

# The Paradox of Intentional Emergent Coherence: Informational Requirements for Autopoietic Development

Robert M. Cutler

Senior Research Fellow  
Institute of European and Russian Studies  
Carleton University  
Station "H", Box 518  
Montreal, Quebec H3G 2L5  
Canada  
mc@alum.mit.edu  
<http://www.robertcutler.org>

---

**Abstract:** This paper elaborates a framework for evaluating the growth and decline of organizations and other systems, determining what leads some of them to respond adequately to demands imposed upon them by their environment, and others not. The framework synthesizes two apparently mutually exclusive taxonomies. The first taxonomy concerns how organizations survive. It emphasizes the creation of organizational structures to accomplish functional tasks and comprises two principal categories: internal functions and external functions. The second taxonomy adopts an "epigenetic" approach, concentrating not on established functions but rather on new functions that must be developed for growth and adaptation. The functional framework is first-order cybernetic, the epigenetic, second order cybernetic. Their synthesis, which is denoted the "paradox of intentional emergent coherence", lays stress on autopoiesis and learning. The synthesis draws on wide literature in the social sciences ranging from the first decision-making studies in political science to the most recent empirical work on the birth and death of international institutions. It problematizes the relevant theoretical questions and establishes a coding scheme for assessing organizational development and performance, and illustrates both theoretical and measurement issues through empirical example. The paper illustrates the correspondence between the two approaches by demonstrating its empirical relevance for and use in assessing the performance of international institutions in world politics and economics.

---