

Evaluating the Complex

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In this last piece of essay, I would like to describe what type of philosophy of science is required in our pursuit of evaluating interventions toward realizing sustainable development (SD). When the nature of such a phenomenon is complex, the attempt to evaluate it requires a conceptual model that can capture such nature. Its theoretical backbone is an evaluation approach called *realist approach*, which is a school of evaluation that is based on a philosophy of science called Critical Realism. There are three traits of this philosophy, i.e. open vs. closed system, generative mechanism hidden underneath a surface layer, and explanations vs. predictions or judgments.

Interventions aiming to realize a status of SD are quite complex and are characterized by multi-sectoral nature, cross-thematic focus, and long timeframes, as described in the previous pieces. Evaluating such interventions thus involves an analysis that goes beyond the *deterministic* (or post-positivist) worldview. This worldview is characterized by the sentence, i.e. “if X happens, it automatically produces outcome Y”.

This is the first trait of the philosophy which clearly distinguishes an *open* system and *closed* system. In a *closed* system, selected elements are placed under a laboratory-like setting with an intention to validate a certain mechanism in question without the presence of other, possibly interfering, mechanisms. An *Open* system is, on the other hand, *society* or nature itself where there are a number (if not infinite) of people, agents, or functions that are manifesting simultaneously, from different layers. Interactions at one layer may generate an outcome or phenomenon at a higher layer of reality and vice-versa. Conducting a laboratory-like experiment in such open systems will not generate any deterministic predictions or judgments, simply because there are too many elements operating and interacting simultaneously in different layers

of reality.

In summary, one can say that the interventions aiming to realize a status of SD take place: with a number of different stakeholders; in a different geographical space at different political jurisdictions; and under only a certain, short, period of duration/time-frame. Evaluating such interventions is thus synonymous with discovering underlying mechanisms that generate desired outcomes at the surface layer of reality in an open system.

Under such conditions, evaluation should seek to identify what which made certain interventions a success for which stakeholders, under what circumstances, i.e. “what may work for whom, how, and in what circumstances.”

“For whom” and “in what circumstances” is to identify under what conditions certain interventions have worked to produce a desired outcome. Also, one should notice an addition of a modal verb, *may*, in the sentence. This modal verb is the representation of another Critical Realism concept of *explanations*, rather than *predictions* or *judgments*. Under a closed system, it is indeed possible to draw predictions or judgments about the mechanism in question. However, in an open system, it is not possible to conjure a prediction or judgment that universally holds regardless of the context.

We can easily “talk” about the importance and necessity of SD as a concept. But when it comes to “validating” and “evaluating” the success of interventions aimed at realizing a status of SD, one can fathom how challenging this whole task really is. The field of evaluation therefore holds a key in helping us to move from talking to walking the talk.

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