

**Principles, Proverbs, Patterns and Principles:
A Public Administration History Toward Applying Living Processes**

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“...as a rule, concepts are not generated or defined in extension;
they are generated in intention” (Christopher Alexander, 1964, p. 67)

Vincent and Elinor Ostrom had distinct influences on the discipline of Public Administration. A historic perspective may help contemporary students. The scope may include studies of political economy and policy analysis, as well as attempts to develop frameworks, theories and models. Prior to that, Luther Gulick had intentions to improve governing. He specifically presented the concept of POSDCoRB at a Conference on Training for the Public Service (1935). As will be shown, that framework is not only enduring, but invariant in diverse policy processes. This manuscript presents a concise history of public administration (PA) which starts from the time of POSDCoRB. In doing so, one can see how Vincent and Elinor had, indeed, prominent roles, and their observations were greatly appreciated. But, by looking back, we may reflect on the factors which influenced Elinor's Institutional Analysis and Development (IAD) framework. Subsequently, a brief comparison will be done with the Social-Ecological Systems (SES) framework. This inquiry reveals a step-wise progression from public administration toward political economy, with considerations of common pooled resources and other policy types. The interdisciplinary discussions are evident in an attempt to synthesize principles, proverbs and patterns.

The approaches of Vincent Ostrom involved much more than states and markets. He used what was once termed a theoretical “Third Way.” And Elinor Ostrom sought inter-disciplinary approaches to her theories on self-organizing and self-governing (Aligica & Boettke, 2009). She recognized the importance of detailed indigenous dialogues (E. Ostrom, 1990). A young Gulick grew up in remote

Japan as the son of a Missionary (Fitch, 1996). It is likely he saw self-governed intensive forms of agriculture, as they vacationed near mountain tops. His father's mission was failing (Fitch, 1996) and his son probably learned the delicacies between control, coordination, collaboration and communication. According to researcher Lyle Fitch, the young Gulick even acted as a translator for vernacular Japanese, and he later learned German (1996). It is possible Gulick's POSDCoRB frame originated from his early development experiences, or more likely from much later when he worked at New York City's Bureau of Municipal Research (Fitch, 1996). The goal of this paper is simply to supplement Elinor Ostrom's work by illuminating an underlying frame.

This manuscript first discusses the principles, proverbs and patterns of PA, incorporating contemporary views. Next, a comparison will be presented with prominent conceptual models. The progression of technical changes and their influence will then be discussed. The ability to generalize with the frame will be assessed. Lastly, three interdisciplinary concepts will be extended toward organizational applications and this will be followed by a conclusion.

Principles

Vincent Ostrom's 1973 book, *The Intellectual Crisis in American Public Administration*, provides a telling segment of PA history. In short, Woodrow Wilson tried to separate politics from administration. Others, such as Frederick Taylor (1903), sought to determine scientific principles of management. Stronger than flippant discussion, Gulick finally published his "Notes on the Theory of Organization" included a fabric-like proposal, and the POSDCORB "organizational patterns" (1937, p. 11). Per Vincent Ostrom. "[t]he acronym, as every student of public administration knows, stands for the following activities: planning, organizing, staffing, directing, coordinating, reporting, and budgeting (V. Ostrom, [1973] 1991, p. 33). Elinor Ostrom was among those students as she earned a masters in

public administration (E. Ostrom, 2010).¹

POSDCORB can be found in modern representations of public administration (Agranoff, 2007; Agranoff and McGuire, 2001; Chalekian, 2016; Fairholm, 2004), and it has been suggested as a framework (Chalekian, 2016; Graham and Hays, 1993). In terms of durability, scholars have asked whether there is "...a POSDCORB equivalent set of tasks that replaces the standard planning, organizing, and so forth?" (Agranoff & McGuire, 2001, pp. 297-298). They later reported "...to date, no readily agreed-upon set of functional activities exists that is the hierarchical equivalent of POSDCORB" (Agranoff, 2007, p. 26). And, within a concise 10 page preface, PA scholar Richard Stillman referenced fourfold, "an inverted, randomized POSDCORB" (2015:xvii-xviii). By exploring the history of PA, we suggest that the concept endures. But not without associated examination.

Proverbs

Herbert Simon, while working towards his dissertation, critiqued the early attempts to develop PA "principles." He called them "proverbs" (1946). In his book *Administrative Behavior* (1947), he indicated that some concepts, including "Unity of Command" and "Span of Control" often had two outcomes and were thus inconclusive. Vincent later reflected how "[t]he span-of-control problem is one that cannot be solved." (V. Ostrom, 2015, p. 221). Yet, others followed Simon's early reasoning, most prominently Dwight Waldo (1948) and Paul Appleby (1949). According to one study, Simon's book became the most influential in public administration (Sherwood, 1990). Scholarship evolved in

¹ Whether Elinor Ostrom was aware of POSDCoRB (as Vincent Ostrom implied), or the IAD framework elements were invoked inductively, the components can be found. When abstract concepts are discussed, a collective nervousness may be invoked. However, scholars should still strive to gain the problematic essence. Sadly, Gulick's early proposal was interrupted by a joke teller who appeared to have a short attention span (1935). As in the opening quote, it was Gulick's intention to help (Fitch, 1996). After eight decades, we can calmly look back to Gulick's "Notes..." (1937) with reflection.

the 1950s from closed- to open-systems theories (Katz & Kahn, 1966) into an era of new computers, data transfers, and modular automation. These had affects that neither Gulick nor Simon could know.

Patterns

Christopher Alexander's 1964 work "Notes on the Synthesis of Form" was cited by Vincent Ostrom in his aforementioned book. Alexander and others developed a concern for governance (1968) and a structure for patterns (1977; 1979). Also in that year, Theodore Lowi published his Regulatory, Distributive and Redistributive policy types. A practitioner like Gulick, he reported deriving his types while working for the City of New York (Lowi, 1964). Garret Hardin wrote "The Tragedy of the Commons" (1968) which later proved highly influential to Elinor, as well as other political economists. Lowi later followed up with the addition of a Constituent type used to describe meta-policies, laws about laws, or rules about rules (1972). But recall how Gulick had described fabric-like inefficiencies when organizations overlap (1937). Lowi's Constituent type agencies (1972) or even Gulick's holding companies (1937) may be considered among the first descriptions of Common-Pool Resources (CPR).

Principles

Attempts were made to better understand the implementation of policy. Some early framework attempts were top-down (Van Meter & Van Horn, 1975; Sabatier & Mazmanian, 1980), bottom up (O'Toole & Montjoy, 1984) or both (Sabatier, 1986). After analyzing case studies, the development of one or more frameworks was attempted by Elinor Ostrom. And, if one looks closely, we can see the elements of POSDCoRB. The most prominent attempt was her Institutional Analysis and Development (IAD) framework (E. Ostrom, 1990). Sabatier (1999) attempted to summarize framework attempts, but he left out the framework-based contributions of Lowi.

| Gulick's “Organizational Patterns” (1937) | Alexander's “Patterns” w/variants (1977) | Ostrom's (et. al.) “IAD” (1994) | Ostrom's “Design Principles” (1990) | Crawford & Ostrom's “Grammar” (1995) |
|--|---|--|--|---|
| Planning | Context _(Cx) | Physical Wld | Boundaries | Attributes- Holder |
| Organizing | Problem | Community | Organize | AIM- |
| Staffing | Forces | Actors | Sanctions | Actions Attributes- |
| Directing | Solution | Rules-in-Use | Conflict Res. | Participant Deontic |
| Coordinating | Resulting _{Cx} | Interactions | Collective | Conditions |
| Reporting | Related Patterns | Outcomes | Monitoring | AIM- Outcomes |
| Budgeting | Consequences | Eval. Crit. | Appropriation & Provision | Sanctions |
| | | | Nested Enterprizes: “Appropriation, provision, monitoring, enforcement, Conflict resolution, and governance activities organized...” (Ostrom, 1990, p. 90) | |

Figure 1. A Comparison of Framework-based Conceptions.

Comparisons

For a comparison, an alignment of patterns, (proverbs,) principles and grammar is shown in Figure 1. Each column is a representation of a framework-based conception. While far from exact, marked similarities can be observed. Other contemporary scholars (i.e. Siddiki et al., 2011) have seemingly modified sentences to include implications. Read left to right, one can observe similarities. Recall how abstractness may be required, but we are striving to gain perspective. Recall also that Gulick's POSDCoRB (1937) was conceived with intention and, as a result, it is non-domain specific. The same can be said with Alexander's patterns (1977), as his thoughts originated abstractly from the discipline of Architecture. Many others, such as engineers, have adapted Alexander's patterns and created and extended their own. It was hoped by Alexander that their creations be generative (1977).

The IAD framework originated from early studies of watersheds, was refined by numerous case studies, and later developed in her 1990 book *Governing the Commons* (E. Ostrom, 2010). Elinor Ostrom's "design principles" followed in 1990, as well as "A Grammar of Institutions," with Sue Crawford (1995). Why is this scope restriction relevant? The hierarchically uppermost base classes, such as POSDCoRB, were intended by Gulick to be non-domain specific. Elinor Ostrom and Crawford perceived abstraction, for instance, a "Base game" of one framework showed only a physical world, and thus emptiness and nothing (Crawford & Ostrom, 2000). A need to expand and generalize her design principles was perceived (Wilson, Ostrom & Cox, 2013). Organizational Theorist James Thompson found these attributes in Gulick's work and he warned of this difficulty: homogenizing on one dimension does not homogenize on all (2003). Again, core elements are often abstract.

Being non-domain specific, the top-most "base" classes are special. Empty classes or categories appear in linguistics (Chomsky, 1996). A "class" can be defined as a *template* for the creation of instances (Goldberg & Rubin, 1995). It appears many studies which use the IAD and the

SES frameworks are simply instances of a frame. Another problem of the IAD being conceived based on watersheds is that one may expand over political boundaries. Thus, the frame may have limited utility in the practical areas of finance, distributive and redistributive policy (i.e. those of Lowi, 1972).

Technical Changes Over Time

In Gulick's time, modular organizations were uncommon as they were often geographically disbursed. Unlike now, organizations had difficulty replicating largely because of their need to maintain files. But during the 1960s, the first computer program was ported from one government accounting system to another. In the 1970s, data transmissions were first conducted, facilitating file transfers. The personal computer was introduced in the early 1980s, as well as the capability for decentralized files. In the 1990s, the patterns of Alexander were adopted by software engineers, and they created abstract object-oriented practices. In the 21st century, organizations which were modular and adaptable survived, whereas others did not.

Ability to Generalize

How diverse can POSDCoRB extend?

Provided below are two extremes.

Example: Watersheds in Bali

J. Stephen Lansing did extensive field research in Bali regarding the cooperative nature of cultivating wet rice. This author performed field research on the adjacent Island of Java. In Lansing's introduction to a book called *Perfect Order* (2006), one can find three concise sentences.

“Water temples provide a venue for the farmers to plan their irrigation schedules so as to avoid shortages when the paddies need to be flooded. If pests are a problem, they can synchronize harvests and flood a block of terraces so that there is nothing for the pests to eat. Decisions about water taken by each *subak* (watershed) thus inevitably affect its neighbors, altering both the availability of water and potential levels of pest infestations” (Lansing, 2006, p. 12 with translation).

Or..

...“Water temples provide a venue for the farmers [**S**taff]
to plan their irrigation schedules [**P**lan]
so as to avoid shortages when the paddies need to be flooded.
If pests are a problem, they can synchronize harvests [**O**rganize]
and flood a block of terraces [**C**oordinating]
so that there is nothing for the pests to eat.
Decisions about water taken [**D**irecting]
by each *subak* (watershed) thus inevitably affect its neighbors,
altering both the availability of water [**B**udgeting]
and potential levels of pest infestations [**R**eporting]” (Lansing, 2006, p. 12 w/tr. and
POSDCoRB annotation).

Indeed, the framework of POSDCoRB can indeed be found at a micro level.

Example: The Executive Office of the U.S. President

Gulick helped develop the presidential Brownlow report (Brownlow, Merriam & Gulick, 1937), and his POSDCoRB served as the framing idea (Stillman, 1991). At first Congress did not immediately heed the subsequent proposals. However, the underlying philosophy became the base point for administrative reforms "...and its influence persisted for many decades" (Mosher, 1983, p. 107). One distinguished scholar maintained that the report was probably "the most important constitutional document of our time" (Egger, 1975, p. 71). Another constitutional scholar agreed (Rohr, 1986).

Clearly, POSDCoRB is viable at the macro level. A perusal of case studies associated with the Workshop on the Ostrom Workshop, reveals many sentences which can be associated with POSDCoRB elements. In some sentences, one can find more than one. To ignore the early works of Gulick and withhold recognition is somewhat irresponsible to both him and the PA discipline.

Discussion

How are local users (i.e. those in a remote watershed or a developing world nation) going to synthesize discussions from a graduate-level class? Our scholarship simply needs to be more accessible. This researcher believes in the resiliency of individuals and groups. May we return to POSDCoRB, but with enhancements? Simon criticized Gulick, and then went on to describe chapters on "Fact and Value in Decision-making" and "Rationality in Administrative Behavior" (1947). We'll expand on values and behavior in the concepts below.

In an interdisciplinary way, we'll borrow from engineering. Crawford and Ostrom (1995) have used initials (c.f. their ADICO). Initials have been developed so that one word could stick in the minds of engineers. Being modular-oriented has been described as having elements of polymorphism, inheritance and encapsulation (Gamma et al., 1995; Goldberg & Rubin, 1995; van der Linden, 2002, to

name a few). Variations exist, but these object-oriented practices are in frequent use. For brevity, designers refer to these three interchangeably as “PIE” (cf. van der Linden, 2002). Below are organization-based modifications to PIE proposed previously by the author:

Organizational Polymorphism (OP) has features of the language whereby it is possible to send the same message to different objects or people and elicit a distinct but semantically similar response from those objects or people, with coordination and control.

Multiple Social Inheritance (MSI) is defined, whereby it is the feature of a language which supports the definition of a new entity as an extension of one or more existing entities, such that the new entity inherits existing information and behavior or values or sufficiency.

Socio-encapsulation (SE) has been defined as having features of a language whereby the language supports the representation of information and information processing as a single unit that combines the behavior or values or sufficiency with the information needed to carry out the behavior or values or sufficiency (Chalekian, 2013).

Rather than lengthy passages, for instance, McGinnis (2017) with an example of 16 pages, brevity may be needed. The terms OP, MSI and SE could facilitate local discussions.² One may perceive that MSI and SE pivot on behaviors, values and sufficiency. This is correct, but why so? In short, “Values” and “Behaviors” are partial chapters (and book) name within Simon's *Administrative Behavior* (1947). “Sufficiency” originates from elements of Lowi's “Distributive” and “Redistributive” policy types,

2 The steps are either long methods or none at all. Non-academics would be tested.

which have been applied to patterns (Chalekian, 2014). And what of the fabric-based “Constituent” agencies of Lowi (1972) first conceived by Gulick as a “Holding Company Idea” (1937, p. 34)? Here we imply and suggest POSDCoRB with Socio-encapsulation (SE). And what of the trailing *nested* “Design Principle” proposed by Elinor Ostrom and the multi-levels of analysis described by Vincent Ostrom? Here we have suggest POSDCoRB and Multiple Social Inheritance (MSI) with meta-levels of analysis (i.e. V. Ostrom, 2012). Between POSDCoRB and the permutations of OP, MSI and SE, we can find a renewed completeness of the whole. Revisiting the watershed sentences of Lansing:

“Water temples provide a venue [**MSI**]
for the farmers [**Staff**]
to plan their irrigation schedules [**Plan**]
so as to avoid shortages [*Sufficiency*]
when the paddies need to be flooded [*Value*].
If pests are a problem, they can [*Behavior*]
synchronize harvests [**Organize**]
and flood a block of terraces [**Coordinating**]
so that there is nothing for the pests to eat.
Decisions about water taken [**Directing**]
by each *subak* (watershed) [**SE**]
thus inevitably affect its neighbors [**OP**],
altering both the availability of water [**Budgeting**]
and potential levels of pest infestations [**Reporting**]” (Lansing, 2006, p. 12 w/tr.,

POSDCoRB annotation and

Organizational Polymorphism,
Multiple Social Inheritance and
Socio-encapsulation).

These new three are the descriptions that, in Gulick's days as a practitioner, were lacking. However, please be aware how these somewhat lengthy descriptions of “PIE” simply roll off the tongues of a younger generation of software engineers. Lack belief? Simply inquire among those in a Computer Science Department at your university. In an interdisciplinary way, inquire about Polymorphism, Inheritance and Encapsulation—or simply “PIE.”

The elements which are most profound have the greatest feeling within us. Those feelings—as individual or as participants in organizations--often pertain to POSDCoRB. Scholars of PA don't really know what to do about this academic stall. Vincent accurately pointed it out. This author reminds readers of the repeated POSDCoRB phrase of Stillman. And, the problem may be getting worse. As more instances of frames are published, there are more details within and between domains. Statistics are more aligned with lower-level models. Yet, the value of a framework-theory-model approach—though abstract--has been affirmed (Ostrom, Gardner & Walker, 1994; McGinnis, 2000; Ostrom, 2005). In short, if we are aware of the “base” centers, the associated concepts can appear with more focus.

Early PA scholars sought out principles. Gulick labeled POSDCoRB as “Organizational Patterns” (1937). Simon (1946) described the work of Gulick as proverbs. Alexander (1977) developed his method for patterns. Elinor Ostrom (1990) developed “Design Principles.” Yet, they appear to align—in a basic way—with the work of Gulick. In principle, proverb, pattern, principle, one could conclude that the critique of Simon (1946; 1947) is diffused. Yet generations of scholars have misinterpreted Gulick’s contribution “...through the eyes of Simon’s critique” (Meier, 2010, p. 284).

The discipline of Public Administration was confronted by Simon. Thus, the hierarchical nature of POSDCoRB was seemingly abandoned. Vincent Ostrom helped point this out. With a framework, we are usually looking for two or more instances. But Simon perceived this as lacking guidance or a weakness. Case studies often split up entities—leaving us to ponder: is *this* more important or is *that* more important? Actual usage of the SES reveals *many* instances of publication below the base (Thiel et al., 2015). When doing so, the wholeness of frameworks like POSDCoRB seem to get lost or disappear. Real structures reside in the “Base” objects. But, in the day-to-day scheme of things, they are mostly taken for granted. An simple SES example is Staffing | Actors | A1-A9.

Conclusion

Elinor Ostrom may have been influenced by the work of Gulick. Perhaps her work was inductive. In an aligned comparison of constructs, the elements appear markedly similar. As she suggests, interdisciplinary techniques, such as those used by software engineers, may be both insightful and appropriate. Gulick had served to help reorganize New York City and the Executive Office of the President (Fitch, 1996). Yet, POSDCoRB could also be generalized back to include remote rice paddies on Indonesia's Bali. These are wide ranging domains and it is hope that the IAD and SES efforts can be made as extendable.

The goal of a framework is to swiftly facilitate applicability. If something does not work, the frame may reveal one or more problem areas. A good framework can be ported to other applications; however, it is more likely that a frame will work in similar domains. The highest level frameworks are non-domain specific. These may contain the base classes. Crawford and Ostrom (1995) acknowledged their existence within their Grammar of Institutions. It is possible each IAD element—via POSDCoRB—is a true invariant.

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