Review of *Systems Practice: How to Act in a Climate-Change World*

The surest view into Ray Ison's perspective on systems practice, as described in his 2010 book *Systems Practice: How to Act in a Climate-Change World*, begins with his definition of a system.

Ison cites a four-part formulation developed at the Open University, where he is Professor in Systems:

- A collection of entities
- That are seen by someone
- As interacting together
- To do something

This might seem like boilerplate stuff, but that's only partially correct. Compare it for example with Ludwig von Bertalanffy's definition: an entity that maintains its existence through the mutual interaction of its parts. Or Donella Meadows' in the book *Thinking in Systems*: a set of things, interconnected in such a way that they produce their own pattern of behavior over time. Or one based on the three properties laid out by Russell Ackoff in *Redesigning the Future*: a whole, consisting of parts that can interdependently affect the behavior or properties of the whole.

Three aspects of systems – elements, interactions, and identity or behavior or purpose – are cited by each of the three systems luminaries. The Open University formulation includes these three aspects, and also a fourth: point of view.

This top-line emphasis on point of view recalls a 1976 diagram by two additional luminaries, Margaret Mead and Gregory Bateson. In it, they describe two perspectives on systems – first-order and second-order cybernetics – distinguished by whether or not one sees oneself as a participant in the system under examination.
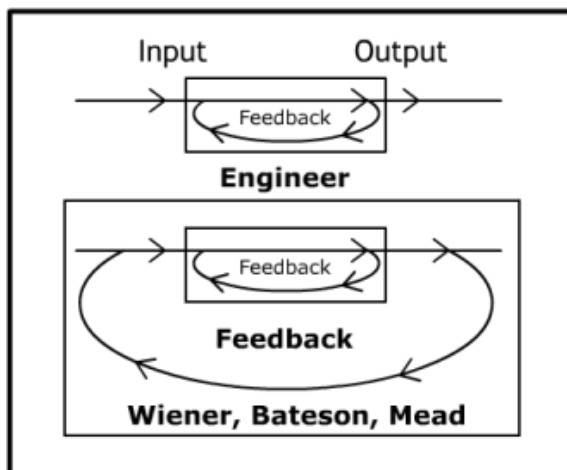
This type of embodied, reflexive participation is at the heart of Ison's approach – and his theory of change. We are always participating in situations, he writes; we are never outside them. Effective and aware systems practitioners can call on a variety of options for acting in complex situations, for managing in a co-evolutionary world. Especially in a time of great

flux, the institutionalization of system thinking and practice in our social organizations of community, business, and governance can greatly bolster our adaptive capacities for learning and development.

Ison describes systems practice as a performance, a kind of juggling act, with four balls constantly in the air. One represents one's own sense of being a participant, maintaining a self-awareness of ethical and responsible action. A second represents one's engagement and the choices one faces when engaging with "real world" situations. A third is concerned with how one contextualizes the situation by drawing upon various methods for systemic engagement. The last represents how one manages one's performance in relation to the desired impact, a co-managing of self and situation. An effective performance, he writes, is one that arises from actions that enhance the quality of relationships with others, as well as with the Earth, other species, and future generations.

His guiding question for this performance is: what is it that we do when we do what we do? This double-layered look – not only at what we do, but also at our looking at what we do – can help illuminate an immersive web of existence: our emotions, language, social rules and norms, and so on. We are, he emphasizes, always in one emotion or another. Calm is an emotion, along with more pronounced ones, like fear or joy. Language, rules, and social norms are types of social technologies in which our daily practices are embedded, often invisibly. This embeddedness becomes a trap when accustomed ways of being or thinking, reified in social technologies, leave us unaware of alternative possibilities or powerless to adopt them. To *reify* is to perpetuate distinctions that arise from projecting our meaning onto the world, thereby "making a thing" of our experiences, as when we talk about problems and solutions, rather than perceptions of problematical situations and effective actions. Every noun, Ison writes, obscures a verb.

Examples of pernicious social technologies include everyday management tools such as targets, which Ison sees as often inflexible, difficult and expensive to monitor, and a hindrance to local design. Targets exemplify thinking and practice that are *systematic* rather than *systemic*, methodical rather than contextual. To illustrate his point, Ison reprints an article from *The Observer*, in which journalist Simon Caulkin rails against a target-based management culture that he blames for 400 deaths over a few-year period at a single hospital, citing a 2009 UK Health Commission study. In the U.S., one can find similar critiques of the educational policy No Child Left Behind: that its emphasis on test scores undermines thinking and learning. Most damagingly, Ison stresses, social technologies like targets serve to institutionalize an "intellectual apartheid" that severs practical action and daily discourse from an understanding and appreciation of the emotions.

Emotional dynamics are central to Ison's methodology for systemic engagement. He defines *methodology* as a conscious braiding together of theory and practice in a given situation, and his basic process is: (1) offer the invitation to tell of one's experience vis-à-vis a specific set of circumstances; (2) from this account, identify the dominant metaphors and image schemas; (3) ascribe determining emotions to the imaginative structures; (4) reflect the emotions back to the participant embedded in the same or in amplified imaginative structures and couched as an invitation to further engage; (5) begin the sequence over again or finish when either party considers that there is something better to do elsewhere. As an example of this process, Ison reprints a 2002 article of his own describing his involvement with a UK agricultural organization and their attempts to develop a knowledge transfer strategy for environmentally friendly agricultural practices. The article describes how Ison,

through this type of "mirroring back" process, encouraged a shift in organizational thinking toward a more participatory model of knowledge development.

These articles, Caulkin's on target-based management and Ison's on knowledge transfer, are two of nine texts reprinted in the book, from well-known essays (Donella Meadows' "Places to intervene in a system") to lesser-known academic papers (e.g., Gerald Midgley's "Opportunities and demands in public health systems: systemic intervention for public health"). The texts are selected, Ison writes, to exemplify diverse types of practice, and they represent but a portion of the book's rich tour of the systems field. The Open University where Ison lectures has had a chair in systems since 1972, and his writing is well versed in the wide range of Anglo-American systems approaches that emerged over the latter half of the 20th century. The 340-page book is both authoritative and eminently readable.

What becomes apparent on reading is that, in Ison's perspective on systems thinking and practice, the functionalist impulses that have dominated the systems field are held in check. He elaborates on acting in a climate-change world without mention of international protocols or planetary boundaries or stabilization wedges. He criticizes target-based management without reference to that favorite target of environmentalists: 350. For better or worse, the reader is left to contemplate the broader applications and implications of Ison's approach. Yet for anyone interested in what the systems field might contribute to a reflexive understanding of situational inquiry and engagement, there is hardly a better book with which to start.

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