The **theory testing** paper will cover the following points:

* **Theory & hypotheses**
* Present a theory that you are planning to test.
* Cite a few key articles
* From the theory, derive clear hypotheses that can be tested in an experiment
* a few paragraphs
* **Unit of analysis**
* What is your unit of analysis? 1-2 sentences
* What is the most important way that your unit of analysis is nested, if it is nested (e.g.

students inside classrooms, towns inside provinces, people inside towns, people inside ethnic groups), 1 paragraph

* **Randomization**
* Across which units will decided to randomize, and why?, 1 paragraph
* **Variables**
* *Description of outcome variable 1*
* What is the variable?, 1-2 sentences
* Why does this variable offer a good signal of the underling outcome of interest?, 1 sentence to 1 paragraph
* How will you get the data? (if it is a survey, what is the question? if it is remote sensed, what tool would be used? if it is a biomarker, how will it be taken?), 1 paragraph
* What is the variable’s level of measurement and expected range?, 1-2 sentences
* *Description of outcome variable 2*
* What is the variable?, 1-2 sentences
* Why does this variable offer a good signal of the underling outcome of interest?, 1

sentence to 1 paragraph

* How did you get the data? (if it is a survey, what is the question? if it is remote sensed, what tool would be used? if it is a biological measure, how will it be taken?), 1 paragraph
* What is the variable’s level of measurement and expected range?, 1-2 sentences
* *Description of treatment variable(s)*
* What is the variable?, 1 sentences to 1 paragraph
* How will the treatment be applied? (not how will randomization be done, but if a unit is in the ‘treatment’ group then what will happen?), 1 paragraph
* How many treatment groups are in your study (maybe you’re testing two treatments, or two ‘doses’ of the same treatment), 1 sentence to 1 paragraph
* *Description of other variables of interest*
* Briefly describe the other independent variables of interest, 1-2 paragraphs
* A variable is of interest if you think it might interact with the treatment to change the treatment effect, or if it might predict people differentially dropping out of the study, among other reasons
* ***Summary statistics and data quality***
* **Present a table of summary statistics for your variables (mean, standard deviation) • Discuss if any variables seem atypical. If any look atypical, what did you do?**
* **Are there any missing values? If so, how did you deal with that?**
* **Does it seem like your randomization created balance across the treatment and control group? (do the mean IV values look roughly the same? Are they significantly different?)**
* **Analysis**
* **In plain but precise language, describe your original analysis plan and if you deviated from it (e.g. comparing average outcomes in some DV across the treatment and control group), 1 sentence to 1 paragraph**
* **Conduct appropriate statistical tests to see:**
* **1. How big is the difference in your outcomes across your various experimental groups,**
* **2. Are those differences statistically significant.**
* **Show the key results graphically. Make the graphs both readable and pretty. Briefly describe the key results in the graphs, 2-3 paragraphs.**
* **Report any other interesting exploratory findings that you uncovered in your analysis. You can but do not have to do this with graphs., a few paragraphs**
* In plain but precise language, summarize your result(s). Relate your results back to your hypotheses and theory., 2-4 paragraphs

**Answers**  
The impact of diversity within a representative body on policy outcomes and policy makers’ behaviour has been a source of debate in policy studies and political theory. Pitkin (One of the foundational scholars in the study of representation) has argued that a “descriptively representative” body is of interest because citizens of democracies with deliberative bodies “tend to assume that people’s characteristics are a guide to the action they will take” (Pitkin, 1967: 89). Darcy, et al (1987); Norris (1996); Bratton and Ray (2002), Mansbridge, (1999); and Reynolds (2013) have attempted to examine the conditions under which descriptive representation can be expected to have positive policy impacts.

Descriptive representation occurs when a political representative shares the same primary identification of a defined group (Pitkin, 1967). A large body of scholarship has indicated that at the federal and provincial level, increasing the representation of underrepresented minority groups in politics can simultaneously increase descriptive representation and influence policy making (Bratton & Ray, 2002; Mansbridge, 1999; Reynolds, 2013; Schwindt-Bayer & Mishler, 2005). The prevailing scholarship of representation in politics has mostly inferred policy outcomes from elite attitudes. Scholars have assumed that descriptive representatives increase policy legitimacy in multi-identity communities *and* expand the range of policy prescriptions. (Shugart, Valdini, & Suominen, 2005; Karnig, Welch ,1980; Prichett, 2003).

In this paper, rather than focus on the multifarious impacts of descriptive representation inferred from elites, I propose measuring the impact of descriptive representation on policy outcomes directly. By charting the relationship between the proportion of women elected to city councils and the proportion of policies directly focused on women, I theorize that we can empirically demonstrate that when a certain threshold of female representation in city councils is reached, female coded policy issues become substantively represented. To appropriately demonstrate my hypothesis, the cities and their corresponding city councils selected must satisfy the following conditions: the city councils must have a significant influence on policies that are of interest to women, the electorate must differ by gender on certain policy issues, and women must be present on the council bodies.

**Unit of Analysis**

I will be comparing policy outcomes by female representation. In this, my unit of analysis is the city councils that are being compared with each other, i.e., average policy outcome of councils with high representation of women vs low representation of women.

My unit of analysis will be nested as councils within regions. This analysis focuses on local government councils in Norway where local government councils have significant leeway on policy issues and where significant public policy (like childcare policy) is governed under the auspices of local government councils.

**Variables**

**Variable 1**

I will be measuring for a support of afterschool care. Accessible afterschool care is coded as a women’s issue, because it typically affects the ability of primary caretakers (who are mostly women) to undergo full time work or highly enumerated managerial positions that typically extend beyond traditional work hours.

I will be using a survey. The survey question will include the question “is afterschool care a high priority for you”. This survey question will be ranked from 0-10. The question could be “on a scale of 1-10, is afterschool childcare a high priority for you”?

Where 10 represents the highest priority, and 0 represents an active campaign against childcare. The results will be averaged based on the responses from all councillors

**Variable 2**

Another dependent variable is the percentage of children in each zone of a local council that that have access to a childcare space. Childcare coverage rather than childcare expenditures are good measures because they directly measure childcare service from the perspective of the key user. Moreover, childcare space availability is more stable than childcare expenditure which varies based on geography. I will be using government data to investigate day care spots per child and day care spots per capita

**Description of Treatment variables**

The variable of interest (independent variable) here is female representation which is measured as the percentage of women that make up the city council.

Councils that have larger percentages of women should start to take up women’s coded issues at a greater frequency. I would expect to see childcare considered a critical issue of importance and policies prescribed to address the dearth of childcare should increase as the percentage of women on the council increase. I will have a single treatment group i.e., one where female representation of the city council is significant: When a council is in this treatment group, 40% or more of its membership must be made up of female councillors.

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| --- | --- | --- | --- |
| Variable | Measurement | Level of measurement | range |
| Share of Women | Self-Reported | Continuous | 40% or more; |
| Party identity | Reported by external sources | Ordinal | 0-10. (0 being arch left-wing and 10 being arch right-wing) |
| Council leadership | Use of council bylaws | Categorical | Executive authority or first among equals |
| Average Income of council | Self-reported | Continuous | Increments of 30000 grouped together (e.g., 0-30000; 31000-61000) |
| Gender of council leader | Self ID | Categorical | Male, Female or Nonbinary |
|  |  |  |  |
|  |  |  |  |

**Party identity**

Is the party that won the election more likely to pursue these policies regardless of the gender of their representatives? Perhaps liberal parties are more likely to pursue female coded policies in any event. We can analyse this by using data from non-partisan institutes that rank where on the political spectrum politicians fall; on a spectrum of 0-10; with 0 being arch left wing and 10 being arch right-wing.

**Income**

is a variable of interest because it determines access to childcare without state input. Less wealthy councillors might place a higher premium on accessible childcare regardless of gender.

**Council leadership**

will affect the ability of councillors to advance policies. Is the council leader a first amongst equals, or do they possess executive power enabling them to act outside of the city council?

**Gender of Council leadership**

The gender of the leader also affects the treatment, for example a female councillor elected as an executive leader might be able to act unilaterally in more direct ways regardless of the gender makeup of the council.

**Analysis Plan and Randomization**

I plan to work with Norwegian central politicians, who already plan or desire the enactment of gender quotas on city councils, and we will randomize which cities get quotas. Half will get a ≥40% female quota and half will get no quota. We will then collect data on many outcomes of which this proposal is a small part. After 5 years, unless the experiment detects serious problems with the plan, the remainder of the councils will get a ≥40 female quota.

I will compare the levels of acceptance and take-up of policy proposals for accessible childcare space across all treatment groups. For each group, their likelihood to embrace female coded policy prescriptions will be analysed for changes across gender makeup. I will also control for variables i mentioned above. If my research hypothesis is right, I expect to see an increase in female coded policies as the number of women on the representative bodies increase. This will demonstrate that an increase in descriptive representatives where gender is a significant part of their presentation as representatives will translate into substantive representation in public policy thus providing a positive correlation.

I also expect to note in the data that as the threshold for female representation passes the half mark, substantive representation increases. i.e., as the number of female descriptive representatives (female council members) increases, the number of policies that are explicitly designed to support women will increase, and the number of male council members who support these policies will increase as well. This will demonstrate that at a certain threshold, minority interests begin to set the agenda not merely because of their own numerical superiority but that rather their presence generates an alliance effect with other members of the representative group that then translates into broader support for policies that develop into substantive representation.