



Insights from PGI's Literature Review on Systems Thinking and the New Synthesis of Public Administration

Prepared by Raynold W. Alorse
Edited by Jocelyne Bourgon P.C., O.C.
May 2019



NS is an international co-operation initiative led by the Honourable Jocelyne Bourgon P.C., O.C.

Insights from PGI's Literature Review on Systems Thinking (ST) and the New Synthesis of Public Administration (NS)

By: Raynold Wonder Alorse
Edited By: Jocelyne Bourgon P.C., O.C.

© Public Governance International, 2019

Published by Public Governance International (PGI)

All rights reserved. No parts of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the author.

The content of the document is property of Public Governance International. The use of the document is restricted to participants in NS Labs, NS events and to NS partners.

May 2019

ISBN: 978-1-989294-12-3

Insights from PGI's Literature Review on Systems Thinking (ST) and the New Synthesis of Public Administration (NS)

PGI's New Synthesis of Public Administration (NS) Initiative was launched with the explicit purpose of exploring the new frontiers of public administration to provide practitioners with a mental map that would better equip them to face the challenges of serving in the 21st century. The Initiative has been underway for the past ten (10) years and it is moving forward on its third phase. During the first and second phases, NS argued that addressing the problems of the 21st century requires a different way of thinking than the one inherited from the industrial age.

A recent literature review explored how NS uses system thinking, an approach that focuses on understanding how the parts and the whole co-exist and co-invent each other. The famous phrase—"the whole is more than the sum of its parts"—attributed to the Greek philosopher Aristotle, is at the heart of the systems thinking literature. This shows that system thinking is not new, but it has re-emerged due to several scientific discoveries that have transformed the human understanding of the world.

Old Ideas Fit for This Time: System Thinking

Fritjof Capra, a Physicist and systems theorist, explored the concept of interconnectedness in great details in *The Web of Life: A New Scientific Understanding of Living Systems*: "[the] web of life is an ancient idea, which has been used by poets, philosophers, and mystics throughout the ages to convey their sense of the interwovenness and interdependence of all phenomena" (Capra, 1996:35). Capra provided a rich account of how the pendulum has swung periodically between mechanistic thinking (reductionist approach) and system thinking (holistic approach).

The popular expression that "everything is connected to everything else" holds much truth, but it took the better part of the 20th century for scientific discoveries to

demonstrate scientifically the significance of a dynamic, integrated and systemic understanding of the world.

The core concepts of systems thinking were developed during the 1920s and 1930s. During this period, scientists in fields such as biology, psychology and ecology explored integrated 'wholes' whose properties could not be reduced to those of smaller parts. This included individual organisms, communities, social systems and ecosystems. The General systems theory was formulated in the 1940s by Ludwig von Bertalanffy, a distinguished Austrian biologist who set out to replace the mechanistic foundations of science with a holistic vision. Between 1940-1960, Macy Conferences—a set of meetings of scholars from various disciplines —were held to promote communication across scientific disciplines and to restore unity to Science. This period also witnessed notable works in the field of cybernetics, which laid foundation for Cognitive Science. For instance, Norbert Wiener published "Cybernetics: Or Control and Communication in the Animal and the Machine" in 1948; Talcott Parsons published *The Social System* in 1951; scholars such as Ludwig von Bertalanffy, Anatol Rapoport, Ralph W. Gerard and Kenneth Boulding established the Society for the Advancement of General Systems Theory in 1954; Ross Ashby published "Introduction to Cybernetics" in 1955; and Ludwig von

Bertalanffy published his classic work, “General System theory: Foundations, Development, Applications” in 1968.

A different way of thinking

The ideas set forth by scientific discoveries in biology, physics and mathematics during the first half of the 20th century gave birth to a different way of thinking that draws special attention to connectedness, relationships and context. System thinking does not invalidate the importance of analytical approaches. On the contrary, a deep understanding of the constituent elements is needed to gain an appreciation of the dynamic interrelationships that cause a living system, be it an organism, a city or a society, to behave the way it does. Linda Sweeny summarised this well; “if we know how to complement analytical thinking with systems thinking, we will have a much more powerful set of tools with which to approach [problems]” (Sweeny, 2001:2).

In “From Mechanistic to Social System Thinking”, Russell Ackoff and Kellier Wardma (2018) explained that “to understand a system, analysis says to take it apart. But when you take a system apart, it loses all its essential properties. The discovery that you cannot understand the nature of a system by analysis forced us to realize that another type of thinking was required. Not surprisingly, it came to be called synthesis.” Michael Goodman (2018), a principal at Innovation Associates Organizational Learning, notes that systems thinking highlights the circular nature of the world we live in. He argued that “Systems thinking expands the range of choices available for solving a problem by broadening our thinking and helping us articulate problems in new and different ways”. The conclusions in systems thinking parallel many of the key findings of the New Synthesis Initiative over the last 10 years:

- A mechanistic view of the world is insufficient to understand the complex issues of society.

- Conventional approaches are relevant, but insufficient to invent viable solutions to the complex issues we are facing collectively.
- There is a need for a broader mental map that encompasses all aspect of life in society and a dynamic approach to collective problem solving that brings together in an integrated whole the role of government, people and multiple agents in society.
- The economic, social, civic, and environmental spheres are inseparable facets of life in society
- The role of the State is essential and irreplaceable. It is the role of government to ensure that the overall balance serves and promotes the collective interests

System Thinking (ST) and The New Synthesis of Public Administration (NS)

The New Synthesis of Public administration transforms public administration from a mechanistic view to a dynamic and adaptive view of governance. This is a paradigm shift in thinking about governing in the 21st century. The central idea is that public administration has been lacking a Synthesis to “coherently integrate past theories, conventions, principles and practices of enduring value with new ideas, principles and approaches better aligned to today’s reality of practice and future needs” (Bourgon, 2017: 53). NS argues that systems thinking and a dynamic approach to problem solving are needed to invent viable and sustainable solutions to the complex problems of life in society. NS champions the following:

A Holistic and Dynamic Concept of Governance

- NS argues that the conventional view of public administration did not give enough attention to the dynamic

inter-relationships across systems. It sees the world from a binary perspective and through multiple separations including politics and administration, the public and private spheres, the governors and the governed, etc.

- Disaggregated thinking makes it challenging to see the whole picture and to fully grasp how interactions among various components and actors have the potential to bring about better societal results.

- NS champions a holistic, adaptive, dynamic, co-evolving, and iterative approaches to collective problem solving and to inventing solutions to complex problems.

- The NS Exploratory Cycle is a systematic and deliberate exploratory approach to improving the likelihood of success of government interventions. The process is systematic because it brings together in a comprehensive way several phases to inventing solutions. It is dynamic because it considers how various elements are interacting and influencing one another. It is iterative because people leading public transformation are likely to go through the various phases several times as the exploration progresses, and more people come on board.

- The NS Exploratory Cycle recognises the importance of the inter-relationships between agency, system-wide and societal results. It invites public sector leaders to frame issues in societal terms and to articulate the higher public purpose that would be served through proposed government interventions. Defining what success means for society influences the way one conceives of a system-wide effort and the contribution that various actors may make.

- The NS Initiative views modern governance as “an ongoing search for balance between the public, private and civil spheres of life in society where the state authority is used to leverage the collective capacity of society to

achieve results of higher value for society as a whole” (Bourgon, 2011:56). The stewardship role of government is central to the New Synthesis of Public Administration.

- In short, system thinking is embodied in every aspect of the NS framework and the NS Exploratory Cycle.

Governing as an Applied Process of Invention

- A “New Synthesis” is a pathway to a better future that can only be crafted in practice by the people who have the right to use the authority of the state as a lever to enroll the contribution of others to achieve a common purpose (Bourgon, 2011).

- A “New Synthesis” brings together multiple elements interacting holistically to generate the desired public outcomes. It balances the need for compliance, performance, emergence and resilience functions of modern government.

- A “New Synthesis” explores how government actions and interactions can be used to create ripple effects across multiple systems to propel society forward.

- The New Synthesis of Public Administration recognizes government activities and interventions as a process of invention aimed at transforming society and influencing behaviors to achieve more desirable outcomes. The magic is not in the various elements but in how all the pieces can be brought together to generate a new and emergent reality.

- NS exploratory cycle helps practitioners weave together the many strands needed to lead society through a process of change. It provides a way to do systematically what some leaders are doing instinctively, that is, discover a pathway to a better future.

Bibliography:

- Ackoff, Russell and Warda, Kellie (2018). "From Mechanistic to Social System Thinking" Accessed April 10 2019 from <https://thesystemsthinker.com/from-mechanistic-to-social-systemic-thinking/>
- Bourgon, Jocelyne (2011). *A New Synthesis of Public Administration: Serving in the 21st Century*. Montréal: School of Policy Studies, Queen's University.
- Bourgon, Jocelyne (2017). *"The New Synthesis of Public Administration Fieldbook"*. Copenhagen, Dansk Psykologisk Forlag A/S.
- Capra, Fritjof (1996). *The web of life: a new scientific understanding of living systems*. New York: Anchor Books.
- Goodman, Michael (2018). "Systems Thinking: What, Why, When, Where, and How?" Retrieved from <https://thesystemsthinker.com/systems-thinking-what-why-when-where-and-how/>
- Sweeney, Linda (2001). "Systems Thinking: A Means to Understanding our Complex world" Pegasus Communications. Retrieved January 8, 2019 from http://scpsystem.weebly.com/uploads/2/1/3/3/21333498/linda_booth_sweeney_-_systems_thinking_a_means_to_understanding_our_complex_world.pdf



NS is an international co-operation initiative led by The Honourable Jocelyne Bourgon P.C., O.C.