Abstract and Keywords

The systems idea is at the heart of the Learning Organization (LO). This chapter revisits the LO in the light of a revised understanding of the systems idea. It introduces the basic premises of three fundamentally different theories about the systems idea. It briefly reviews Senge's work and the LO literature with these three theories in mind. It interprets the LO in terms of the most defensible of the three theories: Critical Systemic Thinking. It considers critical systemic practice as an alternative "Fifth Discipline Fieldbook". This "mighty step" involves a paradigm shift and redefining relationships between: employees and management, management and consultants; and organizations, the wider human society, and the living planet.

Keywords: critical systemic thinking, triple-loop learning, learning organization and systems, radical learning organization, reinterpretation of learning organization

Introduction

THE Learning Organization (LO) was popularized in the 1990s by Peter Senge (1990). It was founded on the fifth discipline—the name that Senge gave to systems thinking. In this chapter, "systems thinking" refers to a distinct theory about the systems idea that we have labeled Real Systems Thinking. So, to avoid confusion, from here on "systems thinking" as a general term is replaced by "the systems idea."

The systems idea has spawned numerous divergent approaches including System Dynamics (SD) developed by Jay Forrester (1968, 1969, 1971) and adopted by Senge in his LO. SD is an approach that studies the behavior of "complex systems" by formulating dynamic diagrammatic and mathematical models of them in terms of stocks, flows, feedback loops, and time delays. Systems concepts found in SD such as interrelatedness, feedback, and complex whole systems are foundational concepts that underpin Senge's four other disciplines: (1) mental models—a bounded view of a complex whole system, (2) shared vi-

sion—collaborative development of a shared mental model realizing a common sense of purpose, (3) team learning—systemic processes of learning including dialogue that aim to explore complex whole systems, and (4) personal mastery—development of personal vision emphasizing systemic mindfulness of the whole. The systems idea is considered pivotal to learning and developmental change in organizations. (p. 198) Senge's vision of a LO is an organization that continually expands its capacity to create its own future by embracing a holistic approach.

There is no doubt that Senge's LO has taken its place alongside other influential approaches in contemporary management practice. Senge's systems narrative makes common sense and promises transformation to a better future. His LO has been widely actioned and researched leading to an extensive literature on the topic. Indeed, the LO per se has taken on a life of its own—the ultimate testament to Senge's achievements. That said, there is serious concern that Senge's systems narrative and the literature on LO do not adequately engage with the fundamentals of the systems idea, yet the systems idea is placed at the very heart of the LO (Bui and Baruch 2010; Caldwell 2012; Flood 1999a). This chapter aims to revisit Senge's argument in the light of a revised understanding of the systems idea: (1) it introduces the basic premises of three fundamentally different theories about the systems idea; (2) it briefly reviews Senge's work and the LO literature with these three theories in mind; (3) it interprets the LO in terms of the most defensible of the three theories Critical Systemic Thinking; and (4) it considers critical systemic practice as an alternative to Senge, Kleiner, Roberts, Ross, and Smith's (1994) *Fifth Discipline Fieldbook*.

Three Interpretations of the Systems Idea

The systems idea emerged in the twentieth century as a critique of reductionism. The systems idea as a discipline was formulated in the theory of open systems and General Systems Theory in the 1930s and 1940s (e.g., Bertalanffy 1950, 1956). Reductionism in traditional science seeks knowledge and understanding of phenomena by breaking things down into constituent parts and by studying properties of these parts, often in terms of simple cause and effect relationships. The defining argument of the systems idea is that the world is intrinsically systemic and thus better understood in holistic terms. To understand a phenomenon requires building up whole pictures of it. A *whole* is understood to be an emergent property emerging from interrelated parts and cannot be fully comprehended in terms of the properties of the interrelated parts. In other words, the whole is greater than the sum of its parts. *Emergence*, *interrelatedness*, and *whole* are core concepts of the systems idea.

How to build up whole pictures of social phenomena, such as a LO, is a challenging question. There are three main lines of argument that we label *Real Systems Thinking*, *Interpretive Systemic Thinking*, and *Critical Systemic Thinking*.

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Real Systems Thinking likens "social systems" to natural systems that are taken to exist in a tangible real world. The social world accordingly comprises many interrelated real social systems. A systems approach, it follows, entails qualitative and/or quantitative modeling of these real social systems. Systems models are employed: (1) as research (p. 199) tools to describe or to explain real social systems; (2) as decision-making tools to predict future events of real social systems and suggest actions to take today to achieve improvement in the future.

Interpretive Systemic Thinking instinctively recognizes a systemic social world characterized by interrelatedness and emergence, but stops short of assuming that the social world comprises wholes that are real social systems. After all, any understanding that we have of social phenomena is co-constructed interpretation generated through cognitive processes. A systems approach therefore employs concepts like emergence, interrelatedness, and wholes to construct understanding of social phenomena, but does not represent social phenomena as real social systems that exist in a real world independent of human thought. An interpretive-based systems approach would be particularly empowering in this endeavor of meaning construction if the social world is indeed intrinsically systemic. That is, such a systems approach promises to construct understanding that resonates strongly with people's experiences of everyday living within a systemic social world.

Critical Systemic Thinking (CST) emerged in the 1970s–1990s (e.g., Churchman 1979; Flood and Jackson 1991a; Ulrich 1983) with subsequent developmental literature (e.g., Boyd, Brown, and Midgley 2004; Córdoba and Midgley 2006; Flood and Romm 1996a; Jackson 2001, 2003, 2010; Midgley 2000, 2006; Ulrich 2003; Ulrich and Reynolds 2010). CST agrees with Interpretive Systemic Thinking about the interpretive nature of human understanding, but adds the all-important caveat that a systems approach cannot be empowering in meaning construction for all people when processes of power shape or determine meaning. For example, constructions may be dominated by narrowly defined performance-oriented organizational and social objectives in neoliberal economic agendas instigated by powerful people/institutions. Such overriding objectives may not be particularly meaningful to the majority of employees in an organization, thereby overshadowing individual vision. In that case the dominant neoliberal mental model is not a shared vision and limits team learning and personal mastery. To be critically systemic and to gain a holistic appreciation of organizational dynamics entails among other things engaging with processes of power, challenging for example neoliberal mental models, thereby pursuing a genuinely transformative agenda (e.g. Romm 2015, 2018).

CST argues from a holistic standpoint that Real Systems Thinking and Interpretive Systemic Thinking as explained above are epistemologically flawed. Real Systems Thinking constructs dynamic models of "social systems" that are mistakenly assumed to exist independent of human thought. Interpretive Systemic Thinking appreciates the interpretive nature of knowledge and meaning construction but is naïve in believing in the purity of dialogical processes through which knowledge and understanding are constructed. It is idealistic to believe that collaborative processes are free from contamination by processes of power, or to have faith that dialogue somehow naturally and fairly sorts out such

things. Meaning construction and understanding at best are only partially open to deeper investigation and challenge. To be critically systemic is to appreciate the interpretive nature of knowledge generation, to recognize that processes of power infiltrate collaborative processes, and to work toward more open and more **(p. 200)** meaningful participation for involved and affected stakeholders (from human society and indeed from the living planet).

With these three theories in mind, the next section revisits the systems idea as employed in the many themes of the LO literature.

The Mis/Use of the Systems Idea in the Learning Organization

The underpinning concept of the LO in the 1990s was traditional scientific management stressing the importance of the systems idea (Wang and Ahmed 2003, i.e., Real Systems Thinking). For example, the traditional SD approach separates "system of interest" from "environment" and constructs models of structure, function, and feedback processes. Systems models aim to predict results of tactics and strategies and locate points of high leverage for organizational improvement—an optimal action to meet a desired solution (e.g., Wolstenholme 1990). Means and ends are not problematized in terms of multiple perspectives or processes of power. By the 1990s various systems schools of thought challenged the validity of SD-type models of complex social entities such as LOs—notably organizational cybernetics (Beer 1972, 1975, 1979, 1985), soft systems thinking (Checkland 1981, 1985), and early CST (Churchman 1968, 1971, 1979, 1982).

The SD community responded by developing Influence Diagrams (Coyle 1983; Wolstenholme 1982, 1983) and Collaborative Conceptual Modeling (Newell, Marsh, and Sharma 2011; Newell and Proust 2009; Newell, Proust, Wiltshire, and Newell 2008). These methods aim to embrace multiple perspectives. Featherstone and Doolan (2012) thus argue that the SD paradigm is steadily addressing multiple perspectives and politically charged collaborative processes. However, the challenge is not to tweak methods from within the SD paradigm, but to challenge the paradigm itself and to employ SD models in a more critically reflexive manner.

Senge's systems narrative builds on traditional SD by introducing the twin concepts *single-loop learning* and *double-loop learning* (after Argyris and Schön 1996). The most parsimonious explanation is that single-loop learning asks "are we doing things right" and double-loop learning asks "are we doing the right things." Double-loop learning searches out values underlying organizational activities and makes them explicit and open to reflection. This systems idea aims to expose assumptions in mental models and test if they are flawed. In this way, people participate in generating ideas for the future, such as shared vision.

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Senge recognizes that vision may be prescribed by senior managers, not shared, and is potentially exploitative, but gives no proper guidelines about how to recognize or to engage with such processes of power. For example, what guarantee is there that collaborators may engage critically with mental models put in place wittingly or unwittingly through processes of power? Without such a guarantee the systems idea is not critically (p. 201) systemic, does not engage with the "totality of relevant conditions," and cannot be truly reflexive. Senge's systems narrative promises some sort of reflexive process, but begs the question, "What kind?" Tools and techniques in the *Fifth Discipline Fieldbook* (Senge et al. 1994) lack fundamental principles by which to operate them. This permits managers, consultants, and decision makers to speak Senge's systems narrative blissfully free from tough questions such as: "Was open and free dialogue genuinely achieved?" and "Were decision takers' mental models truly open to critique and challenge?" (e.g., Ulrich 1983).

The systems idea in Senge's (1990) LO underpins a commitment to see the larger system (Santa 2015). The systems idea helps people in organizations to identify the reciprocal flow of influence between the macro and micro systems (James 2003); and to see the structures that underlie complex situations and thereby create insights into what might be done (Senge 1990). However, Senge's LO rests on a flawed concept of structure that cannot explain the organizing practices and learning processes by which systems as feedback structures come into being and change (Caldwell 2012). Organizational cybernetics partly rectifies this failing (e.g., Beer 1985).

Senge's vision of the LO is an organization that continually expands its capacity to create its own future. Senge, Smith, Kruschwitz, Laur, and Schley's (2010) later work aims to create a sustainable world. However, "to create its own future" does not evince a sense of responsibility beyond the organization. A critically systemic view congruent with a sustainable worldview envisages an organization that continually expands its capacity to create its own future in a way that works toward a better future for all involved and affected stakeholders, from human society and the living planet, not just the LO.

Senge is best thought of as a practitioner who translates basic theory into the language of practice, not as a theoretician. That said, more recent work involves partial engagement with Giddens' (1984) agency-based structuration theory and Weick's (1995) sensemaking concept of enactment (Caldwell 2012). Senge thereby develops his understanding of SD, but his explanation of "system change" in terms of a complementary relationship between SD and structuration/enactment lacks appreciation "of the processual and emergent nature of change intimately connected with counter-posing concepts of 'knowledgeable human actors' and 'sensemaking' action" (Caldwell 2012: 13). More extensive theoretical critiques of Senge's LO include Örtenblad (2007) and Santa (2015).

The ecosystem theme of micro–macro processes in society contextualizes LO in a national or regional system. For example, Lam and Lundvall (2007) argue that it is not possible to understand a firm as a LO without understanding the society within which it exists. However, this line of thought does not question the ontology of systems. Conceiving the LO as

a network system requires managers to be "sensitive to the flow of information, power, and trust that shapes how trade-offs are made" (McGill, Slocum, and Lei 1992: 12). Power is recognized in the network, but as a given characteristic of interaction between individuals, not as a process of interpretive social construction.

Some industries deeply embrace LO and the systems idea including project management (e.g., Duffield and Whitty 2015; Koskinen 2011), healthcare (e.g., Garside 1999; Koeck 1998; Rich and Piercy 2013), and education (e.g., Isaacson and Bamburg 1992; Örtenblad and Koris 2014; Senge et al. 2000).

(p. 202) For example, Koskinen (2011) argues that practitioners in project-based companies ought to conceptualize learning as a "systems problem" and seek systems-integrated solutions. Projects are temporary in nature and the boundaries are "inevitably artificial and somewhat arbitrary in their placement and are always 'porous' to some degree" (Koskinen 2011: 5). Recognition that projects are bounded is a step toward a critical systemic appreciation, but advice for operating this perspective is essentially built on Real Systems Thinking.

In healthcare studies, Starfield (1998) and Davidoff and Batalden (2005) find management of illness increasingly complex and requiring improved coordination of care and organizational learning. Gask (2005) and Rich and Piercy (2013) recognize that organizational learning requires a systemic perspective to develop efficient healthcare. Quam and Smith (2005) argue that country-wide national health systems find it difficult to learn from each other since they are bound to national politics and are dependent on requirements in the macro system. Once again the ideas reflect Real Systems Thinking.

Studies of LOs tend to characterize schools as open systems where the external environment consists of known actors such as parents, other schools, the municipality, and national authorities. Schools are advised to have an open perspective to the system that it exists within. Argyris and Schön (1996) refer to this as a "strategic conversation" between an organization and its environment (Wai-Yin Lo 2004). The LO model can be applied at different levels (Senge et al. 2000). For example, at the school level important relationships are between school board members, principal, administrative and support staff. Alavi and McCormick (2004) argue that school staff are more likely to consider each other's ideas when working in teams in cultures with low power distance and in-group collectivism. Like McGill et al. (1992), these discussions largely focus on characteristics of interaction between individuals, not the processes of interpretive social construction.

At the time, Örtenblad (2002) was one of few researchers to offer a critical perspective on LO. Örtenblad recognized two fundamental perspectives in LO and argued that the functionalist perspective (Real Systems Thinking) had lost favor to the interpretive perspective. That said, Örtenblad was concerned that neither perspective offered a radical program of change. A critical question remained unanswered, "Which group of actors holds power?" Örtenblad (2002) offered a new "more radical" framework that problematizes power in LO.

Subsequent literature about issues of power in LOs scarcely engages directly with the systems idea, though has an inherent systemic *modus operandi* (e.g., Flood and Romm 1996a, 2018). For example, Coopey (1995) recognizes an ideological use of LO that serves to "fool" excluded people into believing that they have more rather than less power. Newman and Newman (2015) introduce an industrial relations perspective and among other issues problematize who the LO serves. Santa (2015) looks at LO from a "good theory" perspective and identifies "good" characteristics of LO such as participation, trust, dialogue and inquiry, and time for reflection. She argues that a vital "good (p. 203) characteristic" is sharing and distribution of power. Also, Örtenblad (2004) argues that employees should be empowered. Watkins and Marsick (1993) make empowerment the cornerstone of LO. Without decentralized power there is no LO (Clegg, Kornberger, and Rhodes 2005).

Power and social media in the LO has been problematized from a systemic perspective. For example, Kaminska and Borzillo (2018) demonstrate how the younger generation's familiarity with social media alters the power structures in the organization. This reflects Örtenblad's (2002) "radical paradigm" of organizational learning where individuals learn as free actors and where power and control over knowledge is not automatically held by managers. However, Filstad, Simeonova, and Visser (2018) argue that the power switch in enterprise social media remains under the control of management since the support of management is crucial to smooth implementation.

Gender and minority studies have an eye for power structures within organizational arrangements and demonstrate deep systemic awareness of "power over" such groups. For example, Johansson and Abrahamsson (2018) find that gendered structures tend to prevent development learning and restrict distribution of adoptive learning from existing privileged groups. Through a critical feminist lens, including both LO and systemic ideas, Gouthro, Taber, and Brazil (2018) take a hard look at neoliberalism and the academy in terms of market choices, competitive funding models, and commercial partnerships. They demonstrate how discourse about student employability drives decisions about courses and disciplines. This elevates acceptance of risk and work precarity in areas dominated by women and uses student evaluation as a disciplinary tool that disadvantages women and minorities.

Cooper's (2014) study of voluntary sector youth organization illustrates the relevance of transformative evaluation to LO. Youth workers expressed feelings of alienation from accountability-focused evaluation processes because the scientific approach was incompatible with the context of their work. However, a systemic transformational evaluation technique empowered youth workers because it acknowledged the perspectives, voices, and decisions of the least powerful and the most affected stakeholders (Jackson and Kassam 1998).

A recent theme in LO is unlearning (e.g., Fiol and O'Connor 2017a, 2017b; Reese 2017; Rupčić 2017; Seddon and Caulkin 2007; Visser 2017). For example, Morais-Storz and Nguyen (2017) argue for an unlearning organization with a mechanism by which its members unlearn institutionalized knowledge. This apparently introduces a twist to LO. How-

ever, "unlearning" is subsumable under "learning" (Huber 1991) and building a LO from a CST perspective emphasizes unlearning.

This section has shown, with few exceptions, that the LO lacks fundamental principles by which to bring the systems narrative into the work environment while keeping true to the heart of the LO—a holistic transformative agenda. In the next section we set out the fundamental principles of CST, its interpretation of the LO, and its well-resourced holistic transformative agenda.

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What would LO look like if Senge's fifth discipline *systems thinking* was substituted by *Critical Systemic Thinking*?

The Fifth Discipline: Critical Systemic Thinking

Paradoxes. CST advocates reflexive processes that inquire into purposeful human activity and quality of life. It encourages holistic thinking and improving relationality within human society and the living planet. However, such relationality is phenomenally complex. We cannot know it all. A critical systemic appreciation of things is realistic about this and pictures a world full of mystery beyond human mastery. It recognizes three paradoxes of everyday living (Flood 1999b):

- We cannot know all things—we know of the unknowable.
- We cannot manage over all things—we manage within the unmanageable.
- We cannot organize the totality—we organize within the unorganizable.

What do these paradoxes tell us about LOs?

Boundary judgment. The LO as conceived by Senge proposes purposeful human activity that aims to create shared vision through team learning by challenging mental models of groups and individuals—individuals who are encouraged to grow personal vision. Senge recognized that every individual's and team's mental model is no more than a viewpoint and that people learn together when exchanging ideas and opinions from different viewpoints. A critical systemic understanding of a mental model is "a view of a phenomenally complex situation that is terribly restricted." In terms of the three paradoxes, a mental model is a bounded appreciation that brings to light some issues for consideration and action while overshadowing other issues. When it comes to making decisions about the future, this begs the question, who is to judge that any one bounded appreciation is most relevant or most acceptable? In CST the question is addressed by a process termed "boundary judgment."

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A boundary judgment is a choice made in various forms of problem solving—such as developing shared vision—about what should belong to the system of interest and to the environment. The quality of systemic thinking depends on how critically collaborators engage in making boundary judgments. The "best" "most systemic" practitioners are the ones that overtly surface and deal with issues inherent in bounding "a problem" such as who should be client and hence the beneficiary (Ulrich 1988). Critical employment of boundary judgment involves two things: *sweeping-in* and *unfolding* (Churchman 1979; Ulrich 1988). Any boundary judgment is a "whole system judgment" made in the (p. 205) context of the "totality of relevant conditions." Whole system and totality naturally invite a sweep-in process, sweeping-in ever more issues of an action context. Sweeping-in encourages collaborators to become increasingly aware of and better able to understand the proponents and the particulars of contrasting mental models. Sweeping-in enables collaborators to become *as well informed as possible*.

However, unabated sweeping-in results in an ever-growing number of issues to take into account—an ever-expanding boundary—which is overwhelming if not unrealistic in practice. Thus, CST introduces *unfolding*, the critical counterpart to sweeping-in (Churchman 1979; Ulrich 1983). Unfolding is about engaging with the implications of "whole system judgments" within a framework of practical discourse aimed at getting something done.

Sweeping-in and unfolding combine in a reflexive process that bounds an action area (e.g., bounds shared vision in a LO). For each choice of action area realized by unfolding there are inevitable further possible choices brought to light by sweeping-in. Thus, each action area can only be *temporary* and *partial* (Ulrich 1983). Boundary judgments define clients—the beneficiaries—and prioritize things to be achieved—the benefits to the clients. Choice of an action area is ideally reached through dialogue along the following lines:

- Who/what is the beneficiary of the proposed action area (*who* in human society and *what* in the living planet)?
- What are the possible consequences of this?
- How might we feel about that?
- Who/what ought to be the beneficiary?

CST argues that due consideration be given to processes of power in choice of action area and action to be taken. Here are some examples (also see the typology of power in Flood and Romm 1996c):

- Criteria for choice in expert knowledge—Is it hidden or made transparent?
- Management/consultant vision—Is it open to critical feedback and revision?
- Power in skilled articulation of ideas and strong personalities—Are dialogue and decision making moderated or left uncontrolled?
- Organization design—Is power in decision making institutionalized in structure (e.g., fixed in hierarchy) or distributed for example through circular collaborative processes?

- Are there equal opportunities in discourse in terms of gender, people of all ethnic backgrounds, disabled people, and so on?

- Governing economic policy such as neoliberal imperatives—Are governing economic imperatives insidious in organizational policy, or made transparent and engaged with in "problem solving?"

A holistic approach sweeps-in such issues by probing behind decisions that seem to have been consented to, and which purport to accommodate the needs of involved and affected stakeholders (Flood and Romm 2018).

(p. 206) CST thus reminds us that choice in purposeful human activity has ethical considerations since it defines who/what benefits and who/what is disadvantaged. Each choice of client prioritizes issues of concern, purposes to pursue, and future actions to take. Boundary judgments facilitate a debate within which we are sensitized to ethical issues. Further insights into boundary judgment are found in Ulrich (1983) and Midgley (2000).

How might CST translate into critical systemic practice?

An Alternative Fifth Discipline Fieldbook: Triple-Loop Learning

This section introduces our alternative fieldbook to Senge et al. (1994) in terms of proposed contents for critically systemic practice in LOs:

1. Stakeholder surveys;
2. Triple-loop learning;
3. Systemic methods.

Stakeholder surveys. Critical systemic practice endorses stakeholder surveys from the start and throughout the process of change. Stakeholder surveys focus on the issue at hand, sweep-in involved and affected stakeholders, and unfold bounded action areas from the various stakeholders' points of view. In stakeholder surveys, a bounded action area can be thought of in terms of a system. Nine questions give each system (e.g., shared vision in LOs) structure and meaning and reveal system purpose (Churchman 1971; Ulrich 1988). This is the elementary list of categories from Churchman's (1971) anatomy of system teleology. The questions generate insights into bounded action areas and the insights initiate dialogue between proponents of the action areas:

- What is the *purpose* of the system?

- What *measure of performance* will show if the purpose is met?

- Who/what is the *client* that benefits if the purpose is met?

- Who are the *decision makers* that can change the measure of performance?

- What are the features of the system in terms of interrelated *teleological components* and *environment*?

- Who is the *designer* whose design of the system may influence the decision makers?

- What plans for *implementation* maximize value to the client?

- What is the built-in *guarantee* that the purpose of the system defined by the measure of performance can be achieved and secured?

Dialogue between proponents of different "systems" may then focus on issues like: "Why choose one purpose/vision and not another?"; "What justifies choice of one client (p. 207) over another?"; "What systemic methods deepen understanding of interrelatedness in the system?"; "Will implementation of the system design detrimentally affect other stakeholders?"; "What ethical issues arise with this system and how can they be addressed in a fair way?"; "Who decides what is fair; and is that fair?"

Triple-loop learning. The alternative fieldbook employs the mixed methods approach triple-loop learning (TLL). Mixed methods came to the fore in systems research in the 1990s (Flood and Jackson 1991b; Jackson and Keys 1984) and has been much debated (e.g., McIntyre and Romm 2019; Mingers and Gill 1997). TLL aims for deeper inquiry into the questions introduced earlier. As previously said, Senge introduced double-loop learning into LO. A third loop of learning has been proposed by various researchers with wide-ranging ideas about what it should be (Flood and Romm 2018). Learning to learn is a frequent theme. However, the third loop of learning in our alternative fieldbook focuses on processes of power, aspiring to a more holistic understanding by asking, "Is right defended by might or is might defended by right?" (Flood and Romm 1996b). TLL conjoins the three learning loops in a triple question that continuously probes, "Are we doing things right (loop 1), are we doing the right things (loop 2), and is right defended by might or is might defended by right (loop 3)?" (Flood and Romm 1996b).

Loop 1 benefits from systemic tools that model organizational processes and design and explore efficiency and effectiveness. The loop addresses questions like, "What systemic methods deepen understanding of interrelatedness in the system?" The intent of this loop is cleverly captured in the title of Stafford Beer's (1975) book about organizational cybernetics *Designing Freedom*. Loop 2 benefits from systemic guidelines for participative debate that seek accommodation and reconciliation between people. The loop addresses questions like, "Why choose one purpose/vision and not another?" Loop 3 benefits from systemic principles about fair/er practice in the context of power/knowledge dynamics. The loop addresses questions like, "What ethical issues arise with this system and how can they be addressed in a fair way?"

It is essential that practitioners of TLL avoid an unbalanced focus on any one loop of learning. Obsession with structural solutions impedes or precludes intersubjective debate necessary to challenge mental models that underpin the structural solutions. Obsession with processes of debate becomes or is oblivious to or even dismissive of processes of power that influence or control debate. Obsession with resisting processes of power and achieving fairer practice lacks a wider focus on reconfiguring power relations to create more relationality within human society and with the living planet (Flood and Romm 2018).

Systemic methods. In principle, any method that addresses the triple question is defensible in TLL for as long as the practitioners operate within the principles of CST. In practice, methods that are constitutionally systemic promise to generate the most insightful ideas for transformational change if we accept an intrinsically systemic world. Limited space prevents us from introducing the wide range of systemic methods that address the triple question, but there is ample literature that completes our task. TLL employs a balanced range of methods to support the three foci of the triple question. Flood and Jackson (1991b) is an early version of such a fieldbook. The TLL fieldbook benefits from (p. 208) fieldwork that has refined old methods and developed new ones (e.g., Chowdhury and Jangle 2018; Jiuping, Dai, Rao, Xie, and Lu 2016; Jokonya 2016; Larsen 2011; Panagiotidis and Edwards 2001; Raymaker 2016; Reynolds 2014; Schwandt 2015; Smith 2011; Stephens 2013; Venter 2018). In addition, collaboration between systems researchers and action researchers has generated further ideas about engaging with the triple question (e.g., Burns 2007; Flood 2010; Greenwood and Levin 2007; Reason and Bradbury 2001; journal *Systemic Practice and Action Research*).

Friedman, Lipshitz, and Popper (2005) criticize Senge's LO for giving little practical advice on how learning organizations can be created. The literature that we cite gives extensive practical advice from cybernetic organizational design, to dialogical processes that explore multiple perspectives on organizational purpose, to critical thinking that brings to light processes of power in organizational activities and reflects on choice and ethical issues.

The Mighty Step

Through this chapter, we introduce CST into the debate about the LO, raise issues in terms of a critical systemic understanding of the LO, and encourage the reader to engage with CST. We realize that the step from Real Systems Thinking or Interpretive Systemic Thinking to CST is a mighty step. At a theoretical level the step is a paradigm shift. At a practical level the step requires redefining relationships between employees and management, management and consultants; and organizations, the wider human society, and the living planet.

Acknowledgments

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