The Robust Federation: A Theory of Complementary Institutions

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The Distribution of Authority Matters

- Security
- Prosperity
- Liberty
The Distribution of Authority Matters

• Security
• Prosperity
• Liberty

• But: temptation to overreach; to ignore the boundaries of authority
• And: we might want to adjust the boundaries
Constitutional Anatomy

- **Preamble:** social objectives.
- **Rules:** division of authority, what government may and should and ought not do.
- **Procedures:** method to enforce rules. Safeguards.
Given that the distribution of authority matters, but governments like to break the rules, and we might want to change the rules anyway, how do you design a federal constitution?
Old Answer:

(1) Write Down the Rules
(2) Command that these rules shall not be broken
Art XIII:
“The Articles of this Confederation shall be inviolably observed by every state.”
Madison’s Diagnosis

• Perceived Hardship: “Every general act of the Union must necessarily bear unequally hard on some particular member or members of it. Secondly the partiality of the members to their own interests and rights... will naturally exaggerate the inequality where it exists, and even suspect it where it has no existence.”
Madison’s Diagnosis, pt 2:

- Suspicion leads to opportunism: “[A] distrust of the voluntary compliance of each other may prevent the compliance of any, although it should be the latent disposition of all.”
Madison’s Prescription

• Add “auxiliary precautions”
• Fragmentation of authority
From A of C to Constitution: Improvement, but why? What makes a constitution successful?
New (Old) Way: Institutional Design

• Manipulate information or incentive environment to affect behavior to reach a goal

• For compliance maintenance, use a trigger mechanism
Compliance Maintenance:
Elements of a Trigger Mechanism

- Punishment
- Threshold
- Observation (Signal; imperfect)
Exp. utility, prob punish

\[ EU\left(x_i^T\right)^2 > EU(\text{NC}) : \text{partial compliance equilibrium} \]
Equilibrium Properties

• Inherent Slippage: some noncompliance annoying but inevitable
• Punish infrequently, but severely
Equilibrium Properties

• Inherent Slippage: some noncompliance inevitable
  – In federalism, significant noncompliance means the union may not be viable
  – But some small noncompliance can be beneficial
• Punish infrequently, but severely
  – In federalism: means WAR or DISSOLUTION or BOTH. Not so great.
  – Can we avoid that?
No Magic Antidote Found (not for lack of trying)
Treisman’s Challenge

• “If the correct institutions are essential to make decentralization work, but one cannot say what they are, this would seem to rather weaken the case for decentralization.” (2007:282)

• In other words, give up on federalism?
Meanwhile….

- Iraq
- Bosnia
- South Africa
- Afghanistan
- EU
- Russia
- China
- And more….
Time for a New Path

• Functional Perspective
• Return to basics: what are these safeguards meant to do?
• Systems Analysis
Robustness

• Maintain functionality despite perturbation (Jen)
• A system property $X$ is robust to perturbation $P$ via adaptive structure $Y$ (Flack)

Translation…. 
Robust Federation

• What are the characteristics of a system of safeguards that makes a federation strong and flexible, despite being staffed by humans?
The Robust Federation

• Uphold constitutional rules for performance (compliance)
The Robust Federation

• Uphold constitutional rules for performance (compliance)
• Adapt constitutional rules to best meet new circumstances (flexibility)
The Robust Federation

• Uphold constitutional rules for performance (compliance)
• Adapt constitutional rules to best meet new circumstances (flexibility)
• Recover from internal errors (resilience)
Safeguards

• Intergovernmental retaliation
• Structural: bicameralism etc. + incorporation of state interests
• Political: party system
• Judicial
• Popular
# Varying Safeguard Severity

<table>
<thead>
<tr>
<th>Severity</th>
<th>Varying Aspects</th>
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</thead>
<tbody>
<tr>
<td>Mild</td>
<td>Government Structure, Party System, Judiciary</td>
</tr>
<tr>
<td>Moderate/Buffer</td>
<td>The People</td>
</tr>
<tr>
<td>Severe</td>
<td>Intergovernmental Retaliation</td>
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</table>
Complementarity:

Expected Utility, Prob Punish

NB: Compliance and utility improving
Insufficient Mild Safeguard (suboptimal performance)

Expected Utility, Prob Punish

shirking

FC $x^t$ $t$ $x^T$ $T$ NC
Insufficient Severe Safeguard  
(generally no union)

Expected Utility, Prob Punish

NB in robust system never see severe safeguard acting; here we see how crucial it is
Complementarity Hypothesis

• A safeguard acting alone may be insufficient, but in a context that includes its complement, may improve compliance and utility.

• Adding mild safeguards, “auxiliary precautions” may
  – Improve compliance and union performance
  – Reduce the frequency of IGR/war
Evidence

- Alas, can’t do knockout experiment!
- But can review historical cases of safeguard variation for support.
Insufficient Mild Safeguard

• US A of C: mild absent = low compliance
• US Constitution, antebellum: mild safeguards dissolved = war
• Canada, eliminate PC: no mild = rise of provincial nationalism, secession threats
• State debts ....
How to account for fiscal responsibility in subnational states? (Rodden)

• Credible commitment that center won’t bail out (Weingast, MPF)

• Fiscal irresponsibility is shirking

• Political safeguard: the integrated party system causes politicians to care about federal fiscal health

• Popular safeguard: public expectation of balanced budget, enforced electorally
# Relationship between Mild Safeguards and Subnational Debt

<table>
<thead>
<tr>
<th>Budgetary control</th>
<th>Insufficient Mild Safeguards</th>
<th>Sufficient Mild Safeguards</th>
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<tbody>
<tr>
<td>Excessive debt or deficit</td>
<td>Argentina Brazil India*</td>
<td>EU</td>
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<td>Germany US India*</td>
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Insufficient Severe Safeguard: The Curious Case of the EU

• Exit costs are low in the EU: a la carte membership
• Exit possibility lowers the threat of the IGR
• But in some domains, ECJ fines severely, playing role of more severe safeguard
Properties of a Robust Federation

- Coverage
- Complementarity
- Redundancy
thanks
Parsing the Safeguards

• **Functional Specification:** What type of transgression does the safeguard address?

• **Punishment Frequency:** How easily is the safeguard triggered?

• **Punishment Capacity:** How severe is the safeguard’s effect?
<table>
<thead>
<tr>
<th>Safeguard</th>
<th>Fed. Encr</th>
<th>State Shirking</th>
<th>State Burd-Sh</th>
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<tbody>
<tr>
<td>I-G Ret.</td>
<td>![Black]</td>
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<tr>
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<td>![Blue]</td>
<td>![Blue]</td>
<td>![X]</td>
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<tr>
<td>Structural</td>
<td>![Light Blue]</td>
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<tr>
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## Coverage Capacity of each Safeguard (prelim)

<table>
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<tr>
<th>Safeguard</th>
<th>Fed Action: Encroach</th>
<th>State: Shirk</th>
<th>State: Burd-Shft</th>
</tr>
</thead>
<tbody>
<tr>
<td>IGR</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Structural</td>
<td>Y</td>
<td>Y</td>
<td>N</td>
</tr>
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<td>Judicial</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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</table>
Coverage:

Federal Gov’t

encroachment

State A

burden-shifting

shirking

State B
Federal Gov’t

encroachment

State A

burden-shifting

State B

shirking
Institutional Design Meets Human Fallibility

• Focus on trigger mechanism: the threshold and signal. What if it is flawed?
• Human biases.
• Threshold: set for reasons other than efficiency!
• Signal: Multi-dimensional, not commonly observed, perceptive bias.
$T < T^*$:
punishment too frequent

$T > T^*$:
punishment too infrequent

$\omega$ systematically undervalued:
punishment too infrequent

$\omega$ systematically overvalued:
punishment too frequent
Potential Consequences of Imperfect Safeguards

1. Fail to punish transgression
Potential Consequences of Imperfect Safeguards

1. Fail to punish transgression
2. Punish too frequently (remember, already some punishment)
1. System Reliability

- Von Neumann, Landau, Bendor, Ostrom, etc.
- Design around human error with redundancy: INSURANCE
- Properties:
  - Fully overlapping functionality
  - Uncorrelated vulnerabilities
System Reliability

• Von Neumann, Landau, Bendor, Ostrom, etc.

• Design around human error with redundancy: INSURANCE

• Properties:
  – Fully overlapping functionality
  – Uncorrelated vulnerabilities

• Problem: fire too frequently?
Type I & Type II Errors

- Familiar issue in statistics:
- Type I: false positive: reject the null incorrectly
- Type II: false negative: fail to reject the null when you should.
- Trade-off.
Insurance and Confirmation

• Second form of redundancy: CONFIRMATION.

• Sah & Stiglitz: polyarchy and hierarchy.
  – Hierarchy: two to accept (one to reject). Prone to Type I errors. Insurance.
  – Polyarchy: one to accept (two to reject) Prone to Type II errors. Confirmation.

• Can we establish a system using both principles?
<table>
<thead>
<tr>
<th></th>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
<th>Stage IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structural, Political,</td>
<td>Inactive</td>
<td>Active</td>
<td>Active</td>
<td>Active</td>
</tr>
<tr>
<td>Judicial Safeguards</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Popular Consensus</td>
<td>None</td>
<td>Consensus on Procedures</td>
<td>Consensus On Threshold</td>
<td>Consensus On Signal</td>
</tr>
<tr>
<td>Popular Safeguards</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Latent</td>
<td>Active</td>
</tr>
<tr>
<td>Intergov’tal Retaliation</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Inactive</td>
<td>Poised</td>
</tr>
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Increasing non-compliance
A Federal Culture?

- Elazar: “foedus”, covenant
- Ostrom: “pattern of order”
- Riker: allegiance
- Weingast: “duty”, citizens willing to punish transgression
- Kramer: “the people’s constitution”
Exploration via Imperfection

• March: Explore/Exploit. Do you want conformity?
• Non-conformers provide information.
• So how to incorporate to federalism?
Tolerating Opportunism: 3 Principles

• Only mild opportunism is tolerated.
• Mild opportunism is still punished with some probability.
• Accepted changes are for the common good.
**Optimal Imperfection X 2**

- Mild safeguards are MILD! Can ignore when convenient/necessary for political reasons. (Downs & Rocke)

- (eg. Kassel)

- System already tolerates deviation. Recall figure: full compliance not possible.

- (eg CA enviro reg)
Lessons

• Shift from efficiency to Robustness
• Institutional performance is context sensitive
• Constitutions can be designed with human error in mind
What Robustness teaches us about Federalism

- Federalism sustained by intersecting safeguards, each flawed
- Safeguards’ engagement varies over compliance space
- Conflict & disagreement between safeguards can be beneficial
- Culture as electorate activation; citizens as bridge, minimizing risk of intergovernmental conflict?
What Federalism teaches us about Robustness

• **Functional Complementarity:** Pairing based on coverage
• **Perception Complementarity:** Pairing based on trigger threshold
• Use differentiation in transgression space to design system balancing two aspects of redundancy: insurance and confirmation
Increasing non-compliance
Canadian Constitutional Patriation, 1980-1982

• Structural Safeguards
  – First Ministers’ Conference
  – Opposition in Parliament
  – British Parliament Study

• Political Safeguards
  – Liberal Party Dissent
• Judicial Decision: “We can’t stop you. Federal plan is legal.”
• Trudeau backs down, agrees to compromise. Why?
Patriation: Reading the dicta

• “the exercise of such a power has no support in constitutional convention”

• Conventions represent “the prevailing constitutional values” of the time

• “Constitutional convention plus constitutional law equal the total Constitution”

• “It is because the sanctions of convention rest with institutions of government other than courts, … ultimately, with the electorate”
Patriation: Explaining Trudeau’s reversal

• “As a lawyer, a teacher of constitutional law, and a former minister of justice, I felt that if the court said what we were doing was legal, we should go ahead and do it. But as a politician, I wondered whether the public would understand our decision, or whether they would think I was being reckless.”
Robustness Mantra:

Maintain Functional Capacity
In the face of perturbations
• Robustness Mantra:

*Maintain functional capacity in the face of perturbations*

• How do you do that when humans are part of the equation?
Problem Dissection

• Transgressions:
  – Type: Who did it?
  – Extent: How large is the observed deviation? How broad are its effects?
  – Effect: are the transgressions beneficial?

• Perturbations:
  – Environmental shifts: create need for flexibility
  – Internal fallibility & monitoring bias: challenge, but also may be a driver of system robustness