

Response to *Toronto Globe and Mail*, December 12, 2006

## **BEYOND MANAGEMENT: How and Why Kymlicka is Wrong**

THOMAS HOMER-DIXON

In his review of my new book *The Upside of Down* (“Panarchy and Dystopia.” *Toronto Globe and Mail*, November 11, 2006), Will Kymlicka makes a number of mistakes about the book’s argument, and he neglects to mention some of the book’s most important ideas. In particular, he:

- suggests incorrectly that I “dismiss” all forms of conventional or managerial responses to our global problems;
- mischaracterizes the book’s theory of societal collapse;
- doesn’t acknowledge that I repeatedly differentiate between beneficial and dangerous forms of connectivity and complexity; and,
- inaccurately presents two of the book’s four detailed prescriptions and doesn’t discuss the others, including the one that’s most novel and potentially contentious

Kymlicka makes these mistakes, I believe, because he’s unreceptive to the book’s critique of “management” approaches to dealing with humankind’s enormous problems, including climate change, energy scarcity, and global economic inequality. The argument in *The Upside of Down* implicitly challenges the authority of our societies’ “management elites”—those groups who have gained great status and power as directors of our social, economic, and political affairs.

Kymlicka’s review and this response are therefore a good starting point for a discussion—needed now more urgently than ever—of the strategies we should adopt to survive and even prosper in a volatile future. Below I summarize and elaborate on parts of the book’s argument that bear on this discussion.

### **Thinking beyond Management**

In *The Upside of Down*, I say a management approach is characterized by, first, generally incremental policy adjustments, often involving modular addition of technologies and institutions to older systems that are left unchanged; second, steadily greater complexity of institutions and technologies in response to increasingly complex problems; and, third and most importantly, reluctance to challenge powerful economic and political interests that benefit from the status quo.

Contrary to Kymlicka’s assertion that I “dismiss” such management, I explicitly acknowledge twice in the book (on pages 20 and 267-8) that management strategies are often important and even essential. But I also say they won’t be enough to ensure that humankind can cope with today’s converging demographic, energy, environmental, and economic stresses. And because of the power of vested interests, the deep changes we need if we are going to cope with these stresses—changes in our institutions, technologies, and values—won’t happen in the absence of crisis.

Converging stresses raise the likelihood of sharply discontinuous or nonlinear change (what I label “breakdown”) that will hurt large numbers of people. The specific timing and consequences of breakdown are unpredictable. But we do know that in an increasingly nonlinear world, incremental policy adjustments will be increasingly ineffective. Also, if managers can’t predict key behaviors of the systems they’re ostensibly managing, and if the deep change needed will happen only in the wake of crisis, then there’s little for them to manage.

Should these facts become widely recognized, managers’ social and political role and, ultimately, their authority will be greatly diminished.

### Understanding Societal Collapse

Kymlicka’s commitment to management makes him reluctant to acknowledge the rising danger of breakdown. This reluctance then leads him to mischaracterize the book’s theory of societal collapse. He notes two key components of my theory: changes in energy cost (specifically in energy return on investment, or EROI) and Buzz Holling’s panarchy theory. He neglects to mention a third component: my diagnosis of modern capitalism’s “growth imperative.” He also implies that the book provides two separate and stand-alone analyses of the dangers of societal collapse—one based on EROI and the other on panarchy—whereas the book actually provides only one analysis, and its major contribution lies in its synthesis of the EROI, panarchy, and growth imperative ideas.

Put briefly, my theory of societal collapse—as applied to our current situation—consists of the following seven propositions (see especially pages 233 and 250-54):

1. The world socio-ecological system is now one immense complex-adaptive system.
2. This system, driven by modern capitalism’s growth imperative, is moving up the growth phase of its adaptive cycle (as defined within Holling’s panarchy theory).
3. In the process, it’s becoming steadily more complex (moving further from thermodynamic equilibrium), losing resilience, and developing severe internal stresses.
4. Managing these changes will demand ever-larger inputs of high-quality energy.
5. Yet, largely by coincidence, the world is entering a critical transition from high-EROI energy sources (mainly conventional oil) to lower-EROI energy sources.
6. Societies without access to enough cheap high-quality energy to sustain rising complexity and to manage worsening internal stresses are increasingly susceptible to “overload”—that is, to breakdowns (including economic crisis and political disorder) when their institutions and adaptive mechanisms can’t cope with sudden shocks.
7. In the future, such breakdowns could be global in scope but are more likely to proceed in stages from weak peripheral areas towards the global system’s most powerful and complex centers.<sup>1</sup>

By suggesting that I provide separate EROI-based and panarchy-based explanations of societal collapse, Kymlicka sets up both as straw men. For instance, he writes:

---

<sup>1</sup> Kymlicka muddles the book’s account of these three trends—rising complexity, declining resilience, and worsening stresses. He says that I argue that worsening stresses are “evidence that we are reaching the critical threshold” of complexity and connection. But I am very clear that worsening internal stresses and rising complexity/connectivity are largely separate phenomena.

“[It’s] not clear that declining EROI inevitably leads to ‘disintegration’ rather than adaptation. Societies historically have evolved from one fuel source to another—consider the shift from muscle power to coal to oil—without breakdown. Why won’t we be able to manage the transition from fossil fuels in the same way?”

But I don’t argue that declining EROI *by itself* will lead to societal collapse or disintegration. Rather, I argue that collapse could arise from a declining average EROI in the context of rising stresses and falling resilience. Today’s declining EROI is dangerous precisely because it’s happening *in combination with* these other changes.<sup>2</sup>

### **Distinguishing between Types of Connectivity and Complexity**

Kymlicka also writes:

“Homer-Dixon claims that our society is reaching the upper limits of its capacity for complexity, and that some form of breakdown is therefore inevitable.”

But once again, I don’t make such a simplistic argument. First, I spend much time distinguishing between types of complexity and connectivity—identifying those that can be beneficial and those that can be hazardous. And to the extent that some forms are hazardous, I point out, they may be especially hazardous *in combination with* a declining average EROI.

Second, I don’t say that rising system complexity and connectivity always leads to a decline in its resilience. According to panarchy theory, rising connectivity doesn’t reduce resilience early in a system’s growth phase—in fact, at that point it likely increases resilience. Later in the growth phase, high connectivity can contribute to loss of resilience, but so can a decline in the system’s slack and in the redundancy of the system’s key components. In my account of panarchy theory, I make these points explicitly.

### **Getting the Prescriptions Right**

Having set up the book’s EROI and panarchy arguments as straw men, Kymlicka then asserts that the book’s theory doesn’t really “help us predict or prevent social breakdown.” This comment implies that a theory is useful only to the extent it helps us predict and manipulate a given system’s behavior. But a theory can be useful and important even when it doesn’t help us do these things.<sup>3</sup>

---

<sup>2</sup> As an aside, Kymlicka’s assertion that “societies have evolved from one fuel source to another without breakdown” is incorrect. Some have, and some haven’t. Joseph Tainter provides copious evidence on those that haven’t, including Rome. It’s astonishing that Kymlicka would neglect to mention the very example of a failed energy transition—the western Roman empire—that I describe at such detail in the book.

<sup>3</sup> The theory of evolution, for instance, is a marvellous scientific explanation of certain observed phenomena, but by itself it has no predictive power and gives us no capacity to manipulate the evolution of species.

Throughout *The Upside of Down*, I say that we should largely give up any hope of precisely predicting and manipulating the behavior of the world's complex systems. In contrast, by emphasizing prediction and manipulation, Kymlicka reveals his bias in favor of management solutions. Indeed, he baldly asserts that the only solutions that might be effective are managerial strategies.<sup>4</sup> Because the arguments of *The Upside of Down* don't fit his management perspective, he simply rejects the book's theory and caricatures its prescriptions.

Kymlicka reduces the book's prescriptions to bits of sophistry about "mental agility" and "local experimentation." He asserts that panarchy theory offers no scope for bold strategies to address our common challenges: the only responses consistent with this theory involve "small-scale experimentation, disconnected from larger collective action." Such responses "seem wholly inadequate to the task, if not fatalistic."

Kymlicka then ignores much of what the book says about what we should do. For instance, no reader of his review would know that *The Upside of Down* includes an extended discussion (across chapters 1, 5, 8, and 11) of threats to the resilience of our technological, economic, and social systems and of ways of enhancing this resilience. No reader would know that the book also includes a discussion of the likely contest—at "moments of contingency" following breakdown—between extremists and non-extremists for political power. And no reader would know that I recommend a fundamental rethinking—involving focused research within the social sciences—of the economic theories that underpin modern capitalism's "growth imperative."

Most importantly, no reader would know that the book calls for large-scale collaboration among and mobilization of "non-extremists"—perhaps within some kind of Internet-based open-source architecture—to address humankind's most pressing problems and to begin laying down plans for action in a volatile future. This is a bold idea. It certainly isn't the kind of pinched and restricted recommendation that Kymlicka says is all that the book offers—boxed in, as it is, by panarchy theory. Open-source democratic debate, planning, and self-organization are entirely consistent with panarchy theory, because they entail preparation for the processes of reorganization, regeneration, and renewal following breakdown. They will also help non-extremists overcome their debilitating collective action problem.

Commentators and critics who say there isn't enough "upside" in *The Upside of Down* are so wedded to a management approach that they're missing the book's point, despite the fact that it's clearly stated in the first chapter. They're looking for someone—leaders, technocrats, or perhaps "experts" writing books about the world's problems—to give them a checklist of answers. They're resisting the idea that it's time for regular people—people who aren't members of our management elites—to come up with answers themselves by working together.

*The Upside of Down* argues that future crisis could have an "upside," and it makes some preliminary suggestions for what we can do to realize that upside—both important contributions to our current debate about humankind's predicament. The book doesn't tell people exactly what to do or exactly what a different, more positive future might look like.

But it does suggest that we need to grow up. We need to recognize that the responsibility to decide our future course is now ours, and ours alone.

---

<sup>4</sup> "[Any] effective response to the stresses that Homer-Dixon rightly identifies will surely require precisely [a managerial solution involving greater complexity and connectivity]—for example, creating a new global regulatory system for carbon emissions to reduce global warming, or a global regulatory system for currency exchange to reduce economic instability in the Third World."