

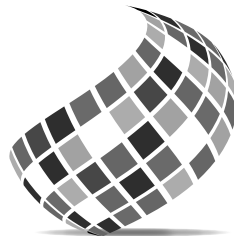


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**Complexity Theory for
Public Administration and Policy**

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Jack W. Meek

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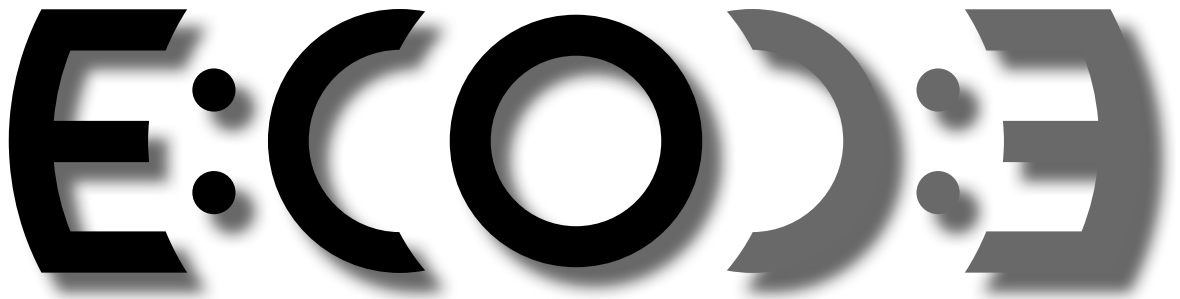
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Complexity Theory for Public Administration and Policy

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Complexity Theory for Public Administration and Policy

Jack W. Meek
University of La Verne, USA

Complexity theory offers enormous potential for improving our understanding of both policy development and public administration. The central concepts of non-linearity, emergence, self-organization, complex adaptive-systems provide attractive insights about behavior that helps address the limitations of rationally based policy and administrative logics that have guided much of our efforts in these areas of inquiry.

Early work on connecting the study of Public Policy and Administration with concepts related to complexity theory can be traced to the work of scholars familiar to readers of this journal, including Douglas Kiel (1989, 1994), E.H. Klijn (1996), Sam Overman (1996a, 1996b), Kickert, Klijn and Koppenjan (1997), Morçöl (1997), Morçöl and Dennard (2000). Goktug Morcol (2002) contributed to the policy sciences by addressing the assumptions and flawed underpinnings of positivism and outlines the central features and value of postpositivism for the policy sciences. This area of research has received continued interest with the work of a number of authors. There is recent work offers evidence of continued interest in examining the implications of complexity theory for policy analysis (Dennard, Richardson & Morcol, 2005, 2008) as well as how complexity theory can be usefully applied in our governance systems (Trochim & Cabrera 2005; Teisman & Klijn 2008; Teisman, van Buuren & Gerritis 2009).

* I wish to extend my deepest appreciation to Kurt Richardson who eagerly accepted our proposal to have papers from complexity section of the 2009 ASPA annual conference considered as a symposium for *Emergence: Complexity & Organization*. Kurt's enthusiasm and support for the exploration of these concepts continues to be a source of inspiration for our continued efforts in this critical area of research and practice.

Recognizing limits of linear strategies and related assumptions is no easy task as there is a tradition of accepted administrative practices and experiences framed with rationales and justification. But contributors and readers of this journal are leaders in understanding the task ahead and continue the journey to address a different kind of policy and administrative understanding.

This particular symposium continues the work of scholars and practitioners that have contributed to the exploration of complexity theory and public administration in the *American Society for Public Administration* (ASPA) and the Section of Complexity and Network Studies (SCNS). An initial set of papers presented at ASPA was later edited and subsequently published in the *Public Administration Quarterly* (Weber 2008). In this symposium prepared for *Emergence: Complexity and Organization*, the papers were presented at the ASPA Annual Conference held in Miami, March 20-24, 2009 and the authors continue their examination as to how the application of complexity theory improves our understanding of public administration theory and practice.

The practice of policy and administration has long recognized the limitations of policy and administrative interpretations that do not reflect the diversity and complexity of our human condition. It is Charles Lindblom's (1959) work that was seminal in indentifying the theoretical and practical limitations of decision-making solely based on rational thinking that lacked an appreciation of the nature of the assumptions locked within decision making approaches that espoused rational comprehensive protocols. The symposium begins with the original and classic essay from Lindblom not so much as a representation of complexity thinking, but one of providing groundwork for recognizing alterative ways to understand rationalist logics and protocols so as to em-

brace the realities diversity and limitations of assumptions in applying rationally designed hopes and desires.

In the opening essay, “The Science of Muddling Through Revisited,” Ronald J. Scott adjusts the lens of the Lindblom’s contribution due to the advancement of intellectual and computing capacity. Scott issues the argument that policy analysis and administration can be informed by a more rigorous and robust analyses with the use of an *emergent complex adaptive political system framework*. This approach represents a kind of analytical frame from which to develop and implement policy and administration thus limiting the reliance on “muddling through;” it offers a way for structuring and bounding policy analysis. The key to this revised understanding is in policy implementation, where constant feedback is derived from a complex policy arena and recognized for its emergent nature. The essay has much to contribute in terms of how unaccounted considerations in policy development and implementation can be incorporated into contemporary policy analysis and deliberation. In the end, while the adoption of this complex adaptive political system framework offers more analytical (less muddling through) potential, Scott is concerned that narrowly defined political and rhetorically articulated values may trump analytic treatments of policy problems.

In the article that follows, “Public Decision-Making as Coevolution,” Lasse Gerrits argues for a very fundamental shift in how we view rational decision practices in public decision-making with regard to physical systems. Like Scott, Gerrits’s work is concerned with the persistent occurrence of unattended, unforeseen and unwanted consequences that is characteristic of current public decision-making. These kinds of consequences—a result of an overreliance on the assumptions of human control of the environment and of comprehensive planning capacity—can be anticipated with the use of a different paradigm toward the public decision making process that frames *policy making as a coevolutionary process* between the policy makers and the system they govern. Drawing upon case study analysis of

planning ports extensions in Hamburg Germany, Gerrits demonstrates that the anthropocentric nature of planning ignores the erratic and whimsical nature of the intended target of planning leading to unwelcome outcomes. The lack of assuming a more systemic frame of reference contributes to unattended outcomes resulting from policy implementation. The recognition of complex and changing conditions calls upon a coevolutionary revision of traditional approaches to planning practices that currently rely on narrowly defined assumptions.

The research by Jean-Marie Buijs, “Understanding Connective Capacity of Program Management from a Self-organization Perspective,” continues the theme of improving public policy implementation through an improved understanding of the policy context. In this essay, Buijs reviews the traditional conceptualization of program management suggesting its limitations from a self-organizational perspective. The limitations of the traditional perspective are traced to not recognizing the *connective capacity* in the complex governance processes illustrated by insights from conservative and dissipative self-organization that is representative of complex systems.

The research by Jack W. Meek and Hong Kyu Lyu, “Bridging Jurisdictions: Conservancies Working Across Borders as Adaptive Systems” considers the potential of viewing conservancies as unique self-organizing components within metropolitan systems. The paper seeks to examine the nature of conservancies and their potential in influencing system behavior and outcome. The paper views conservancies as *intermediate structures*—a combination of market, government and citizen networks—actively working across traditional jurisdictional boundaries, learning from experiences within the system and expanding in both number and individual memberships. As a result, conservancies are viewed a potentially emergent networks promoting locally constructed environmental values. As these intermediate structures expand, bonds among normally competing system elements are formed offering new kinds of collaboration and legitimacy that attract attention and con-

nectivity in the system.

In his essay, “Issues in Reconceptualizing Public Policy from the Perspective of Complexity Theory,” Göktuğ Morçöl continues his previous work designed to assist our thinking in reconceptualizing public policy from the perspective of complexity theory. In this essay, Morçöl offers Giddens’s structuration theory as a meaningful contribution to complexity theory and public policy and administration. Continuing the theme of this symposium, the assumptions of reducibility and social causation are viewed as problematic for public policy and administration. Central components of work of Giddens—particularly the concepts of duality of structure and distanciation—are viewed as useful in addressing conceptual problems of the dynamic nature of public policy in the application of dynamic public policy. Complimenting the work of Gerrits and Buijs in this symposium, Morçöl seeks to view complexity theory constructs of self-organization, coevolution, emergence and dissipative structures—as referents to the dynamic nature of the policy context. Policies enacted in complex metropolitan governance systems in this perspective are to be viewed not as tools of policy makers but as system components that have their own dynamics.

The concluding essay of the symposium (in the Philosophy Section), “Aspects of Complexity Theory in Liberal Political Thought,” Rob Bittick offers the first of two essays that address philosophical connections among complexity theory and public policy and administration. Bittick’s contribution is to trace aspects of complexity theory found in the writings of Liberal political philosophers John Locke and Immanuel Kant. Bittick’s finding is that while complexity theory and Liberal political philosophy are compatible concerning emergent order, they are constructed from unique foundational norms. This distinction is this important because Liberal political philosophy is a significant part of the foundation of the United States political order and impacts how public administrators implement public policies.

In summary, this symposium continues the long-standing dialogue around how

complexity theory can meaningfully inform public policy decision-making and public administration. The central concepts complexity theory examined here—self-organization, non-linearity, coevolution, connective capacity, emergence, dissipative structures, intermediate structures—receive continued attention as to how they can assist our understanding of the dynamic and evolutionary nature of the policy context and how policy-makers are to consider their own interactive and emergent, even coevolutionary role in the policy context.

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