A Template for Academic Articles*

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ABSTRACT This document is a template demonstrating a format created by me (Andrés). Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum. This is one last sentence.

KEYWORDS latex; template; quarto

My apologies to the accidental for calling it necessary. However, apologies to necessity if I happen to be wrong.
—Wislawa Szymborska

Early impressions tend to coalesce into a natural view of the world. All later experiences then tend to receive their meaning from this original set, whether they appear as that set's verification and fulfillment or as its negation and antithesis.
—Karl Mannheim

*Thanks to all our friends.
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1 Introduction

Constitutional decision-making deals with very general rules (e.g., laws, principles) that can be described as "thick" in their formulation—i.e., they come "enriched with copious advice on how to apply them: examples, exceptions, problems, provisos, models, caveats, and… discretion" (Daston 2022, 56). These rulings are also characterized by *analogical reasoning*—i.e., judges must discern significant differences and similarities among particular cases such that each citation represents a plausible analogy.

> …not every past case of manslaughter can be plausibly presented as a precedent for the one at hand, and not every detail of even a convincing precedent will match up with the present case.
>
> Daston (2022, 8).

The more a case gets cited, the more it gets established as a binding precedent—i.e., the more *rule-like* it becomes.

In this study I will argue that the general framework of *rule ecologies* (March, Schulz, and Zhou 2000) can be applied fruitfully to the realm of constitutional decision-making (or *rulings)*. This framework builds upon three general ideas: (1) *rules evolve over time in response to problems;* (2) *rules are interrelated within an organization;* and (3) *rules both record history and reflect learning within the organization*.

2 Hypotheses

H_1 : *Negative density dependence*.

The "birthrate" of new constitutional decisions *decreases* as a function of the total number of decisions occupying the same space. If constitutional decisions can be described as solving "problems," then we can expect that newer cases involving similar problems will not reach the highest levels of the judicial hierarchy but rather get settled in lower courts. This is an outcome of the establishment of precedent.

H_2 : *Imprinting*.

Some problems are marked by particular historical periods, in which bursts of new decisions will occur. "Problems frequently originate from outside the organization; and when they do, they frequently come in surges of concerns that mark a particular historical period. As a result, clusters of rules share a common beginning." (March, Schulz, and Zhou 2000, 57). This can happen, for example, as a result of economic recessions, a global pandemic, a peace process, and so on.

2.1 Density Dependence

Figure 1 was made with `ggplot2`. This package was created some years ago by Hadley Wickham (2016).

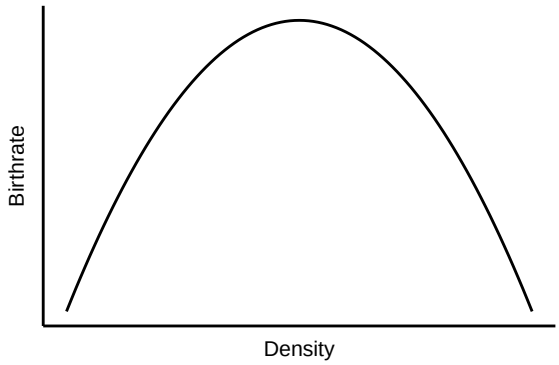

Figure 1: The density dependence hypothesis.

3 Math

Equation 1 depicts the *fundamental theorem of calculus*.

$$f(b) - f(a) = \int_a^b f'(x)dx \tag{1}$$

Equation 2 is an ERGM.

$$\Pr(\mathbf{Y} = y) = \frac{\exp\left(\theta^\top z(y)\right)}{\kappa(\theta)} \tag{2}$$

The denominator κ represents the summation of the numerator summed over all possible networks of with the same node set ($\mathcal{N}$). This normalizing constant can be expressed as follows:

$$\kappa(\theta) = \sum_{y \in \mathcal{N}} \exp\left(\theta^\top z(y)\right)$$

Finally, Equation 3 shows how we can use Bayes' rule to describe the joint distribution of θ and y as a product two other distributions: the **prior distribution** $p(\theta)$ and (2) the **sampling distribution** (or *data distribution)* $p(y \mid \theta)$.

$$\underbrace{p(\theta \mid y)}_{\text{posterior density}} = \frac{p(\theta, y)}{p(y)} = \frac{p(\theta)\, p(y \mid \theta)}{\int_\Theta p(\theta)\, p(y \mid \theta) d\theta} \tag{3}$$

4 Code

This is how code looks like. It has ligatures so that's why the pipe operator looks like a triangle.

```
x <- rnorm(20) ▷ round(2)
str(x)
```

```
num [1:20] -0.41 -0.11 0.54 3.04 0.52 -1.88 -0.94 -1.03 0.06 -0.34 ...
```

References

Daston, Lorraine. 2022. *Rules: A Short History of What We Live by*. Princeton University Press.

March, James G., Martin Schulz, and Xueguang Zhou. 2000. *The Dynamics of Rules: Change in Written Organizational Codes*. Stanford University Press.

Wickham, Hadley. 2016. *Ggplot2: Elegant Graphics for Data Analysis*. Springer-Verlag New York. https://ggplot2.tidyverse.org.