

Rights, Responsibilities and Resilience

or

Auntie Phyllis and the Bloody Great Fork

The evolution of human societies has been punctuated by a progressive multiplicity of declarations of the *rights* which more or less rigidly defined groups of humans, citizens or organisms could claim. The very idea of *equilibrium* in any dynamic environment depends on a balance between counteracting influences. The United Nations General Assembly's *Universal Declaration of Human Rights* in 1948 was itself an important step forward, but where is the *Universal Declaration of Human Responsibilities*?¹

This question of equilibrium is fundamental to any concept of *resilience*, which although lacking a clear definition for human society as a whole does imply a sense of continuity or temporal sustainability. Sadly, although Spiritually-based movements have long focused on the advisability of pro/contra relational equilibria, Science has traditionally taken a view that the *experimenter* controls his or her *subject*, and that the relationship must of pragmatic and philosophic necessity be unidirectional. This imbalance did begin to break down during the twentieth century, with the introduction of quantum theory, but only within limited areas of investigation.

Arguably, a turning point in the drift of global human attention towards recognition of the importance of environmental equilibrium was Rachel Carson's publication in 1962 of *Silent Spring*, but it is only comparatively recently that fear of global warming has really begun to exercise our intellect. Fascinatingly, if unsurprisingly, most discussion of this possibly imminent phenomenon focuses on 'who is to blame', rather than whether the alleged causes should be addressed independently of whether catastrophe will follow or not.

Science has journeyed onward in an unstated assumption that analysis and synthesis are symmetrical². The long-held belief that it will ultimately be possible to establish a Theory of Everything from examination of the properties of elementary particles bears witness to this supposition; the macroscopic complexity of Nature indicates that such a belief is farcical.

Although the more exact sciences have begun to move out of their 'comfort zone' of near-equilibrium quasi-linearity by tackling chaos and less-than-deterministic systems, they have yet to meet up with biology coming in the other direction. Inorganic nature can be addressed reasonably successfully by either digital or analog techniques, but life establishes multi-scalar systems based on compromise between the two and on variable relationships between local scalar and global non-scalar characters. Until now this has had very little impact on Science in general, particularly in the present socio-commercial climate where *analog is bad* and *digital is good*.

¹ The establishment of such a document has indeed been addressed, most recently by the InterAction Council of Former Heads of State and Government, but it remains, unfortunately, without any overt consequences.

² For an extensive consideration of this relationship in the context of living organisms see Robert Rosen's 1991 book *Life Itself: A Comprehensive Inquiry into the Nature, Origin, and Fabrication of Life*.

The central issue for any overarching view of Nature, society and of their interaction is one of scale. How does, or should, an individual or group relate to local society in general or to planetary resilience? How do, or should, *rights* and *responsibilities* be integrated into a scheme which accepts the complexity of multi-scalar organisms and multi-scalar societies on a multi-scalar planet? This is, or should be, the central theme of any approach to *resilience*. But should it be a question which only concerns *governance* as a top-down 'leave it to the politicians' approach? Contextually identified concepts of *top-down* and *bottom-up* design or control abound in our surroundings, but neither of them can ever be efficiently viable on its own, nor can the two be simplistically integrated into a mono-rational system for which analysis and synthesis are asymmetrical.

Careful examination of naturally-generated 'hierarchical' systems³ leads to a recognition that purely scale-local organization can never be sufficient to guarantee *any* form of resilience in the face of either external or internal perturbation, never mind guaranteeing a resilience which can sustain 'health and happiness' for a system's constituent elements. Inter-scalar transit in a multi-scalar system depends on global properties, which themselves depend on local phenomena, whether for an individual or a society.

So, it seems that in addressing the resilience of our mono-rational multi-scalar societies, of multi-scalar organisms, on a multi-scalar planet, it would be reasonable to first think carefully about how multi-scalar natural systems operate. Will this be sufficient? No, although it will probably help somewhat. But maybe an important first step would be to address, in our own lives, and therefore at a very small scale, the balance between rights and responsibilities which will be necessary to support effectiveness of any future governance that, for all our sakes, targets resilient dynamic socio-planetary equilibrium. From small acorns do tall oak trees grow.

³ The reader should note that by 'hierarchical' we are looking towards systems which are neither uniquely top-down nor bottom-up in their organizational style.