Evaluating complex realities[1]

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Two parallel methodological developments and associated traditions of thinking have emerged within the global evaluation community in recent years specifically dealing with evaluating complex realities – complexity thinking and systems thinking. Complexity thinking draws on complexity science and the revelations regarding the incidence of non-linear interconnectedness amongst entities. The tradition makes a point of departure from normal Newtonian science caricatured as dealing with mechanistic linear relationships of simple cause and effect. Within the tradition of Newtonian scientific practice the evaluand is characterised as being 'complicated' rather than 'complex'. Complicated situations have interconnected entities which can with various degrees of difficulty be nevertheless subject to the certainties of design or programming, are essentially predictable, and can be controlled. Complex situations, alternatively, are much less easy to plan, are essentially uncertain, unpredictable, and significantly uncontrollable. Perhaps the most familiar illustration of complexity is the 'butterfly effect' – the proposition by meteorologist Edward Lorenz in the 1960s that a flapping of a butterfly wings in South America may lead to significant weather events, such as a hurricane, at a far removed distance, say, North America. The effect works socially as well as biophysically. The on-going 'Arab Spring' events giving rise to national and international upheavals including the current crisis in Syria can be linked back to the personal action and tragedy of one disaffected individual in Tunisia being denied his livelihood opportunity to sell vegetables.

Systemic emergence is a term often used amongst complexity practitioners to describe effects of uncertainty, unpredictability, and uncontrollability. However, one of the concerns sometimes expressed by evaluators grappling with such issues is a sense of hopelessness arising from notions of systemic emergence. Where events of an evaluand are regarded as 'other-worldly' what hope is there of making meaningful evaluations? Concern for systemic effects might be expected to invite greater attention to systems thinking. Curiously though there appears to be relatively little attention given to this longer tradition of thinking in practice for evaluating complex realities.

Where reference to systems is made it tends to be confined to an assumption that systems are merely sets of interrelated entities. The systems-based evaluation presented takes a more nuanced-view of complexity and systems in emphasising the role of systems in not only representing sets of interrelationships, but as proxy to perspectives about such interrelationships and interdependencies. In other words, systems might be used as ontological devices to represent reality – as with complexity thinking – but also as epistemological devices or conceptual constructs to actively learn about and transform reality. Such a systems-based evaluation will have explicitly subjective components that interplay with the real world. But how might these

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[1] A fuller treatment of the issues addressed in this article is available in Reynolds, M. (2014). "Equity-focused developmental evaluation using critical systems thinking." <u>Evaluation</u> **20**(1): 75-95.

systems devices be different from other subjective devices used for evaluation such as the use of story-telling in, say, Research for Real?

Drawing particularly on the sub-tradition of critical systems thinking (CST), 'reality' is very much kept in check with a systems-based evaluation. The 'real world' of CST comprises not only the complicated reality of interconnectedness of entities – *inter-relationships*, but also the complex reality of multiple *perspectives* on the real world, as well as conflictual reality of social and ecological tensions arising from contrasting *boundary* judgements associated with contrasting perspectives (cf. Williams, 2013). Boundary conflicts in this latter instance have expression in the ethical domain regarding contested ideas of what's good and what's right, but also in the political domain regarding, for example, how 'goodness' and 'rightness' might be circumscribed by social relations of power (gender, religion, ethnicity, sexuality, socio-economic status, etc. etc.).

Equity-focused developmental evaluation as outlined by Reynolds (2014) at its simplest attempts to provide a handle for evaluators to unlock these complicated, complex, and conflict ridden realities. The paper provides a powerful reference system – critical systems heuristics (CSH) – based on the works of two systems philosophers; C. West Churchman from an American pragmatist tradition, and Werner Ulrich based in Switzerland from the more European critical social theorist tradition. The evaluand chosen to illustrate the workings of CSH is the Narmada Dams project in India. The article is based on a desktop evaluation undertaken with my colleague Bob Williams, which was commissioned by UNICEF in order to illustrate the helpfulness of systems thinkingfor equity-focussed evaluations (Bamberger and Segone, 2012). The Narmada Dams was a project first initiated in 1949 as a flagship intervention for the newly independent India. Until now, the subsequent and prospective dams remain a source of considerable debate. Indeed, the project was chosen for the UNICEF commission because of its widespread and longstanding ethically and politically contentious implications.. In sum, with a focus on promoting equity three quite unique features of using critical systems thinking may be drawn. First, there is an explicit attempt at exploring the inter-relationships between values, power, knowledge and legitimacy, which are at play in any evaluand. Using the handle of CSH questions regarding who gets what are linked with associated questions of who owns what, who does what, and who and what gets affected in the process. Second, as against conventionally *applying* value judgements in an evaluation, there is an imperative towards *developing* value in a CST-based evaluation. In other words, the evaluator is regarded very much as an active player in the evaluand, rather than as a passive observer. S/he may be involved with either sustaining/reinforcing the existing status-quo or be part of meaningful transformation in developing value. Thirdly, with a pro-equity focus CST invites possible convergence and compatibilities with other existing methods of evaluation. Hence the imperative is not to substitute a new 'method' to replace other methods, but rather to seek ways in which systems thinking may articulate purposefully with the existing skill-sets of practising evaluators. The result is a meaningful, though not necessarily exclusive, correspondence with, theories of change, programme evaluation, developmental evaluation and realist evaluation. Moreover, contemporary systems thinking can, given its particular focus on inter-relationships, incorporate insights from complexity science. However, a key point of departure from complexity science remains with appreciating 'systems' more as (abstract) conceptual tools for exploring and designing purposeful change rather than as mere representations (obstructs) of complex realities.

References

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