The Natural Laws of Collapse

Contributed by Adam D. Sacks
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That birds fly and pigs don't is a consequence of laws of nature governing physics and biology. Nothing that transpires on physical planet Earth is any different: the laws of nature are inviolate. Always. [1]

This is a truism, and should be readily apparent, as it indeed often is in indigenous cultures where people are entirely dependent on natural forces and what is close at hand.

But this truism is rendered invisible by technological and bureaucratic power, the delusional quality of human exceptionalism, and the complexity of civilizations, especially but not exclusively of recent industrialized civilization.

That is, we have imagined throughout the known history of the past ten thousand friendly-climate years that, because from time to time we have been able to use the laws of nature to our short- and long-term advantage, we are no longer subject to them. Current instances are encyclopedic: Use of fossil fuels, the Green Revolution, atomic energy, widespread dispersion of toxics, and entering the sixth great extinction are recent examples. We persistently act as if unintended consequences do not exist.

Nonetheless, such consequences abound, and are forcefully shaping our lives. If we are to address causes and consequences, whether we fully understand them or not, it's essential to be open to and explore perspectives that may be very different from prevailing ones.

Cultures evolve because they provide us with effective ways of surviving the environmental hand we are dealt, but cultures are powerful regulators of human behavior and thought, and tend to persist despite changes which may render their central assumptions dysfunctional or lethal (e.g., we can pollute and desertify the planet to our heart's content).

The culture which drives us, whether we deplore it or not, likes us to go around in activism circles whenever we threaten to question its most basic tenets -- activism keeps us busy and harmless. Notwithstanding, the forbidden point to consider here is that collapse of civilizations, including ours, is inevitable and always has been. Hidden in plain sight, we have not grasped what will sooner or later become obvious: Civilizational collapse is not up to any of us, no matter what we do. As when faced with an unstoppable Hurricane Katrina, which is only obeying the laws of nature, the best we can do is to be prepared.

To elaborate a bit: there are indeed laws of nature that govern human groups, just as there are physical/biological laws that govern any living creature. This seems as if it should be obvious. These laws, particularly in relationship to civilizations, may not be so obvious as the laws governing the behavior of a falling apple, but they are every bit as inviolable.

In order to live within the constraints of such laws, which civilized humans habitually seem to forget (not only in Euro-American civilization, but in all other civilizations throughout known history), we have to re-learn them (a central theme in Ishmael) [2]. And by "civilization," I mean human societies more or less larger than chiefdoms, industrialized or not, living in central dwellings more or less distant from sources of food and other necessities, with a distinct class structure that differentiates between a ruling oligarchy and everybody else.

What kinds of laws are these? Pretty simple really. Primarily, any biological organism, including humans, will grow exponentially until it runs into limits to growth, or overshoot of carrying capacity. The wall may be in the form of no more

food, or competing species, or new competing members of one's own species. Sometimes a balance is struck, and an equilibrium is maintained for an indefinite period of time if and until an external event upsets the balance (e.g., a new species in the niche, climate change, etc.).

A critical corollary is that exponential growth is an imperative. Any species will expand its numbers if it possibly can for as long as it can.

Now with humans sometimes culture adapts to perceptions of limits, and develops norms that restrict expansion of self-defeating growth (China's one-child policy is an example of such an attempt, successful or not); island cultures may do that because the limits are painfully obvious. But, as on Easter Island, ecosystem reality may remain unappreciated, as people would often rather die than change their culture, and die they did.

As civilizations grow larger the ability to change seems to dwindle, and we witness all civilizations in history going through their birth, vigor, then death, until, as in Ozymandias [3],
. . . Nothing beside remains: round the decay

Of that collosal wreck, boundless and bare,

The lone and level sands stretch far away.

In one of my top ten books of the 20th century, Joseph Tainter (The Collapse of Complex Societies) [4] explains, in terms of the flow of energy (he calls it "marginal return"), why civilizations must collapse. Social complexity is very expensive, and the more a civilization grows the less you get back per unit of input (also called "diminishing returns"). Sooner or later every civilization busts its budget, cannot afford its armies or its bureaucracies, is unable to suppress increasing dissatisfaction among the masses who must be at least nominally pacified (think bread and circuses), exhausts its resources, suffers from its environmental travesties (the most salient of which is destruction of trees and soil), runs out of food, and is eventually supplanted by simpler more sustainable groups (if there are any around) or just disperses (if there's any place left to disperse to).

I would propose that the civilizational life cycle, as described above, is a law of nature. The collapse is therefore predictable. It has nothing to do with our specific Euro-American now-gone-global deplorable civilization -- it has to do with any civilization that gets to a certain size, necessitating hierarchy and class. Cultures will vary in their metaphors and style, partly depending upon geography, as Jared Diamond has pointed out [5], but the final outcome will be the same: collapse.

And that's where we are now. The determining factor is size (relative to resources). All else is simply the stories we tell ourselves. Therefore:

We can write to politicians, we can riot in the streets, we can write learned tomes, we can cavort through the vast wasteland of talk radio, we can make impassioned documentaries, we can bring down Monsanto, we can put up solar panels and drink organic yak's milk. None of that will change the outcome one bit (as tragic as that may be now that humans have become a global force) -- because civilization is on a course prescribed by laws of nature which have no regard whatsoever for human wishful thinking.

It sounds grim, what can we actually do? Well, once we recognize the reality -- but not until then -- we can act on it. As far as I can tell, acting on it means getting ready to live our lives within planetary means. It may be too late for that, as the climate prepares to rage wildly beyond livability, but let us try what we can (which may include pulling carbon out of the atmosphere so somebody will survive). [6]

Preparing ourselves is not a salve for the terrible pain of our current predicament, but it's about as good as it gets -- and is full of relationship and a renewed sense of community, so that we may, at the very least, as Elizabeth Kübler-Ross once put it, live until we say goodbye. [7]

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Notes

1
I don't care to enter a debate here on religious and psychic phenomena, intervention of the miraculous, etc. For the moment suffice it to say that plaintive human pleas notwithstanding, we live overwhelmingly by the inflexible rules the universe imposes.

2
Daniel Quinn, Ishmael, Bantam Books, 1992. An entertaining and landmark cultural critique in the form of a novel, cast as a dialogue between a seeker and a socratic gorilla. It is an indication of how difficult it is to understand one's own culture that one must become a gorilla (or some metaphorical equivalent) to have any chance at all.

3
"Ozymandias," by Percy Bysshe Shelley, one of the great expositions of civilizational folly in English literature:

I met a traveler from an antique land

Who said: Two vast and trunkless legs of stone

Stand in the desert. Near them, on the sand,

Half sunk, a shattered visage lies, whose frown,

And wrinkled lip, and sneer of cold command,

Tell that its sculptor well those passions read

Which yet survive, stamped on these lifeless things,

The hand that mocked them, and the heart that fed;

And on the pedestal these words appear:

“My name is Ozymandias, king of kings:

Look on my works, ye Mighty, and despair!”

Nothing beside remains. Round the decay

Of that colossal wreck, boundless and bare

The lone and level sands stretch far away.

4
Joseph Tainter, The Collapse of Complex Societies, Cambridge University Press, 1988.

5
Jared Diamond, Guns, Germs, and Steel: The Fates of Human Societies, W.W. Norton & Company, 1997

6
For an explanation of the only carbon sequestering strategy to date that makes sense, see my article on Grist, "Got Cows", January 30, 2010.

7
Elizabeth Kübler-Ross and Mal Warshaw, To Live Until We Say Goodbye, Simon and Schuster/Touchstone, 1978. Stories of dying patients who live their lives in full until the very end.