susceptibility of use of core systematic methods of policy analysis used by policy analysts. Social units undertaking policy analysis are home to the professional role of the policy analyst where the group may express their bias by way of “the use of analysis strategies, conceptualization of policy making strategies, use of tools and techniques, [as they] are legitimized through immersion-related beliefs and values” (Geva-May, 2002).

The Geva-May Model uses the “Stages Approach” in policy analysis as developed by deLeon (1989) and identifies the same succinct “stages” of the policy analytic process as raised previously by Geva-May with Wildavsky (1997) and Geva-May (2023). These offer a clear compartmentalization to identify and align core systematic policy analysis methods, at each sequential yet iterative stage (Anderson, 1975; Bardach, 2010; deLeon, 1988, 1989; Dunn, 2015; Geva-May, 2000, 2005b; Geva-May & Wildavsky, 1997; MacRae & Whittington, 1997; Majone & Quade, 1980; Patton & Sawicki, 1993; Vining & Weimer, 2014).

A key premise of the Geva-May Model is that policy analytic craft, procedure, or practice, as influenced by the contextual cultural bias, allows the analyst to represent that cultural bias, as “at any stage of the [policy analysis] process she [the analyst] casts a vote expressing the bias inherent in the particular way of life she adheres” (Geva-May, 2002, p. 584).
The Geva-May Model identified gg-CT to categorize culture, because the components of the cultural bias as per gg-CT, the grid and the group, can be operationalized. Their intensity is measurable both quantitatively and qualitatively.

The Geva-Model claims that use of the core systematic methods of policy analysis will change given the cultural bias of the social unit. Hence the study operationalizes, and measures intensity of core systematic methods use as a way of testing those causal contentions. In recognizing that different cultural biases view the world in different ways (Jasanoff, 1986; Jones & Dunlap, 1992; O’Riordan & Jordan, 1999; Steg & Sievers, 2000; Woodgate & Redclift, 2005) the Geva-May Model supports the contention that different cultural biases will rationalize courses of action or inaction uniquely as concerns policy analysis craft (Greenber, 2007; Jasanoff, 1986, 2005; Vig & Kraft, 1984). That observation is not unique. In fact it is similar to Rayner’s (1991) discussion about the preference for particular instruments, and Hood’s (1998) arguments regarding culturally preferred approaches to new public management. As well, Ingram et al. (2007) have determined that policy designs, “usually reproduce the prevailing institutional culture.” The difference is that the Geva-May Model projects a causal relationship concerning the susceptibility of policy analysis to the contextual social relations occurring within the social unit, where policy analysis takes place.

Conceptually, this causal model is constructed to map use of policy analysis at each stage of a policy analysis by a social unit, in which policy analysis occurs. The matrix representing the model visualizes the juxtaposition between cultural bias and the stages of a policy analysis.
Figure 4.0
The Geva-May Model of Policy Analysis by Cultural Bias

<table>
<thead>
<tr>
<th>Stage</th>
<th>Range of Bias During…</th>
<th>Social Unit 1</th>
<th>Social Unit 2</th>
<th>Social Unit 3</th>
<th>Social Unit 4</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Cultural Bias</td>
<td>Cultural Bias</td>
<td>Cultural Bias</td>
<td>Cultural Bias</td>
</tr>
<tr>
<td>1. Policy Making Context</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Problem Definition</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Forecasting Outcomes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Alternative Selection</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Advocacy &amp; Argumentation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Designing Implementation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


This is a comparative presentation which enables the identification of patterns in the intensity of use of core systematic methods of policy analysis, the analytic expression, given variance in cultural bias across multiple social units.

**Operationalizing the Geva-May Model**

Developing the research methodology is a primary contribution of this study. In order to test the Hypothesis and to answer the research questions, I apply the Geva-May Model. To do so I operationalize gg-CT (independent variable) and the stages approach to policy analysis (dependent variable). A Battery of Tools has been developed to assess their respective natures and intensities. For the independent variable, cultural bias tools assess the intensity of the imposition of constraints (grid) and cohesiveness in conforming to those constraints (group). For the dependent variable, I measure the intensity of the use of core systematic methods of policy analysis at each stage of policy analysis. Causal relationships between the variables are further identified and tested.
**Comparative Multiple Case Study Approach**

Given the Geva-May Model’s comparative framework, the research design has been developed to test the replicability of the methodology in addition to comparing and contrasting the findings from different cultural contexts and core systematic methods use. To do so, multiple social units have been identified as case studies (Geering, 2004), and as suggested by the literature, provide for “multiple observations” in order to measure and compare variables in different settings (Fontaine & Geva-May, 2021, p. 5). This case study approach enables an in-depth analysis within and across each social unit (Yin, 2003, 2009) for a series of small-N comparisons (Becker & Ragin, 1992; Gerring, 2004; Yin, 2003; R. K. Yin, 2003, 2009, 2018). The research design considers consistent collection of data and analysis across all social units (Engeli et al., 2014; Engeli et al., 2018).

The selection of the multiple case study approach was further made because the Hypothesis and research questions seek information on causality between the independent and dependent variables proposed by the Geva-May Model. As with descriptive contextual data, the literature specifically advises that a deep understanding of multiple contexts is a key requirement for causal analysis (Cairney, 2016; Fontaine & Geva-May, 2022; Steinberg, 2007) and that common causal findings should be secured in multiple and similar contexts (Anckar, 2020; Blatter et al., 2016; Levi-Faur, 2004, 2006a, 2006b; Vaughan, 1992).

Indeed, by studying different features in the different contexts, and by identifying any patterns of characteristic cultural bias and core methods use, I was able to examine co-variation in the data set obtained. That co-variation clearly connects causes and outcomes and enriches the pinpointing of susceptibility of systematic methods to cultural bias at various stages of policy analysis in addressing the Hypothesis and answering the research questions (Falleti & Lynch, 2008; Hall, 2003).
Objects of Analysis

The objects of analysis in this study are policy analysts embedded within the contextual social units in which policy analysis occurs. As per the Geva-May Model, the contextual data gathered should reflect day-to-day operational routines such as policy analysis craft (dependent variable) and the social relations characterizing a cultural bias of the social unit (independent variable). The objects of analysis embedded within those multiple social units are highly relevant and bring confidence and trust in the descriptive data being sought, as well as the causal relationships being tested (internal validity). Policy analysts are the prime object of analysis to provide data on social unit contextual cultural bias and core systematic methods use. This accounts for the contextual social reality which adds authenticity, and thereby strengthens the data gathered, and subsequent analysis and interpretation of data (Layder, 2021). This allows for a robust testing of the Hypothesis and rich information to answer the research questions.

A further consideration in testing the Hypothesis and answering the research questions concerns the ability to generalize the findings for reasons of external validity. In order to compare relevant social units, I refer to the literature on the Canadian provincial level of policy-making. Such contexts have been noted as “a strong case from which to generate insights into the differences and similarities of policy analytic work in multi-level governance systems” (Wellstead et al., 2017).²⁰

²⁰ The Canadian provincial-level case studies and objects of analysis embedded within them may exemplify extensive similarities and/or inconsistencies in use of core systematic methods. This is in the face of noted consistencies in terms of academic preparation (Botha et al., 2017), demographic variables of those employed as policy analysts (Howlett & Newman, 2017), and having established scholarly societies and professional communities of practice, upholding core systematic methods.
Battery of Tools

The methodology uses a multi-methods approach, as it advances the reliability of the findings and teases out the nuances of cultural bias and policy analysis methods use, avoiding single interpretations by ensuring the triangulation of data sources (Brenot & Bonnefous, 1995; Johnson, 1991; Langford et al., 2000; Maleki & Heniks, 2015; Marris et al., 1998; Sjöberg, 1995). A Battery of Tools was developed and employed which operationalizes the variables through both quantitative and qualitative means and consists of a questionnaire (quantitative), interviews (qualitative), and a content analysis (qualitative). To enhance validity of research measures and reliability, I deploy standard controls across standardized tools (i.e., inter-coder reliability, statistical tests, standardized coding formats, others) (Levi-Faur, 2004; Oppenheim, 1966; Weber, 1990) (refer to Chapter 3: Methodology). The Battery of Tools serves as a whole assessment mechanism in testing the Hypothesis and answering the research questions.

The Geva-May Model recognizes that operationalizing and measuring cultural bias is complex (Jenkins-Smith et al., 2014; Klitgaard, 1995; Ripberger, 2014; Swedlow et al., 2020; Verweij et al., 2011), as is the sensitivity of assessing use of core methods of policy analysis. This is given the confidential nature required at the highest levels of government in which the client of a policy analysis sits, and in which policy analyses inform crucial politically sensitive problems.

Given the causal claims of the Geva-May Model underpinning the Hypothesis and the nature of the research questions, the collection of quantitative data is the priority in establishing an evidence base. Operationalizing and measuring cultural bias is especially complex (Jenkins-Smith et al., 2014; Klitgaard, 1995; Ripberger, 2014; Swedlow et al., 2020; Verweij et al., 2011) and is required to prove causation through quantitative means and associated statistical tests.
Therefore, the primary instrument is a quantitative questionnaire survey because other than a few notable exceptions (Dake, 1991; Kahan, 2012; Lal et al., 2018; Simmon, 2016; Swedlow et al., 2016; Wouters et al., 2014) the majority of attempts to operationalize gg-CT have been qualitative in nature. Where quantitative encounters have occurred, they have not been causal in nature, primarily aiming to measure attitudes, and assign a cultural bias to a subject or group. The qualitative endeavours lack causal outlooks using typologies of cultural bias to explain preferences towards a phenomenon or interpret historical events (Maleki & Heniks, 2015).

In order to test the Hypothesis, address the research questions, and compare social units, the data set requires a high degree of descriptiveness for each social unit case study (Engeli et al., 2014; King et al., 1994).

In seeking to establish causality between the independent and dependent variables, and to ascertain descriptive characteristics of each social unit, the research design identified the following analysis of data points. The primary measurement instrument is a quantitative questionnaire in which a predictive formal statistical model is applied to ascertain what is observable and detectable (Fontaine & Geva-May, 2021). As a first step, a Cronbach Alpha test was generated to assess reliability for each scale measuring the cluster of entries operationalizing each variable. Once deemed reliable, a series of regression analyses we performed in order to test the causal claims of the Geva-May Model. Comparative research suggests that regression analyses be undertaken at multiple levels to determine causation in complex encounters (Peters, 2022). Thereby, a multitude of regression analyses allowed us to assess the direction, strength, and statistical significance of any relationships between the variables at different stages of policy analysis (see Chapter 4: Findings & Presentation of Data, “RQ 3,” “Hypothesis”).
For descriptive purposes, and to identify the intensity of the dimensions of culture and of the use of core systematic policy analysis methods, mean scores were assessed against a series of standard criteria corresponding to each variable operationalized in the study (see Chapter 3: Methodology & Research Design, “Operationalizing the Variables in the Study” and also “Criteria”). To better understand the findings from the quantitative data concerning both causality and descriptive data (Engeli et al., 2014; King et al., 1994; Oppenheim, 1966), the design calls for qualitative interviews (Ragin et al., 2003; Shaw et al., 2004) and content analysis (Elston & Fulop, 2002; Hodder, 1994; Shaw et al., 2004) of internal documents.

In sum, the research design developed to apply the Geva-May Model and operationalize its component parts has been driven by the Model’s causal contentions.

Summary

The literature on the “Stages Approach” to policy analysis, cultural theories, cultural bias as per gg-CT, and causal relationships between these variables have been reviewed. That literature points to the susceptibility of use of core systematic methods of policy analysis to cultural bias. A further literature concerned the operationalization of these concepts, and best practices to support a purpose-built research design governing the operationalization of the Geva-May Model and its application. The discussion indicates support for the Hypothesis of the study, and a promise that the research questions underpinning this comparative contribution will be answered.
Chapter 3: Methodology and Research Design

This chapter describes the research methodology applied in the study to test the Hypothesis underlying it, that: *policy analysis methodology is susceptible to cultural bias*, and to answer the lines of inquiry established by the Research Questions (RQ):

- **RQ 1**: What is the identified cultural bias of each one of the object social units?
- **RQ2**: Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity of use by social unit by cultural bias?
- **RQ3**: Whether and to what extent is the use of policy analysis methods (i.e., approaches, strategies, and techniques), by each particular policy analysis stage, susceptible to cultural bias?

As Klitgaard (1998) argued, measuring cultural bias is as sensitive, fluid, and difficult as psychological testing. This requires a high degree of precision and introspection in tool construction and administration. Furthermore, the assessment of unit cultural bias as well as of the causality between the type of cultural bias (independent variable) and the extent of analysts’ adherence to core systematic policy analysis methods (dependent variable) demands tool sensibility to nuance, and mobility of measurement. The latter in the sense that object policy analysts may well possess a particular worldview or bias in their personal lives at home, yet the contextual cultural bias espoused by the social relations occurring within the context of the analytic social unit concerning policy analysis may be similar or different (see sections below “objects of analysis” and “comparative multi-case study approach”).

The aim of the study and the methodological considerations have led me to revisit the *Geva-May Model of Policy Analysis by Cultural Bias* (the Geva-May Model) published in a
special issue of the *Journal of Comparative Policy Analysis: Research & Practice*, devoted to the interface of contextual cultural bias and a systematic policy analysis, “Cultural Theory’s Gift to Policy Analysis” (2002). In fact, in 2002, when expanding on the rationale and development of this conceptual model, Geva-May called for further research and the operationalization of her model in the context of assessing the cultural bias of policy analysis objects/object social units per the intensity of the grid and group as reflected and reported through those social relations within the analytic context (see Appendix, Geva-May, 2002). To my knowledge the Geva-May Model and its validity have never been operationalized or otherwise tested.

The testing of the Geva-May Model is dependent on this study’s operationalization of the components of the contextual culture within the social unit where policy analysis takes place. That being the espoused cultural bias given the social relations i.e., as per gg-CT, given the intensity of the grid and group dimensions of culture identify.

Within a matrix, she visually translates a conceptualization of causality between types of cultural bias and the intensity of utilization, of core systematic policy analysis methodology at different stages of policy analysis. The second model component is the “Stages Approach” to which policy analysis is employed, as well as more finely grained components of core systematic methods as aligned to each stage. At each stage methods are referred to and operationalized as — ASTs.

In applying the Geva-May Model in my study, I bridge the underpinning theoretical conceptualizations to operationalize the variables through the advancement of a specific comparative multi-case research methodology, and the development of a sensitive Battery of Tools. To clarify: I apply the Geva-May Model as per its primary intent, to identify *causation* between the dependent variable (use of core systematic policy analysis methods), and the
independent variable (contextual cultural bias, as per the social relations within the social unit where policy analysis takes place). Beyond causality, I assess the social units’ cultural bias, and related use of core systematic policy analysis methods by social unit.

I explain below the intricacies of the research design and its rationale in the application of the Geva-May Model, the objects of the analysis, the multiple case study approach opted for, the operationalization of the independent and dependent variables, the intensive development of the Battery of Tools in terms of their construction, reliability, and both internal and external validity. I describe the data analysis applied to test the Hypothesis and to provide detailed answers to the RQs. The chapter closes by outlining the administration of the Field Study and considerations.

The Comparative Multiple Case Study Approach

Comparison implies the ability to assess similarities and differences (Geva-May, 2002; Mills, 1843; Rose, 1993; Stake, 1995). Hence, I compare variation in the cultural bias of the social units, and respective intensity of policy analysts’ utilization of the core systematic policy analysis methods. In this study, the comparative multiple case study approach includes and analyzes data in depth, within each social unit and across them (Yin, 2003, 2009), which explains multiple features of the target under investigation. The multiple cases create more convincing theoretical insights as they draw upon copious empirical evidence (Geering, 2004) and provide, in Stake’s words, more thought-provoking answers to the research questions (Stake, 1995). The more cases, the greater the confidence in the findings, and the more validity to support replicability of the research methodology (refer to Chapter 5, “Contributions to Scholarly Research and the Field of Practice”).

Indeed, the very conceptualization of the Geva-May Model allows for a comparative multiple case approach and analysis. Such operationalization is undertaken by means of multiple
tools to identify trends, similarities, and differences aiming to enhance the significance of findings, validity, and reliability. In part, this multiple case study approach answers calls from the scholarly field frustrated with large scale efforts failing to gather evidence on which factors actually influence policy analysis practices (Fobé et al., 2018, p. 6; Fobé et al., 2017). Such recent works deploy comparative analysis across state boundaries. In Fobé’s study, multiple jurisdictions with significant autonomy in policy analysis practice (i.e., Canadian provincial and territorial units) are compared. The case study approach adopted aims to help move “beyond merely describing what policy analysts do and…provide insight into the drivers of policy analytical practices (Fobé et al., 2018, p. 16).

**Objects of Analysis**

The identification of the objects of analysis are driven by two primary factors: (a) their applicability given the aims of the study intending to identify causality between the variables, and (b) the ability of the objects to enable the comparative component of this study.

The objects of analysis are five policy analysis social units (representative of the grid imposing an intensity of restraints/coercion/expectations upon core policy analysis methods utilization) in five Canadian provincial/territorial jurisdictions, and the policy analysts (group) who demonstrate an intensity in the cohesiveness in conforming, to those restraints. The selection of objects was purposeful (not random) to represent relevant social units, in which policy analysis occurs by policy analysts, and the respective cultural bias.

**Operationalizing the Variables in the Study**

The following section will describe how the contextual cultural bias exhibited by the social relations with the social units (the independent variable), and how the core systematic methods of policy analysis (the dependent variable) are operationalized through the Battery of Tools.
**Operationalizing gg-CT**

Pertaining to cultural bias as per the Geva-May Model, I am only interested in the cultural bias being the imposition of restraints (grid) and conformity to them by the policy analysts (group) characterizing the social unit in which the objects are nested. Johnson and Swedlow (2021) refer to what they explain as conventional survey research in the CT literature measuring an individual’s cultural biases by assessing their values and beliefs, not their social relations. Noting an inventory of other new operationalizations of CT in survey research, they report that respondents express their “experiences with relations or observations of them as distinct from their preferences for them or their cultural biases (p. 15).” In this study, in order to operationalize the Geva-May Model, the contextual social relations occurring within the social unit are measured.

The research design developed and deployed in this study measures the context, as defined by the social relational dimensions of culture, to ascertain a contextual cultural bias, because:

- The social relational components of each dimension of cultural bias (i.e., the grid and the group) are reflected this way by the conceptualization of the Geva-May Model;
- These are the components of culture which align to the Hypothesis and RQs under investigation;
- This is a study aiming to advance the standing of gg-CT as an explanatory variable.

Operationalizing and measuring contextual cultural bias by tapping into the social relations within the context breeds innovation in measurement beyond individual “worldviews,” which have been shown to be unreliable. I leverage the literature reporting that the reliability and validity of quantitative survey results have fared better at

---

Note: Johnson & Swedlow (15) identify the following attempts to measure contextual social relations through self-reports: Carter, Heikkila, & Weible, 2018; Liu, 2018; Maleki & Hendriks, 2015; Swedlow et al., 2016; Wouters et. al 2014).

• Therefore, the style of the items is context-laden and is informed by past attempts to operationalize the social relational aspects of gg-CT, as per the context in which the objects are operating and undertaking policy analysis (Lal et al., 2018; Wouters et al., 2014).

• This considers the arguments in the literature on gg-CT that cultural bias is transitory or transferrable between contexts, changing given the context (i.e., a particular cultural bias at home, and another at work). This study respects and merges both (a) Douglas’s (1986) views on her “stability theorem” wherein institutions continue to influence the thoughts and actions of individuals when they step outside those institutions, and (b) the “mobility hypothesis” described by Rayner (1992), which considers that individual worldviews may change given the context.

• This study is concerned with the institutionalized context (6 & Swedlow, 2016) wherein there are social units in which policy analysis occurs and as such social relations exhibit an intensity of grid and group, as exercised in the context.22

At a more granular level then, according to the literature informing the components of culture as per gg-CT (Douglas, 1982, 1986; Thompson et al., 1990), I operationalize and measure the degree of contextual restraints (grid) characterized by the strength of

---

22 Although Drake and Geva-May (2008) and Geva-May and Drake (2010a, 2010b) had used the term “institutional cultural bias,” and 6 & Swedlow (2016) have referred to gg-CT in the context as an “institutional theory of cultural bias”, I purposely do not refer to “institutions” in describing cultural bias. In my view, in this study, cultural bias is contextual to the social unit, which may be exhibited given worldviews of individual members of the social unit and the institutional context, which in tandem is ultimately exhibited through the intensity of the grid and the group as per objects’ attitudes.
circumscription and rigidity of the context. I further measure the extent of the acceptance to conform by the “group” (i.e., the policy analysts), which is characterized by the strength of group cohesion and the extent to which policy analysts have a choice.

Establishing the intensity of these components of culture enables the study to answer directly, for each social unit, RQ1: What is the identified cultural bias of each one of the object social units?

Nonetheless, the criteria used across tools identifies a specific degree of respective intensity by operationalizing the grid and group (refer to section on “Criteria” below), which interactions accounts for the cultural bias of the social unit. This is important per the Hypothesis and RQs, suggesting that cultural bias impacts intensity of core systematic policy analysis methods utilization. As an example, for a social unit cultural bias wherein a higher intensity of grid is established, such as in a hierarchical social unit, we would expect acquiescence to the imposition of the grid upon core methods utilization. This high-group context more accepting of the restraints, hence a more intense utilization by policy analysts of core policy analysis methods. That is as compared to a fatalist social unit, where I expect to find the same degree of imposition (grid), albeit a weaker group signaling less cohesiveness in conforming to those restraints.

An egalitarian social unit faces low imposition of the grid resulting in a less intense utilization. For an individualist social unit a weaker grid means limited imposition of restraints. Given a low-group, there is no need to defer to core methods preferred by other analysts and/or enforced by the grid. In this scenario, I would expect the least intensity of utilization.

Operationalizing Core Systematic Methods of Policy Analysis

To measure the dependent variable, use of core policy analysis methods, I identified a total of 54 core policy analysis methods at various levels from macro to micro ASTs (see table
immediately below). A vast survey of the policy analysis literature supported the alignment of systematic methods to policy analysis stages (Anderson, 1975; Dunn, 2015; Geva-May, 2005b; Geva-May & Wildavsky, 1997; MacRae & Whittington, 1997; Majone & Quade, 1980) (see Chapter 2, “Policy Analysis”).

In alignment with the Geva-May Model’s conceptualization of policy analysis (see Chapter 2, “The Geva-May Model”), I segregated policy analysis methodology across five stages of the policy analysis process (as viewed by Geva-May, 1997, 2011, 2002, 2022) dictated by her Model enabling this study: (a) in-context problem diagnosis and definition; (b) intervention and prediction of lab-solutions (modeling); (c) selecting policy alternatives; (d) communication: reporting, lobbying, advocacy, argumentation; and (e) designing implementation. I categorized core policy analysis methods by stage in three ways: (a) approaches, (b) strategies, and (c) techniques within each one of the five stages.

For instance, for the stage of “in-context problem diagnosis and definition” of the policy analysis process, an approach advanced in literature “Structure Required within Definition” (A1) and at the stage of “Policy Alternatives Selection” the strategy of whether “Status-quo is Presented as an Option” (S2):
| Table 4.0 Per Policy Analysis Stages Approaches (A), Strategies (S), Techniques (T) - Core Methods Operationalized by the Battery of Tools |
|-------------------------------------------------|-------------------------------------------------|
| **Problem Definition**                          | **Intervention and Prediction of Lab-solutions (Modeling)** |
| (A1) Structure required within definition        | (A1) Extent modeling is undertaken              |
| (A2) Avoiding blatant solution incorporation within definition | (A2) Accuracy is required by a model          |
| (A3) Re-framing of the client’s problem definition occurs | (A3) Expertise required to inform model or forecast |
| (A4) Problem definition expressed in terms of deficit/excess | (A4) Iterative approach and re-casting adopted |
| (S1) Deconstruction of the situation / stakeholder mapping | (S1) Descriptive (problem) models are developed |
| (S2) Multiple problem definition development     | (S2) Prescriptive (solution) models are developed |
| (S3) Specificity of meaning/value are attached to variables | (S3) Models validated with stakeholders |
| (T1) Forward/backward mapping occurrence         | (T1) Meta-model constructs (craft judgements) are utilized |
| (T2) Mixed-scanning techniques used to avoid type III error | (T2) Quantitative models utilized |
| (T3) Data gathering formalization                | (T3) Qualitative models utilized               |
| **Policy Alternatives Selection**                 | **Communication: Reporting, Lobbying, Advocacy** |
| (A1) Information filtering is required            | (A1) Hard facts are required within the argument |
| (A2) Alternatives promote equity                  | (A2) Ethics are required within the argument   |
| (A3) External actors collaboration in alternative refinement | (A3) Inter-disciplinary views are brought into the argument |
| (A4) Extremity of proposed change contained within alternative | (A4) Weaknesses and opposing arguments are acknowledged |
| (S1) Feasibility testing of alternatives          | (S1) Reframing and strategic use of discourse is utilized |
| (S2) Status-quo is presented as an option         | (S2) Co-optation is used                       |
| (S3) Standard sets of feasibility criteria are applied | (S3) Deliberate agenda ordering (advantage of windows) |
| (T1) Criteria are weighted when assessing alternatives | (T1) Cultural and value considerations are embedded |
| (T2) Straw options are avoided                    | (T2) Venue change is adopted                  |
| (T3) All-inclusive solutions are avoided          | (T3) Argument is kept clear and simple (no Jargon) |
| (T4) Cost-benefit analysis is applied             |                                                  |
| **Designing Implementation**                      |                                                  |
| (A1) Plans are prescriptive                       | (S2) Operational stepping-stones / roadmap developed |
| (A2) Coordination / consultation required for implementation | (S3) Independence of implementation leadership secured |
| (A3) Implementation is considered from onset of PA process | (T1) Monitoring (as warning / compliance system) established |
| (A4) Plans are change forward (resembling swifter approaches) | (T2) Context mapping has occurred to identify/predict gaming |
| (S1) Drawer proposals are prepared               | (T3) Trial balloons have been floated         |
| (S2) Stepping-stones / roadmap has been developed | (T4) Communication techniques are rigorous    |

For manageability, I classified four approaches, three strategies, and between three to four techniques. I chose to operationalize four approaches as an intensive review of the literature pertaining to gg-CT and potential preferences of different ways of life and identified two overarching “approaches” at each stage of policy analysis. As two was not robust enough to measure intensity of utilization, I sought out additional approaches in the literature and arrived at
four approaches per policy analysis stage. In identifying four approaches at each stage, I also considered consistency in the number of approaches pertaining to operationalization (i.e., the same number of approaches would trigger the same number of items in the questionnaire, potential questions in the interviews, and search of terms and themes during the content analysis of documents. I applied this logic of identifying three strategies to techniques as well, to the best of my ability and for purposes of quality of operationalization. At some stages, I segregated a primary technique into two, resulting technically in a total of four techniques as opposed to three, only given issues of operationalization (i.e., in order to avoid double-barreled statements and confusion within the questionnaire).\(^{23}\)

To develop the assessment tools, these core policy analysis methods have been operationalized through statements in and across each tool. For example, in the questionnaire items to which subjects responded, in the interviews given the questions asked of interviewees, and in the content analysis via the use of keywords used to search for applicable text passages.

**Battery of Tools**

A quantitative and qualitative Battery of Tools was developed to undertake this study by operationalizing the Geva-May Model in order to answer the RQs. The tools leveraged data sources which assessed the same variables. This triangulation of data across tools is in line with Brady and Colliers (2010) “process tracing” literature. They advise that especially when a quantitative questionnaire is the primary data gathering instrument, qualitative methods should also be included.\(^{24}\) Such methods include for instance, interviews and content analysis of...

---

\(^{23}\) For instance, a technique of the “intervention and prediction of lab-solutions (modeling) stage;” “model utilization” concerns the nature of data within model development. In order to assess the extent to which quantitative data and/or qualitative data is utilized in model development, I operationalized each datum type.

\(^{24}\) This advice is in line with Oppenheim (1966) and also Lieberman’s (2005) “nested analysis” framework developed specifically in the context of mixed methods for comparative research and towards theory testing and building. Note: As far as the view of Lieberman’s mixed methods approach, i.e., that mixed methods can help to test and build a
documents, to better interpret the hard data, and in particular to inform and explain causality indicated by the correlational quantitative findings.

In this study the tools used to confirm validly and reliability of findings are: are (a) a quantitative questionnaire utilizing a Likert-type scale (split-half) to elicit the type of cultural bias of the social unit, intensity of core methods use, and causality between these variables; (b) interviews that are open-ended and semi-structured, allowing better elicitation of the characteristics of the social unit (the grid – independent variable) and attitudes of the analysts (the group – dependant variable ); as well as, (c) content analysis of relevant documents available within the context of each unit of analysis to expand, explain, or support the findings obtained in the interviews and particularly in the quantitative questionnaire’s data.

An in-depth review of the literature regarding gg-CT, and core systematic policy analysis methodology (refer to Chapter 2: Review of the Literature) led to identifying the key variables characterizing the theoretical components of the Geva-May Model. I have translated them into entries, statements (questionnaire), questions and prompts (interviews), and keyword categorization (content analysis).

In advance of the final study, the operationalization of the variables have been refined twice. This was due to the administration of tools which occurred in the pre-study and pilot study. Through that process there had been improvements to the construct and subsequent reliability of tools (refer to Appendix 1.0: Improvements to Tools).

theory: I address this inherently by operationalizing and testing two theories and testing the causal claims of a theoretical model. This study builds the theories -- in my terms I advance them (See Chapter 5: Conclusions, “Advancing pf gg-CT and the “Stages” Approach”, given the reliable operationalization of the concepts, the development of the Battery of Tools, and the findings of the study (See Chapter 4: Findings & Presentation of Data). Note also: An example of the application of nested analysis related to cultural theory is provided by Duerk’s (2012) doctoral dissertation in which the worldviews of animal rights activists are measured in two states. Note: The findings demonstrate that the interview data contradicted the statistical analysis findings from the quantitative data collected by the questionnaire tool, hence the importance of triangulating data across tools.
The following sections describe the common criteria applied across each tool interpreting the intensity of data obtained. Each one of the tools in The Battery are described in detail, including their connectedness to the Geva-May Model, and how the tools moved it from theory and conceptually referenced variables\(^{25}\) into operational tool entries. By applying them, we obtained answers to the research questions underlying the study. An example of the tools was operationalized to assess the intensity of a common variable. for problem definition and the strategy of “stakeholder mapping”: for the questionnaire statements, split-half: “Stakeholder mapping is a waste of time”*\(^{26}\) and “I don’t get too concerned with having a detailed understanding of the positions of stakeholders.”* For the interviews, the prompt asked, “How do you consider the positions of stakeholders?” and, finally for content analysis (relevant keywords): mapping, stakeholder.

This continuity across tools allows for in-depth analysis, triggering and reinforcing of each other’s responses and for the Tools Battery to form as a cohesive “whole” assessment mechanism.

Criteria

The criteria applied measures the intensity of the dimensions of culture (imposition of restraints and cohesiveness of policy analysts in conforming to them), as well as intensity of intensity if use of core systematic methods of policy analysis. Having criteria allowed me to establish patterns of utilization across social units with similar and different cultural biases, in

---

\(^{25}\) The sheer large number of questionnaire items assessing the intensity of the independent and dependent variables connects back to the Model, as they each represent nuanced elements of culture (i.e., degree of circumscription and rigidity comprising contextual restraints and the degree of cohesiveness of the group and choice towards an acceptance to conform) and core policy analysis methodology (i.e., at each analytic stage a myriad of approach, strategies, and techniques). This richness provides the data points required to understand the nature of the contextual environment, and policy analysis occurring.

\(^{26}\) *Asterisk indicates a reverse-coded question.
order to better assess susceptibility to policy analysis usage by policy analysts, at different policy analysis stages, and as pertaining to the intensity of ASTs unique to each stage.

A key common criterion of “intensity” was applied across all tools, at the same interval ranges, signaling a minimum intensity of 1.0 and a maximum intensity of 4.0 per variable. The degrees of intensity, and scores representing those degrees, correspond to the 4-point Likert scale assessing attitudes in the questionnaire. For the independent variable, cultural bias intensity is assigned to address the characteristic degrees of intensity of imposition of restraints by the social unit (grid), and the cohesiveness in conforming to those restraints by the policy analysts (group).

The intensity of the dependent variable, that is, the degree of utilization of core systematic methods of policy analysis, or lack thereof for that matter, is assessed at each policy analytic stage by way of the approaches, strategies, and techniques operationalized in the study.

For instance, for the questionnaire, the level of intensity is revealed given the mean scores to the questionnaire items falling on the 4-point Likert scale: “strongly disagree” (1.0), “disagree” (2.0), “agree” (3.0), “strongly agree” (4.0). Where qualitative data was captured during interviews and content analysis which spoke to the intensity of those same variables, the degrees of intensity were agreed and assigned by double-raters. Where the data for each variable captured by qualitative tools was purely descriptive and not necessarily suggestive of an intensity of imposition of restraints or conformity, nor utilization of systematic policy analysis methods, it was also captured within the interview and content analysis tools. It is used to provide additional contextual detail to the quantitative findings, through the triangulation of the data.

The Questionnaire

The questionnaire seeks to elicit attitudes pertaining to social unit cultural bias and the utilization of policy analysis methods. It is structured into four sections.
Section 1 – Measuring Cultural Bias: This section of the questionnaire seeks to identify which one of the four types of cultural bias (known in gg-CT), and their degree, can be attributed to the social units under investigation (see Objects above).\textsuperscript{27}

Items 1–14 gather attitudinal data to diagnose the type of cultural bias of each one of the five social units. In accordance with gg-CT, the questionnaire measures the degree or intensity of the contextual restraints of the grid component, that is circumscription; they are translated/operationalized into statements such as: “At my workplace there are strict rules which guide how we do our work.” Given the degree of rules imposition, this may indicate a requirement to use a strict systematic policy analysis process. The other characteristic of the grid in gg-CT, that of rigidity, is operationalized as, “At my workplace I have the freedom to seek solutions to policy issues, as I see fit.” This seeks to diagnose a more or less rigid social unit environment in its application of rules, that is, possibly allowing policy analysts to use their own mode of analysis.

To measure the acceptance to conformity of the group—the policy analysts comprised in the grid, group cohesion, I operationalize this characteristic of the group/grid interaction resulting in cultural bias, “We usually work independently on our tasks” intended to elicit cohesiveness in conforming to those restraints, by the group. For the group component of choice: “I consult with my colleagues when I need to make decisions about how I should go about my analysis,” pointing to a degree of cohesion and collaboration among group members.

Section 2 measures the dependent variable, utilization of core systematic methods of policy analysis methods: This section collects data about core systematic policy analysis methods utilization, and their intensity for each one of the five social units. Section 2, items 15–123,

\textsuperscript{27} The data collected provides answers to \textbf{RQ 1}: What is the identified cultural bias of each one of the object social units?
measures core systematic policy analysis methods at each stage of policy analysis (the dependent variable). The responses obtained are meant to diagnose degrees of causality between the cultural bias of the social unit as an independent variable, and the degree of adherence to the systematic core methodological aspects of policy analysis (refer to the section below, “Analysis of Data Collected by Battery of Tools”).

The questionnaire statements corresponding to a particular approach, strategy, or technique by policy analysis stage have been operationalized, for instance, as so: pertaining to the stage of problem definition, measuring the approach intensity of utilization of “Re-framing of the client’s problem definition” has been operationalized as: “I often coach the client to help them see the policy problem in different ways.”

For the second stage of policy analysis where intellectual interventions and forecasting take place according to the stages approach and the Model, intervention and prediction of lab-solutions (modeling): to measure intensity of the strategy “Trade-offs amongst mental solutions and feasibility criteria,” I used an item as below: “Before draft solutions become formal alternatives I compare them on a number of dimensions and trade-offs.”

For the policy analysis stage of selecting policy alternatives: the methodological technique of “avoiding straw solutions,” the questionnaire statement reads: “I craft weak solutions when I want to make other policy alternatives appear stronger.”*

The stage of communication: reporting, lobbying, advocacy, argumentation, measuring, for instance, intensity of utilization of the approach of “acknowledging the weaknesses of an

---

28 This data will answer: **RQ2:** Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity of use by social unit by cultural bias? **RQ3:** Whether and to what extent is the use of policy analysis methods (i.e., approaches, strategies, and techniques), by each particular policy analysis stage, susceptible to cultural bias?
argument,” operationalized as, “I think it is strategic to refer to a weakness of my preferred solution, when communicating about it.”

*Designing implementation:* Measuring intensity of utilization of an approach such as, “Considering implementation from the onset of the PA process” has been operationalized to trigger response as “I don't start thinking about engineering the implementation until we are close to approval of the alternative.”*

**Additional Methodological Considerations in Questionnaire Design**

**Scales**

The Questionnaire uses a 4-point Likert scale, instead of a normatively used 5-point scale. The latter typically includes a “neither agree/disagree” neutral category. This decision was informed by the field context given the sensitivity of asking questions about “culture” in official governmental settings as well inquiry regarding methodological practices and craft routines concerning the critical public policy analysis function. These may have encouraged the respondents to divert to a neutral category which would have skewed the findings and their reliability. 29 The common opinion in questionnaire design is that “the optimum number of alternatives is between four and seven. With fewer than four alternatives the reliability and validity decrease, and from seven alternatives onwards psychometric properties of the scale scarcely increase further” (Lozano et al., 2008).

**Demographic Data**

Section 3, items 123–126, gathered demographic data on the profile of the respondents and are those typically gathered in social scientific research: age, gender, education, and years of experience with policy analytic work. 30 While group grid theory does not consider these

---

29 The questionnaire utilized a 5-point scale in the original version of the questionnaire tool and respondents diverted to the neutral category (for further information reference: Appendix 1.0: Improvements to Tools).
30 Respondents identified their age, gender, education, and years of experience as a policy analyst.
interfering variables, they could add at least two interesting perspectives in the analysis of findings, especially as regards the effect on cultural bias (age and gender) and the adherence to and utilization of systematic policy analysis (tenure and education).

**Open-ended Semi-Structured Interviews**

The interviews are critical in collecting data because they provide the opportunity to ask detailed questions Explicating the variables (Ragin, 2003; Shaw et al., 2004) firsthand. This supports interpretation of the quantitative questionnaire data. Interviews were not recorded because there is evidence that respondents will not be as forthcoming under such circumstances (Speer & Hutchby, 2003). Creating a safe, confidential space for interviewees added tremendous validity to our findings. The interviews were undertaken by two raters at the same time capturing notes and supporting the lead interviewer.

**Part 1 of the Interview**

The first part of the interviews provided seven overarching questions. Question 1 invited the respondents to comment on the Grid dynamic of culture asking about restraining and imposing policy analysis methods, and Question 2, elicited information about the Group dynamic by asking about how policy analysts interact and accept and conform to the social unit grid. An example of the lead questions assessing contextual restraints (Grid): “Would you say things are more top-down or bottom-up where you work?” Interviewee answers suggest the degree of imposition of restraints in the social unit. For acceptance to conformity (Group): “Do you interact with colleagues regularly at work?” responses projected how cohesive policy analysts are within the group.

Questions 3–7 invited the respondents to discuss in general terms how the utilization of core systematic policy analysis methods are imposed, and again whether and to what extent they
accept them, and conform at each policy analysis stage, that is, “Could you tell us about how you go about defining the problem?” “How do you forecast solutions?”

**Part 2 of the Interview**

Following the administration of the first set of seven structured questions, the interviewer revisits each component of culture, and every core, systematic, operationalized method of policy analysis using prompts to extract further information. Examples of those prompts include (grid): “Do you get any direction on your policy analysis?” (group): “Do you work with other analysts, on your analyses?” These are more targeted questions providing the opportunity for interviewees to describe restraints, how they are imposed, and the extent to which the group chooses to accept.

Sample interview question prompts, seeking more detail primarily concerning the utilization of core systematic policy analysis methods, can also provide insights into the causation of culture:

*Problem definition:* “How are problems identified?” This question can trigger further description of utilization of core systematic methods such as structure, inclusion of deficit, and excess concepts within the problem statement.

*Intervention and prediction of lab-solutions (modeling):* “How do you test solutions?” This statement is intended to elicit greater detail on the nature of a model, its lens, and the types of data used.

*Selecting policy alternatives:* “How is the final alternative selected?” Interviewees may comment on whether core systematic methods, such as decision criteria to compare alternative strengths and weakness, are formalized, if any criteria is weighted, if a matrix format is adapted and so on.
Communication, advocacy, argumentation: “How do you go about communicating and defending the alternative to the public?” This prompt aims to trigger a dialogue on whether values are central considerations, how communication occurs, and what tricks and tactics such as changing venues or co-optation are used.

Designing implementation: “Tell us about design considerations when it comes to implementation?” Answers to this question provide feedback on the degree of prescriptiveness of plans, whether “fixers” or other leaders are secured, if metrics are in place to track compliance, and provides an opportunity to understand whether the grid imposes such restraints. Each datum point reflects the ASTs and their respective use and can imply a more or less intense imposition (grid) and conformity of analysts in using these systematic methods.

Content Analysis of Documents

To uncover additional qualitative data to contextualize the findings obtained in the questionnaire and the interviews, a content analysis was undertaken of documents that elaborate on the culture and normative analytic practice. Since second hand documents are biased by the motives of their originators and would have gone through several manipulations or recycling stations before reaching the analyst (Geva-May, 2023), the content analysis had to ensure relation to the Model’s conceptualization of culture, core systematic policy analysis methods, and causation between variables. Therefore, the documents analyzed in the study were those that our objects of analysis had either created within the social unit context or referenced or followed as part of their operational roles.

To be specific, the following documents were requested for assessment in each social unit: (a) any policies or procedures speaking to collaboration within and between departments undertaking policy analysis; (b) guidelines and/or templates for policy recommendations,
legislative changes, and directives on documents or presentations for action, for submission to Executive Council, Cabinet equivalent; (c) Treasury Board documents regarding onboarding into the public service (that are relevant to the objects of analysis in the study); (d) mandatory tools, templates, or directions for inclusion of particular analytic craft routine that are mandated by the Executive Council/Cabinet Office (or department); (e) departmental and government-wide strategic plans including any vision, mission, and value statements.

For example, the pre-set keywords used to assess social unit cultural bias were: imposition of core systematic policy analysis methods, contextual restraints of the grid, *circumscription*: schedules, deliverables, timelines, rules; *rigidity*: preference, templates, format; and for acceptance to conform: choice, preference, templates, format. These keywords often helped lead double-raters to passages reinforcing imposition of restraints concerning methods. In order to assess conformity of the group, double raters searched for terms such for *group cohesion*: unit, team, group, interaction; and *choice*: decisions, proposal, protocol, selection.

The keywords were employed to assess the use of core systematic policy analysis methods according to each stage of policy analysis. The keywords indicated the intensity of use of the core systematic methods operationalized in the study.

For *problem definition*: problem, issue, structure, precision, “too” much/little, mapping, values – potentially revealing the utilization of methods such as re-framing, backwards mapping, and formality of data collection.

*Intervention and prediction of lab-solutions (modeling)*: model, forecast, resilience, criteria, benefit, weighting, quantitative, qualitative – related to methods such as model accuracy, validation of outputs with stakeholders, assessing trade-offs.
Policy alternatives selection: alternative, solution, feasibility, choice, equality, change, compare, matrix, standardization – alerting double raters to considerations of equity, standard sets of criteria, and inclusion of status quo options.

Communication, advocacy, argumentation: communications, facts, ethics, audience, venue, discourse, jargon, channels – revealing priority use of hard facts, or ethics in argument, jargon.

Designing implementation: implementation, plan, preparation, termination, consultation, incremental, leadership, metrics – denoting potential use of drawer proposals, monitoring, and incremental approaches. Each prompt above can elicit colloquial responses regarding a cultural bias of the social unit in which policy analysis occurs.

I now discuss the analysis of the data collected by the tools.

Analysis of Data Collected by the Battery of Tools

This next section will describe the statistical analysis of the quantitative data as well as the analysis of qualitative data by double-raters.

Analysis of Questionnaire Data

In this study, the questionnaire data, the mean scores, and their standard deviations assess the intensity of the imposition of restraints within the social unit (grid), the degree of the acceptance to conform to them by policy analysts (group), and the utilization of core systematic policy analysis methods. Given the criteria applied, the total scores for each variable indicate the overall degree of intensity of those factors, for each social unit. The standard deviations of each score assess the spread of the minimum and maximum responses to the scale or item. The higher the standard deviation the less cohesive the results, as this would indicate deviation in responses amongst social unit members. The broader the responses, the less valid both the results received
and the reliability of the questionnaire item(s), because this signals lack of agreement by respondents.

The mean scores provide a direct answer to the RQs 1 and 2, seeking to establish (1) the cultural bias of each social unit as they indicate the degree of interaction of grid and group within a social unit; and (2) the degree of usage of core systematic policy analysis methods, at each policy analysis stage.

The regression analysis provides the direction and intensity of any causality between the independent and dependent variables. A Pearson’s correlation co-efficient indicates the strength of the relationship between variables and a present value (denoted as p-value) examines whether and to what extent the causal relationship is statistically significant. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant. The intent of identifying the p-value is to assess the statistical significance of the causal relationships to demonstrate that those relationships tested were trustworthy (Bretherton & Oppenheim, 2003; Oppenheim, 1966).

**Analysis of Interviews Data**

The interview data was analyzed to contextualize and provide more meaning to the data obtained from the questionnaire and content analysis data. Double-raters entered paraphrases and exact quotations into the data collection tool. Each instance was aligned with the variables assessed in the study (i.e., corresponding to culture of the social unit, the grid or the group), and

---

31 Note: Another statistical procedure was applied to the quantitative questionnaire data in the Analysis of Variance (ANOVA). This procedure will identify whether and to what extent the demographic variables account for the causal relationships versus the independent variable identified (i.e., if culture is the main predictor of the causal relationship or do we see causation because of the respondents’ gender, education, age or length of service. See Chapter 5, “Directions for Future Research”).
to a stage of policy analysis and relevant systematic core policy analysis methods. Double raters then compared paraphrases and quotations and assigned a criterion of intensity. This was uniform across the interview and content analysis tools as far as explicating the questionnaire data. At times, the data garnered from the interviews did not inform a variable in the study. At others, the data was more descriptive of culture or a systematic method, hence the intensity was not characterized but the quantitative questionnaire findings benefited from further description. When the latter occurred, an entry of N/A was made in the collection tool. A final step of analysis was to triangulate the findings from the interview data with the corresponding variable assessed by the questionnaire and content analysis.

**Analysis of Content Analysis Data**

The content analysis data shed additional light on the questionnaire and interviews data. Printed text in essence is factual and pre-formulated, devoid of any predisposition that particular respondents might have biasing their responses. Double-raters identified a series of pre-set key terms to help lead them to words or phrases speaking to the variables in the study. That text was contained in the documents obtained from social units.

Where a passage of text was identified by a keyword search and/or was noted as representing a variable being assessed, the relevant text passage was copied and pasted from the document. The passage of text was pasted into the data collection tool and categorized by variable (Elston & Fulop, 2002; Erlingsson & Brysiewicz, 2017; Hodder, 1994; Shaw et al., 2002). The intensity of the entry was subjected to the study’s criteria, and text passages were lifted from the documents that added evidence of intensity and/or more description of the dimensions of culture or upon core systematic methods of policy analysis.
Validity

Validity concerns truthfulness, the extent to which the Battery measures what it is intended to measure (internal validity) and also whether these findings are generalizable (external validity).

A first step in establishing both internal and external validity is to ensure the measurement tools are valid instruments. That is, that they are sensitive enough to capture the variables they intend to measure. Pertaining to establishing credible and trustworthy measurement instruments, data is trustworthy given the instruments are measuring what they intend to measure (i.e., cultural bias and the utilization of core systematic methods of policy analysis). This was ensured by a careful selection of relevant objects of analysis and the targeted selection of sub-variables pertaining to the variables under study. Thus, the Battery having carefully translated those variables through the operationalization in a manner understandable to and objects and thereby suitable to the objects of the study.

The study is further internally valid, having identified a causal relationship between the independent variable, cultural bias, and the dependent variable, utilization of core systematic methods of policy analysis. The regression analysis confirmed a positive causal, statistically significant relationship between the independent and dependent variables (Refer to Chapter 4: Findings & Presentation of Data).

External validity is obtained as we can generalize findings. In each of the five jurisdictions, the utilization of core systematic policy analysis methods, across various policy analysis stages, demonstrated susceptibility to cultural bias (Refer to Chapter 4: Findings & Presentation of Data).
The triangulation of statements (questionnaire), questions and prompts (interviews), and keywords (content analysis) measuring the same variables across each tool and all cases, strengthened the conclusions (See for instance: Chapter 4: Findings & Presentation of Data, “Triangulation of Questionnaire Data with Interviews and Content Analysis”, and throughout).

**Reliability**

Reliability concerns precision, that is, the consistency of data obtained. The following section describes how each tool in the Battery was constructed and administered to advance the reliability of the data obtained by application of the Battery.

**Questionnaire Reliability**

Reliability was advanced through the split-half design and randomly reverse coded questionnaire entries. The split-half questions were validated through a principle’s component analysis. A few questionnaire items were “refreshed” in order that the statements more accurately reflect intent (i.e., to better ask the question). For instance, for *In-Context Problem Diagnosis and Definition*, the entry representing the approach of incorporating the solution within the definition, was revised from: “I never embed solutions when I articulate the policy problem” to “I usually plant the solution inside my problem statement.” The questionnaire was piloted twice: in a pre-pilot and in a pilot, given the need for particularly sensitive and precise statements in order to elicit the nuances of culture (Geva-May, 2002; Klitgaard, 1998). For further details, review Appendix 1.0: Improvements to Tools.

A Cronbach’s Alpha statistical test assessed reliability and measured the internal consistency of questionnaire item responses and scale validity for each variable. The Cronbach Alpha procedure produces a reliability coefficient for each variable in the questionnaire. The

---

32 The following items are reverse coded: 4, 6, 8 17, 25, 26, 28, 31, 34, 38, 40, 42, 58, 62, 64, 66, 72, 74, 77, 82, 84, 86, 88, 91, 94, 104, 106, 108, 110, 118, 120, 122.
values achieved demonstrate a strong level of consistency in response patterns for the independent variable cultural bias ($\alpha=0.79$) overall (which is comprised of the components of Grid and Group). Specifically, the values exhibit a strong level of consistency for the component of Grid ($\alpha=0.76$) and a moderate level for the variable Group ($\alpha=0.43$).\(^{33}\) A strong level of agreement was also confirmed for core systematic methods of policy analysis ($\alpha=0.87$). Reliability was obtained by strong levels of agreement in response patterns for the PAMs corresponding to the problem definition stage ($\alpha=0.78$), communication, advocacy, and argumentation stage ($\alpha=0.77$) and the designing implementation ($\alpha=0.65$) stages. The scale for intervention and prediction of solutions (modeling) stage ($\alpha=0.50$), and at the selecting policy alternatives stage ($\alpha=0.46$) indicate more moderate degrees of reliability.\(^{34}\)

A regression analysis and assignment of a resultant Pearson’s correlation coefficient identified relationships and assessed the direction and intensity of causation between the independent and dependent variables. A Pearson’s correlation co-efficient (denoted as “r”) having a value $>|0.7|$ can be assessed as a strong correlation, a co-efficient between $|0.4 – 0.7|$ a moderate correlation, and a Pearson’s $r$ below $|0.4|$ suggests a weaker relationship.\(^{35}\)

\(^{33}\) Based on the reliability coefficient, the questionnaire tool does a better job of measuring the components of Grid than the components of Group. When assessing the reliability of the questionnaire tool for contextual Cultural Bias (combining scales measuring both components of culture), the reliability coefficient demonstrated a tight level of reliability for Cultural Bias ($\alpha=0.79$). The stronger reliability coefficient indicates greater reliability is achieved when each component of culture measured is included within the scale assessing contextual Cultural Bias. From a theoretical perspective this speaks to the relevance of the juxtaposition of these social relations components of culture underpinning and turning out a dominant Cultural Bias.

\(^{34}\) The weaker reliability achieved for the scales measuring Forecasting Outcomes/Modeling Solutions and Alternative Selection may indicate weaker assembly of ASTs identified in the literature by myself, their alignment to unique analytic stages, and/or a less advanced operationalization of those components given more feeble questionnaire item wording.

\(^{35}\) Note: although Pearson’s $r$ below $|0.3|$ may be statistically significant, it is not a practically significant result worth exploring.
Interviews Reliability

The pre-determined questions stem directly from or expand on the statements in the questionnaire. For validity, the same prompts were used across all interviews and are directed by the Model, and the literature on gg-CT. Standardized coding and collection instruments were used to capture and organize the information per variable. This assessment instrument was based on suggestions raised by Abbott et al. (2004), Hammer & Wildavsky (1994), and Ragin (2003). Reliability was further advanced though a double-rater approach, given that double-raters included direct paraphrases and exact quotations corresponding to each component of culture, and to each method reflecting a potential utilization, across each stage of policy analysis. Double raters then compared and assembled quotations in alignment with each of the variables in the study. While this method is highly subjective it relies on the researcher’s knowledge of the domain (Saldaña, 2015) and the precision of the assessment instrument. Finally, the interview data has been triangulated with questionnaire and content analysis findings, and cross-analyzed applying the common criteria (see section above, “Criteria”).

Content Analysis Reliability

As for the interviews, the assessment was based on a double-rater approach involving experienced raters to ensure reliability. Given the potential subjectivity of content analysis the study applied a step-by-step replicability and reliability process adapted from Budd and Thorp (1963). To support reliable interpretation, the relevant text passages were processed as raw data into units of meaning through condensation (i.e., a passage identified aligned to a variable in the assessment and collection tool). A variable coding template was applied as given the criteria established (Elston & Fulop, 2002; Erlingsson & Brysiewicz, 2017; Hodder, 1994; Shaw et al., 2002). The data was triangulated with the questionnaire and interview findings.
By administering the Battery of Tools multiple times in numerous contexts, refining the tools and the fact that they returned consistent results across criteria, their internal and external validity, and overall reliability has been confirmed.

**The Field Study**

The field study occurred between January 2020 and April 2020. The Principal Investigator (PI) sent a recruitment letter to the 14 Executive Council Offices or equivalent in each provincial/territorial Cabinet in Canada. Those jurisdictions interested in discussing participation ultimately replied to the email invitation. The PI scheduled a subsequent meeting with an executive-level bureaucrat who could authorize the participation of the jurisdiction, to discuss participation, and to provide an overview of the aims and scope of the study (refer to Appendix 2.0: Invitation for a Jurisdiction to Participate in a Research Study).

This invitation was authorized by the Carleton University Research Ethics Office. Clearance for access to research subjects was confirmed at participating institutions by their senior leadership (for further details, refer to the section below, “Ethical Considerations”).

The respondents in the field study (questionnaire N=85; interviews N=21; content analysis N=62) represented a variety of small departments in Atlantic Canada, the Prairies and the Territories. This provides for a comprehensive Canadian case study at the macro-level, and a rich backdrop for a comparative analysis between social units because of their similarities and differences (see discussion in Objects above).

Of the 14 provinces and territories approached, five were included in the field study, one was utilized as a pilot, two other jurisdictions did not participate given confidentiality concerns, and the other six jurisdictions did not participate because of a lack of interest.
Battery of Tools Administration

The following section details how the quantitative and qualitative tools where administered to the objects of analysis of the object social units.

Questionnaire Administration

The questionnaire was administered to the objects of analysis: the five policy analysis units in five regional jurisdictions and participating policy analysts. We received a total of N=85/177 respondents in all units which is a 63% response rate: Social Unit “1” (N=20), Social Unit “2” (N=21), Social Unit “3” (N=10) Social Unit “4” (N=25); Social Unit “5” (N=9). The invitation was signed by the PI and was sent internally by a senior official acting as the sponsor of the research. Once the embedded link was clicked to take the respondent to the online questionnaire, an informed consent form was completed in order to progress to the questionnaire (Appendix 3.0: Invitation to Participate in a Questionnaire). A copy of the email invitation was available in both official languages.

Interviews Administration

In total, N=21 interviews were completed: Social Unit “1” (N=6), Social Unit “2” (N=8), Social Unit “3” (N=2) Social Unit “4” (N=3); Social Unit “5” (N=2). On average, interviews lasted for about 30 minutes. The interviewees are questionnaire respondents (Question 129) who self-identified to participate in an interview and provided their details, responding to Question #129 in the questionnaire: “Please supply your name, position, email and telephone number in the spaces provided below if you would like to be approached for a 30 confidential interview.” Prior to the interviews (which were held remotely by phone), subsequent information was sent to interviewees in their preferred language (refer to Appendix 4.0: Invitation to Participate in an Interview Process).
Content Analysis Administration

A total of 37 strategy documents, primarily shedding light on the culture of the social unit, and 16 instances of documentation pertaining to policy analysis methodology were analyzed: Social unit “1” = 18 strategy documents and 12 policy analysis documents; Social unit “2” = 7 strategy documents and 1 policy analysis document; Social unit “3” = 3 strategy documents and 0 policy analysis documents; Social unit “4” = 2 strategy documents and 3 policy analysis documents; and Social unit “5” = 7 strategy documents and 1 policy analysis document. A formal request was sent for documents (refer to Appendix 5.0: Document Request).

Ethical Considerations

Ethical conduct was an essential consideration of the data collection process. A statement of the ethical guidelines was shared with the participants, with an emphasis on the right to withdraw at any time. The study’s purpose and process was clearly explained to participants. Participation was on a voluntary basis. Participants all provided their consent by indicating their agreement to an online form for the questionnaire, and by signing, scanning, and emailing to the PI an informed consent for interviews form. Informed consent messaging was approved by the Carleton University Research Ethics Board (refer to Appendix 6.0: Informed Consent to Participate in an Online Questionnaire and Appendix 7.0: Informed Consent to Participate in an Interview Process).

Given the politically charged environment concerning policy analysis, the confidentiality concerns of each jurisdiction, and the potential professional risk of backlash to participants, protecting the identity and confidentiality of responses and data were critical. As an example, two jurisdictions which declined to participate due to potential leakage of confidential information.
The PI agreed with departments and individuals that they would remain anonymous through data collection, and in the data presentation and findings. The descriptive writing (refer to Chapter 4: Findings & Presentation of Data) is not so extensive that the identity of individual participants can be determined. Providing a safe and secure environment to protect identity included the storage of data as demonstrated to the Research Ethics Board. The interview documents were coded by numbers so that interviewees could not be identified. Documents analyzed are not referenced in the reference list to this dissertation.

Summary

This study has served as a demonstration of complexity and rigor in developing a reliable and valid methodology to operationalize the Geva-May Model, prove my contentions, and inform the questions posed by the study. This study’s findings have proven that policy analysis is indeed susceptible to culture. It has validated a model of practice by cultural bias and advanced theory, offering an applied method to advance capability for field practitioners. Chapter 4: Findings and Presentation of Data, now provides the information to answer the research questions and advance the Hypothesis.
Chapter 4: Findings & Presentation of Data

In this chapter I will present, analyze, and discuss the findings obtained in this comparative multiple case study. The findings and the analysis (a) provide the evidence to answer the research questions (RQs) and to support the Hypothesis, (b) test the reliability and validity of the operationalized Geva-May Model, and (c) confirm the validity and reliability of the Battery of Tools developed and tailored for this study.

In this chapter, the examination of the data collected identifies each social unit cultural bias (independent variable), the intensity of use of core methods of policy analysis at unique stages of policy analysis (dependent variable) and presents the causal relationships between these independent and dependent variables. The data were analyzed to answer the research questions and test the Hypothesis of this study.

The Battery of Tools have proven reliable, given their standardization across object social units reproducing similar results. For the questionnaire data, the Cronbach’s Alpha statistical test assessed scale reliability, and measured the internal consistency of questionnaire item responses. The values achieved demonstrate a strong level of consistency in item response patterns for the independent variable cultural bias (α=0.79) overall (which is comprised of the components of Grid and Group).36 A strong level of agreement was also confirmed for core systematic methods of policy analysis (α=0.87).37

---

36 Specifically, the values exhibit a strong level of consistency for the component of Grid (α=0.76) and a moderate level for the variable Group (α=0.43). Based on the reliability coefficient, the questionnaire tool does a better job of measuring the components of grid than the components of group. When assessing the reliability of the questionnaire tool for contextual cultural bias (combining scales measuring both dimensions of culture), the reliability coefficient demonstrates a high degree of reliability for cultural bias (α=0.79). The stronger reliability coefficient indicates greater reliability is achieved when each dimension of culture is included within the scale assessing contextual cultural bias. From a theoretical perspective, this speaks to the relevance of the juxtaposition of these dimensions of culture.

37 Reliability was obtained by strong levels of agreement in response patterns for the core systematic methods of policy analysis corresponding to the problem definition stage (α=0.78), communication, advocacy, and argumentation stage (α=0.77) and the designing implementation (α=0.65) stages. The scale for intervention and prediction of solutions
Confirming the Hypothesis

The Hypothesis underlying this study is that policy analysis is susceptible to cultural bias. The study confirms the Hypothesis, showing in significant detail whether and to what extent the use of core systematic methods of policy analysis are susceptible to the cultural bias of the social unit in which policy analysis occurs.

Both the statistical quantitative data and the qualitative data (which explains the primary quantitative data points) support the relatability and validity of the study’s findings study. Data has been obtained through the administration of a Battery of three Tools developed specifically for this study. The data demonstrates strong causal relationships wherein the intensity of use of core systematic methods of policy analysis (dependent variable as per the Hypothesis) are indeed dependent on the cultural bias of the social unit in which policy analysis takes place (independent variable as per the Hypothesis).

For measurement purposes, a series of approaches, strategies, and techniques (ASTs) at each stage of policy analysis, have been operationalized to account for the intensity of the dependent variable use of core policy analysis methods. As well, as per gg-CT, each dimension of cultural bias (i.e., the grid and group) have been operationalized and assessed as the independent variable in this study. The intensity in strength of use and intensity of dimensions of cultural bias are analyzed to provide characteristic data pertaining to each object social unit. The causal relationships between these variables are also measured and tested. Various analyses underpin the validation of the Hypothesis of this study.

\( \alpha = 0.50 \) at the selecting policy alternatives stage and \( \alpha = 0.46 \) indicate more moderate degrees of reliability.
To confirm the Hypothesis, a regression analysis was undertaken for all social units’ cultural bias and all use of systematic policy analytic core methods. It identified an overall positive causal relationship (r=0.58) between cultural bias and use of core systematic policy analysis methods, at an extremely high degree of statistical significance (p-value=<0.0001). This indicates that cultural bias affects the intensity of use of core systematic methods of policy analysis. This shows that the greater the imposition of restraints in the social unit (grid) context, and the greater the cohesiveness to conform to those restraints by policy analysts (group), the greater the use of core systematic policy analysis methods.

**Figure 5.0**

*Causation: Susceptibility of All Core Systematic Methods to All Social Units Grid (Imposition/Restraints) and Group (Acceptance/Conformity)*

Figure 5.0 is a visual example of the direction and intensity of the relationship between the cultural bias of all social units and the intensity of use of all core systematic policy analysis methods. This positive, linear regression shows the position of the respondents in relation to both variables measured. The closer the cluster of responses to the line, the more cohesive the responses.
To a similar end, a regression analysis was undertaken for each dimension of culture (i.e., the grid dimension and the group dimension) to ascertain if either dimension accounting for cultural bias was a more significant, stronger predictor of use of core systematic methods. It presented positive and highly statistically significant relationships between each dimension of cultural bias, grid \((r=0.54; p\text{-value}=<0.0001)\) and group \((r=0.55; p\text{-value}=<0.0001)\).

Table 5.0

*Causation: Susceptibility of All Core Systematic Methods to All Social Units by Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity)*

<table>
<thead>
<tr>
<th>A All Social Units Cultural Bias</th>
<th>B Dimensions of Cultural Bias</th>
<th>C Susceptibility of All Core Systematic Methods of Policy Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid (Imposition/Restraints)</td>
<td>Susceptibility of Use by Grid (Imposition/Restraints)</td>
<td>0.54030 (moderate) &lt;0.0001 (highly significant)</td>
</tr>
<tr>
<td>Group (Acceptance/Conformity)</td>
<td>Susceptibility of Use by Group (Acceptance/Conformity)</td>
<td>0.54711 (moderate) &lt;0.0001 (highly significant)</td>
</tr>
</tbody>
</table>

Criteria: A Pearson’s correlation co-efficient having a value \(>|0.7|\) can be assessed as a strong correlation; a co-efficient between \([0.4 – 0.7]\) a moderate correlation, a Pearson’s \(r\) below \(0.4\) suggests a weaker relationship. Note: although a Pearson’s \(r\) below \(0.3\) may be statistically significant, it is not a practically significant result worth exploring. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant.

For each dimension of cultural bias, the direction and intensity of the relationships indicate that the greater the intensity of the grid, and the greater the intensity of the group, the greater the intensity of use of core systematic methods of policy analysis. Each dimension of cultural bias affects the use of core systematic methods to a similar extent (grid: \(r=0.54\); group: \(r=0.55\)).
Susceptibility of All Approaches, Strategies, and Techniques to Each Dimension of Cultural Bias

To further test the Hypothesis beyond the effect on the amalgam of methods across all stages of policy analysis, I queried the degree of causation between cultural bias and the effect of that independent variable on each category of ASTs, again across all stages in entirety.

Again, the data demonstrates highly statistically significant causation. In fact, positive causal relationships exist between the grid dimension of cultural bias (accounting for the imposition of restraints) and the use of core approaches to policy analysis (r=0.51; p-value <0.0001); core strategies (r=0.48; p-value <0.0001); and core techniques (r=0.45; p-value (0.0002). For the group dimension, causal relationships are similar, affecting the use of policy analysis approaches (r=0.48; and a p-value <0.0001); strategies (r=0.47; p-value <0.0001); and core techniques of policy analysis (r=0.50; p-value (<0.0001).

These findings show that the greater the grid and the greater the group the greater the use of core methods of policy analysis. Social units with a higher group will use core systematic methods more readily in their policy analyses than social units with a lower group. That causation tells us that a social unit with a high-grid/high-group will use policy analysis methods the most. Those social units with a low-grid/low-group will use methods the least. In response to gg-CT terminology characterizing cultural bias, high-grid/high-group (hierarchical) social units will use policy analysis methods the most, and low-grid/low-group (individualistic) social units use core methods the least. We would expect that high-grid/low-group (fatalistic) and low-grid/high-group (egalitarian) social units will use core methods to a similar extent, i.e., to a greater extent than individualist social units, and to a lesser extent than hierarchical units.
Regardless of causation, findings from the study in fact confirm this logic. The data consistently demonstrates that the high grid/high group social units use core methods to a greater extent overall than the high grid/low group social units. Note the total mean scores for intensity of use of core systematic methods of policy analysis, at all stages: high grid/high group social unit mean scores: social unit 1: 287.14; social unit 3: 298.80; social unit 4: 289.18; high grid/low group social unit mean scores: social unit 2: 285.27; social unit 5: 278.43 (see Answering Research Question 1 for the data confirming cultural bias of each social unit, and see Answering Research Question 2 on intensity of social unit core methods use by AST, by policy analysis stage, by social unit).

All in all, the dimensions of cultural bias show positive causality with core policy methods use. All relationships are highly statistically significant.

Table 6.0

Causation: Susceptibility of Approaches, Strategies, and Techniques by All Social Units
Grid (Imposition/Restraints) and Group (Acceptance/Conformity)

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Jurisdictions</td>
<td>Component</td>
<td>All Approaches All Stages</td>
<td>All Strategies All Stages</td>
<td>All Techniques All Stages</td>
</tr>
<tr>
<td>Susceptibility of Use by Grid (Imposition/Restraints)</td>
<td>0.50930 (&lt;0.0001)</td>
<td>0.47869 (&lt;0.0001)</td>
<td>0.44890 (0.0002)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderate (highly significant)</td>
<td>Moderate (highly significant)</td>
<td>Moderate (significant)</td>
<td></td>
</tr>
<tr>
<td>Susceptibility of Use by Group (Acceptance/Conformity)</td>
<td>0.48329 (&lt;0.0001)</td>
<td>0.47217 (&lt;0.0001)</td>
<td>0.50057 (&lt;0.0001)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Moderate (highly significant)</td>
<td>Moderate (highly significant)</td>
<td>Moderate (highly significant)</td>
<td></td>
</tr>
</tbody>
</table>

Criteria A Pearson’s correlation coefficient having a value > |0.7| can be assessed as a strong correlation; a coefficient between |0.4 – 0.7| a moderate correlation, a Pearson’s r below |0.4| suggests a weaker relationship. Note: although a Pearson’s r below |0.3| may be statistically significant, it is not a practically significant result worth exploring. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant.
It is noteworthy that in the case of the causality between the grid and techniques of policy analysis, is denoted by a weaker more moderate p-value <0.05 (p-value 0.0002). This demonstrates that the causal relationship is valid yet not as statistically significant between the imposition of restraints (grid) upon approaches and strategies. This provides a strong statement about those aspects of policy analysis that are more or less susceptible to cultural bias, with techniques, occurring as daily practice, being less affected than the more macro aspects of policy analysis such as approaches and strategies.

To conclude, the causal relationships between each dimension of culture are extremely similar in their strength. This shows overall that core methods of policy analysis are equally susceptible to the imposition of restraints (grid) and the extent to which the policy analysts (group) are cohesive, in their acceptance of those restraints.

We will now move to answer each of the RQs in the study. The findings, which shed light on, test, and validate the Hypothesis are based on feedback from the objects across these entries and tools, and whose responses have been assessed using the same uniform criteria.

While past studies have dealt mainly with cultural bias as an independent variable, the focus has been upon broader public policy (Almond & Verba, 1963; Elazar, 1966), institutional form (Almond & Verba, 1980; Inglehart, 1990; Inglehart et al., 1996) public administration or governance approaches (Levi & Zahevi, 2017; Yesilkagit, 2010), and also using culture in order to interpret and explain stakeholder preferences in relation to public policy alternatives (Douglas & Wildavsky, 1983).

No other study is known to me that has undertaken to explore, in depth, the effect of social unit cultural bias (inclusive of gg-CT theoretical conceptualization) on policy analysis core methods use. I also have not identified studies that look into which policy analysis stages and
policy analytic methods are more or less susceptible to culture. The closest contributions are inventories of skill preference accounting for a typology (Mayer Van Daalen & Bots, 2001; Meltsner, 1982) or analytic style (Brans et. al, 2018; Jenkins-Smith, 1982). Whether focused upon single policy analysts or groups of policy analysts, studying the cultural bias of the social unit in which policy analysis occurs, as the causal factor, is unparalleled.

Answering the Research Questions

In order to obtain supporting (or refuting) evidence about the Hypothesis of this study, three key RQs have been devised as part of the research design. As the presentation and analysis below will show, the data obtained underpinning the answers to each RQ is reliable and demonstrates a high degree of statistical significance. A strong level of agreement is denoted by the Cronbach Alpha (α) test of scale reliability for the items measuring cultural bias (α=0.79) and use of core systematic methods of policy analysis (α=0.87). This means that the questionnaire items aiming to measure the independent and dependent variables are measuring the concepts they intend to measure.

Answering Research Question 1

RQ1 underlies this study by identifying the independent variable: What is the identified cultural bias of each one of the object social units?

By answering this question, we identify the cultural bias of the social unit in question. In the case of this study, the findings for RQ1 identify the social unit context as a high-grid/high-group (or hierarchical in CT-gg terms) cultural bias in social units 1, 3, and 4, whereas the data identified social units 2 and 5 as possessing high-grid/low-group (so called by gg-CT a fatalist cultural bias). These overall findings support the contention that the Battery of Tools formulated for this study have the sensitivity and ability to measure and assess such variance.
Quantitative Questionnaire re: Cultural Bias

Below, I relate the study’s findings regarding the cultural bias (independent variable) of each one of the five social units. For the questionnaire, mean scores were analyzed pertaining to the independent variable, cultural bias, and its dimensions of the grid (i.e., the imposition of restraints in the social unit) and the group (i.e., the cohesiveness of object policy analysts in conforming to those restraints). The juxtapose of those dimensions of cultural bias result in a dominant cultural bias characteristic of the social unit (i.e., any combination of the degree of intensity of the contextual grid or the group).

I consider the characteristics of each dimension of culture (i.e., grid and group) pertaining to each one of the social units as per gg-CT. Where the questionnaire data determines a high-grid context, this indicates a stronger, more intensive imposition of restraints (grid). Similarly, a high-group determination occurs where there exists an intense cohesiveness in conforming to those restraints by policy analysts within that specific social unit (group). A low-grid or low-group determination signals a weaker, less intensive imposition of restraints and a weaker cohesiveness in the conformity to those restraints (see Chapter 2: Review of the Literature, “grid/group-Cultural Theory”).

The quantitative findings, extended by the data collected through the 4-point scale Likert questionnaire, point to the relative degree of intensity of the grid and group within the object social units (for data collection procedure see Chapter 3: Methodology, “Operationalizing gg-CT”). The quantitative questionnaire data mean scores identify the dominant cultural bias of each one of the social units. The same criterion was applied to the interviews and content analysis and

---

38 Note: the gg-CT recognizes four types of cultural bias given the intensity of the grid and group elements of culture, and their combinations: high-grid and high-group (hierarchical); high-grid and low group (fatalistic); low-grid and high-group (egalitarian); low-grid and low-group (individualistic).
that qualitative data is used to provide deeper meaning and context underpinning the quantitative
determinations from the questionnaire.

The criteria established for the grid and the group dimensions of culture results in the
following interpretation of the mean scores\(^{39}\): a very low grid (total score between 7.0 – 10.5); low grid (total score >10.5 – 14.0); and a somewhat low grid (total score >14.0 – 17.5); somewhat high grid (total score >17.5 – 21.0); high grid (total score >21.0 – 24.5); and a very high grid (total score >24.5 – 28.0). For the group: very low group (total score between 7.0 – 10.5); low group (total score >10.5 – 14.0); and a somewhat low group (total score >14.0 – 17.5); a somewhat high group (total score >17.5 – 21.0); high group (total score >21.0 – 24.5); and a very high group (total score >24.5 – 28.0).

The data confirms that social units 1, 3, and 4 have a similar cultural bias, characterized by
a high grid and a somewhat high group, according to the grid mean scores: social unit 1 (total
mean=21.15), social unit 3 (total mean=21.60), and social unit 4 (total mean=21.90). The group
mean scores point to social unit 1 (total mean=17.90), social unit 3 (total mean=18.44), and
social unit 4 (total mean=20.80). This juxtaposition of the intensity of the dimensions of cultural
bias results is referred to as a high-grid/high-group cultural bias.

Social units 2 and 5 have a somewhat high grid and, in contrast, a somewhat low group.
Thus, as per gg-CT, they have a high-grid/low-group cultural bias. The grid and group respective
mean scores in these two units are: social unit 2 (mean=20.81), and social unit 5 (total
mean=17.75); group mean score: social unit 2 (total mean=17.24), and social unit 5 (total

\(^{39}\) Note: In the final study seven items were used to measure the dimension of grid and the dimension of group (see Appendix 1.0: Improvements to Tools).
The key difference between the high-grid/high-group social units 1, 3, and 4 and high-grid/low-group social units 2 and 5 is that in the latter, we find a weaker degree of cohesiveness within the group of analysts conforming to the restraints of the grid.

Table 7.0

Mapping the Cultural Bias of Each Social Unit

<table>
<thead>
<tr>
<th></th>
<th>Contextual Restraints (Grid)</th>
<th>Cohesiveness in Conformity (Group)</th>
<th>Cultural Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Component / Element</td>
<td>Total Score / Mean Score</td>
<td>Std Dev.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Degree of Contextual Constraint</td>
<td>Component / Element</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total Score / Mean Score</td>
<td>Std Dev.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Degree of Pressures to Conform</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Group (Imposition)</td>
<td>Grid (Imposition)</td>
<td>Circumscription</td>
</tr>
<tr>
<td></td>
<td>21.15</td>
<td>2.64</td>
<td>3.13</td>
</tr>
<tr>
<td></td>
<td>Rigidly</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>2.94</td>
<td>somewhat high</td>
<td>Choice</td>
</tr>
<tr>
<td></td>
<td>Grid (Imposition)</td>
<td>20.81</td>
<td>2.64</td>
</tr>
<tr>
<td></td>
<td>Circumscription</td>
<td>somewhat high</td>
<td>somewhat high</td>
</tr>
<tr>
<td></td>
<td>2.86</td>
<td>Group Cohesion</td>
<td>2.22</td>
</tr>
<tr>
<td></td>
<td>Rigidly</td>
<td>High</td>
<td>somewhat high</td>
</tr>
<tr>
<td></td>
<td>3.06</td>
<td>Choice</td>
<td>2.64</td>
</tr>
<tr>
<td></td>
<td>Grid (Imposition)</td>
<td>21.60</td>
<td>2.52</td>
</tr>
<tr>
<td></td>
<td>Circumscription</td>
<td>3.15</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Rigidly</td>
<td>High</td>
<td>Group Cohesion</td>
</tr>
<tr>
<td></td>
<td>3.06</td>
<td>Choice</td>
<td>2.63</td>
</tr>
<tr>
<td></td>
<td>Grid (Imposition)</td>
<td>21.90</td>
<td>2.42</td>
</tr>
<tr>
<td></td>
<td>Circumscription</td>
<td>3.10</td>
<td>High</td>
</tr>
<tr>
<td></td>
<td>Rigidly</td>
<td>High</td>
<td>Group Cohesion</td>
</tr>
<tr>
<td></td>
<td>3.15</td>
<td>Choice</td>
<td>3.13</td>
</tr>
<tr>
<td></td>
<td>Grid (Imposition)</td>
<td>17.75</td>
<td>4.10</td>
</tr>
<tr>
<td></td>
<td>Circumscription</td>
<td>2.38</td>
<td>somewhat low</td>
</tr>
<tr>
<td></td>
<td>Rigidly</td>
<td>somewhat high</td>
<td>Choice</td>
</tr>
<tr>
<td></td>
<td>2.66</td>
<td>somewhat high</td>
<td>2.66</td>
</tr>
</tbody>
</table>

40 In all instances the small values of the Standard Deviations (Std) relative to the mean scores indicate a high consensus in the responses obtained.
In column “A” the grid dimension of cultural bias is represented by the elements of circumscription and rigidity (i.e., the intensity of circumscription pertaining to prescription, and rigidity of rules and directives concerning policy analysis method). Column “F” shows the group dimension of cultural bias as comprised by the elements of cohesion and choice (i.e., the intensity to which the policy analyst group is characterized by cohesion and to which the choices of policy analysts are determined by the group).

A unique observation concerning the group dimension of cultural bias is that all scores for choice (i.e., the intensity of determination of policy analyst choices by the group of other policy analysts) are relatively similar among the five social units (scores: social unit 1 (mean=2.64), social unit 2 (mean=2.56), social unit 3 (mean=2.63), social unit 5 (mean=2.66), and to a lesser extent social unit 4 (mean=3.13)). This would suggest that despite differences in cultural bias between the social units (i.e., social units 1, 3, and 4 demonstrating a somewhat low group context, while social units 2 and 5 demonstrate a somewhat high group context), that policy analysts experiences are similar in all five social units, in that their choices are determined by the broader group.

I point to that anomaly here because in social unit 2 (mean=2.22) and social unit 5 (mean=2.38), the high grid and the somewhat low group units, we find the weakest degree of cohesion (i.e., a weaker degree of integration of policy analysts with other policy analysts).

It is interesting to note that it is the factor of the cohesiveness between policy analysts, not the degree of determination in the choices they make, that primarily accounts for the weaker group overall. In sum and as the table presents, the data identifying the cultural bias of each social unit tells us that:
• Social units 1, 3, and 4 are high-grid/high-group, with social unit 4 being the most “hierarchical” per the gg-CT. Social units 2 and 5 are high-grid/low-group, with social unit 5 the most “fatalistic” per the gg-CT.

• In social units 1, 3, and 4 there is significant imposition of restraints as to using core systematic methods of policy analysis, meaning that the analysts are expected to abide by circumscribed, rigid directives concerning policy analysis methods. In social units 2 and 5, that imposition exists, yet it is not as intense or prescriptive.

• In social units 2 and 5, the lesser intensity of the group is attributed to the weaker degree of cohesion (integration of the group), not ability to exercise choice as group members.

**Triangulation of Questionnaire Data through Interviews and Content Analysis re: Cultural Bias**

The data collected by the interviews and content analyses reinforces the findings of the questionnaire.

In high-grid/high-group social unit 1, interviewees spoke about the intensity of imposition quickly escalating if the group does not conform: “If a department does not include feedback [from Executive Council Office] the culture turns very prescriptive… they even have the same analyst review both versions of the submission.” The content analysis of documents in this unit also pointed to standardization of policy analytic work according to their website containing detailed operational guidance. In terms of group cohesion, one interviewee remarked that, “Collaboration is encouraged in our government, no question we have some typical silo issues like all government, but we really do have a marked effort at collaboration. We have cultivated and nurture that culture.” Documents showed that policy analysts are encouraged to co-develop standard working arrangements with one another, and for collaborating departments to overcome barriers together.
In high-grid/high-group social unit, 3 triangulation of the data also showed intense imposition of constraints, thus supporting the questionnaire findings. For instance, interviewees responded: “We have a document that explains what a policy is, an action plan, a reference framework, a memo… and what each type of document must include.” There was a passage in formal documentation which explained that senior level staff can lawfully choose to make accessible only a portion of the contents of a policy analysis that they submit to the Cabinet. From the high-group perspective, one interviewee commented that “decision-making is according to the teams, the expertise that exists in the different directorates.” Documents analyzed as part of content analysis set the expectation that government will coordinate across ministries on large files.

High-grid/high-group social unit 4 demonstrated significant imposition of restraints, for example through statements such as “I cannot decide the process — most of the time they we follow a standard process. I cannot influence the process, maybe my direct supervisor. [There are] various templates for policy analysis encouraged to be used,” and “[there is] Not much space to deviate or maneuver from process.” Documents referred to three key templates: requesting direction, providing information, and seeking decisions from Cabinet. Documents referenced teamwork, and the intensity of the group stood out in interviews: “It’s a super collaborative environment, with daily discussions with the ADM; in fact, my staff can go to ADM with their ideas, there are no siloes in this department.”

Whereas in the high-grid/low-group social unit 2, data suggested that despite being a high-grid social unit, the grid is not as tight as in social units 1, 3, or 4. This signals a slightly lesser degree of imposition of restraints. For example, one interviewee commented: “It is not top down with a hammer, it’s top down with a dialogue.” Documents implied a highly structured,
preconceived notion of sign-off, by rote. Detail was provided down to a minute level, laying out who signs for what, how the signatures appear, the order of signatories, and their timing required-for a progression of an alternative through to selection. For instance, one interviewee spoke to the siloed nature of the social unit: “We are siloed in files, because there are not enough of us.” Content analysis revealed a 360-degree assessment of the first submission by OEC, which is considered a “draft.” It is revised and re-submitted. OEC must approve submissions before presentation to Cabinet. From the low-group perspective this shows that policy analyses end up conforming to restraints.

High-grid/low-group social unit 5 interviewees, for instance, explained the culture as being “Quite top down. [Which is] Not necessarily a problem.” Documents showed how an independent advisory body external to government serves as a buffer and reviews policy analyses before submissions to government. Reminiscent of the low-group culture, internal collaboration within the department was reported as weak: “From an inter-departmental perspective [there is] not a lot of collaboration, [there is] more internal collaboration,” and “When we realize that our own capacity is insufficient, we reach out to somebody like a consultant to help out.”

To sum up, according to the qualitative data obtained, all five of the social units have a high-grid. Beyond this study’s intent, this is an interesting finding on the nature of Canadian public service social units. Translated into the context of the Geva-May Model and its theoretical conceptualization, and the literature discussing cultural bias, we find in all instances a top-down, imposing culture. A grid that prioritizes a controlled, tightly monitored policy analytic process. The high-grid/high-group contexts of social units 1, 3, and 4 are more purposeful and collaborative in their acceptance of these restraints. The policy analysts in high-grid/low-group
social units 2 and 5 are not as cohesive or steadfast in conforming to that imposition, but nonetheless demonstrate acquiescence.

The study answered RQ1 by assessing the intensity of the contextual restraints constraining policy analysis methods use (grid) and the intensity of cohesion in (the group) accepting those restraints, in each social unit. As per the positive linear relationship identified through the regression analysis, the greater the strength of the grid and group dimensions, the stronger the use of core systematic methods of policy analysis.

Answering Research Question 2

RQ2 seeks to capture the intensity of use of policy analysis core methods by social unit cultural bias:

**Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity of use by social unit by cultural bias?**

Mean scores were used to interpret the intensity of the dependent variable (i.e., the use of core systematic methods of policy analysis). The intensity of use was measured by assessing core methods components use of ASTs by each stage of policy analysis, within each one of the five social units, respectively. In answering RQ2 the intent is to highlight any patterns, irregularities, or susceptibilities that underpin and add context to the causality between the independent variable of culture and core components of policy analysis methodology.

To answer RQ2, I examine the mean scores from the quantitative questionnaire, as supported by interview and content analysis and describe the use of core systematic policy analysis methods, for each social unit, at each stage of policy analysis (see Tables 8.0 through
11.0 presenting the mean scores and interpretations as per the criteria for ASTs of policy analysis; see also sections immediately below presenting the triangulation of data).

A notable pattern emerging is that the high-grid/high-group social units demonstrate a higher intensity of use of core systematic methods than high-grid/low-group social units. Such examples support the view of a causal relationship between cultural bias and policy analysis methods use.

I focus on the five stages of policy analysis and their characteristic methodology (deLeon, 1997; Geva-May with Wildavsky, 1997; Geva-May, 2023), as well as on the ASTs that are normative for each stage (Dunn, 2015; Geva-May, 2023; MacRae & Whittington, 1997; Majone & Quade, 1980; Pal, 2005; Patton et al., 2018; Patton & Sawicki, 1993; Weimer & Vining, 2014).

**Approaches: Policy Analysis Use Intensity by per Five Social Units Cultural Bias**

To begin, for approaches I operationalized 20 methodological components. For each stage of policy analysis we measured four methodological components and operationalized two items (a split-half design) to measure the intensity of the attitude towards each component. This

---

41 For the stage of *problem definition*, whether the respondents use in their policy analyses: (a) structure within definition, (b) avoidance of blatant solution incorporation within definition, (c) re-framing of the client’s problem definition occurs, and (d) the problem definition is expressed in terms of deficit/excess. For the stage of *intervention and prediction of solutions (modeling)* stage, whether and to what degree the respondents use in their policy analyses: (e) modeling full stop, (f) accuracy [as required by a model], (g) expertise to inform model or forecast, and (h) iterative approaches to re-cast models. For the stage of *selecting policy alternatives*, whether and to what degree the respondents use in their policy analyses: (i) information filtering, (j) equity promotion within the alternative, (k) external actors’ collaboration in refining alternatives, and (l) extreme change. For the stage of *communication, advocacy, and argumentation*, whether and to what degree the respondents use in their policy analyses: (m) hard facts within the argument, (n) ethics within the argument, (o) inter-disciplinary views are brought in, and (p) weaknesses and opposing arguments are acknowledged. For the *designing implementation* stage, whether and to what degree the respondents use in their policy analyses: (q) prescription in their plans, (r) coordination/consultation in planning, (s) consideration of implementation from onset of the policy analytic process, and finally (t) change forward (i.e., a swifter implementation).
produces eight items in total measuring the four components, and therefore a potential total mean score of 32.0, for approaches at each stage of policy analysis. For each analytic stage the scores are interpreted as follows: very-irregular use (total score between 8.0 – 12.0); irregular use (total score >12.0 – 16.0); somewhat-irregular use (total score >16.0 – 20.0); and somewhat-regular use (total score >20.0 – 24.0); quite regular use (total score >24.0 – 28.0); very-regular use (total score >28.0 – 32.0).

For the stage of problem definition, in high-grid/high-group social unit 3 the mean scores show the most intense quite regular use (mean=25.00). In contrast, the high-grid/low-group social units 2 (mean=19.88) and 5 (mean=19.29) show the weakest intensity, pointing at somewhat-irregular use.

At the stage of intervention and prediction of solutions (modeling), the data identifies a quite regular use across hierarchical units: social unit 1 (mean=24.21) and social unit 3 (mean=24.14). Interestingly, high-grid/low-group social unit 5 has the highest mean score (mean=25.50), demonstrating again quite regular use.

Both high-grid/high-group social unit 4 (mean=23.14) and high-grid/low-group social unit 2 (mean=23.53) demonstrate intensive use, which is the most frequent display of quite regular use of approaches for any stage. Of note at this stage of policy analysis, there seems to be no pattern with respect to use by cultural bias (i.e., high-grid/high-group and high-grid/low-group social units demonstrating a similar intensity in use of approaches). This suggests that the use of core methods at this stage of policy analysis is well entrenched across social units irrespective of cultural bias.
For all other policy analysis stages and in all jurisdictions, we observe that there is a somewhat regular use of approaches inherent in the selecting policy alternatives stage, the communication, advocacy, and argumentation stage, and the designing implementation stage. I note that although within the common somewhat-regular range, data revealed that the high-grid/low-group social units reported the weakest use of policy analysis approaches, for designing implementation: social unit 2 (mean=21.73), social unit 5 (mean=21.43). This trend for use of policy analysis approaches at implementation design is an example of a pattern identified at other stages for other methods. At times the data shows that the high-grid/low-group social units use core methods to a weaker extent than high-grid/high-group social units.

**Table 8.0**

*Approaches: Policy Analysis Degree of Use Intensity per Each Social Unit by Cultural Bias*

<table>
<thead>
<tr>
<th>Social unit</th>
<th>Social unit cultural bias</th>
<th>Problem definition stage (mean=Std)</th>
<th>Intervention and prediction of solutions (modeling) stage (mean=Std)</th>
<th>Selecting policy alternatives stage (mean=Std)</th>
<th>Communication, advocacy, and argumentation stage (mean=Std)</th>
<th>Designing implementation stage (mean=Std)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Unit 1</td>
<td>high-grid / high-group</td>
<td>21.07 (Std 1.82)</td>
<td>24.21 (Std 2.12)</td>
<td>20.57 (Std 1.45)</td>
<td>21.14 (Std 1.17)</td>
<td>22.36 (Std 1.78)</td>
</tr>
<tr>
<td>Social Unit 2</td>
<td>high-grid / low-group</td>
<td>19.88 (Std 4.01)</td>
<td>23.53 (Std 2.29)</td>
<td>20.40 (Std 2.03)</td>
<td>20.73 (Std 1.58)</td>
<td>21.73 (Std 2.43)</td>
</tr>
<tr>
<td>Social Unit 3</td>
<td>high-grid / high-group</td>
<td>25.00 (Std 3.27)</td>
<td>24.14 (Std 1.35)</td>
<td>21.80 (Std 3.33)</td>
<td>20.00 (Std 2.24)</td>
<td>23.40 (Std 1.82)</td>
</tr>
<tr>
<td>Social Unit 4</td>
<td>high-grid / high-group</td>
<td>21.05 (Std 1.89)</td>
<td>23.14 (Std 1.28)</td>
<td>20.73 (Std 4.93)</td>
<td>21.36 (Std 2.01)</td>
<td>21.86 (Std 1.55)</td>
</tr>
<tr>
<td>Social Unit 5</td>
<td>high-grid / low-group</td>
<td>19.29 (Std 1.50)</td>
<td>25.50 (Std 1.15)</td>
<td>21.14 (Std 3.58)</td>
<td>21.43 (Std 1.40)</td>
<td>21.43 (Std 2.82)</td>
</tr>
</tbody>
</table>
**Approaches: Interviews and Content Analysis: Triangulation of Questionnaire Data Through Interviews and Content Analysis for Reliability and Validity**

For approaches of the *problem definition stage*, interviews reinforced a lesser intensity of use for the high-grid/low-group social units than apparent in the high-grid/high-group. One interviewee from a high-grid/low-group context commented, for example, that “In my world the problem definition is already started for us, told what the problem is and what they imagine the solution to be… comes often partially baked in terms of what they are looking for — often not spending a lot of time on problem definition — that seems to be the case here” (social unit 2). Speaking for high-grid/low-group social unit 5, they said, “Problems generally get defined as part of a conversation. No formal processes.” This reflects the imposition of the grid as per gg-CT and demonstrates how weak group cohesion accepts the view of the problem.

Interviewees in the high-grid/high-group social units demonstrated broad, concerted efforts and focus on the stage of *problem definition*, for instance: “The problem is peeling the onion… why is traffic the issue — we go further and peel the onion to what is the real issue you want to address rather than a symptom of the problem” (social unit 4). The approach to re-frame the client’s (initial) view of the problem appeared well-entrenched in those units: “Once validated by the minister there are several round trips… people can give their point of view freely” (social unit 3). In social unit 1, a provincial “policy analysis model” identifies client-focused communication directing the analyst to attempt to re-frame the client’s view.

Content analysis of documents referenced the approach to ensuring structure is required within the problem statement (high-grid/high-group social unit 4). Documents suggest concise statements of the problem, and use of the approach to ensure significant structure within the problem statement.
The “quite-regular” use of core systematic methods at the *intervention and prediction of solutions (modeling)* stage indicates intense focus on approaches across all the social units. The iterative approaches and re-casting were alluded to, for instance, as: “We go back and forth during modeling and re-consult. Once we have alternatives and we want to test them, we go out again to engage to understand unintentional consequences” (high-grid/high-group social unit 1). Internal collaboration was noted as well, “Once the authorities, the Assistant Deputy Minister’s office agrees with the product, the draft policy must go back and forth with the authorities during its development” (high-grid/high-group social unit 3). There further appears a tendency toward experts as a means to inform models/forecasts: “To us it is an iterative process, we go to literature, to folks in and out of government who are considered experts on this stuff… we refine until we have a solid one… if you have a good understanding of the problem, it points you to the solutions” (high-grid/high-group social unit 4). Respondents commented on the approach to deploy a variety of models: “Modeling is quite ad-hoc. A lot of drafting is bottom up, comes from sifting through research, doing sprints and innovating draft solutions with the team. Working to “protype” solutions.” (high-grid/low-group social unit 2).

**Strategies: Policy Analysis Use Intensity by Five Social Units and Cultural Bias**

For strategies, the study operationalized 16 methodological components.42 Three methodological components were operationalized for the policy analytic stages of *problem definition*, *intervention and prediction of solutions (modeling)*, *selecting policy alternatives*, *communication, advocacy, and argumentation*, and *designing implementation*. For the *problem definition* stage, whether the respondents use in their policy analyses: (a) deconstructing the problem situation/stakeholder mapping, (b) developing multiple problem definitions, and (c) attaching meaning and values attached to problem variables. For the *intervention and prediction of solutions (modeling)* stage, whether and to what degree the respondents use in their policy analyses: (d) developing descriptive (problem) models, (e) developing prescriptive (solution) models, (f) validating models with stakeholders, and (g) assessing trade-offs amongst lab solutions against feasibility criteria. For the stage of *selecting policy alternatives*, whether and to what degree the respondents use in their policy analyses: (h) assessing alternative solutions against standard criteria, (i) that the status quo is presented as an option, and (j) standard sets of feasibility criteria application. For the stage of *communication, advocacy, and argumentation*, whether and to what degree the respondents use in their policy analyses: (k) applying reframing/strategic discourse, (l) using co-optation, and (m) deliberately ordering agendas (to take advantage of political or problem windows). For the *designing implementation*
definition, selecting policy alternatives, communication, advocacy, and argumentation, and designing implementation. Deploying a split-half design to measure each methodological component results in six items in total, and therefore a potential minimum mean score of 6.0 and a total mean score of 24.0.

The total mean scores indicate the following: very irregular use (total score between 6.0 – 9.0), irregular use (total score >9.0 – 12.0), somewhat irregular use (total score >12.0 – 15.0), and somewhat regular use (total score >15.0 – 18.0), quite regular use (total score >18.0 – 21.0), very regular use (total score >21.0 – 24.0). For the conceptual analytic stage of intervention and prediction of solutions (modeling), we operationalized one additional strategy culminating in a total mean score range of 8.0 – 32.0.

In comparison to the approaches to policy analysis, it appears that other than at the stage of designing implementation there are fewer patterns pertaining to the use of strategies given a social unit’s cultural bias. For instance, for the problem definition stage, surprisingly, the data demonstrates somewhat irregular use of strategies across all social units regardless of cultural bias, whether high-grid/high-group or high-grid/low-group social units. Social unit 1 shows a mean score of 13.21, social unit 2, 13.13, social unit 3, (mean=14.43), social unit 4, (mean=13.82), and social unit 5 (mean=13.43).

Pertaining to the stage of intervention and prediction of solutions (modeling), somewhat regular use was identified for all jurisdictions, except for high-grid/high-group social unit 3 reporting an intensive, quite regular use of strategies (mean score = 24.86).
At the stage of selecting policy alternatives, the data shows a quite regular intensity of use across four social units, seemingly irrespective of cultural bias: high-grid/high-group social units 1 and 4 had mean scores, respectively, of 18.93 and 18.64; high-grid/low-group social units 2 and 5 had mean scores of 18.07 and 18.71. Note that high-grid/high-group social unit 3 (mean=16.33) exhibited a somewhat regular intensity.

We find a weaker use of policy analysis strategies noted at the communication, advocacy, and argumentation stage, where social unit 1 (mean score=14.21), social unit 2 (mean score=14.93), and social unit 5 (mean score=14.00) exhibit somewhat irregular use. The least intensity was identified in high-grid/low-group social unit 5. Although at the stage of designing implementation each social unit exhibits a somewhat regular use of strategies, we find that the high-grid/low-group social unit 2 (mean=15.27) and social unit 5 (mean=15.24) report the weakest degree of use.

Table 9.0

<table>
<thead>
<tr>
<th>Strategies: Degree of Policy Analysis Use Intensity per Five Social Units by Cultural Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Social Unit 1</td>
</tr>
<tr>
<td>Social Unit 2</td>
</tr>
<tr>
<td>Social Unit 3</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Social Unit 4 | high-grid / high-group | Somewhat Irregular | Somewhat Regular | Quite Regular | Somewhat Regular | Somewhat Regular
Social Unit 5 | high-grid / low-group | 13.43 (Std 0.98) | 22.29 (Std 2.98) | 18.71 (Std 2.43) | 14.00 (Std 2.08) | 15.14 (Std 1.46)

**Strategies: Interviews and Content Analysis: Triangulation of Questionnaire Data Through Interviews and Content Analysis for Reliability and Validity**

In line with the quantitative data, for the stage of problem definition, interviewees referenced in the case of the problem definition stage that: “Data is not formal ‘I’m doing anything formal with data’—just writing notes. I’m usually moving pretty-fast” (high-grid/low-group social unit 5). In high-grid/low-group social unit 2 however, an interviewee remarked on the strategy of attaching meaning and values to problem variables, lacking consistent uptake: “I personally don’t like things to be too ambiguous, so I define variables in problem definition—but there is not a uniform approach.” Documents in social units 1 and 2 referenced the need to assign value to problem a statement. In high-grid/high-group social unit 1, interviewees commented loosely on the strategy to validate models with stakeholders: “We go back and forth during modeling and re-consult,” and in a similar vein “I backward map, includes solution and damage” (high-grid/high-group social unit 4). Across social units, only a single document was identified referring somewhat to the strategy of stakeholder mapping as “informal polling” of stakeholders (high-grid/high-group social unit 3).

For the stage of selecting policy alternatives, all social units referenced use of standard sets of criteria: “I have just been preparing a PowerPoint for policy analysis for our team showing them how to use multi-criteria matrix assessment… to see what the trade-offs are” (high-grid/high-group social unit 4); “Legal, indigenous, consultation, environment, gender are structured components for submission” (high-grid/high-group social unit 1); “[I’m] doing robust impact analysis against standard criteria. Two categories: costs savings and efficiency, and
population outcomes/improvements” (high-grid/low-group social unit 5); “Use of criteria for each alternative/option: use of pros and cons list – she tries to base each one off of the same criteria…” (social unit 2). This speaks to regular use of strategies in the stage of selecting policy alternatives. Content analysis identified mentions of multiple criteria as a cornerstone, in all social units, other than high-grid/low-group social unit 5.

Given the similarities across cultures for the selecting policy alternatives stage, this data may signal a lack of susceptibility of policy analysis by difference in cultural bias. Interviews made heavy reference to the strategy of including the status-quo in the alternative choice: “When I make a recommendation, I present it with more than one scenario, one of which is status quo” (high-grid/high-group social unit 3).

Another aspect that stood out, and which may signal a less intense degree of susceptibility to culture of a particular stage, was the irregular use of strategies at the stage of communication, advocacy, and argumentation. Interviews and content analysis made scant reference to any strategies used. In each of high-grid/low-group social units 2 and 5, as well as in the high-grid/high-group social unit 1, questionnaire data did identify a common theme of irregular ordering of the agenda (social unit 1: mean=2.04; social unit 2: mean=2.17; social unit 5: mean=2.00). However, each social unit reported a regular intensity of use of the co-optation method (social unit 1: mean=2.5; social unit 2: mean=2.7; social unit 5: mean=2.64).

Techniques: Policy Analysis Use Intensity by per Five Social Units’ Cultural Bias

For techniques, I operationalized 18 methodological components. For the policy analytic stages of problem definition and communication, advocacy, and argumentation, the split-half

43 The following techniques have been operationalized as questionnaire statements to shed light on the approaches used in policy analysis: For problem definition, whether the respondents use in their policy analyses: (a) forward/backward mapping, (b) mixed scanning, and (c) formalizing the gathering of data. For the stage of intervention and prediction of solutions (modeling), whether and to what degree the respondents use in their policy
design applied to three methodological components produced a total of six items and therefore a potential minimum mean score of 6.0 and a total mean score of 24.0. The total mean scores indicate the following: very irregular use (total score between 6.0 – 9.0); irregular use (total score >9.0 – 12.0); somewhat irregular use (total score >12.0 – 15.0); and somewhat regular use (total score >15.0 – 18.0); regular use (total score >18.0 – 21.0); very regular use (total score >21.0 – 24.0).

For the conceptual analytic stages of intervention and prediction of solutions (modeling), selecting policy alternatives, and designing implementation, one additional technique was operationalized for a total of four techniques. Therefore, the criteria to assess the total mean scores are as follows: very irregular use (total score between 8.0 – 12.0); irregular use (total score >12.0 – 16.0); somewhat irregular use (total score >16.0 – 20.0); and somewhat regular use (total score >20.0 – 24.0); quite regular use (total score >24.0 – 28.0); very regular use (total score >28.0 – 32.0).

Below are the findings of the intensity of use of the core systematic methods use of policy analysis techniques across all five object social units.

All social units demonstrate a somewhat regular use of the methodological techniques pertinent to the stage of problem definition. Consistent to previous findings, we find the least analyses: (d) meta-model constructs (craft judgements), (e) deploying quantitative models, (f) deploying qualitative models, and (g) forecasting the interaction effects of problem variables. For the stage selecting policy alternatives, whether and to what degree the respondents use in their policy analyses: (h) weighing criteria when assessing alternative strength, (i) exclusion of straw options, (j) avoidance of all-inclusive solutions, and (k) cost-benefit analysis. For the stage of communication, advocacy, and argumentation, whether and to what degree the respondents use in their policy analyses: (l) embedding cultural and value considerations in the argument, (m) considering a strategic change of venues, and (n) keeping the argument clear and simple (by avoiding technical terms or jargon). For designing implementation, whether and to what degree the respondents use in their policy analyses: (o) establishing central-unit or street-level monitoring (as warning systems for compliance/performance), (p) mapping the context for gaming, (q) floating trial balloons, and finally (r) employing rigorous communications at implementation.
intensity of use among the high-grid/low-group social units 2 and 5 (means=15.67 and 15.71, respectively). However, there are no further detectable patterns concerning techniques of policy analysis and social unit cultural bias. These methods appear to be isolated to a particular stage (problem definition for techniques, designing implementation for strategies), and less poignant than the patterns identified respecting general, higher-level approaches.

At the stage of intervention and prediction of solutions (modeling), there was somewhat regular use for social units 1 (mean=20.36), 2 (mean=20.16), and 4 (mean=20.36). The weakest intensity of use was somewhat irregular and was found in high-grid/low-group social unit 5 (mean score=19.29).

At the stage of selecting policy alternatives, three social units reported somewhat irregular use for high-grid/high-group social units 1 (mean=19.43) and social unit 4 (mean=19.64), and for high-grid/low-group social unit 5 (mean=19.00). This signals that there is no detectable pattern of intensity in use of techniques between social unit cultures at this stage.

It is notable that the highest frequency of a somewhat irregular use across the study was found at the policy analysis stage of communication, advocacy, and argumentation, irrespective of cultural bias: social unit 1 (mean=14.07), social unit 2 (mean=14.60), social unit 3 (mean=14.55), social unit 5 (mean=13.00). Slightly higher in degree of use is the high-grid/high-group social unit 4 with a more intensive, somewhat regular degree of use (mean=15.20). This weak use provides an opportunity to advance the maturity of methods use for communication, advocacy, and argumentation, across the object social units.
For the stage of *designing implementation*, all social units demonstrated somewhat regular use. Again, we find the most intense use occurring among a high-grid/high-group social unit. In this case, social unit 4 exhibits the greatest degree of use of techniques (mean=23.80).

### Table 10.0

*Techniques: Degree of Policy Analysis Use Frequency by Each Social Unit’s Cultural Bias*

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social unit</td>
<td>Social unit</td>
<td>Problem</td>
<td>Intervention</td>
<td>Selecting policy</td>
<td>Communication, advocacy,</td>
<td>Designing implementation</td>
</tr>
<tr>
<td></td>
<td>cultural bias</td>
<td>cultural bias</td>
<td>definition stage</td>
<td>and prediction</td>
<td>alternatives stage</td>
<td>and argumentation stage</td>
<td>stage</td>
</tr>
<tr>
<td>Social Unit 1</td>
<td>high-grid / high-group</td>
<td>16.07 (Std 1.69)</td>
<td>Somewhat Regular</td>
<td>20.36 (Std 1.69)</td>
<td>19.43 (Std 1.79)</td>
<td>14.07 (Std 1.44)</td>
<td>23.29 (Std 2.58)</td>
</tr>
<tr>
<td>Social Unit 2</td>
<td>high-grid / low-group</td>
<td>15.67 (Std 1.91)</td>
<td>Somewhat Regular</td>
<td>20.13 (Std 1.77)</td>
<td>20.00 (Std 1.69)</td>
<td>14.60 (Std 1.55)</td>
<td>23.00 (Std 1.93)</td>
</tr>
<tr>
<td>Social Unit 3</td>
<td>high-grid / high-group</td>
<td>16.71 (Std 0.76)</td>
<td>Somewhat Regular</td>
<td>19.57 (Std 1.40)</td>
<td>21.00 (Std 1.22)</td>
<td>15.20 (Std 1.30)</td>
<td>23.80 (Std 2.17)</td>
</tr>
<tr>
<td>Social Unit 4</td>
<td>high-grid / high-group</td>
<td>15.77 (Std 1.34)</td>
<td>Somewhat Regular</td>
<td>20.36 (Std 1.22)</td>
<td>19.64 (Std 2.08)</td>
<td>14.55 (Std 1.63)</td>
<td>23.77 (Std 2.05)</td>
</tr>
<tr>
<td>Social Unit 5</td>
<td>high-grid / low-group</td>
<td>15.71 (Std 0.95)</td>
<td>Somewhat Regular</td>
<td>19.29 (Std 1.11)</td>
<td>19.00 (Std 1.29)</td>
<td>13.00 (Std 1.91)</td>
<td>22.71 (Std 1.98)</td>
</tr>
</tbody>
</table>

*Techniques: Interviews and Content Analysis: Triangulation of Questionnaire Data Through Interviews and Content Analysis for Reliability and Validity*

Interviewees were discreet about the argumentation stage in general terms. For instance, one representative quote is, “Every big organization comes with communication problems... problems no worse than elsewhere” (high-grid/high-group social unit 3). Argumentation generally appears to be under-developed according to respondent statements such as, “I do not do a good job in my writing in discussing merits of [the alternative] or opposing arguments.”
Of all the techniques, keeping the argument clear and simple (avoiding technical terms or jargon) was most frequently referenced: “Too many details are being provided and relevant details get lost” (high-grid/low-group social unit 2). As well, in high-grid/low-group social unit 2, content analysis identified that submission of policy analyses by policy analysts to the Office of Executive Council suggests succinct and simple communication. In fact, this is in line with literature advising clients and policy analysts of the axiom to keep it simple, yet to think complexly. Documents failed to provide any other mentions of actual methodological techniques to be used at any stage of policy analysis.

**Overall Use of All Core Systematic Policy Analysis Methods: All Policy Analysis Stages by all Social Units’ Cultural Bias**

It is noteworthy that according to both the quantitative and qualitative findings obtained, the emerging pattern is that of a weaker degree of core policy analysis methods use in the high-grid/low-group social units, i.e., social unit 2 and social unit 5. This is interesting because it fits perfectly with what the gg-CT literature advises: the type of cultural bias of the network/grid as an independent variable imposes intensity of policy analysis methods use, while the dependent variable, the group, is less intense, and therefore the group accepts constraints as given.
### Table 11.0

Policy Analysis Usage: Degree of Use Intensity by *All Core Systematic Methods by Each Policy Analysis Stage*

<table>
<thead>
<tr>
<th>Social unit</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All stages</td>
<td>Problem definition</td>
<td>Intervention and prediction of solutions (modeling) stage</td>
<td>Selecting policy alternatives stage</td>
<td>Communication, advocacy, and argumentation stage</td>
<td>Designing Implementation</td>
</tr>
<tr>
<td>Social Unit 1</td>
<td>high-grid / high-group</td>
<td>287.14 (Std 12.63)</td>
<td>50.36 (Std 4.14)</td>
<td>66.50 (Std 3.72)</td>
<td>58.92 (Std 2.95)</td>
<td>49.43 (Std 3.94)</td>
</tr>
<tr>
<td>Social Unit 2</td>
<td>high-grid / low-group</td>
<td>285.27 (Std 14.10)</td>
<td>46.88 (Std 11.11)</td>
<td>67.07 (Std 4.42)</td>
<td>58.47 (Std 2.51)</td>
<td>50.27 (Std 2.31)</td>
</tr>
<tr>
<td>Social Unit 3</td>
<td>high-grid / high-group</td>
<td>298.80 (Std 14.75)</td>
<td>56.14 (Std 3.85)</td>
<td>68.57 (Std 4.20)</td>
<td>52.00 (Std 2.78)</td>
<td>50.20 (Std 2.17)</td>
</tr>
<tr>
<td>Social Unit 4</td>
<td>high-grid / high-group</td>
<td>289.18 (Std 11.19)</td>
<td>50.64 (Std 3.63)</td>
<td>66.45 (Std 3.17)</td>
<td>59.00 (Std 4.32)</td>
<td>51.45 (Std 2.89)</td>
</tr>
<tr>
<td>Social Unit 5</td>
<td>high-grid / low-group</td>
<td>278.43 (13.78)</td>
<td>48.43 (Std 2.07)</td>
<td>66.57 (Std 2.70)</td>
<td>58.86 (Std 3.29)</td>
<td>45.29 (Std 5.76)</td>
</tr>
</tbody>
</table>

Overall, across the Battery of Tools, the findings show that high-group/high-grid social unit 1, social unit 3, and social unit 4 demonstrate a more deliberate responsiveness to the restraints, and hence a stronger intensity of use in comparison with fatalistic high-grid/low-group social units 2 and 5. Overall, the data from the latter identify less use and adoption of core systematic methods, i.e., adherence to any imposition related to policy analysis use.
Answering Research Question 3

RQ3 looks directly at the contention of the Hypothesis and focuses on the granularity in causal relations between cultural bias and policy analysis methods use: *Whether and to what extent is the use of policy analysis methods (i.e., approaches, strategies, and techniques), by each particular policy analysis stage, susceptible to cultural bias?*

Specifically, RQ3 aims to reveal differences in the susceptibility of core methods at each unique stage of policy analysis, per social unit cultural bias. The level of analysis required in answering RQ3 pinpoints further causal relationships between each dimension of cultural bias.

**Causation: Cultural Bias and the Susceptibility of Core Methods Use by Each Respective Stage of Policy Analysis**

Foremost, as previously presented, the findings obtained demonstrate causal relationships between all four types of cultural bias and use of core systematic policy analysis methods at an extremely high degree of statistical significance: cultural bias and use of core systematic policy analysis methods ($r=0.58; p\text{-value}<0.0001$), and for the dimensions of grid ($r=0.54; p\text{-value}<0.0001$) and group ($r=0.55; p\text{-value}<0.0001$).

Analysis of the questionnaire data shows similar findings at the distinct iterative stages of policy analysis: *problem definition* ($r=0.42; p\text{-value}<0.05$); *intervention and prediction of solutions (modeling)* ($r=0.46; p\text{-value}<0.0001$); *communication, advocacy, and argumentation* ($r=0.39; p\text{-value}<0.05$); and *designing implementation* ($r=0.52; p\text{-value}<0.0001$).\(^{44}\)

\(^{44}\) In addition to the overall findings concerning the positive linear causal relationship wherein cultural bias affects policy analysis use, at each stage across social units, and at the level of the social unit (see below), each implies that by combining responses across social units, we maximize the number of responses in the regression. This has the effect of underscoring the reliability of the questionnaire tool and the validity of our findings. If similar significant relationships, are identified across the sample in its entirety, we can infer that the items in the questionnaire tool are measuring the concepts as intended.
The only one policy analysis stage which demonstrates a weak direction (r=0.13) and a lack of statistical significance, and hence no causality (p-value=0.23 being >0.05), is that of selecting policy alternatives.

**Table 12.0**

*Causation: Susceptibility of All Core Systematic Methods Use by, Policy Analysis Stage, to All Cultural Bias Across All Object Social Units*

<table>
<thead>
<tr>
<th>A Policy Analysis Stage</th>
<th>B Susceptibility of Core Systematic Methods to All Social Units Cultural Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem definition</td>
<td>0.42019 (moderate)</td>
</tr>
<tr>
<td></td>
<td>0.0004 (significant)</td>
</tr>
<tr>
<td>Intervention and prediction of solutions</td>
<td>0.46076 (moderate)</td>
</tr>
<tr>
<td>(modeling)</td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
<tr>
<td>Selecting policy alternatives</td>
<td>0.13162 (weak)</td>
</tr>
<tr>
<td></td>
<td>0.2960 (insignificant)</td>
</tr>
<tr>
<td>Communication, advocacy, and argumentation</td>
<td>0.38964 (moderate)</td>
</tr>
<tr>
<td></td>
<td>0.0015 (significant)</td>
</tr>
<tr>
<td>Designing implementation</td>
<td>0.51650 (moderate)</td>
</tr>
<tr>
<td></td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
</tbody>
</table>

Criteria: A Pearson’s correlation co-efficient having a value > |0.7| can be assessed as a strong correlation; a coefficient between |0.4 – 0.7| a moderate correlation, a Pearson’s r below |0.4| suggests a weaker relationship. Note: although Pearson’s r below |0.3| may be statistically significant, it is not a practically significant result worth exploring. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant.

The relationships between cultural bias (independent variable) and use of core systematic methods of policy analysis (dependent variable) at the stage of *intervention and prediction of solutions (modeling)* (r=0.46; p-value <0.0001) and the stage of *designing implementation* (r=0.52; p-value <0.0001) are both moderate in intensity, and highly statistically significant. Relationships are moderate and statistically significant at the stage of *problem definition* (r=0.42; p-value <0.05) and the stage of *communication, advocacy, and argumentation stage* (r=0.39; p-value <0.05), meaning that the greater the degree of intensity of cultural bias, the greater the intensity of use of core systematic methods of policy analysis.
Causation: Susceptibility of Core Methods Use by Each Respective Stage of Policy Analysis to the Grid Dimension and the Group Dimension of Cultural Bias

Given the interaction of the grid and group in defining cultural bias, I now leverage the findings of the regression analysis to identify causal relationships between the grid and group dimensions of cultural bias and the dependent variable. I will also compare the intensity and significance of relationships between each dimension and each stage of policy analysis. At the level of each policy analytic stage, there may be differences in the direction and intensity of relationships wherein one dimension (grid or group) of cultural bias tends to account for the use of core systematic methods of policy analysis more strongly than the other dimension.

Grid: The results of the regression analysis confirmed a statistically significant causal effect of the imposition of restraints (grid) on the use of core systematic policy analysis methods. At the stage of problem definition, a weaker, moderate degree of causal relationship: \( r=0.30; \) p-value <0.05. At the stage of intervention and prediction of solutions (modeling), a moderate degree of causal relationship \( r=0.45; \) p-value <0.05. At the stage of designing implementation, a moderate and highly statistically significant causal relationship \( r=0.55; <0.0001 \). The relationships between grid and the stages of selecting policy alternatives \( r=0.18; \) p-value >0.05 and communication, advocacy, and argumentation \( r=0.34; \) p-value >0.05 are not statistically significant. This finding reinforces the earlier results obtained identifying the selecting policy alternatives stage as unsusceptible to cultural bias in its entirety \( r=0.13; \) p-value=>0.05.

Group: The results of the regression analysis across all social units on all stages of policy analysis use confirmed that the effect of the acceptance to conform (group) by analysts on the use of core systematic policy analysis methods is at a high degree of causality. At the stage of problem definition, a moderate positive relationship: \( r=0.52; \) p-value <0.0001. At the stage of intervention and prediction of solutions (modeling), a moderate positive relationship \( r=0.38; \) p-
value <0.05). At the stage of communication, advocacy, and argumentation, \( r=0.39; \) p-value <0.05). At the stage of designing implementation, a moderate positive relationship \( r=0.40; \) p-value <0.0001). Similar to the findings of the grid, the relationships between group and the selecting policy alternatives stage are not significant at \( r=0.34; \) p-value >0.05).

### Table 13.0

*Causation: Policy Analysis Use Susceptibility at all Policy Analysis Stages by all Social Units, Grid (Imposition/Restraints) and Group (Acceptance/Conformity)*

<table>
<thead>
<tr>
<th>Policy Analysis Stage</th>
<th>A (All Social Units Susceptibility of Usage by Grid)</th>
<th>B (All Social Units Susceptibility of Usage by Group)</th>
<th>C (All Social Units Susceptibility of Usage by Group)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem definition</td>
<td>0.29837 (weak)</td>
<td>0.51999 (strong)</td>
<td>.0142 (significant)</td>
</tr>
<tr>
<td></td>
<td>0.0142 (significant)</td>
<td>.0001 (highly significant)</td>
<td>.0001 (highly significant)</td>
</tr>
<tr>
<td>Intervention and prediction of solutions (modeling)</td>
<td>0.45486 (moderate)</td>
<td>0.38443 (moderate)</td>
<td>0.0001 (significant)</td>
</tr>
<tr>
<td>Selecting policy alternatives</td>
<td>0.17660 (weak)</td>
<td>0.04317 (weak)</td>
<td>0.1593 (insignificant)</td>
</tr>
<tr>
<td></td>
<td>.01593 (insignificant)</td>
<td>.7328 (insignificant)</td>
<td>.39164 (moderate)</td>
</tr>
<tr>
<td>Communication, advocacy, and argumentation</td>
<td>0.34446 (moderate)</td>
<td>0.39164 (moderate)</td>
<td>0.053 (insignificant)</td>
</tr>
<tr>
<td></td>
<td>.34446 (moderate)</td>
<td>.39164 (moderate)</td>
<td>.053 (insignificant)</td>
</tr>
<tr>
<td>Designing implementation</td>
<td>0.53568 (strong)</td>
<td>0.40315 (moderate)</td>
<td>&lt;.0001 (highly significant)</td>
</tr>
<tr>
<td></td>
<td>.53568 (strong)</td>
<td>.40315 (moderate)</td>
<td>.0010 (significant)</td>
</tr>
</tbody>
</table>

Criteria: A Pearson’s correlation co-efficient having a value > |0.7| can be assessed as a strong correlation; a co-efficient between |0.4 – 0.7| a moderate correlation, a Pearson’s r below |0.4| suggests a weaker relationship. Note: although Pearson’s r below |0.3| may be statistically significant, it is not a practically significant result worth exploring. In regards, to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant.

The regression data shows that different policy analytic stages are more or less susceptible to either dimension of cultural bias given the stage of policy analysis at each stage.

For instance, note that the problem definition stage is more susceptible to the intensity of the cohesiveness among policy analysts (group) than it is susceptible to the restraints (grid) imposed that govern their work (Group: a moderate positive relationship: \[ r=0.52; \) p-value <0.0001]; Grid: a weaker positive relationship: \[ r=0.30; \) p-value <0.05]). In part, the heightened susceptibility to the group dimension of culture can be explained by the client-analyst and
stakeholder-analyst relationship in defining a policy problem, and the analyst’s need to consider the situational context (i.e., the extent of collaboration).

It is logical that through policy analysis operations that require collaboration and outreach, views of external stakeholders in defining the problem are elicited. The general “acceptability” of suggesting a re-framing of the problem to a client (Baumgartner & Jones, 2015; Geva-May, 2023; Hoppe, 2018; Pye et al., 2015; Weimer & Vining, 2017; Wolfe et al., 2013), or how shared data is collected and stored (Ashworth et al., 2019; Bardach, 2000; Brutscher et al., 2010; RAND, 2010) are methodological aspects primarily influenced by group cohesiveness within the social unit.

The intervention and prediction of lab-solutions (modeling) stage is somewhat more susceptible to the grid component of cultural bias (Grid: a moderate positive relationship \([r=0.45;\ p\text{-value }<0.05]\)) than it is susceptible to the group (Group: a moderate positive relationship \([r=0.38;\ p\text{-value }<0.05]\)).

This finding reflects imposed constraints, such as those directing the assessment of interaction effects of model variables (Bardach, 1977; Gaston, 2006; Pomeranz et. al, 2018; Wilde et. al, 2019), and regarding the contextual acceptability of use of quantitative versus qualitative models (Mead, 2005; Walker & van Daalen, 2013). Other core systematic methods of policy analysis, such as the extent of model validation by policy analysts with external stakeholders (Atkinson et. al, 2015; Geva-May, 2023), speak to a cohesiveness among policy analyst and stakeholder groups supporting susceptibility to the group dimension of cultural bias.45 However, the findings that concern the susceptibility of policy analysis methods use to

---

45 It is interesting that for the intervention and prediction of lab-solutions (modeling) stage, data shows a similar susceptibility to each dimension of cultural bias. This is in line with early observations in the literature that scenario model inputs and criteria selection are hard-wired, essentially a function of the cultural bias of the policy analyst (Janssen & Carpenter, 1999; Janssen & de Vries, 1998; Price & Thompson, 1997; Rayner & Malone, 1998; Thompson,
cultural bias are peculiar to the stage of selecting policy alternatives. Data showed very weak, insignificant causal relationships between both the grid and group dimensions of cultural bias and use of core systematic methods of policy analysis (independent variable): Grid: ($r=0.18$; $p$-value=>0.05); Group: ($r=0.04$; $p$-value=>0.05).

In explaining this lack of susceptibility, we can leverage the sensitivity provided by the Battery of Tools. For instance, refer to the findings across social units where, regardless of their cultural bias, the interview and content analysis data exhibit that ASTs are well defined, predetermined, and tightly controlled (For more discussion, refer to Chapter 5: Conclusions, “Lack of Susceptibility of Selecting Policy Alternatives”).

Findings at the stage of communication, advocacy, and argumentation identify causal relationships for each dimension of cultural bias and core methods use. The data shows a slightly higher degree of susceptibility of the use of core systematic methods to the group dimension (Grid: weaker, insignificant [$r=0.34$; $p$-value >0.05]; Group: although weak, still a significant positive relationship [$r=0.39$; $p$-value <0.05]). Core systematic methods of policy analysis such as ordering agendas (Geva-May, 2023; Hajer & Laws, 2009; Kingdon, 1995), changing venues (Huwylter et. al, 2018; Ley & Weber, 2015; Pralle, 2003; Wood, 2006), co-opting opponents (Dickson, 2000, 2016; Gandhi & Przeworski, 2006), and avoiding jargon (Dryzek, 1990; Fischer & Forester, 1993; Majone, 1988) are examples of policy analysis requiring interaction and/or collaboration with others. This can explain the greater effect of the cohesiveness of the group conforming than of imposed restraints (grid).

In comparison, the effect on core systematic methods use at the stage of designing implementation is markedly driven by the grid and use of core systematic methods of policy

1984, 1997; Van Asselt & Rotmans, 1996, 2002). Note: Thompson (1984) was the first to tender that scenario model inputs and criteria selection are essentially a function of the cultural bias of the policy analytic function.
analysis. The greater strength of the positive linear relationship (Grid: a moderate, positive relationship $[r=0.55; <0.0001]$) shows a weaker influence of group on the use of core policy analysis methods (Group: a moderate positive relationship $[r=0.40; p\text{-value } <0.0001]$).

Although grid is a stronger predictor, both dimensions of cultural bias demonstrate a highly statistically significant degree of causation ($p$-values = $<0.0001$). Systematic methods such as *establishing monitoring and warning systems* (Hupe et. al, 2015; Hupe, 2011; Hughes et. al, 2015; Lindquist, 2006; Tiernan, 2006, 2015) and *securing implementation leadership* (May, 2015; Polga-Hecimovich, 2016) likely more intensely imposed by the restraints of the grid. Other operationalized policy analysis methods such as *mapping the context to identify gaming* (Bevan & Hood, 2006; Gassner & Gofen, 2018), and *floating trial balloons* (Behn, 1981; Erekat, 2012; Moore et. al, 2004) are apt to the influence of the group.

*Causation: Susceptibility of Core Systematic Methods Use of Each Stage of Policy Analysis, by Each Social Unit’s Cultural Bias*

A further regression analysis was advanced at the level of each social unit to show susceptibility of a particular policy analysis stage, per social unit cultural bias. Statistically significant positive causal relationships were identified for high-grid/high-group social units 1, 3, and 4, as follows: social unit 1: at the stages of *intervention and prediction of solutions (modeling)*, a moderate relationship ($r=0.54; p\text{-value } <0.05$), at the *designing implementation* stage, ($r=0.56; p\text{-value } <0.05$). For social unit 3, a strong positive causal relationship for the stage of *designing implementation* ($r=0.89; p\text{-value}<0.05$). In social unit 4, a moderate relationship for the stage of *intervention and prediction of solutions (modeling)* ($r=0.54; p\text{-value } <0.05$), and for the *designing implementation* stage, ($r=0.42; p\text{-value } <0.05$). This shows that these are the policy analysis stages that primarily account for the strength and significance of relationships at the level of the social unit.
Table 14.0

Causation: Policy Analysis Use Susceptibility: Policy Analysis Stages, per Each Social Unit’s Cultural Bias

<table>
<thead>
<tr>
<th>Social Unit</th>
<th>Intensity of Cultural Bias</th>
<th>Policy Analysis Stage</th>
<th>Susceptibility of Core Systematic Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Unit 1</td>
<td>high-grid/high-group</td>
<td>Intervention and prediction of solutions (modeling)</td>
<td>0.54416 (moderate) 0.0442 (significant)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Designing implementation</td>
<td>0.56359 (moderate) 0.0358 (significant)</td>
</tr>
<tr>
<td>Social Unit 3</td>
<td>high-grid/high-group</td>
<td>Designing implementation</td>
<td>0.89488 (strong) 0.0403 (significant)</td>
</tr>
<tr>
<td>Social Unit 4</td>
<td>high-grid/high-group</td>
<td>Intervention and prediction of solutions (modeling)</td>
<td>0.53568 (moderate) 0.0102 (significant)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Designing implementation</td>
<td>0.42398 (moderate) 0.0492 (significant)</td>
</tr>
</tbody>
</table>

Criteria: A Pearson’s correlation co-efficient having a value > |0.7| can be assessed as a strong correlation; a co-efficient between [0.4 – 0.7] a moderate correlation, a Pearson’s r below |0.4| suggests a weaker relationship. Note: although Pearson’s r below |0.3| may be statistically significant, it is not a practically significant result worth exploring. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant.

As per the causal relationships reported in Table 14.0 above, we find that the most frequently susceptible stages are designing implementation (social unit 1: r=0.56; p-value <0.05; social unit 3: r=0.89; p-value<0.05; social unit 4: r=0.42; p-value <0.05) and the stage of intervention and prediction of solutions (modeling) (social unit 1: r=0.54; p-value <0.05; social unit 4: r=0.54; p-value <0.05). Note the identical strength of the causal relationship established and statistical significance for the intervention and prediction of solutions (modeling) stage at social units 1 and 4.

Triangulation of Questionnaire Data through Interviews and Content Analysis re: Use of Core Systematic Methods per Social Unit Cultural Bias

The interviews show causality between the cultural bias context and the use of core systematic policy analysis methods. For instance, in social unit 1, at the stage of intervention and
prediction of solutions (modeling), iterative approaches and re-casting during modeling were described well: “We go back and forth during modeling and re-consult. Once we have alternatives and we want to test them, we go out again to engage to understand unintentional consequences.” Similar insights were elicited from social unit 3: “Once the authorities, the Assistant Deputy Minister’s office agrees with the product, the draft policy must go back and forth with the authorities during its development.” In the high-grid/high group social units, iterative approaches are paired with those seeking expertise to inform models/forecasts: “we go to literature, to folks in and out of government who are considered experts on this stuff… we refine until we have a solid one…” (social unit 4).

For instance, in social unit 1 for the stage of designing implementation, the consideration of implementation from the onset is referred to: “There is definitely an implementation lens, no question about it…” Implementation appears to be top of mind in social unit 3: “I plan the implementation. HR, how many resources, what technical capacity do you need, who will be impacted what is the communication venue, what are some reactions that you might get at implementation.” In social unit 4, interviewees related to the coordination required with the street-level: “…we get implementers in to help think about implementation.”

A unique finding identified through regression analysis is the intense strength of the susceptibility identified in social unit 3 (r=0.89; p-value <0.05) towards designing implementation. This is the strongest correlation between variables in the study at any level.

In addition to the revealing interview data, the content analysis stood out in identifying intense use at the designing implementation stage in high-grid/high-group social unit 3. We found that one document referred to colloquially as “Request for Strategic Direction” advises on many features of implementation design. This shows how crucial documents are with respect to
the transmission of cultural bias in affecting use of core systematic methods. Documents spoke specifically to (a) approaches to implementation from the onset of the policy analysis process; and (b) provided guidance on the strategy to draft the stepping-stones as for techniques (c) the advisories within documents to float trial balloons in advance of submission to cabinet of the policy analysis and to initiate context mapping in order to identify gaming. The document suggests rigorous communications techniques, mandating policy analysts to use a dedicated communications secretariat. A plan template, media sources, and budget requirements pertaining to communications cascade and sequence are also prescribed.

This finding regarding the penetration of core systematic methods within documents may underpins an intense degree of strength of causality relationships identified between cultural bias (independent variable) and the use of core systematic methods (dependent variable) ($r=0.89$; $p$-value=$<0.0001$).

**Nuanced Observations**

Beyond the confirmation of the Hypothesis that policy analysis is susceptible to cultural bias ($r=0.58$; $p$-value=$<0.0001$), when answering the research questions, the data points to some interesting findings that stand out.

**Subtle Differences in Social Unit Cultural Bias**

To begin, and as it pertains to social unit cultural bias (as required to answer RQ1), a unique observation concerns the differences in cultural bias between the social units due to the divergence in the intensity of the group dimension of cultural bias. The greater intensity of the group overall for social units 1, 3, and 4 results in a high-grid/high-group (hierarchical) context as compared to the high-grid/low-group (fatalistic) social units 2 and 5.
Yet despite this finding, the intensity of determination of policy analyst choices by the group of other policy analysts are similarly high regardless of the overall strength of the group and hence cultural bias (scores indicating a somewhat high degree of choice: social unit 1 [mean=2.64], social unit 2 [mean=2.56], social unit 3 [mean=2.63], social unit 5 [mean=2.66], and a high degree of choice for social unit 4 [mean=3.13]). This means that it is the element of cohesion (being the extent of integration of policy analysts with other policy analysts) that accounts for the weaker degree of the group in the low-group social units: social unit 2: mean=2.22; social unit 5: mean=2.38.

A further nuance regards the imposition of restraints where despite the overall high-grid identified in all social units, we find the weakest degrees of circumscription in our high-grid/low-group social units 2 and 5 (social unit 2: mean=2.86; social unit 5: mean=2.86; social unit 1: mean=3.13; social unit 3: mean=3.15; social unit 4: mean=3.10). Similar degrees of rigidity concerns all five social units (social unit 1: mean=2.94; social unit 2: mean=3.06; social unit 3: mean=3.06; social unit 4: mean=3.15; social unit 5: mean=2.66). This suggests that the intensity of methods imposed is greater in the “hierarchical” social units.

Detectable Variance in the Intensity of Use of Core Methods by Cultural Bias

Also of interest are the microscopic patterns detected (when answering RQ2) regarding the intensity of use for the ASTs operationalized at each stage of policy analysis, by cultural bias of the social unit. The remainder of this section uses a comparative lens and examines which, if any, specific ASTs account for these patterns in use by social unit cultural bias.

To recap, we find that approaches at the stage of problem definition, in the high-grid/low-group social units 2 (mean=19.88) and 5 (mean=19.29), demonstrate the weakest intensity pointing at somewhat irregular use. At the stage of designing implementation, high-grid/low-
group social units also reported the weakest intensity of use: social unit 2 (mean= 21.73), social unit 5 (mean=21.43).

With respect to strategies of policy analysis, we found a similar pattern for the stage of *designing implementation* wherein the high-grid/low-group social unit 2 (mean=15.27) and social unit 5 (mean=15.24) report the weakest degree of use.

Consistent with previous findings, note for the techniques at the stage of *problem definition* the least intensity of use is among our high-grid/low-group social units 2 and 5 (means=15.67 and 15.71, respectively).

**Distinctiveness in Effect of Dimensions of Culture at Particular Stages of Policy Analysis**

Those differences in the *intensity of use* (referred to immediately above) concern the stages of *problem definition* and *designing implementation*. This is a finding in itself, suggesting that those social units demonstrating a weaker degree of cohesiveness by policy analysts (group) in accepting contextual restraints, use core systematic methods to a lesser extent, specifically at the stages of *problem definition* and *designing implementation*.

In answering RQ3, the data analysis showed further that for the stage of *problem definition*, the group dimension of cultural bias has a stronger effect on use of core systematic methods overall than the grid does (Grid: a weaker positive relationship: \(r=0.30; p\text{-value <0.05}\); Group: a moderate positive relationship: \(r=0.52; p\text{-value <0.0001}\)). I refer to this causal relationship in order to explain why patterns in use at specific ASTs may be expected given the AST operationalized.

In the case of approaches to *problem definition*, this reveals that in both high-grid/low-group social units there is a somewhat irregular degree of use of *incorporating solutions within the problem definition* (social units 2: mean=2.0; social unit 5: mean=1.79). Further accounting
for the less intense use, we find again in both social units a somewhat irregular expression of the problem in terms of deficit or excess (social unit 2: mean=2.33; social unit 5: mean=2.36).

This finding points to these specific approaches as under-used in high-grid/low-group social units when compared to high-grid/high-group social units. This may occur given a weaker participation of policy analysts in defining the problem in high-group/low-group social units.

Take this description by one interviewee from social unit 2: “in my world the problem definition is already started for us… often not spending a lot of time on problem definition – that seems to be the case here.” It appears that fatalist social units are more prone to receiving the definition of the problem directly from the client. Thereby, they are not motivated to incorporate solutions nor necessarily to express the definition in their own terms which may induce deficit and excess thresholds.

The data showed similar patterns pertaining to a weaker use of specific approaches for the stage of designing implementation. Again, each high-grid/low-group social unit reported somewhat irregular intensity of use to undertake a more fulsome change preferring more incremental or long-whimper approaches (social unit 2: mean=2.10; social unit 5: mean=2.0). Interviewees claimed that “Project X was big bang, but everything else is really incremental,” and “We in general, are incrementalism.” A less intense group is less willing to collaborate and tackle intense change. These social units were less robust in their approaches to implementation.

With respect to the weaker use of strategies at designing implementation as affected by the high-grid/low-group social units’ cultural bias, the data presents an interesting finding. In all five social units, despite cultural bias, there is a somewhat irregular use of creating steppingstones to guide implementation (the least intensive found in high-grid/low-group
contexts: social unit 2: mean=2.10; social unit 5: mean=2.07; social unit 1: mean=2.25; social unit 3: mean=2.23; social unit 4: mean=2.50). Attributing to the weaker use of this strategy, are general impressions such as the nature of implementation as responsibility of the street-level. Take for the instance the view that “A weird awkwardness happens at the end of legislative files when it comes to implementation,” and how “At end of day the program branches own the policies that are developed, and they are responsible for implementation (social unit 2).”

Data identified the weakest use at problem definition of the technique of mixed-scanning to avoid a type III error, among high-grid/low-group social units. One interviewee explained that in this fatalist social unit and in government in general, “we don’t do a very good job of scanning the environment. If we did, we’d have time for better policy analysis.” In social unit 5, (Mean=2.50) when asked about the use of mixed-scanning to ensure the wrong question is not answered (i.e., to avoid solving the wrong problem), one interviewee responded flatly that “once we recognize our own capacity to analyze this is insufficient, we will reach out for insights like consultants or profs.” Documents made no reference to this technique.

**Summary**

The data supports the Hypothesis of the study that policy analysis is susceptible to cultural bias demonstrating the causative affect, in detail, of the causation between the contextual cultural bias, and the use of core systematic methods of policy analysis. The sensitivity of the Battery of Tools, their reliability, and the validity of the findings provide rich information for the fields of public policy and contextual cultural theories. In the next and final chapter, Chapter 5: **Conclusions**, I discuss the implications of the findings of this study and their contributions to the existing literature on policy analysis methods and gg-CT and highlight ramifications for practice and considerations for further research.
Chapter 5: Conclusions

This concluding chapter is organized as follows:

1. An overview of the aims and scope of a doctoral dissertation study operationalizing a model of policy analysis by cultural bias.

2. The identification of key implications of the findings from a Battery of Tools, as related to the Hypothesis and research questions (RQs); and the penultimate

3. Contributions of the study:
   3.1 advancing theories of policy analysis and culture;
   3.2 implications for practice; and
   3.3 perspectives towards a future research agenda.

Aims and Scope

The premise of the study is that policy analysis is an evidence-based, systematic way of informing public policy (Anderson, 1975; Bardach, 2000; Dror, 1973; Dunn, 2015; Geva-May, 2023; Laswell, 1956; MacRae & Whittington, 1997; Majone & Quade, 1980; Pal, 2005; Patton & Sawicki, 1993; Patton et al., 2018; Weimer & Vining, 2014; Wildavsky, 1986). To a great extent, its robustness is a function of the intensity of use of the acknowledged core systematic methods of policy analysis, as well as of the assessment of the context within which policy analysis takes place (Geva-May, 2002; Klitgaard, 1994; Thompson, 1984).

These initial observations provided a foundation that context matters. As the field of practice matures, policy analysis is now commonly thought of not as “a one-off tool, but as a way or culture of handling tasks at all stages of the policy cycle” (Milovanovitch, 2018, p. 7). The view remains that there are inextricable linkages between contextual “culture” and inherent social unit cultural bias and policy analysis. Hence, this study investigates causality between these respective independent and dependent variables.
With the expansion of the policy analysis field, observations note variance in the use (Colebatch, 2006; Colebatch, 2015; Connaughton, 2010; Hoppe & Jeliazkova, 2006; Howlett & Wellstead, 2011; Radin, 2020; Thompson, 1984) of policy analysis in different governmental contexts (Craft & Wilson, 2017; Page & Jenkins, 2005; Tieman, 2011; Howlett & Wellstead, 2011) and geographical areas (Andrews, 2018; Fobé, 2017; Gül & Acar, 2018; Hamelin, 2018; Hoppe, 2002, 2007, 2018; Hosono, 2018; Mendez, 2017; Oser & Galnoor, 2018).

The assumption is that this variance is due in part to the contextual cultural bias, that is, the traditions, norms, and values in which policy analysis occurs (Conner et al., 2016; Geva-May, 2002; Hoppe, 2002; Hoppe et al., 2007; Jenkins-Smith et al., 2014; Patel & Rayner, 2015; Ripberger et al., 2011; Simmons, 2016; Thompson, 1984; Verweij et al., 2011). By context, I refer not necessarily to differences between governmental, national, or geographical entities, but rather to the “social unit” in which policy analysis occurs. I follow Ragin and Zaret (1983) in my definition of a social unit as a context involving shared membership of group members in an organization or professional context.

Conceptually, the causal model developed by Geva-May is constructed to map use of policy analysis at each stage of a policy analysis by a social unit, in which policy analysis occurs. This study sought to operationalize and test the causal theoretical model extended by Geva-May (2002), asserting causality between the independent variable of social unit cultural bias, and policy analysis methods use in the policy analysis enterprise. The matrix representing the model visualizes the interactions between cultural bias and the stages of a policy analysis.
Figure 6.0

The Geva-May Model of Policy Analysis by Cultural Bias

<table>
<thead>
<tr>
<th>Stage</th>
<th>Range of Bias During…</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Unit 1</td>
</tr>
<tr>
<td></td>
<td>Cultural Bias</td>
</tr>
<tr>
<td>1.</td>
<td>Policy Making Context</td>
</tr>
<tr>
<td>2.</td>
<td>Problem Definition</td>
</tr>
<tr>
<td>3.</td>
<td>Forecasting Outcomes</td>
</tr>
<tr>
<td>4.</td>
<td>Alternative Selection</td>
</tr>
<tr>
<td>5.</td>
<td>Advocacy &amp; Argumentation</td>
</tr>
<tr>
<td>6.</td>
<td>Designing Implementation</td>
</tr>
</tbody>
</table>


This comparative presentation enables the identification of patterns in the intensity of use of core systematic methods of policy analysis, the analytic expression, given variance in cultural bias across multiple social units. Its conceptualization enables a comparative study among target objects.

To operationalize this model and assess its validity, I extend the primary assumption/Hypothesis that *policy analysis is susceptible to cultural bias*. To test or refute its veracity I posed three RQs. 

By applying the Geva-May Model and as a means of answering those questions, I relate to two theories: first, the “stages approach” to policy analysis advocated by deLeon (1997) and as viewed by Geva-May with Wildavsky (1997) and Geva-May (2023), and pursued by others.

---

46 My Research Questions (RQs) are: **RQ 1**: What is the identified cultural bias of each one of the object social units?; **RQ2**: Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their frequency of use by social unit by cultural bias?; **RQ3**: Whether and to what extent is the use of policy analysis methods (i.e., approaches, strategies, and techniques), by each particular policy analysis stage, susceptible to cultural bias?
(Anderson, 1975; Bardach, 2010; Dunn, 2015; Geva-May, 2000, 2005b; Geva-May & Wildavsky, 1997; MacRae & Whittington, 1997; Majone & Quade, 1980; Patton & Sawicki, 1993; Vining & Weimer, 2014). The stages approach to policy analysis adopted in this study comprises five policy analytic stages, each comprising core, inter-related, and systematic yet iterative methodological approaches, strategies, and techniques (ASTs).

The second theory applied in the Geva-May Model is the cultural theory determining the cultural bias of social units (independent variable). For this purpose, the Geva-May Model adopted the gg-CT, as has been conceptualized by anthropologist Mary Douglas (1982) and increasingly adopted for studies about the policy cycle (Douglas & Wildavsky, 1983; Patel & Rayner, 2015; Simmons, 2016; Swedlow, 2002; Swedlow & Johnson, 2019; Thompson et al., 1990). Therefore, the study uses this cultural theory for the same reasons as it has been applied in the model: that is, its patterns of contextual social relations within social units, and the flexibility to move by degrees up or down gradients (something which is not offered by other theories).

---

47 In the identification of the policy analysis process, initiations include several iterative stages, generally ranging between four to seven.

48 These stages are (a) problem diagnosis and definition; (b) intervention and prediction of lab-solutions (modeling); (c) policy alternatives selection; (d) communication: reporting, lobbying, advocacy, argumentation; and (e) implementation design.
Figure 7.0

*The Intensity of Dimensions of Cultural Bias of Social Units*

By grid, I mean the contextual restraints, that is, the intensity of rules and prescriptions and their imposition, constraining behaviour and choice (Douglas, 1982; Douglas & Wildavsky, 1983; Hoppe et al., 2007). By the group dimension of cultural bias, I am referring to the intensity of cohesiveness in conforming to imposed restraints subject to group determination.

The relative strength of those dimensions and their simultaneous juxtaposition results in a predominant cultural bias of the social unit. One may interpret the “grid” and the “group,” respectively, as “rules following” and “cooperation” (see Gefland et al., 2008). The more intense the grid, the more rule-bound the context, and the greater the group, the more cohesive, plausible cooperation between groups and people.

As translated to this study, the degree of the grid indicates the intensity of imposed constraints within a social unit, whereas the degree of the group speaks to a relative cohesion between group members in accepting or rejecting those constraints.
The Study

To operationalize the Geva-May Model and to assess variance in causal relationships between the independent variable (cultural bias) and the dependent variable (use of core systematic methods of policy analysis), the study has adopted a comparative, multi-case, multi-tools design. For reliability and validity assessment purposes, the instruments developed represent as a cohesive “whole” assessment mechanism. The Battery of Tools enabled cross testing and is used to triangulate the data obtained through questionnaire, interviews and content analysis.

The Battery of Tools was applied to five social units (N=5) in which policy analysis takes place, and involved a total of 85 analysts at different governmental levels in Canadian provinces and territories as the objects of the study.

The quantitative questionnaire used a Likert-type scale constructed to identify cultural bias, use of core systematic methods of policy analysis, and the causation between these independent and dependent variables, respectively. The qualitative tools developed are open-ended interviews, and content analysis of documents. The exact set of tools were administered across all five social units. In addition to the responses to the questionnaire (N=85), 21 interviews were completed, and 62 documents were analyzed. The latter assessed by double raters.

Findings

This study has shown that the intensity of core systematic methods use accelerates or diminishes depending on the cultural context, confirming the Hypothesis of the study. These findings demonstrate the validity of the Geva-May Model, and the applicability of Dame Mary Douglas’s cultural theory to public policy. The implications of key findings are described to below (See also Chapter 4: Findings & Presentation of Data).
The study confirmed causation between cultural bias and policy analysis at a high degree of statistical significance, thus unequivocally supporting the Hypothesis of the study.\textsuperscript{49}

Thus, the regression analysis isolated the direction, intensity, and strength of the causal relationships between the independent and dependent variables as denoted by Pearson’s correlation co-efficient, $r=\cdot$, as well as the corresponding degree of statistical significance demonstrated by the present value (p-value).

The regression identified a positive causal correlation of ($r=0.58; p\text{-value}=<0.0001$) at a high degree of statistical significance between the independent variable, the cultural bias of all social units (all grid and all group), and the dependent variable, use of all core systematic methods of policy analysis (i.e., all ASTs across all stages of policy analysis).

\textbf{Figure 8.0}

\textit{Causation: Susceptibility of All Core Systematic Methods to All Social Units Grid Imposition/Restraints) and Group (Acceptance/Conformity)
Figure 8.0 above serves as a visual example of the direction and intensity of the relationship between the cultural bias of all social units and the intensity of use of all core systematic policy analysis methods shows a positive, linear regression, positioning the respondents in clusters of responses regarding both variables measured. The closer the cluster of responses to the line, the more cohesive the responses.

When examining the grid and group dimensions of culture and their affect-upon and thereby respective relationships with all policy analysis methods used, an important finding came to light. Each dimension of cultural bias showed a parallel strength in the direction and intensity of the causal relationship and statistical significance. Thereby, the intensity of use of core systematic methods is equally susceptible to the grid (r=0.54; p-value=<0.0001) and group (r=0.55; p-value=<0.0001) dimensions of cultural bias.

**Table 15.0**

*Causation: Susceptibility of All Core Systematic Methods to All Social Units by Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity)*

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Social Units</td>
<td>Dimensions of Cultural Bias</td>
<td>Susceptibility of All Core Systematic</td>
</tr>
<tr>
<td>Cultural Bias</td>
<td></td>
<td>Methods of Policy Analysis</td>
</tr>
<tr>
<td>N=85</td>
<td></td>
<td>0.54030 (moderate)</td>
</tr>
<tr>
<td></td>
<td>Susceptibility of Usage by Grid</td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
<tr>
<td></td>
<td>(Imposition/Restraints)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Susceptibility of Usage by Group</td>
<td>0.54711 (moderate)</td>
</tr>
<tr>
<td></td>
<td>(Acceptance/Conformity)</td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
</tbody>
</table>

Criteria A Pearson’s correlation co-efficient having a value > [0.7] can be assessed as a strong correlation; a co-efficient between [0.4 – 0.7] a moderate correlation, a Pearson’s r below [0.4] suggests a weaker relationship. Note: although Pearson’s r below [0.3] may be statistically significant, it is not a practically significant result worth exploring. Regarding significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 is significant and values >0.05 are insignificant.

In fact, this finding validates Douglas’s conception of each dimension’s centrality to the gg-CT and suggests that the use of core systematic methods of policy analysis is equally a
function of the intensity of both the grid and the group. I further explored the effects of the grid and the group and found that despite the connectivity between the dimensions of cultural bias, equivalence wanes for some unique stages of policy analysis. The findings show that the stage of problem definition is more greatly susceptible to the intensity of the cohesiveness among policy analysts (group) than it is susceptible to the restraints (grid) (i.e., grid: \( r=0.30; \ p\text{-value} <0.05 \); group: \( r=0.52; \ p\text{-value} <0.0001 \)). The finding is reversed for the intervention and prediction of lab solutions, that is, the stage of modeling, which is somewhat more susceptible to the grid dimension than the group dimension (i.e., grid: a moderate positive relationship \( r=0.45; \ p\text{-value} <0.05 \); group: a moderate positive relationship \( r=0.38; \ p\text{-value} <0.05 \)). The grid also affects core systematic methods use more strongly at the stage of designing implementation (i.e., grid: a moderate, positive relationship \( r=0.55; \ p<0.0001 \); group: a moderate positive relationship \( r=0.40; \ p<0.0001 \).

The communication, advocacy, and argumentation stage of policy analysis appeared to be relatively similar in susceptibility to each dimension of cultural bias (grid: somewhat moderate yet statistically insignificant \( r=0.34; \ p\text{-value} >0.05 \); group: also, a somewhat moderate relationship yet a statistically significant relationship \( r=0.39; \ p\text{-value} <0.05 \)).

Alike again, at the policy alternatives selection stage, neither dimension demonstrated significant causal relationships between the grid and group dimensions of cultural bias (i.e., grid: \( r=0.18; \ p\text{-value} >0.05 \); group: \( r=0.04; \ p\text{-value} >0.05 \)).

The discussion below contains a full account highlighting the additional key findings referring directly to the three RQs driving this study.
Social Unit Characteristics by Cultural Bias

To test the Hypothesis about the causality between cultural bias and the use of policy analysis methods, the RQs ask for nuanced detail. For instance, in testing the variations in cultural bias between social units, RQ sought first to identify the unique cultural bias of each one of the five social units serving as objects of analysis⁵⁰ and within which policy analysis is performed at governmental level. As Dame Mary Douglas observed in her anthropological studies, within these social units, the interplay between grid and group is very clear and defines their characteristic cultural bias — and is further tested in subsequent RQ2 and RQ3 as affecting the degrees and sensitivity of policy analysis use.

As per the criteria established in this study to interpret the quantitative questionnaire data, all five of the social units exhibit a “high” intensity of imposition of restraints, rules, and constraints. Grid mean scores show total means as follows: in social unit 1, 21.15, in social unit 2, 20.81, in social unit 3, 21.60, in social unit 4, 21.90, and in social unit 5, 17.75.⁵¹ Translated into the context of the Geva-May Model and its theoretical conceptualization of gg-CT by policy analysis, in all instances there is a top-down, imposing culture prioritizing a controlled, tightly monitored policy analytic process.

The key difference in cultural bias identified between the social units concerns the intensity of cohesiveness of the group of individuals within those social units, in conforming to the grid-imposed restraints. The data reports in social unit 1 (total mean=17.90), social unit 3 (total mean=18.44), and social unit 4 (total mean=20.80) “high” groups.

---

⁵⁰ RQ 1: What is the identified cultural bias of each one of the object social units?
⁵¹ For the quantitative questionnaire, mean scores were used to assess the intensity of each dimension of culture and to identify cultural bias, with the interviews and content analysis providing contextual data on the same points of interest.
Social units 1, 3, and 4 exhibit a highly hierarchical grid, including an acceptance of the grid’s restraints by the “group” of policy analysts. In contrast, while units 2 and 5 exhibit a similar degree of imposition of restraints to the “high” grid, the “low” group within the social unit identified in social units 2-5 (respective total mean scores=17.24 and 16.25) changes the social unit’s characteristics. This reflects a more passive, more laisse-faire, less interactive context.

Given the positive relationships established between each dimension of cultural bias and policy analysis core methods use, it is evident that the lesser the intensity of the grid or the group, the more irregular the use of core methods of policy analysis. Therefore, as the juxtaposition of the grid and group dimensions accounts for the cultural bias, the characteristic bias changes the strength of the causality between cultural bias and policy analysis use.

Under such conditions (i.e., a weaker cohesiveness of the group as identified in social units 2 and 5), the contextual data indicated that policy analysts are much more siloed, often working on single files alone, having little guidance about the use of strategic methods. It is interesting to note that at the same time, there appear to be meticulous levels of direction guiding the methodical transactional and procedural steps of policy analysis (i.e., mandatory submissions and approvals protocols at pre-determined stages).

Under such conditions, the Geva-May Model conceptualization conceives of a more reactive policy analysis use with potentially insufficient phlegmatic capabilities, in a more passive “fatalistic” culture, as per gg-CT.
Emerging Patterns in the Intensity of Methods Use

RQ2 builds on RQ1 to shed light on the causality between the cultural bias of a social unit and its use of policy analysis methods. Specifically, RQ2\(^{52}\) aimed to assess the intensity of each social unit’s use of policy analysis methods. It stood out that the high-grid/high-group or high imposition/high cohesion social units consistently exhibit a greater intensity in their use of core systematic methods [social unit 1 (mean=287.14); social unit 3 (mean=298.80); social unit 4 (289.18)] in comparison to their high imposition/low cohesion (fatalistic) counterparts: social unit 2 (mean=285.27); social unit 5 (mean=278.43).

The other interesting aspect is the emergent patterns of degree of intensity of core systematic methods use, at each respective policy analysis stage, by social unit. The data identified at the stage of problem definition shows the highest frequency of an irregular intensity of core systematic methods use (across all ASTs) was exhibited by the high-grid/low-group passive social units. Social unit 2 (mean=46.88) and social unit 5 (mean=48.43) presented a somewhat-irregular degree of intensity of use of core systematic methods of policy analysis for all aspects of problem definition. In contrast, the more “hierarchical” high-grid/high-group social units demonstrated a somewhat regular intensity (social unit 1: mean=50.36; social unit 3: mean=56.14; social unit 4: mean=50.64).

Qualitative accounts suggest that the high-grid/low-group (fatalistic as per gg-CT) social units are less likely to deploy core systematic methods, such to challenge clients’ views of the problem, to ensure the structure of problem statements, to attach meaning and values to problem variables, or to initiate mixed-scanning. One representative quote suggests that in fatalist social units, clients are more likely to influence the problem definition: “In my world the problem

\(^{52}\) RQ 2: Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity of use by social unit by cultural bias?
definition is already started for us, [we are] told what the problem is and what they imagine the solution to be… that seems to be the case here” (social unit 2). Contrast this with the view of a hierarchical social unit like unit 4, reporting that, “The problem is peeling the onion… why is traffic the issue — we go further and peel the onion to what is the real issue you want to address rather than a symptom of the problem” (social unit 4).

**Susceptibility of Policy Analysis Use**

Further, whereas RQ2\(^{53}\) aimed to establish the intensity of each social unit’s use of policy analysis methods (i.e., ASTs at each stage), the third research question (RQ3) relates to their susceptibility to cultural bias at each stage of policy analysis.\(^{54}\) The data shows variation in the strength and the statistical significance of causal relationships at the different stages of policy analysis, concerning ASTs.

In descending order, the causal relationships are: cultural bias and *designing implementation* \((r=0.52; \text{p-value}=<0.0001)\); the *intervention and prediction of lab-solutions (modeling) stage* \((r=0.46; \text{p-value}=<0.0001)\); *problem definition* \((r=0.42; \text{p-value}=<0.05)\) and the stage of *communication, advocacy, and argumentation* \((r=0.39; \text{p-value}=<0.05)\). The latter is more moderate in both strength and significance (note the weaker p-values), meaning that the effect of cultural bias is weaker at these particular stages in comparison to others.

---

\(^{53}\) RQ2: Whether and to what extent do the core methodological components of policy analysis (i.e., approaches, strategies, and techniques) differ in their intensity of use by social unit by cultural bias?

\(^{54}\) RQ3: Whether and to what extent is the usage of policy analysis methods (i.e., approaches, strategies, and techniques) at policy analytic stages, susceptible to social unit cultural bias?
### Table 16.0

**Causation: Susceptibility of All Core Systematic Methods Utilization by Policy Analysis Stage, to Dimension of Grid (Imposition/Restraints) and Group (Acceptance/Conformity) Across All Object Social Units**

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Policy Analysis Stage</strong></td>
<td><strong>Susceptibility of Core Systematic Methods to All Social Units Cultural Bias</strong></td>
</tr>
<tr>
<td>Problem definition</td>
<td>0.42019 (moderate)</td>
</tr>
<tr>
<td></td>
<td>0.0004 (significant)</td>
</tr>
<tr>
<td>Intervention and prediction of solutions (modeling)</td>
<td>0.46076 (moderate)</td>
</tr>
<tr>
<td></td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
<tr>
<td>Selecting policy alternatives</td>
<td>0.13162 (weak)</td>
</tr>
<tr>
<td></td>
<td>0.2960 (insignificant)</td>
</tr>
<tr>
<td>Communication, advocacy, and argumentation</td>
<td>0.38964 (moderate)</td>
</tr>
<tr>
<td></td>
<td>0.0015 (significant)</td>
</tr>
<tr>
<td>Designing implementation</td>
<td>0.51650 (moderate)</td>
</tr>
<tr>
<td></td>
<td>&lt;0.0001 (highly significant)</td>
</tr>
</tbody>
</table>

Criteria: A Pearson’s correlation coefficient having a value > |0.7| can be assessed as a strong correlation; a coefficient between |0.4 – 0.7| a moderate correlation, a Pearson’s r below |0.4| suggests a weaker relationship. Note: although a Pearson’s r below |0.3| may be statistically significant, it is not a practically significant result worth exploring. In regard to significance, a p-value is presented in the brackets to indicate the statistical significance of the relationship. A p-value of <0.0001 confirms a highly statistically significant relationship; p-value of <0.05 are significant and values >0.05 are insignificant.

Of interest, no causal relationship was identified between cultural bias and *selecting alternatives* (r=0.13; p-value=>0.05) even though the *intensity* of use of core systematic methods for *selecting alternatives* is quite high. For instance, for the strategies of *selecting policy alternatives* four of the five social units report “quite-intensive” use and one social unit “somewhat-intensive” use: social unit 1 (mean=18.93), social unit 2 (mean=18.07), social unit 4 (mean=18.64), social unit 5 (mean=18.71), and social unit 3 (mean=16.33). This is the greatest frequency of a quite-intensive degree of use of core systematic methods use identified across the study.

Although neither directly related to the study’s Hypothesis nor to its RQs, it was intriguing to deploy an analysis of variance procedure (ANOVA) in the hope of shedding more light on the
way that the stage of selecting policy alternatives seems not to be susceptible to cultural bias. This statistical test controlled for the demographic variables measured in the quantitative questionnaire. This enabled the study to compare the strength of the causal relationships between the independent variable cultural bias and the dependent variable policy analysis methods use, with the forces of the demographic factors on the dependent variable policy analysis methods use. The results confirm again that selecting alternatives is not susceptible to the grid or group dimensions of cultural bias… nor to any of the demographic variables assessed: age, gender, tenure, or education.

According to the qualitative data, the stage of selecting policy alternatives is governed by predictable, standard operating procedures in presenting policy alternatives to Cabinet, for instance. Furthermore, when selecting alternative solutions, high echelon politics or the whims of clients of the policy analysis may well supersede any explanatory variable, let alone cultural bias. Some objects report that selection is pre-determined by the upper echelons of the social unit, in advance of the policy analysis, which is one of the major pitfalls of policy analysis and related policy design: if a problem has not been solved before, it is unlikely that it will be solved following predetermined positions.

Contributions to Scholarly Research and the Field of Practice

This study is a first attempt at assessing the impact of cultural bias on policy analysis practice. In the existing literature, studies have aimed to assess cultural bias’ impact on public policy in general (Douglas & Wildavsky, 1986; Glied, 2018;; Hood, 1998; Inglehart, 1994; Klitgaard, 1995; Levi & Zehavi, 2017; Paesen et al., 2019; Swedlow, 2020; Zhongyu & El Ghoul, 2018).
The primary contribution (1) is de facto that of the initially sought findings of this study, which have confirmed specifically the causality between the dependent variable of the policy analytic process and its susceptibility to the cultural bias of the social unit, in which the policy analysis occurs; that types of cultural bias affect the degree of policy analysis use within those units; and finally, that certain methodological stages of policy analysis are more or less affected by the type of social unit cultural bias (independent variable).

Secondly (2), the study operationalized and validated the Geva-May Model (2002) which served as the backbone of this study, given the initial conceptualization of a methodology on the susceptibility of policy analysis to cultural bias. The comparative research design, calling for triangulation of tools within the Battery, used the Model as a cornerstone in operationalizing the concepts of cultural bias and policy analysis methodology by policy analytic stage. The study’s validation of the Battery of Tools and of the findings obtained has established a valid and reliable diagnostic Model, identifying social unit cultural bias as an independent variable, degrees of practice use within a social unit as a dependent variable, and the causal relationships between these variables. Further, the Model can be used as the basis for further research on cultural bias per other aspects of policy making, administrative practices, governance approaches, and many others.

A third and fourth inter-related contribution(s) to the two listed above (3) are the establishment of a replicable and valid research design as well as a (4) reliable and extremely sensitive Battery of Tools, which assesses cultural bias and use of the core systematic methods of policy analysis and identifies causation between these two independent and dependant variables. As mentioned, these two contributions stem from the operationalization of the Geva-May Model,
adding significant knowledge to the field and opening the door to further research based on the model.

A fifth contribution (5) is that the promise of the theory-based model of policy analysis by cultural bias applied is extended as a practice diagnostic. The findings inform an operational barometer capable to detect cultural bias of a social unit in which policy analysis occurs, and the characteristics and intensity of use of core policy analysis methods. Clients of a policy analysis may care to inventory intensity of core methods use and/or social unit cultural bias for information and other purposes (i.e., to inform skill development, training).

Finally, (6) this study put policy analysis methods use under the research microscope and opened the investigation through the comparative lens of social units as objects of analyses. Thus, the findings can support other studies aiming to assess policy analysis methodology susceptibility at other government level social units and in different contexts. Also, given the operationalization of cultural bias, the findings can support other studies on the susceptibility of governmental processes such as crisis management, disaster response, budgeting, succession and contingency planning to cultural bias.

Interest in the model’s application arose because of my observation of healthcare planning and policy process. I noted, in particular, how intended “methodological practices” and “operating procedures” and/or “clinical pathways” are inhibited — or accelerated — by “cultural bias” (i.e., cultural contextual similarities and difference of the operational social unit). When translated to the context of the bureaucracy, the methodological practices intensification or deterioration concerns the intensity of use of core systematic methods, during policy analysis.

This study’s findings, as a first in testing the causality between cultural bias and core systematic methods use, opens the window to further future research (7) which I describe below.
**Advancing Cultural “Bias” Research**

Mapping types of cultural bias that institutionalize “blindspots” which serve as Achilles’ heels: unless “caught” and corrected, they persist (Hood, 1988; Wouters et. al, 2014). To specify, this study’s findings, and its Battery of Tools, can identify Achilles’ heels inherent in the practice of systematic, policy analysis-based policy making.

Additionally, this study operationalized and measured cultural bias as per the social relations within the social unit. As per the Geva-May Model, I assigned a cultural bias given the intensity of the grid and the group exhibited with the contextual social unit. This is different than assessing worldviews of subjects and thereby a corresponding cultural bias to the person based on that worldview. Future research can couple the measurement of the contextual cultural bias as per social relations with worldviews and the individual respondent’s personal cultural bias.

**Advancing Classifications of Policy Analysts**

From a scholarly perspective, such topological characterizations are primarily focused on political versus technical attributes (Meltsner, 1982), issues advocacy (Jenkins-Smith, 1982), and “style” (i.e., as facilitator, as project manager, as client advisor, and so forth) (Mayer Van Daalen & Bots, 2001; Brans et al., 2018).

These previous classifications can be criticized by Inglehart’s (1990) claim that models of the policy process which ignore cultural factors are incomplete. The causal relationships proven in this study consider Inglehart’s challenge and recognize cultural bias as a factor accounting for policy analyst use of systematic policy analysis methods rather than looser more intuitive ones.

**Advancing Weight of gg-CT and the “Stages” Approach**
The findings obtained in this study move the interface of gg-CT and public policy research beyond discussion of gg-CT as a tool within an analyst’s kit (Baxter, 2011; Geva-May, 2002; Hirsch, 2011; Hoppe, 2007; Kim, 2003). They shift the theory from its current lens as a grand “predictor” of public policy preference (Conner et al., 2016; Kahan, 2019) or public management penchant (Hood, 1998) and typical use as explanandum and interpreter of past events (Douglas & Wildavsky, 1983; Simmons, 2016; Swedlow, 2008). Gg-CT is advanced to a causal theory affecting policy analysis and though this process, the policy process.

Similar amelioration regards the “stages” approach to policy analysis as a theory: this theory of the policy process considers other external factors affecting components of the policy analysis process. This includes cultural bias affecting policy analysis routine, robustness, or performance. This is important, as according to deLeon (1988, 1989), that contextual view central to the “stages” approach underpins the veracity and legitimacy of the “stages” approach as a theory of the policy process. This supports the aspiration of policy analysis in general to be more scientific (Levy et. al 2023) and in advancing a formal methodology (Geva-May, 2023) - as in validating key methods of the profession at particular stages of analysis.

The causality established by the findings of the study begin to address many of Sabatier (1991) and Weible’s (2018) critiques of the “stages” approach. Take for instance a main critique, that the “stages approach” theory lacks causation. Despite the iterative nature of policy analysis, the findings create a strong evidence base concerning the alignment of ASTs to the theoretical “stages,” as conceptualized. This establishes a clear pattern of methods hard-wired to succinct stages, which again is important given the highly iterative nature of policy analysis.
The final contributions below respect the findings and other indications in this study, and ultimately the foundation provided as a window through which to undertake research activity.

Causal Applications

The high replicability of the research design, is one of the study’s contributions. Although applied in this study to Canadian government provincial social units as objects, to measure the susceptibility of policy analysis to cultural bias, it can be applied to other levels of government, NGOs, private sector lobby organizations, and any social unit in which policy analysis occurs.

Cultural Bias and the Quality of a Policy Analytic Product

The application of the Geva-May Model did not examine the quality of a policy analysis output. Regarding “quality,” I refer to a general comprehensiveness prescribed in various accounts (Dunn, 2015; Liu, 2021; Nasi & Geva-May, 2008; Weimer et al., 2018). Future designs may consider causality between cultural bias and the quality of a policy analytic product.

In a similar vein and although tenuous, once diagnosing the cultural bias of a social unit in policy analysis takes place, research could aim to isolate those ultimate successes and outrageous failures across jurisdictions, comparing the cultural bias of those social unit contexts charged with the policy analysis to the cultural bias of policy targets. This can demonstrate causality between cultural bias and “acceptance” of a public policy and answer questions such as: whether and to what extent does alignment of cultural bias in which the policy analysis occurs, and the cultural bias of the policy targets, impact policy utility?

Susceptibility of the Selecting Policy Alternatives Stage of Policy Analysis

Again concerning future research on policy analysis craft, recall that in the present study data indicated that the grid nor group dimensions of culture, gender, education, age, or years of
experience are not significant predictors of core methods use for selecting alternatives. This is a significant contribution to the research agenda because, the stage of selecting policy alternatives appears unsusceptible to a variety of factors, whether cultural bias or demographic factors.

The data confirmed the understanding that at this stage of policy analysis, ultimately it is senior decision-makers, the client, who select the alternative, despite methods used, culture, or other factors: “If the minister tells us that’s how it’s going to be, we have no choice...” (social unit 3); “We see a lot of stuff… generally not more than 3 options; (a) preferred option; (b) status quo; and (c) sometimes, and not as often as it should be, a third option” (social unit 1).

Future research may explore the susceptibility of alternative selection more deeply and answer questions such as: what is the selecting alternatives stage susceptible to?

Implications for Practice

The study can also lend itself to practice through the diagnostic capability of the study and its design. At the practice level, the contribution pertains to the advancement of the concept of a pre-conjured deliberate attention to degrees of intensity of use of systematic methods of the policy analysis. While accounting for the cultural bias of the social unit, clients of a policy analysis may have a preference to secure a particular cultural bias to ascertain more or less

---

55 The p-values indicate a lack of statistical significance: Gender (p-value=0.8041); education (p-value=0.6493); age (p-value=0.1730); years of experience (p-value=0.2441); grid (p-value=0.4955); group (p-value=0.9053).

56 Note: For transparency I disclose that the reliability and operationalization of the scale assessing use for selecting policy alternatives achieved the weakest Cronbach Alpha (α=0.46) when compared to other stages. Although the weakest Alpha, this is still an acceptable signal of scale reliability and indicates a somewhat moderate level of agreement. Additionally, the literature clearly supports the selection of methodological components at this stage.

57 A strong level of agreement was confirmed for utilization of core systematic methods of policy analysis in totality (α=0.87). Reliability was obtained given strong levels of agreement in response patterns for problem definition (α=0.78), communication, advocacy, and argumentation (α=0.77) and the designing implementation (α=0.65) stages. The scale for intervention and prediction through lab-solutions (modeling) stage (α=0.50) and selecting policy alternatives (α=0.46) indicated more moderate degrees.
intensive core systematic methods use. In the field of practice this mapping can also facilitate efforts at targeted improvement in the robustness of a policy analysis.  

Take, for instance, the following picture, in which the client possesses a clear indication of potential gaps in core systematic methods use.

Table 17.0
Example: Summary of Core Systematic Methods with a Low Intensity of Utilization

<table>
<thead>
<tr>
<th>“A”</th>
<th>“B”</th>
<th>“C”</th>
<th>“D”</th>
<th>“E”</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem definition stage</td>
<td>Intervention and prediction of solutions (modeling) stage</td>
<td>Selecting policy alternatives stage</td>
<td>Communication, advocacy, and argumentation stage</td>
<td>Designing implementation stage</td>
</tr>
<tr>
<td>Avoiding blatant solution incorporation within the problem definition</td>
<td>Utilizing meta-model constructs (craft judgements)</td>
<td>Avoiding straw options</td>
<td>Requiring ethics within the argument</td>
<td>Developing operational stepping-stones / roadmaps</td>
</tr>
<tr>
<td>Deconstructing the problem situation / mapping stakeholders</td>
<td>Deploying qualitative models</td>
<td>Applying cost-benefit analysis</td>
<td>Deliberately ordering the agenda</td>
<td></td>
</tr>
<tr>
<td>Developing multiple problem definitions</td>
<td></td>
<td></td>
<td></td>
<td>Keeping arguments clear and simple</td>
</tr>
</tbody>
</table>

The cells in columns “A” to “E” present each policy analysis stage and methodological components, which demonstrated (for example) weak utilization. Based on this data, this organization may choose to encourage greater reliance on craft judgements and use of qualitative models as part of intervention and prediction of lab-solutions (modeling); and at designing implementation, a greater focus on generating stepping-stones for implementation.

Note: There are empirical examples, like this diagnostic, focused on skill use, yet they are not as valid. One such attempt has been made by the OECD, which collects self-reported data from single stakeholders, claiming representative skills use for macro contexts. However, that inventory is at the national level, and thereby extremely general in nature, missing the nuances of social unit context and differences in sub-national jurisdictions, departments, and policy domains. Further, such attempts are not casual in nature with respect to methods use.
This detail is important as there are core systematic methods of policy analysis (Anderson, 1975; Bardach, 2000; Dror, 1973; Dunn, 2015; Geva-May, 2023; Laswell, 1956; MacRae & Whittington, 1997; Majone & Quade, 1980; Pal, 2005; Patton & Sawicki, Patton et al., 2018; Weimer & Vining, 2014; Wildavsky, 1986) to which analytic social units should aspire. From a cognitive perspective, “policy analysts themselves should be aware of their own cultural biases, be able to recognize sensitivities, and be willing to address them” (Geva-May, 2023).

These methods can further serve as the guardrails against which a client body is able to assess professional analytic conduct and recommended outcomes. From a professional practice perspective it is comparable to an evaluator observing clinical procedures to accredit a hospital, or certifying the standing of a department, a school, or a program of public policy and administration. A diagnostic barometer contributes to the field as an assessment mechanism, in comparing social units within or across domains and jurisdictions.

**Summary**

What we have learned from the comparative findings of this study is that when aiming for greater degrees of use of core systematic methods, the client should develop a highly directive high-grid/high-group context. Enablers, for instance, can be prescriptive procedure manuals, training schemes, and rules for methods adoption, reinforcing directives to drive form and function. Leaders may want to facilitate group solidarity and cooperation within and among teams, joint decision-making, open office configurations, and communal space.

---

59 Mamadouh (1999) writes that such contexts breed overreliance on rules and technical authority (memos, templates, data repositories), alongside embedded routine (i.e., timing of submissions, review functions such as a central coordinating function). This may contribute to a technically robust, yet more robotic, less genuine policy analysis.

60 In Egalitarian contexts there are fewer restraints, yet because of greater cohesiveness in sticking to whichever methods, the group is vulnerable to impasse. Given equity, no one can instruct another on what to do, which systematic core methods to use, and to what intensity (c.f. Wouters et al., 2014; see also Thompson et al., 1990).
The findings obtained in this study appear to indicate that high-grid/low-group social unit cultural bias contexts are disposed to creating policy advice that is based on less systematic methods, and in turn, potentially more ad-hoc piecemeal advice and analyses.\textsuperscript{61} Finally, leaders of social units may seek spontaneity and entrepreneurialism of analytic craft, that is, they may promote a low-grid/low-group social unit cultural bias, by way of private working arrangements, “bonus” structures, and full freedom in methods selection.\textsuperscript{62, 63}

Considering the plethora of contributions realised by the operationalization of the Geva-May Model, establishing such diagnostic prowess, the concluding remarks are trite. It is noteworthy that this study has not aimed to identify the best way forward. Neither the Geva-May Model nor the findings of the study prescribe that one “type” of social unit cultural bias is best for policy analysis, nor that less intense use of core methods results in a “bad” policy analysis.

Notwithstanding, the study confirmed the Hypothesis that cultural bias is a causal factor affecting the degree to which core systematic policy analytic methods are used, and that certain methods of policy analysis are more susceptible than others. This has been the main concern in undertaking this study by operationalizing the \textit{Geva-May Model of Policy Analysis by Cultural Bias} and establishing its validity and reliability as a diagnostic tool. To these findings, both scholars and practitioners should be mindful in their respective endeavours - reflecting more deeply on the implications of context in affecting the use of policy analysis methodology.

\textsuperscript{61} Wouters et. al (2014) refers to Loyens (2012) and warns of an “unavoidable impotence” in problem solving. Mamadouh (1999) points to a greater unwillingness to plan and a lethargic attitude.

\textsuperscript{62} Individualistic cultural bias contexts are exposed to egos and a lack of cooperation given that role holders act for their own benefit (c.f. Wouters et. al, 2014; see Thompson, 1990). The lack of cohesion in conforming to constraints, whichever they may be, results in a meeker use of core systematic methods.

\textsuperscript{63} In egalitarian contexts there are fewer restraints, yet because of greater cohesiveness in sticking to whichever methods, the group is vulnerable to impasse. Given equity, no one can instruct another on what to do, which systematic core methods to use, and to what intensity (c.f. Wouters et.al, 2014; see Thompson et al., 1990).
Appendix 1.0: Improvements to Tools

Pre-Pilot Study Tools Improvements

The Pre-Pilot Study consisted of two phases: Phase 1 was a collaborative questionnaire development step focused conceptually on terms of language of items and questionnaire organization; Phase 2 was the administration of a Pre-Pilot Study questionnaire tool and interviews. The re-calibration of the tools resulting from the experience of the Pre-Pilot Study (Phase 1 and Phase 2) are:

- In the Pre-Pilot Study the criteria established measuring intensity to utilization of policy analysis methods corresponded to three categories: “low” (4.0 - 8.0), “moderate” (>8.0 - 12.0), and “high” utilization (>12.0 - 16.0). These ranges proved not sensitive enough to capture meaningful results i.e., mean scores indicated that utilization to all methodological components across all analytic stages, a “moderate” utilization.

- In order to increase the sensitivity of the measurement tools the Pilot Study and Final Study advanced from three to six ranges of interpretation. Policy analysis methods: from low-utilization, medium-utilization, and high-utilization to very-irregular utilization, irregular utilization, somewhat-irregular utilization, and somewhat-regular utilization, quite regular utilization, very-regular utilization. Social unit cultural bias: low Grid/Group, medium Grid/Group, high Grid/Group, to very low Grid/Group, low Grid/Group, somewhat low Grid/Group, somewhat high Grid/Group, high Grid/Group, and very high Grid/Group.

- In the Pre-Pilot Study the split-half method was only applied to the measurement of social unit cultural bias, not utilization of core methods of policy analysis. Upon review
of the literature and for reasons of consistency, a split-half design was adopted in the Pilot Study for all variables measured.

- During the Pre-Pilot it became evident that requesting as objects of analysis those with the title “policy analyst” was misleading and served to preclude appropriate objects.
- The exploratory interviews held as part of the Pre-Pilot Study were extremely colloquial in nature (at this stage purposely intended to primarily elicit feedback on the questionnaire tool, and to learn more about the day-to-day working life of a “policy analyst”). To increase structured response data and formality, double-raters were added to interviews for the Pilot Study and the Final Study.
- Finally, formal tools or grids were developed for the Pilot and Final Studies to more transparently capture interview and content analysis data, and to align that information with the cultural and policy analysis methodological components being measured.

Having undertaken the above improvements in the construction of the Battery, I moved forward to apply the Model in a formal Pilot Study.

**Pilot Study Tools Improvements**

A principal components analysis was undertaken of the questionnaire entries in order to identify the strength and relevance of a split-half pair of entries. This revealed that by adjusting particular items, the reliability of the scale would likely increase; this prompted a re-write of some entries to improve reliability. As part of the initial analysis of each questionnaire entry, each item was analyzed, controlling for the intended direction of the item, that is, being forward or reversed. Each item’s coding was then “flipped” in a subsequent analysis, in order to test whether reliability of the scale would increase or fall. If reliability increased, this was a potential signal that the statement included in the questionnaire may not have had clear meaning, was
double-barrelled, or was presented in a faulty or unintended direction. In a few instances the “flipping” of the items produced stronger measures of agreement. The table below summarizes the updates to the questionnaire entries, given that rigorous analysis:

**Table A1 Improvements to Potentially Unreliable Questionnaire Entries**

<table>
<thead>
<tr>
<th>Question #</th>
<th>Dimension/Component</th>
<th>Original Item</th>
<th>Revised Item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grid #1</td>
<td>[Culture – Grid]</td>
<td>#1 If I miss a deadline, I'm expected to inform my superior immediately.</td>
<td>Question removed from bank.</td>
</tr>
<tr>
<td>Group #7</td>
<td>[Culture – Group]</td>
<td>#7 When gathering data I usually partner with colleagues.</td>
<td>Question removed from bank.</td>
</tr>
<tr>
<td>Problem Definition #12</td>
<td>[Approach – Extent of Solution Incorporation within the Problem Definition]</td>
<td>I never embed solutions when I articulate the policy problem.*</td>
<td>I usually plant the solution inside my problem statement.</td>
</tr>
<tr>
<td>Forecasting Outcomes #24</td>
<td>[Technique – Forecasting/Leveraging Interaction Effects of Problem]</td>
<td>It makes no sense to spend too much time seeking cause and effect, as everything is inter-related.*</td>
<td>There is no point in understanding how the variables of the problem situation, interact with one another.*</td>
</tr>
<tr>
<td>Alternative Selection #21</td>
<td>[Technique – All-Inclusive Solutions are Avoided]</td>
<td>My policy solutions usually try to improve things beyond the specific problem the solution aims to solve.*</td>
<td>I tend to fix problems beyond the identified issue.*</td>
</tr>
<tr>
<td>Alternative Selection #22</td>
<td>[Technique – Cost-Benefit Analysis is Applied]</td>
<td>Cost-benefit analysis is a great technique, but I don’t always use it as policies are not just about numbers.*</td>
<td>I rarely use cost-benefit analysis when I consider my policy solutions.*</td>
</tr>
<tr>
<td>Argumentation &amp; Advocacy #2</td>
<td>[Approach – Ethics are Required within the Argument (Nature of the Argument)]</td>
<td>Arguments are most effective when they consider moral local values.</td>
<td>I don’t see why I should bend my arguments about a policy solution, to meet an audience’s values.</td>
</tr>
<tr>
<td>Argumentation &amp; Advocacy #10</td>
<td>[Technique – Argument is Kept Clear and Simple (Avoiding Technical Terms or Jargon)]</td>
<td>Supporting arguments that have an expert orientation are the best (the ones that are full of “scientific jargon” and “hard data”).*</td>
<td>I think that my arguments about the policy solution would sound more reliable, if I used professional jargon.*</td>
</tr>
<tr>
<td>Argumentation &amp; Advocacy #19</td>
<td>[Technique – Venue Change is Adopted]</td>
<td>Solutions will be adopted or rejected, regardless of who makes the final decision.*</td>
<td>When I present my policy solution, I make sure that the venue in which I deliver it, is a friendly one.</td>
</tr>
</tbody>
</table>
Appendix 2.0: Invitation for a Jurisdiction to Participate in a Research Study

VIA EMAIL

Dear Sir/Madam:

Subject: Invitation to Participate in a Study on PA and Culture

Working Title: The Impact of Institutional Cultural Bias on Policy Analytic Routine: Ministries and Departments in Canada’s Public Service.

What is the Research (and the Tangible Outputs) All About?

- Policy-makers understand that success in PA, development and deployment takes more than selecting the best people, with the best skill-sets, and providing clear direction and training to engage in analytic type activities;

- Increasingly, it is acknowledged that the “culture” of the work unit matters. For many years senior Canadian bureaucrats have noted large differences in how “PA” is “done” within and across their portfolios;

- This variation can serve as a source of frustration absorbing limited resources in trying to bring consistency and standardization to what may appear as “consistently different” analyses, recommendations, and outputs (of a core business practice of the public service);

- Diversity can be puzzling given the relative homogeneity of resources focusing on policy type work, and living in an age where the discipline has begun to mature as a profession;

- Current “fixes” do not address the root cause (i.e., there can be tremendous repeatable effort by Executive Councils or policy coordination units to smooth and bring consistency);

- An understanding of how the Institutional Culture and organization links to the everyday workflows, outputs, degrees of collaboration, and discretion experienced as part of an “analytic” working experience, is important, as culture may account for variance in routine;

- Canada’s bureaucracies are recognized as world-class…but most senior leaders do not possess detailed “cultural” profiles of their units, portfolios, or divisions giving them critical insights → being those “social units” undertaking policy analytic work and activities;

- An inventory of an analyst’s affinity for selection and uptake of core and foundational policy analytic Approaches, Strategies and Techniques can provide critical insights as well;

- This research is designed to be of minimal imposition (e.g., 20-25 minute questionnaire; self-identification for a 30 minute interview), is practical, and has a quick turnaround time;
• The study has developed tangible tools to enable the development of cultural profiles, and inventories of those Approaches, Strategies and Techniques deployed as part of “PA”. Actionable recommendations will be made for participating portfolios working to align outputs and culture with intended analytic approaches and ways of working;

• The intent is to equip senior leaders with an ability to craft and action a Roadmap that is unique. In some portfolios, analysts themselves have requested these insights and guidance;

• Please find the formal description below.

Dear Sir or Madam,

My name is Shawn Drake and I am a PhD candidate in the School of Public Policy and Administration at Carleton University. I am working on my doctoral research project under the supervision of Prof. Iris Geva-May, Prof. Allan Maslove, and Prof. Leslie Pal. I am writing directly given your leadership over units, departments or divisions that are dedicated to the analysis, formulation and planning of public policy.

The Problem this Research Seeks to Help Alleviate:

• Within many Canadian jurisdictions when developing and recommending policy options, it is common that units, portfolios, divisions (analytic “social units”) interact either (a) within single Ministries/Departments; or (b) come together across multiple Ministries/Departments;

• When such “collaboration” occurs, a lack of standardization and consistency in PA activities or “craft routine” between those social units, does not go unnoticed by one another, nor superiors. This can create a waste of effort and resources, and drive inefficiencies in an already challenged environment;

• The policy recommendation outputs and differences at simply “getting there”, can make adoption and implementation infeasible. Adoption fails as variance in analytic approach can cast doubt on quality or rigor; triggering overall concerns of robustness at deliberation. At implementation/planning unfamiliar or inconsistent styles impact the ability to coordinate across one another, ultimately undermining total confidence;

• For decades now senior bureaucrats across Canada have noted variance in policy analytic routine. Today in 2019, PA can be said to have achieved a particular maturation as a profession 64;

• Nonetheless we still find senior bureaucrats within their own Ministries/Departments, or those taking the perspective of an Executive or Privy Council → extremely irritated and frustrated,

64 For instance, graduate schools sharing some common curriculum are now preparing analysts, a handful of core or foundational skills have been established in the field, in some jurisdictions there is consistent preparatory training for analytic roles, many government units have published “playbooks” or “guidelines” underpinning analytic approach, recommending the uptake of particular strategies and tools (Adachi, 2017b); (Blum & Brans, 2017; Botha et al., 2017); (Barragán-Beaud et al., 2018; B. Radin, 2013; B. A. Radin, 2011)
wrestling with differences in approach and outputs. Cleansing, validating, and subsequently re-working policy analyses is a classic workaround and a typical response that does not address the root cause of inconsistency in practice.\(^{65}\)

- So, what is it that accounts for this variance? Afterall, there is a particular homogeneity of individuals in Canada across the Federal and Provincial levels involved in PA...A simple yet neglected variable considers the institutional culture of a portfolio, and the unique profile of a “social unit” engaged in PA;

- Measuring and understanding better those elements of “culture” that share a direct relationship to the selection of the Approaches, Strategies and Tools deployed as part of analysis, can bring insights for leadership. They help to forge a plan to align with the intended culture of the organization and simultaneously develops a blueprint of leading practice analytic maneuvers, to reinforce and to stick to;

- Ultimately, PA is a core business process for which the Ministry/Department is accountable.\(^{66}\) The intent of this study is to equip senior leaders in Canada’s bureaucracies with some additional knowledge concerning these variables. You may choose to leverage the output of this research for continuous improvement in meeting your critical-path objectives.

**Outputs for Participating Jurisdictions:**

- Assessment of the predominant “cultural bias” of each participating unit/department/division\(^{67}\);
- Inventory of the level of reported adoption of a variety of analytic Approaches, Strategies and Techniques;
- Inventory of attitudes from actual policy analysts inside your portfolio on the ground, towards those established and key Approaches, Strategies and Techniques and perception of the collaboration and control;
- Summary document intended for an executive audience presenting key triangulated research findings including actionable recommendations;
- Draft roadmap informed by the strategic direction of the portfolio and debriefings;
- Copy of the thesis presenting the findings of all participating jurisdictions (jurisdictions are anonymized).

---

\(^{65}\) It is not uncommon for recommendations requiring Cabinet support that funded “policy coordination” functions or specialized units deal with that craft variance. Activities to address include polishing, scrubbing, re-writing, additional unplanned and subsequent analyses, fact checking, and aligning the look and feel of policy alternative recommendations (Geva-May, 2020; Geva-May, 2002), (Geva-May & Pal, 1999); (Scott, 2017b).

\(^{66}\) Beyond those internal struggles in “closed systems”, there are significant investments of effort each year in broader more “open systems”. There are countless national collaborations occurring between Federal, Provincial and Territorial agencies (and funders and regulators). There are many intents to leverage the knowledge and experience of partner jurisdictions towards some form of harmonization. Having a better understanding of internal and external variations of cultural bias, and how that shows-up in the Approaches, Strategies and Techniques of PA between jurisdictions and why, may also help to harmonize more effectively and recoup costs and effort of collaboration.

\(^{67}\) The study operationalizes gg-CT as established by (Douglas, 1986)(Douglas, 1982 #668), 2005 (Douglas, 2005 #666) a British anthropologist, and adopted for policy studies through collaborations with Aaron Wildavsky (Goldman, Berkeley) among others.
Scope:
The study has secured resources and the research team is open to dedicating resources to either a single larger Ministry/Department in your jurisdiction such as Health, Education, Transportation, etc. or the study can be administered across multiple Ministries/Departments within your jurisdiction (this approach may provide for additional continuity and opportunity at alignment, ability to harmonize outputs and approaches and increase coordination).

The employer is being asked to forward a recruitment email to appropriate employee participants, to share any training or guidance documents on PA craft for review, and to allow the researcher to observe a regularly scheduled meeting of analysts. Employers have a responsibility in relation to the participants not to exert pressure, not to seek to identify those who have participated or to use any aspect of the study against participants.

Please contact Shawn Drake for more information and to discuss alignment to your priorities (contact information within and below). Please see immediate next page for a more Technical Overview.

Technical Overview

Backdrop:
This study is interested in “PA” activities and the culture of the workplace in which policy is worked on, planned for, considered and/or where potential policy ideas may come to fruition. The independent variable in this study is Cultural Bias as defined by Grid-Group/Cultural Theory (gg-CT). This theory of institutions and organization categorizes culture by interaction of degrees of “grid” being traits of rules, direction, and negotiation -- with “group” primarily concerned with collaboration, cohesion and influence. The juxtapose of these elements produce four viable cultural contingents: hierarchism, egalitarianism, individualism, or fatalism.

The dependent variable in this study is the policy analytic process, each stage having foundational craft approaches and skills established in the literature. This study seeks to measure and assess the predominant Cultural Bias of a social unit undertaking “PA” and the impact of that bias on the various Approaches, Strategies and Techniques deployed as Analytic Craft Routine. In this study we measure attitudes towards, and application of, art and craft as it occurs across policy analytic stages: (a) problem definition; (b) forecasting outcomes/modeling solutions; (c) alternative selection; (d) argumentation and advocacy; and (e) implementation planning.

Benefits to Participating Jurisdictions:
Assessing the dimensions of institutional culture and PA craft routine offers both the senior “clients” of PA and also “owners” of policy analytic units’, a variety of insights and tools. Participation in this study

68 Empirical observations note large differences amongst government agencies in analytic processes whether institutional, cultural or administrative in nature (Geva-May, 2020; Geva-May, 2002; Geva-May, 2019); (Glied, 2018); (Levi & Zehavi, 2017). In areas such as Finance, “analyst bias” is typically discussed incl. links to the broader organization. Institutions hold a variety of “cultures that cultivate different mixes of analytic skills” (Geva-May, 2002), 228). Context is a main consideration in the analytic process (DeLeon; 1999 {DeLeon, 1999 #766}; (Geva-May & Wildavsky, 1997); (Weimer & Vining, 2005; Weimer & Vining, 2011). A number of commentaries identify that the policy cycle is susceptible to norms, values, beliefs, heuristics and practices, (culture by definition) of institutions creating policy. Analysts hold varying role/value orientations (Durning & Osuna, 1994); Mayer {Mayer, 2013 #767}, van Daalen & Bots, 2013) placing different weights on what they do and how they do it (Meltser, 1972), 17).
can (1) help to increase awareness of institutional culture of workflows given the organizations intent vs. the culture felt and reported by resources undertaking PA. Measurement of the variables under study (2) will also identify the analytic Approaches, Strategies and Techniques occurring, and preferences towards those foundations, which can help support optimization and alignment of analytic activity within various portfolios.

This study does not seek to solve a specific policy “problem” in a particular domain. It views the issue under study as the susceptibility of policy analytic routine to institutional culture, and the corresponding inferences for robustness of analysis, harmonization, adoption and implementation potential:

<table>
<thead>
<tr>
<th>Policy Analytic Stage</th>
<th>Cultural Bias</th>
<th>Hierarchical Cultural Bias</th>
<th>Egalitarian Cultural Bias</th>
<th>Individualist Cultural Bias</th>
<th>Fatalist Cultural Bias</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Definition</td>
<td>Obs 1, Obs 2, Obs n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Forecasting Outcomes / Modeling</td>
<td>Obs 1, Obs 2, Obs n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alternative Selection</td>
<td>Obs 1, Obs 2, Obs n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Argumentation and Advocacy</td>
<td>Obs 1, Obs 2, Obs n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Implementation Planning</td>
<td>Obs 1, Obs 2, Obs n</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.0 The Geva-May (2002) Model of PA by Cultural Bias.

The operationalization of a model of PA by cultural bias, or the filling-in-of-the-blanks in the Table 1.0 above, allows for the tracing of cultural bias and analytic practice in order to alert senior decision-makers to perceptions of culture, attitudes towards key policy analytic methodologies and tools, and corresponding differences and similarities across their units. Differences that remain unaccounted for or misunderstood can strain resources, time, costs and efficiency. For these reasons above, Prof. Geva-May the Senior Supervisor on this study developed a model of PA by culture. This doctoral dissertation operationalizes, tests and aims to further develop that model for the very first time (focusing on Ministries and Departments in Canada).

Research Method:

To measure the independent variable Cultural Bias and the dependent variable Analytic Craft Routine across each case study, the Research Method adopted is “Mixed Methods”. The tools applied are: (1) a 20-minute online questionnaire - invitation sent to “analysts” undertaking PA within various Ministries and/or Departments; (2) 30-minute open-ended-semi-structured interviews with some participants.

It has recently been noted that, “…a high-profile state with substantial policy-making responsibilities at the sub-national level, Canada provides a strong case from which to generate insights into the differences and similarities of policy analytic work in multi-level governance systems” Howlett & Wellstead, 2017, 89; Commentary has occurred on the mixes of styles in Canada for some time, but “culture” continues to remain unexplored; (Howlett & Lindquist, 2004), (Wellstead et al., 2017).
(those who have self-identified to participate in an interview); and (3) content analysis of relevant organization documents that are publicly available.

**Imposition and Risks:**
The study has been designed to be of minimal imposition and risk. There are no unique tokens or passwords required to access the online questionnaire. A coding system for interviews will ensure anonymity of responses. Content analysis undertaken will be of public documents and individual names appearing in any documents will not be referenced. If the organization grants approval to observe an internal meeting, participants will not be identified in the research and the nature of the meeting will not be cited. Each of these four tools aims to triangulate quantitative and qualitative data against one another to identify and assess a predominant culture and attitudes towards the Approaches, Strategies and Techniques deployed as part of the policy analytic process. As a token of appreciation and in order to encourage responses, the study raffles a 300.00 CAD gift card from Best Buy (a national electronics retailer). Those who subsequently choose to withdraw from the study are still eligible.

**Timeline:**
The online questionnaire is targeted for go-live for the month of September. Interviews are self-identified by participants and to be scheduled in late September and early October. The research team is scheduled to start content analysis of documents shortly.

**Approvals:**
This ethics protocol for this project has been approved by Carleton University Ethics Board-A (Project # 111397). Should you have questions or concerns related to your involvement in this research, please contact: the Carleton University Research Ethics Board-A (by phone at 613-520-2600 ext. 2517 or via email at ethics@carleton.ca). If you have any questions please contact me at: ShawnDrake@cmail.carleton.ca or 778.386.5812.

Sincerely,

Shawn C. Drake, BA, MSc, PhD candidate
School of Public Policy and Administration
Carleton University, Ottawa
ShawnDrake@cmail.carleton.ca
778.386.5812
References


Geva-May, I. (2007). We seem to have always spoken in prose... PA is a clinical profession: Implications for PA practice and instruction. *The Policy Studies Journal, 35*(2), 135–164.


Appendix 3.0: Invitation to Participate in an Online Questionnaire

VIA EMAIL

Subject: Invitation to Participate: Study on Culture and PA Work

Please find an invitation to participate in a questionnaire on PA activities and culture. You are receiving this email given the scope of your work and we value your insights. We are encouraging you to participate in this confidential national study: Institutional Culture and PA: Ministries and Departments in Canada’s Public Service.

This study aligns with a number of current initiatives within our Department such as XXXX.

XXXX is encouraging your participation in this confidential study.

Regards,

Internal Study Sponsor

Dear Sir or Madam,

My name is Shawn Drake and I am a PhD student in the School of Public Policy and Administration at Carleton University. I am working on a research project under the supervision of Prof. Iris Geva-May, Prof. Allan Maslove, and Prof. Leslie Pal.

Given your role and scope supporting the analysis and formulation of public policy, I am writing to you today to invite you to participate in this study. This study is interested in “PA” work and activities, and the culture of the workplace in which you develop policy ideas and recommendations.

The findings from the study will provide insights into the culture at your workplace and the attitudes towards policy analytic activities and formulation for your institution. A better understanding of these variables may serve to strengthen internal capacity and also to facilitate other objectives such as harmonization, standardization, etc.

As a token of appreciation and in order to encourage responses, the study will be raffling a 300.00 CAD gift card from BestBuy (a national electronics retailer) to participants. You simply have to provide your work email address to participate in the draw. You have the option to be included in the raffle even if you choose to withdraw from the study (email: ShawnDrake@cmail.carleton.ca).

Please find attached the formal invitation for your perusal. Please note only common demographic data is collected such as role, tenure and so forth. This is an anonymous and confidential study. If you wish to complete the questionnaire, please click the link below and agree to the Informed Consent. The questionnaire is available in both English and French and takes about 25-30 minutes. Thank you for your valuable time, and important insights.

Consent form English:

www.xxxxxx.ca/en
Consent form French:

www.xxxxx.ca/fr

Note: You may not regularly participate in each and every activity referenced in the questionnaire and if that is the case please just respond with your strongest opinion/attitude.

Shawn Drake, BA, MSc, PhD candidate

Carleton University, Ottawa

778.386.5812
Appendix 4.0: Invitation to Participate in an Interview Process

VIA EMAIL

Subject: Interview Confirmation Request

Dear Interviewee:

Thank you for your participation in the study to date and for self-identifying to participate in a confidential 30-minute interview.

The research team appreciates this very much as we are well aware of your many pressing commitments. The interviews will be conducted by telephone and are expected to last for approximately 30 minutes.

Please identify if you would be available at any of these times for that interview process (*please include preferred phone number to contact you on):

**e.g., Monday, March 2 (EST)**

Between 10:00 – 12:00

After 1:30

**e.g., Wednesday, March 4 (EST)**

After 2:00

Please note that upon scheduling the interview time you will be forwarded a few closed-item questions and an Informed Consent that would need to be completed in advance of the interview time, for sakes of your informed consent and for efficiency and our preparation. *Reminder: pls include preferred phone number in response.*

Looking forward to meeting with you very much and with gratitude for your contributions,

Shawn

*Note: For confidentiality, a meeting calendar invite will not be sent. Please create a calendar reminder as required.

_____________________________________

Shawn Drake, BA, MSc, PhD candidate

Carleton University, Ottawa

778.386.5812
Appendix 5.0: Document Request

VIA EMAIL

Dear Sir/Madame:

Subject: Document Request for Content Analysis

Project Title

The Impact of Institutional Cultural Bias on Policy Analytic Routine: Ministries and Departments in Canada’s Public Service.

Carleton University Project Clearance

Clearance #: 111397

I have included a list of documents below for your review and coordination. If you have any additional suggestions on appropriate documentation please advise:

- Memorandum to Executive Council template or similar template if exists for Submissions to Council;
- Any other “standard” tools for assisting in developing policy proposals (e.g., Impact Assessment tools, Matrices, could be a playbook, or a website, or any templates that are common; may be department based or may be more central and owned by OEC or other);
- If there exists any screening or training tools for someone entering service or a new role – may provide a basic overview of government structure and departments and functions work and fit together, or may be more focused on analytic work;
- Any sample directives for how PA work is to be carried out or any training or orientation materials you feel might be useful (may be department based may be more central and owned by OEC or other or owned by OEC);
- Department Strategic Plan-type document

Note: Any documents that you approve and provide we will be treated all as confidential and no names or identifying features will be published.

Please let me know any questions or clarity as required.

Name and Contact Information of Researchers:

Shawn Drake, School of Public Policy and Administration, Carleton University
Tel.: 778.386.5812 or (613) 520-2600 ext. 2547
Email: ShawnDrake@cmail.carleton.ca

Supervisor and Contact Information: Prof. Iris Geva-May: igm235@nyu.edu
Appendix 6.0: Informed Consent to Participate in an Online Questionnaire

Informed Consent Form – Online Questionnaire

Name and Contact Information of Researchers:
Shawn Drake, School of Public Policy and Administration, Carleton University
Tel.: 778.386.5812 or (613) 520-2600 ext. 2547
Email: ShawnDrake@cmail.carleton.ca

Supervisor and Contact Information:  Prof. Iris Geva-May: igm235@nyu.edu

Project Title
The Impact of Institutional Cultural Bias on Policy Analytic Routine: Ministries and Departments in Canada’s Public Service.

Carleton University Project Clearance
Clearance #: 111397

Invitation
You are invited to take part in a research project because you are actively involved in the analysis and formulation of public policy in Canada. The information in this form is intended to help you understand what we are asking of you so that you can decide whether you agree to participate in this study. Your participation in this study is voluntary, and a decision not to participate will not be used against you in any way. As you read this form, and decide whether to participate, please ask all the questions you might have, take whatever time you need, and consult with others as you wish. This study is unfunded and there is no institutional bias associated with this study.

What is the purpose of the study?
The purpose of this study is to understand more about the culture of your working environment, and to assess whether and to what extent the culture of where you work, impacts your attitudes towards policy analytic and planning activities.

What will I be asked to do?
If you agree to take part in the online questionnaire, we will ask you to:

• Agree to the Informed Consent by clicking the “Agree” button below.
• Complete the online questionnaire.
• The questionnaire has no passwords or tokens to help ensure anonymity.
• The questionnaire does ask for demographic data typically collected in studies of this nature.
Risks and Inconveniences
Your employer has authorized your voluntary participation in this study. There is no obligation to participate in this study. Your participation or lack therefore has no bearing on job role expectation, assessment or performance. Any psychological or social risks beyond your regular to participating in this study are unlikely and this study has been classified as low risk.

Possible Benefits
You may not receive any direct benefit from your participation in this study. However, your participation may allow researchers to better understand how the culture of the social unit and institution in which you work can impact PA activities in Canada’s public service.

Compensation/Incentives
Those participating in the online questionnaire can be entered into a raffle for a single 300.00 CAD gift card to Best Buy (a national electronics retailer). You will be able to indicate your willingness to be included in the raffle by providing your email address in a specific field at the end of the questionnaire. If you withdraw from the questionnaire and do not complete the questionnaire, you may still be entered in the draw. The email address for the draw entry will be submitted separately from the survey responses. Participants include those survey respondents from your jurisdiction and others in Canada. The study aims to secure an approximate minimum of 90 participants so the odds of winning the draw are 1 in 90 or less than 1 in 90 depending the number of participants that are recruited. The winner will receive the gift card in electronic format by email.

No waiver of your rights
By signing this form, you are not waiving any rights or releasing the researchers from any liability.

Withdrawal from the study
If you withdraw your consent during the course of the study, all information collected from you by the online questionnaire before your withdrawal will still be used. Given the anonymity associated with the questionnaire there is no way for the Principal Investigator to identify which unique entries correspond to you personally. Therefore they are unable to be removed.

Confidentiality
We will treat your personal information as confidential, although absolute privacy cannot be guaranteed. No information that discloses your identity will be released or published without your specific consent. Research records may be accessed by the Carleton University Research Ethics Board in order to ensure continuing ethics compliance.

The results of this study will be anonymized and shared with your employer. They will also be published or presented at an academic conference or meeting, but the data will be presented so that it will not be possible to identify any participants unless you give your express consent.
You will be assigned a code [or pseudonym] so that your identity will not be directly associated with the data you have provided. All data, including coded information, will be kept in a password-protected [or encrypted] file on a secure computer.

**Data Retention**
All de-identified data will be electronic in nature and will be held secure for 4 years following initial data gathering. This timeframe will allow for related data analysis allowing for the completion of the doctoral dissertation, its publication, and for associated scholarly publications (i.e., presentations, colloquial talks, peer reviewed articles, book). The data will be stored on a password protected USB in a locked filing cabinet that only the PI has access to. Following 4 years the data will be neutralized as the USB containing the data will be destroyed. It will be destroyed by opening the USB, scratching the memory disc with a sharp instrument, and pouring bleach over it.

**New information during the study**
In the event that any changes could affect your decision to continue participating in this study, you will be promptly informed.

**Ethics review**
This project was reviewed and cleared by the Carleton University Research Ethics Board [A or B]. If you have any ethical concerns with the study, please contact Carleton University Research Ethics Board (by phone at 613-520-2600 [ext. 2517] or by email at ethics@carleton.ca.

**Statement of consent – once you “Agree” you will be taken to the online questionnaire**
I voluntarily agree to participate in the questionnaire portion of this study.

**AGREE**  **DISAGREE**

If this page does not automatically direct you to the questionnaire please enter this address into your browser: ENTER URL
Appendix 7.0: Informed Consent to Participate in an Interview Process

Informed Consent Form – Interview

Name and Contact Information of Researchers:
Shawn Drake, School of Public Policy and Administration, Carleton University
Tel.: 778.386.5812 or (613) 520-2600 ext. 2547
Email: ShawnDrake@cmail.carleton.ca

Supervisor and Contact Information: Prof. Iris Geva-May: igm235@nyu.edu

Project Title
The Impact of Institutional Cultural Bias on Policy Analytic Routine: Ministries and Departments in Canada’s Public Service.

Carleton University Project Clearance
Clearance #: 111397

Invitation
You are invited to take part in a research project because you are actively involved in the analysis and formulation of public policy in Canada. The information in this form is intended to help you understand what we are asking of you so that you can decide whether you agree to participate in this study. Your participation in this study is voluntary, and a decision not to participate will not be used against you in any way. As you read this form, and decide whether to participate, please ask all the questions you might have, take whatever time you need, and consult with others as you wish. This study is unfunded and there is no institutional bias associated with this study.

What is the purpose of the study?
The purpose of this study is to understand more about the culture of your working environment, and to assess whether and to what extent the culture of where you work, impacts your attitudes towards policy analytic and planning activities.

What will I be asked to do?
If you agree to take part in the interview process, we will ask you to:

- Sign the Informed Consent, scan it and email it to the PI at: ShawnDrake@cmail.carleton.ca
- Complete the closed-item portion of the Interviews which you have received and are attached to the Informed Consent form, which we would ask you to scan and send in the same document as the Informed Consent to the email address above.
- Participate in a 30 minute confidential interview. The interview will either take place in person at a safe mutually agreeable location (i.e., your work) or by telephone. The interview will not be audio or videotaped.
You will be asked a set of open-ended questions relating to how you work inside your team (unit/department/division) and also questions about policy analytic activities that you undertake.

**Risks and Inconveniences**
Your employer has authorized your voluntary participation in this study. There is no obligation to participate in this study. Your participation or lack therefore has no bearing on job role expectation, assessment or performance. Any psychological or social risks beyond your regular to participating in this study are unlikely and this study has been classified as low risk.

**Possible Benefits**
You may not receive any direct benefit from your participation in this study. However, your participation may allow researchers to better understand how the culture of the social unit and institution in which you work can impact PA activities in Canada’s public service.

**Compensation/Incentives**
Those participating in a confidential interview can be entered into a raffle for a single 300.00 CAD gift card to Best Buy (a national electronics retailer). You will be able to indicate your willingness to be included in the raffle by providing your email address in a specific field in a space provided below within this Informed Consent form. The email address for the draw entry will be submitted separately from interview responses. Participants include respondents from your jurisdiction and others in Canada. The study aims to secure an approximate minimum of 90 participants so the odds of winning the draw are 1 in 90 or less than 1 in 90 depending the number of participants that are recruited. The winner will receive the gift card in electronic format by email.

**No waiver of your rights**
By signing this form, you are not waiving any rights or releasing the researchers from any liability.

**Withdrawing from the study**
If you withdraw your consent during the course of the study, all information collected from you before your withdrawal will still be used, unless you request that it be removed from the study data. After the study, you may request that your data be removed from the study and deleted by notice given to the Principal Investigator (named above) within a period of 4 months following the interview, as the study is being written up, or before publication of the dissertation whichever is the longer timeframe.

**Confidentiality**
We will treat your personal information as confidential, although absolute privacy cannot be guaranteed. No information that discloses your identity will be released or published without your specific consent. Research records may be accessed by the Carleton University Research Ethics Board in order to ensure continuing ethics compliance.

The results of this study will be anonymized and shared with your employer. The results will include all participants across all regions so that it helps to protect the identity of individual participants. The results will also include participants across the government portfolios participating in your jurisdiction. The results of this study may be published or presented at an academic conference or meeting, but the
data will be presented so that it will not be possible to identify any participants unless you give your
express consent.

You will be assigned a code [or pseudonym] so that your identity will not be directly associated with the
data you have provided. All data, including coded information, will be kept in a password-protected [or
encrypted] file on a secure computer.

**Data Retention**
All de-identified data will be electronic in nature and will be held secure for 4 years following initial data
gathering. This timeframe will allow for related data analysis allowing for the completion of the doctoral
dissertation, its publication, and for associated scholarly publications (i.e., presentations, colloquial
talks, peer reviewed articles, book). The data will be stored on a password protected USB in a locked
filing cabinet that only the PI has access to. Following 4 years the data will be neutralized as the USB
containing the data will be destroyed. It will be destroyed by opening the USB, scratching the memory
disc with a sharp instrument, and pouring bleach over it.

**New information during the study**
In the event that any changes could affect your decision to continue participating in this study, you will
be promptly informed.

**Ethics review**
This project was reviewed and cleared by the Carleton University Research Ethics Board [A or B]. If you
have any ethical concerns with the study, please contact Carleton University Research Ethics Board (by
phone at 613-520-2600 [ext. 2517] or by email at ethics@carleton.ca.

**Statement of consent – print and sign name**
I voluntarily agree to participate in the interview portion of this study. ___Yes___No
I agree to be contacted for follow up research ___Yes___No
I would like to enter the draw for the 300.00 CAD gift card ___Yes___No
Please enter your email to be added to the raffle: ____________________________________________

__________________________________________  ______________________________
Signature of participant  Date

**Research team member who interacted with the subject**
I have explained the study to the participant and answered any and all of their questions. The
participant appeared to understand and agree. I provided a copy of the consent form to the participant
for their reference.

__________________________________________  ______________________________
Signature of researcher  Date
Reference List


Levi-Faur, D. (2004). Comparative research designs in the study of regulation: How to increase the number of cases without compromising the strengths of case-oriented analysis.


Lombard, M., Snyder-Duch, J., & Bracken, C. C. (2010). *Practical resources for assessing and reporting intercoder reliability in content analysis research projects.*


Oppenheim, A. N. (1966). *Questionnaire design and attitude measurement.*


https://www.britannica.com/topic/policy-analysis


