Defining Polycentric Governance and Other Dilemmas of Governance Science

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“‘Polycentric’ connotes many centers of decision-making which are formally independent of each other. Whether they actually function independently, or instead constitute an interdependent system of relations, is an empirical question in particular cases.” (OTW 1961, 831, bolding added)

Even now, 60 years later, rigorous empirical tests of the performance of different types or levels of polycentric governance are few and far between, and this remains a very active topic for ongoing research.
Proposed Benefits of PG

1. Effective production of public goods & services (all scales) & provision to diverse communities (V. Ostrom, Tiebout, and Warren 1961)

2. Use local knowledge to generate and sustain rules for resource use consistent with local conditions and community values (Elinor Ostrom 1990)


5. Encourages diverse participation in politics and helps participants identify and reward trustworthy collaborators (Elinior Ostrom, 2005, 2006, Aligica 2014)


7. Secures personal freedom, group autonomy, and collective authority over common concerns (Vincent Ostrom 2008a,b, Aligica 2014, Aligica, Boettke and Tarko 2019)
Is There a “Sweet Spot” for PG?

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<td>Public sees outcomes as more legitimate</td>
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Source: based on (but with major revisions) Jordan et al. (2018:13)
Measurement and Social Science

To test propositions, social science requires careful & replicable measurement and a comparison of a wide range of cases to support valid inferences.

Basic Question: How do Independent variables affect Dependent variables?

Directly or in conjunction with other variables?
Generally, or only within some limited context?
When is Empirical Social Science Especially Difficult?

- Concepts are so complex as to defy easy definition
  - Especially if multi-dimensional
  - Or closely tied to normative or ideological beliefs

- Relationships b/w variables can also be complex and/or subtle
  - Non-linear relationships greatly complicate analysis
  - Feedback & endogeneity muddy distinction b/w indep/dep var
PG poses many analytical challenges

1. No consensual definition, so how should we measure it?
2. As a concept, PG is very complex and intrinsically multi-dimensional.
3. As typically understood, PG has lots of normative & ideological baggage.
4. If some version of PG may be everywhere, albeit in “weaker” forms, there may be too narrow a range of comparative cases to test causal explanations
6. Since PG is multi-dimensional, relationships b/w particular variables are likely to be highly contextualized.
7. Feedback effects & endogeneity are absolutely critical to PG operation.
PG poses many analytical challenges

1. No Consensus Definition
2. PG as concept is complex, multi-dimensional
3. Normative and Ideological Baggage
4. Is PG too Common to Have Enough Comparisons?
5. “Goldilocks Effect”
6. Multi-dimensional relationships too complex?
7. Feedbacks and Endogeneity Run Amuck?
1a. Recent Effort to Define PG
(Stephen et al. 2019: 41)

- **Multiple decision centers** (of varying sizes and types);
- De jure independence or de facto autonomy of decision-making authority for each;
- **Overlapping jurisdictions** in the range of authority for different decision centers (in addition to spillover effects of outcomes);
- Multiple processes of **mutual adjustment** among decision centers (taking each other into account);
- **Low entry and exit costs** for organizations or informal groupings;
- An **overarching system of rules** (or laws, norms, and shared values);
- **Emergent patterns of behavior, interactions and outcomes** across decision centers;
- A combination of emergent and intentional means of **effective coordination** at all levels of aggregation, from single decision centers to the system as a whole.
1b. Defining governance and PG:
This Presenter’s Preferred Definitions (for now)

**Governance** = all the processes (of discussion, decision-making, implementation, enforcement, and reevaluation) which determine the range of acceptable individual or collective choices available to members of the relevant group or community.

**Polycentric Governance** is a system of governance in which many public, private, professional, voluntary, communal, and other centers of partial authority (or decision centers), collectively cover the full range of governance tasks.
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2a. Eight Dimensions of PG as a concept

• **Multiple decision centers** (which may be of varying sizes and types);
• **De jure independence or de facto autonomy** of decision-making authority for each decision center;
• **Overlapping jurisdictions** in the range of authority for different decision centers (in addition to spillover effects of outcomes);
• **Multiple processes of mutual adjustment** among decision centers (taking each other into account);
• **Low entry and exit costs** for organizations or informal groupings;
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• **Emergent patterns of behavior, interactions and outcomes** across decision centers;
• **A combination of emergent and intentional means of effective coordination** at all levels of aggregation, from single decision centers to the system as a whole.
2b. PG requires diverse types of formal organizations and informal groupings:

- **Multi-Level**: Local, state/provincial, national, regional, global units of political authority, as well as cross-level linkages;

- **Mixed-Type**: includes both general purpose nested jurisdictions (as in federalism) and special purpose, cross-jurisdictional political units (such as special districts)

- **Cross-Sectoral**: public, private, voluntary, community-based organizations and all kinds of hybrid combinations thereof,

- **Omni-Functional**: incorporates specialized units for provision (selection of goals), production (or co-production), financing (taxes, donors), coordination, monitoring, sanctioning, dispute resolution, and every kind of policy tool that you can imagine,

- **Plural-Community**: enables relatively distinct subcultures to prosper simultaneously while retaining sufficient common ground to constitute a broader community.
2c. Also, **multiple modes of relationships** among decision centers

- Contracts
- Cooperation
- Coordination
- Collaboration
- Competition
- Conflict
- Conflict Resolution
- Consolidation
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3a. Normative Aspects in Ostrom’s Definitions

- [A] “highly federalized” political system … has a rich structure of overlapping jurisdictions with substantial autonomy among jurisdictions, substantial degrees of democratic control within jurisdictions, and subject to an enforceable system of constitutional law.” (V. Ostrom, 1993: 205, 229, as quoted in McGinnis and E. Ostrom, 2012, p. 22, emphasis added) [presumes Liberal Democracy with Federal System, US style]

- “By ‘polycentric’ I mean a system where citizens are able to organize not just one but multiple governing authorities, as well as private arrangements, at different scales.” (E. Ostrom 2003, in Cole and McGinnis, eds., 2015, 61; bolding added) [shows preference for local empowerment over top-down government control, or exclusive reliance on markets and private property, i.e., a ‘third way’]
3b. Ideological Ambiguity of PG

• **Expansive view of governance**, occurs in ALL collective action settings
  • Politics is *everywhere*, but politics is not *everything*, not in life, not even in governance
  • Private, voluntary, community organizations are and must be deeply involved in governance – especially local communities

• **Limited role of governments**
  • Some *coercive power* is required for self-governance, and that’s a particular skill of important agencies within government
  • Lin entitled her Nobel Lecture “**Beyond Markets and States**” - open to challenge (or misinterpretation) by both sides (Cole 2014, Sarker and Blomquist 2019)
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4a. Isn’t All Governance Polycentric, to some degree?

Vincent Ostrom (1993) contrasted PG to a “unitary political system composed of a single jurisdiction in which majoritarian will can be expressed through some one ultimate governmental authority or sovereign.”

• Can any real-world political system be truly monocratic?
  • Hobbes thought so, but he was philosopher, not an empirical social scientist!!
  • U.S. Constitution set up elaborate checks and balances, no one “above the law”
  • Hierarchical organizations encompass groups with divergent interests and develop internal factions, and social networks that can’t be captured on an org chart
  • Authoritarian leaders (individual dictators or single party systems) fear for their security and establish multiple security agents: regular police, special (ideological) police, secret police, foreign intelligence, military intelligence, domestic intelligence, etc.)
4b. Even so, PG cases can be compared

- It may be very difficult to imagine any real-world instance of totally unitary governance, which greatly complicates any effort to establish causal relationships through social science methods,

- But we should be able to compare the performance of real-world cases that differ amongst themselves, that is, that are more or less polycentric in structure or diverse in institutional processes, and that produce outcomes that are more or less or normatively satisfying to participants or to external observers?
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## 5a. Is There a “Sweet Spot” for PG?

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5b. But how is this Balance Maintained? And by whom?

- **Automatic Emergence** can cut in both directions
  - **Positive emergence**: innovation & learning, resilience, inclusiveness, identification of trust-worthy collaborators
  - **Negative emergence**: overwhelming complexity, hidden accountability, accumulating inequality, less effective at larger scale coordination

- **Exploitation or Stewardship?**
  - Public Entrepreneurs may push/pull in opposite directions
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6a. Many Criteria for and Models of PG Performance

PG as a Concept
1. Number of Decision Centers
2. Relative Autonomy of Decision Centers
3. Extent of Overlapping Jurisdictions
4. Means of Mutual Adjustment
5. Entry/Exit/Constitutional Costs
6. Overall System of Rules, Norms
7. Emergence of Order
8. Effectiveness of Systemic Coordination

Measures of PG Performance
1. Adaption to Local Conditions
2. Robustness to Exogenous Shocks
3. Generates and Reinforces Trust
4. Facilitates Accountability
5. Inclusiveness and Equity
6. Ease of Major Reform

• Each of the 8 dimensions of PG as concept could serve as a basis for a single-factor explanatory model of PG performance on any of the 6 dimensions of PG performance.
• Any subset of the 8 concept dimensions could serve as the basis for a multi-factor explanatory model of any of the 6 performance dimensions.
• The combined values of all 8 concept dimensions could simultaneously determine the values of all 6 performance dimensions.
6b. An Influential Effort to Compare PG Performance in Different Empirical Settings
(Carlisle and Gruby 2017)

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<th>Structural Attributes</th>
<th>Enabling Conditions (Processes or Intervening Variables)</th>
<th>Outcome Advantages:</th>
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</table>
| Multiple overlapping decision-making centers with some autonomy | • Employ diverse institutions  
• Exist at different levels and across jurisdictions  
• Jurisdiction coterminous with problem boundaries | • Enhanced adaptive capacity  
• Good institutional fit  
• Risk Mitigation/Redundancy |
| Choose to take account of others through cooperation, competition, conflict, and conflict resolution | • Applicable rules and norms structure actions & behaviors  
• Participation in cross-scale linkages and other mechanisms for learning  
• Mechanisms for accountability  
• Variety of formal and informal mechanisms for dispute resolution |
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7a. Endogeneity and PG Sustainability

Under Polycentric Governance, self-governing communities are presumed to have meaningful (even if incomplete) control over many of the conditions shaping their current situation.

For a system of PG to be sustainable, it has to generate outcomes that reinforce the structural conditions shaping that system, as well as maintaining the full range of processes used to generate those.

It’s critical to examine feedback loops and effects on evaluative processes used by participant groups, because these evaluations shape their future actions, and thus the future attributes of that system.
7b. Re-Visiting the 8 Dimensions of PG

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<th>Dynamic Processes*</th>
<th>Outcomes*</th>
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<td>4. Multiple processes of mutual adjustment among decision centers (to take each other into account);</td>
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<td>2. De jure independence or de facto autonomy of decision-making authority;</td>
<td>5. Low entry, exit [&amp; constitutive] costs for organizations or informal groupings;</td>
<td>7. Emergent patterns of behavior, interactions and outcomes across decision centers (emergent order);</td>
</tr>
<tr>
<td>3. Overlapping jurisdictions in the range of authority; [6. Operating within an overarching system of rules]</td>
<td></td>
<td>8. Effective coordination at all levels of aggregation, incl. system as a whole. [not always required for PG definition]</td>
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</tbody>
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Adapted from Stephen et al., in Thiel, et al., eds., *Governing Complexity*, (2019: 41)

*Note: These terms weren’t used in original, because some dimensions belong in more than one category. Feedback from outcomes to both structure and processes are critical determinants of sustainability. Some outcomes will reinforce current structure and processes, or help in adjustment to changing environment, but other outcomes may undermine the system’s current operation or ability to cope with exogenous shocks.
Frontiers of Governance Science

1. **Facilitating Conditions** (Carlisle & Gruby 2017, 2018, Langridge & Ansell 2018, Acton et al. 2021)


Polycentric governance poses profound challenges for social scientists and policy analysts

“Empirical research ... has documented that polycentric systems frequently outperform either fully centralized or decentralized systems when citizens are expected to contribute significant efforts to use resource systems sustainably ... Such systems look terribly messy and hard to understand. The scholars’ love of tidiness needs to be resisted.

(Ostrom 2014: 104)
“This complexity of language has not been introduced lightly. A scholar should also keep analysis as simple as possible—given the problem to be analyzed. Just as important, however, is developing a mode of analysis that enables scholars, policymakers, and participants in ongoing processes to grapple with the problems they face by digging through the layers of nested systems in which these processes exist.” (E. Ostrom 2005:256–7)

“Designing institutions to force (or nudge) entirely self-interested individuals to achieve better outcomes has been the major goal posited by policy analysis for governments to accomplish for much of the past half century. Extensive empirical research leads me to argue that instead, a core goal of public policy should be to facilitate the development of institutions that bring out the best in humans.” (E. Ostrom 2010:664-665)
The Ostroms challenged us to devise a way to conceptualize and measure the concept and consequences of Polycentric Governance in ways that simultaneously satisfy two criteria:

• Requirements of scientific rigor in theoretical and empirical research;

• Reinforce the belief/hope that human communities can be fully self-governing.
Works Cited  (See also supplemental references on Frontiers of Governance Science)


