Systems Thinking, Systems Practice: Includes a 30-Year Retrospective

Peter Checkland
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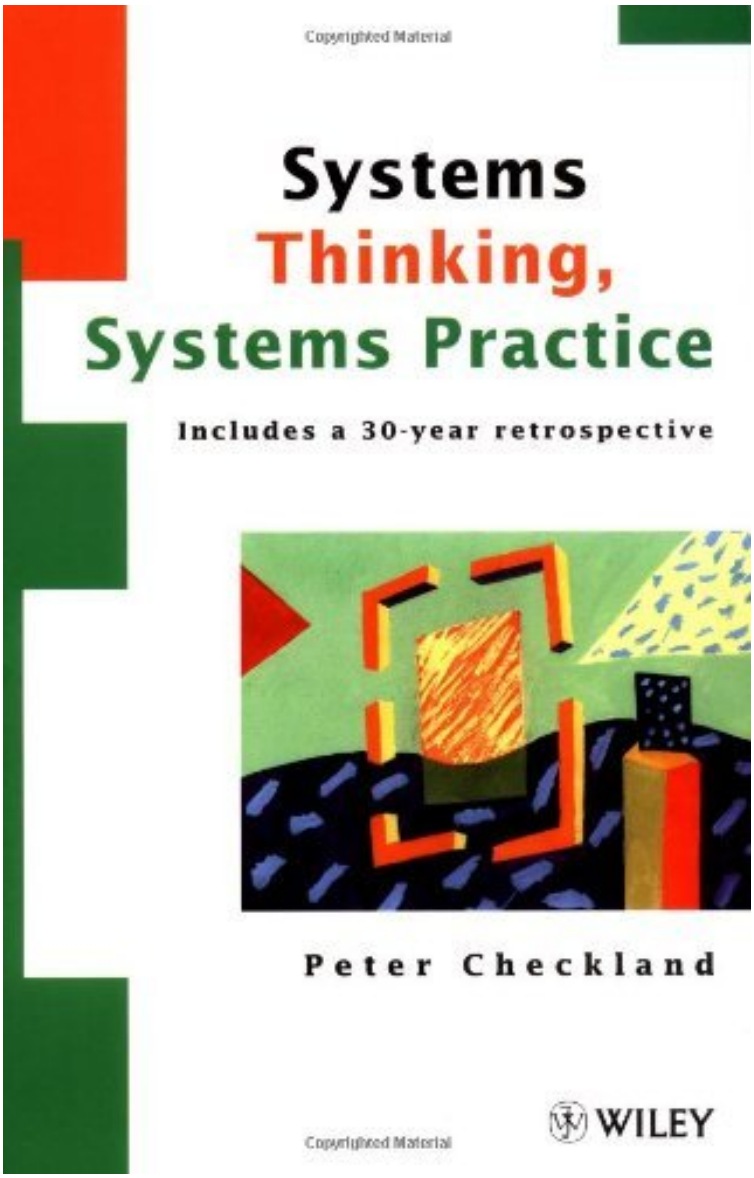

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Peter Checkland : Systems Thinking, Systems Practice: Includes a 30-Year Retrospective before purchasing it in order to gage whether or not it would be worth my time, and all praised Systems Thinking, Systems Practice: Includes a 30-Year Retrospective:

3 of 3 people found the following review helpful. Thoughtful, Innovative Yet Somewhat Lacking in ConclusivenessBy Dennis B. MulcareBasically, the soft systems methodology (SSM) can in effect facilitate the incremental re-

engineering of human activity systems without an explicit reverse engineering phase. Such systems are called soft because they present persistently ill-formed problem situations, largely due to their inherent complexity and contingent behavior. These attributes are typically characterized by the lack of consistently repeatable behaviors/outcomes. In particular, they exhibit nondeterminism (due to variabilities of various human agents and their institutions) as well as nonstationarity (per sporadic changes in their makeups and circumstances). Such dynamism of agendas and situations, moreover, serves to vastly complicate the static complexity of human organizations and society. In consequence, their inherent intractability results in the futility of positivist schemes for analyzing or improving them. Accordingly, the SSM or similar approaches are vital in effectively exploring such systems, as well as in incrementally improving them.Checkland and his associates originally attempted to apply typical systems engineering methods in dealing with human activity systems, but soon recognized their unsuitability for dealing with the ill-formed problem situations as endemic to human activities. Similarly, they found general systems theory had nothing of value to offer. They then gravitated to the inquiry system concept espoused by Singer/Churchman as a means of systematically investigating and improving human activities, which the SSM characterizes in its Real World Domain. Complementary systems thinking is performed in a corresponding SSM Systems Thinking Domain. These two SSM partitions together constitute the inquiry system, which can be traversed iteratively to serve as a learning system regarding a target human activity system. The SSM focuses and prompts the learning process, which enables incremental improvements in the targeted system. Conceptually, the SSM is composed of the following seven elements:1. Perceiving - the Problem Situation2. Formulating - the Focal Issues Perspective3. Composing - the Root Definition (of the selected system aspects)4. Predicating - the Conceptual Models5. Comparing - Conceptual Models with the Focal Issues Perspective6. Deciding - Desirable/Feasible Changes7. Activating - Changes to Problem Situation.Elements 3 and 4 reside in the Systems Thinking Domain, and are referred to as Mode 2 or interpretive steps of the SSM. The other elements occur in the Real World Domain, and they are termed Mode 1 or intervention steps. The iterative looping through all seven steps realizes a Singerian inquiry system, which is intended to yield an increasingly accurate characterization of the human activity systemrsquo;s problem situation. A defined template for the root definition in Element 3 serves as the basis for the conceptual models. They are composed in Element 4 of (nebulous) ideal types of generic elements, as tailored for human activity systems in general. Next, the SSM process tends to ameliorate selected undesirable aspects of the problem situation. Here, judgments regarding the comparative discrepancies between actual and ideal system attributes rely on the use of an adaptation of Vickersrsquo; appreciative system in Element 5, as do decisions regarding remedial options in Element 6. Promising system changes are then introduced in Element 7.In the bookrsquo;s systems thinking portion (approximately the first 40 per cent), I found the content to be a quite interesting and palatable background survey. However, there seems to be no incisive definition of systems thinking, one that is precise, coherent, and declarative. Various examples and fragmentary rationale do not suffice, especially in view of its broad range of interpretations and applications appearing in the literature at large. Consequently, my impression of systems thinking is that of a catch-all collection of disparate notions and techniques compiled via breadthwise importation of assets of plausible or speculative worth. Systems thinking thus seems to be a sketchy high-level concept whose inherent vagueness and ambiguity can sometimes be exploited opportunistically. In particular, a systems practitioner can morph it into whatever configuration that incident circumstances may suggest. Alas, I remain quite unclear as to what in essence constitutes systems thinking per se; other authors, moreover, reinforce my perplexity.In the systems practice portion of the book, my view of SSM is largely favorable. For example, SSM could support the conjoined exploration of related problem and solution spaces. In general, moreover, I believe that the SSM architecture has considerable promise for such use in engineered physical systems, especially software-based ones. (In my experience, such systems invariably manifest some aspects of soft systems.) An SSM-type approach might for example be valuable when investigating upgrades to an existing engineered system that is poorly structured or documented. Alternatively, the SSM inquiry capability might be used when an existing system is possibly going to be used for different functions, or in different environments. Of course, it would seem that the SSMrsquo;s utility for soft systems is beyond dispute, with only a few reservations. Although they would all seem tractable to resolution, my main concerns are:1. the modest scale/depth and large number of problem situations addressed, given the limited time and staffing applied, can hardly suffice to demonstrate ample conclusiveness2. no treatment of certain major concerns for ill-structured human activity systems is presented: nondeterminism, nonstationarity, indefinite boundaries, change side effects, for example3. the utilization of Vickersrsquo; appreciative system concept seems glib and oblique4. by definition holons are elements in a particular form of level structure called a holarchy; an activity level, however, is erroneously conflated with activity flow in SSM.In his thirty-year retrospective, Checkland makes two comments that I found disconcerting. First, he says that the above seven-step SSM process has been simplified to four steps. The seven-step version is already sketchy enough, and it seems that SSM is now devolving to the status of lore. Then, he notes that the handmade diagrams, as contrasted with ones that might be constructed and supported with a drawing tool, are preferable in conveying the provisional stage of their formulation. For many reasons, these handmade drawings would definitely be an impediment to the practical full-scale use of SSM, for clients and systems practitioners alike.Aside from my reservations about the lack of closure of systems thinking coverage in this book, I

consider the SSM concept to be quite intriguing and promising overall. Disconcertingly though, there appear to be surprisingly few follow-up publications in recent years that extend of further elaborate SSM. This might in part be attributable to the (apparent) lack of an integrated SSM environment. In any case, SSM would seem to merit further implementation development, especially in that at present it appears to essentially be just an architecture of a methodology, albeit one usable for manual application. Despite the definite appeal of the SSM concept, however, my appreciative system scores the book at only Four Stars.1 of 1 people found the following review helpful. Seeing the Big Picture...By Alicia CrumptonWhat is really going on here? If we look solely at the 'problem' we may miss the true picture. Soft Systems thinking, at its core, asks us to see anew, to identify and understand the many variables affecting a situation, process, or operation including our biases and assumptions. In part, this book was written to clearly distinguish hard from soft systems thinking. The original seven stages of soft systems thinking included 1.Entering the problem situation; 2. Expressing the problem situation; 3.Formulating root definitions of relevant systems; 4.Building Conceptual Models of Human Activity Systems; 5.Comparing the models with the real world; 6.Defining changes that are desirable and feasible; and 7.Taking action to improve the real world situation.; and Rather than a linear process, soft systems thinking is an iterative, dialogical process.In the retrospective included in this version - the four activities included: 1) finding out about a problem situation; 2) formulating relevant purposeful activity models; 3) debating the situation seeking both changes that would improve the situation and the accommodations between conflicting interests; and 4) taking action (p. A15).This book is worth its weight for the 30 year retrospective on systems thinking - a wonderful historical summary! An excellent bibliography on systems thinking is also provided!1 of 1 people found the following review helpful. Systems look at Systems Thinking, Systems Practice.By John K. StevensonThis book was recommended by a friend with Systems Engineering expertise, and has become one of my favorite books on the subject.A good balance of humor and serious dialog is maintained.Complete, crisp, and clean descriptions of the many approaches to Systems Theory are discussed and well delineated.An excellent book for all ranges of background and purposes, I highly recommend it as a beginning point or a refresher course.

Systems Thinking, Systems Practice "Whether by design, accident or merely synchronicity, Checkland appears to have developed a habit of writing seminal publications near the start of each decade which establish the basis and framework for systems methodology research for that decade." Hamish Rennie, Journal of the Operational Research Society, 1992 Thirty years ago Peter Checkland set out to test whether the Systems Engineering (SE) approach, highly successful in technical problems, could be used by managers coping with the unfolding complexities of organizational life. The straightforward transfer of SE to the broader situations of management was not possible, but by insisting on a combination of systems thinking strongly linked to real-world practice Checkland and his collaborators developed an alternative approach - Soft Systems Methodology (SSM) - which enables managers of all kinds and at any level to deal with the subtleties and confusions of the situations they face. This work established the now accepted distinction between 'hard' systems thinking, in which parts of the world are taken to be 'systems' which can be 'engineered', and 'soft' systems thinking in which the focus is on making sure the process of inquiry into real-world complexity is itself a system for learning. Systems Thinking, Systems Practice (1981) and Soft Systems Methodology in Action (1990) together with an earlier paper Towards a Systems-based Methodology for Real-World Problem Solving (1972) have long been recognized as classics in the field. Now Peter Checkland has looked back over the three decades of SSM development, brought the account of it up to date, and reflected on the whole evolutionary process which has produced a mature SSM. SSM: A 30-Year Retrospective, here included with Systems Thinking, Systems Practice closes a chapter on what is undoubtedly the most significant single research programme on the use of systems ideas in problem solving. Now retired from full-time university work, Peter Checkland continues his research as a Leverhulme Emeritus Fellow.