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Essays

Toward a new macrohistory: An extension to Sardar's 'postnormal times'

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ABSTRACT

How should futurists evaluate Sardar's announcement of 'postnormal' times? In contrast to existing images, what light does the postnormal metaphor shed on our global age? This paper views Sardar's postnormal times as embryonic, and extends it using ecosystems theory. To develop Sardar's concept as a macrohistory, Holling's adaptive cycle and panarchical systems are proposed as mechanisms of change that create postnormal times.

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Ziauddin Sardar [1] claims we have entered 'postnormal' times. As a modern day Marco Polo, he offers a travel log of social and economic abnormalities brought on by the Great Recession of 2008–2009. He reports the new terrain is windswept by complexity, chaos, and contradiction, where the old normality itself, running on progress, modernity and efficiency, is now a cause of our ills. He says that our journey toward the new normal cannot be centered in single-dimension logic or rationality. Instead, Sardar says it must be anchored in virtues: humility, modesty, and accountability. This, together with collective imagination and multi-cultural creativity, could forge a global path to a new-normal time.

1. Introduction

How should futurists evaluate Sardar's declaration of 'postnormal' times? Beyond existing critiques of world futures, how does this metaphor shed light on our age? Has the Great Recession so fundamentally altered the nature of globalization so that we now live in a state of postnormal chaos? Should Sardar's new dispensation be adopted by the futures community?

In mulling over Sardar's paper I was driven back to Galtung and Inayatullah [2], who review 20 theories of macrohistorians, such as Ssu-Ma Ch'ien, Khaldun, Vico, Hegel, Marx, Spencer, Weber, Sorokin, Gramsci, or Eisler. In comparing and contrasting these minds, they suggest 10 factors that constitute a macrohistory, including its metaphysics, knowledge framework, metaphors of time, stages of history, mechanisms of change, level(s) of analysis, change agents, and vision of the past and the future. They note that a macrohistory does not always explicitly delineate each factor. This is especially true of Sardar's postnormal times, where much more is implicit, than explicit.

Sardar takes us on a global tour of system crises that places us in a new uncertainty. We leave with a rough map of the new typology. To continue the journey, however, will require we develop detailed maps. In short, Sardar's concept of postnormal times needs a more robust framework. He offers an epistemological clue about postnormal times from the discipline of postnormal science [3]. But more work must be done from the fields of social evolution, world systems, and sustainability sciences by Sardar and others before we can construct a well-rounded model. To advance this conversation, this paper will extend Sardar's concept of postnormal times with the insights of Holling's adaptive model of change and nested panarchies among social–ecological systems [4].

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2. Holling's adaptive cycle

Over the past 30 years a burgeoning literature has created chaos and complexity theory [5] with vital streams such as evolutionary and ecosystem approaches to sustainability [6,7]. The value of Holling's work in evolving complex adaptive systems is that it arises from empirically derived studies within ecological, economic and institutional systems at the local and regional level [8,9].

Holling and his colleagues from the Resilience Alliance [10] claim that social–ecological systems move through an adaptive cycle marked by four phases.

1. Exploitation (organization into a new system),
2. Conservation (proliferation of the new system),
3. Release (revolution) and
4. Reorganization (regime change to a new paradigm).

These phases can be depicted as a 'figure eight' that travels through four quadrants. The sequence moves from bottom left to upper right, then from bottom right to upper left [9, p. 34]. See Fig. 1.

Holling's adaptive cycle is comprised of two loops [9]. The front loop, from r to K (phases 1–2), is a slow, incremental phase of growth and accumulation. As dominant species or competitors gain market share, the future seems ever more certain and determined. Those familiar with s-curve forecasting in population, technology, or innovation will recognize this as a logistics curve that reaches equilibrium [11,12]. How systems grow and maintain stability has been the focus of traditional ecology, economics and sociology. Holling's front loop of exploitation and conservation captures this stability, while his back loop of release and reorganization focuses on collapse and systemic transformation.

The back loop, from Omega to Alpha (phases 3–4), is a rapid phase of reorganization leading to renewal of another cycle. Holling claims the Omega phase is marked by Schumpeter's 'creative destruction' [13]. This tipping point is caused by either "internal or external natural disturbances or human-imposed catastrophes" [9, p. 26]. During this time of rapid revolution, "accumulated resources are released from their bound, sequestered, and controlled state, connections are broken, and feedback regulatory controls weaken" [9, p. 45]. For social systems, respect and trust between people and institutions is realigned. In economics, accumulated capital is lost in recessions and usable knowledge of labor is repurposed in new endeavors.

Holling and Gunderson recap: "The adaptive cycle therefore embraces the opposites of growth and stability on the one hand, change and variety on the other" [9, p. 47]. Futurists will recognize Holling's front and back loops as the two-stroke model of punctuated equilibrium, marked by long stable eras and rapid transitions [14].

3. A postnormal reality check

Does Holling's adaptive cycle really help us understand Sardar's postnormal times? The cycle's front loop describes processes at work in 'normal times' when predictability increases. By contrast, the back loop depicts postnormal times when

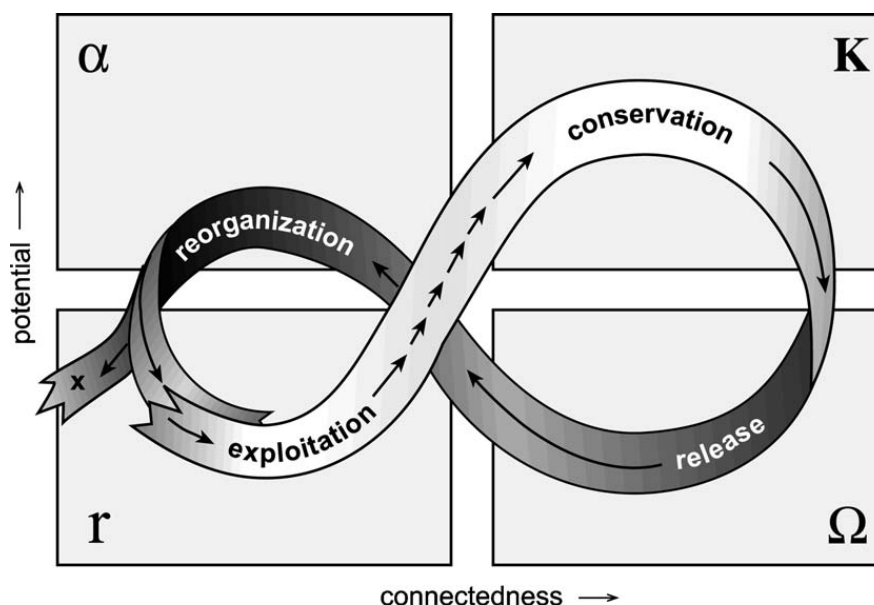


Fig. 1. Holling's adaptive cycle. From *Panarchy* edited by Lance H. Gunderson and C.S. Holling. Copyright © 2002 Island Press. Reproduced by permission of Island Press, Washington, DC.

directions for the future are inherently unpredictable. Reaching a premature judgment at this point might lead us to reason that Sardar's binary metaphor implies the world system has entered an Omega phase as a result of the Great Recession.

Yet if we apply Holling's adaptive metaphor to the broadest level of human civilization and the biosphere, it would suggest we are still in the front loop, in phase 2, or conservation. Gallopín confirms this in comparing Holling's cycle to the work of the Global Scenario Group (GSG). He claims the 'Policy Reform' scenario is "essentially an attempt to maintain the global system at the peak of the conservation phase" [15, p. 389]. This would "not eliminate the risk of a collapse of the system, but only postpone it (and possibly increase its likelihood), as efficiency, resource throughput, and connectedness increase" [15, p. 390]. In contrast to present continuities, the GSG barbarization scenarios of 'Breakdown' envision a full unraveling of institutions and a de-coupling of stored capital. The 'Fortress World' variant could be placed in the Omega phase, as a partial breakdown of the world-system, "excluding a majority of population from the 'bubbles of wealth'" [15, p. 390]. The GSG's other scenarios, 'Ecocommunalism' and 'New Sustainability Paradigm' presumes new cycles. 'Ecocommunalism' would envision a post-collapse world, moving out of a back loop into a new cycle, while the 'New Sustainability Paradigm' would mark complete change without a back loop by releasing sufficient cultural and spiritual capital to allow self-organization to transform the socio-ecological system.

As serious as the 2008–2009 financial crisis was, and as extreme as the counter-measures were, the global system did not collapse akin to the GSG 'Breakdown' scenario. Seen from a historical perspective, the collapse of the housing market and banking systems was just one of many boom and bust cycles over the past thirty years. Although speculation has increased [16,17], we do not inhabit a post-American, nor a post-capitalist world. Globally, We have not plunged into Holling's back loop. A more sophisticated understanding of Holling's model is needed in order to put Sardar's postnormal times in context.

4. Resiliency through panarchies

Holling affirms that the fundamental unit for understanding complex systems is the adaptive cycle marked by four phases. He also maintains that local and regional systems are comprised of numerous adaptive cycles that operate across cells to ecosystems, to societies, and to cultures. In other words, our global system is an evolving hierarchy of dynamic structures, each governed by its own adaptation.

Rather than use the word 'hierarchy,' given its default understanding as top-down, Holling and colleagues use the term 'panarchy.' This is analogous to Koestler 'holarchy'[18]. A panarchy refers to "the adaptive and evolutionary nature of adaptive cycles that are nested one within the other across space and time" [9, p. 74].

An ecological panarchy within a regional landscape might include needles, tree crowns, a patch, a stand, and a forest. These levels move from the small to the large, from a short duration of less than a year to a cycle of 10,000 years. In terms of a culture, the span of time and space levels might encompass fads, values, and then traditions and institutions that evolve over centuries.

Building on the work of Simon [19], Holling claims that the multi-level interaction of a panarchy serves two functions: "one is to conserve and stabilize conditions for the faster and smaller levels; the other is to generate and test innovations by experiments occurring within a level" [8, p. 393]. Holling illustrates these connections between levels by depicting a middle positioned adaptive cycle influenced by a small and fast cycle below it, and a large and slow cycle above it [9, p. 75] (see Fig. 2).

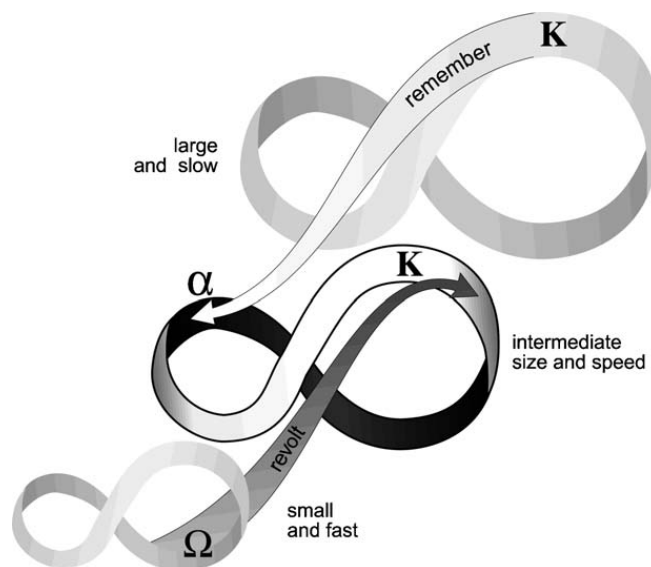


Fig. 2. Holling's panarchical connections. From *Panarchy* edited by Lance H. Gunderson and C.S. Holling. Copyright © 2002 Island Press. Reproduced by permission of Island Press, Washington, DC.

When the lowest adaptive cycle in Fig. 2 enters its Ω phase of creative destruction, its collapse or ‘revolt’ can cascade up to the middle or intermediate level and trigger a crisis. Holling writes, “Such an event is most likely if the slower [middle] level is at its K phase, because at this point the resilience is low and the level is particularly vulnerable” [8, p. 398].

We saw this dynamic at work in 2008 when defaults on U.S. home mortgages triggered a crisis in the finance industry. The intermediate sized financial markets moved from a Ω to α phase. It took a larger and slower level of government investment to stabilize these institutions. Holling labels this stabilization from above as a ‘remember’ function. In short, the upper, larger and slower components of a panarchy can provide a memory of the past that provide recovery of smaller and faster nested adaptive cycles. In social systems, the remember function or stabilization can also be proactively released through human intentionality and foresight [9, p. 99]. Yet a back loop collapse, or positive lessons emerging from creative destruction, do not guarantee upward cascading change. Holling summarizes:

Major transformations are rare and extreme because a unique combination of separate developments has to conspire together simultaneously. Some developments emerge within adaptive cycles during the back loop of the cycle, when recombinations and external influences can generate unexpected new seeds of opportunity that can nucleate and modify the subsequent phase of growth. So long as connections with other levels are maintained, those innovations are contained and do not propagate to other levels [9, p. 90].

By extending Sardar’s concept of ‘postnormal’ times with Holling’s model of adaptive cycles within panarchies, we have a fuller organizing framework to consider how human and ecological processes interact across space and time, both retrospectively and prospectively. To propose, as Sardar does, that our globe has entered postnormal times is helpful, but incomplete. We must complement that claim with two sub-premises, which can be viewed as two ends of a seesaw. One end of the seesaw is a “yes” that affirms the “post” in postnormal. It points out that our age is increasingly shaped by back loop dynamics of fast-moving variables that can cascade up to systemic collapse. On the other end of the seesaw is a “no” that negates the “post” in postnormal. Those larger and slow-moving variables in front loops can help fast-moving variables recover.

5. Conclusion

Sardar is in good company with macrohistorians who identify transitions by naming eras. Daniel Bell’s post-industrial society has been one of the most enduring frameworks employed by futurists [20]. As a macrohistory framework, Sardar’s postnormal times is more encompassing, as goes beyond single-dimension economic drivers, to include social and ecological dimensions.

Unlike Fukuyama’s short-lived pronouncement of a ‘post-historical’ world after the Cold War [21], Sadar’s postnormal times could have staying power. It critiques the totalizing aspects of western science and industry, as well as its systemic dysfunctions. Amplified by Holling’s theory of adaptive cycle within panarchies, it can raise our understanding of complex adaptive systems. When complemented by Holling’s model, Sardar’s postnormal times goes beyond just an episteme or a metaphor of time. It takes on dynamics of a macrohistory, with mechanisms of change within multiple levels of analysis [2].

Expanded in this manner as a new discourse, Sadar’s framework of postnormal times has the power to change the way the world is socially constructed. The naming of our age as postnormal should be further debated and developed within the futures community.

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