A second-order approach to evaluating and facilitating organizational change

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ABSTRACT
The question of how organizations change is essential both for intra-organizational change agents and external stakeholders. Many non-governmental organizations are asking how they can evaluate their influence, but their understanding of organizational change may actually inhibit change. This article touches on inadequacies in current theorizing – related to conceptualizations of communication and learning – which, it is argued, adversely affect attempts to bring about change. It then outlines the process of evaluating organizational influence using an innovative, ‘second-order’ approach that was pioneered in the context of evaluating the work of an organization advocating sustainable development with sector-leading companies. In order to create an evaluation ‘yardstick’, an heuristic model was constructed to represent ‘organizational learning for sustainable development’ (OLSD). The model posited that patterns of organization and networks exist, evolve and are challenged via persistent ‘conversational lineages’ – sets of discernible inherited and recurring distinctions – that weave through dynamic conversations over time. By defining the constituent distinctions of a particular conversational lineage and then bounding qualitative data into narrative accounts, it was possible to trace accurately the organizational levels in the narrative accounts through which a conversational lineage ran. It was then possible to evaluate associated possibilities and constraints to OLSD. This led both to conclusions about the extent of the advocacy organization’s influence and to relative measures of progress in OLSD. Both the model of OLSD and evaluation approach, it is suggested, are potentially applicable in other organizational, network and subject domains, other than that of sustainable development.
The pertinence of enabling organizational change

Arguably, organizations – whether they be governmental departments, publicly limited companies, or non-profit advocacy organizations – have become the pivotal focal point and microcosmic locus for more wide-scale change (e.g. Starkey & Welford, 2001). Many in organizations, from governments to corporations to community groups, are trying to facilitate – what they regard as the requisite – ‘change for the better’. For example, those in an oil company might aim to transform their organization in relation to concerns over human-induced climate change, especially when many of those expressing the concern are its customers. Those in local authorities might try to tackle such issues as diversity and equality, fuel poverty, and poor nutrition in their constituencies, issues that inevitably involve the operations and interactions of multiple organizations. Those in a non-governmental organization might set out to improve the efficiency of their operations and better facilitate their own accountability to wider society.

The question of how organizational transformation takes place is one that has been of great interest in the light of issues of corporate governance, stakeholder relations, and wider global-environmental, and societal, issues; for the purpose of this article, such issues are regarded as relating to the catchall term of ‘sustainable development’. The question is clearly related to how ‘change for the better’ can be more effectively facilitated.

Evaluating the ability of organizations to enable change is important from the point of view of the practice of facilitation, as well as for accountability purposes. A whole academic sub-field has arisen that is dedicated to organizational change, namely – for want of a better umbrella-label for the purpose of this article – that of ‘organizational learning’ (Dierkes, Antal, Child & Nonaka, 2001). Yet, the question of what an organization is has no straightforward answer (Dawson, 1996). Unsurprisingly, evaluating the facilitation of organizational change has been complex and open to interpretation.

This article outlines an innovative, ‘second-order’ evaluation approach that rests on the claim that the theorizing of organizational learning can hamper its actual realization in practice. Whilst the evaluation approach discussed was developed in relation to specific research that evaluated the facilitation of corporate sustainable development, it is suggested that the approach is potentially applicable in other contexts.

Theorising organizational change

Simply put, organizations can be understood in two contrasting ways. They can be understood, from a realist perspective, as phenomena that constitute and influence the world in observable biophysical, structural, and operational ways. From
a social-constructivist perspective, organizations can also be understood as patterns of interactive and conversational sense-making (e.g. Bouchikhi, 1998), as social and inter-subjective sites for making sense of, and finding and generating meaning in, people's experiential worlds (Shotter, 1993), with these inter-subjective worlds giving rise to decision-making processes. Organizational learning processes can consequently be understood as involving processes of becoming and identity formation (Wenger, 1998) as much as skills and information acquisition. They involve situated practices, by which socially constructed standards, tacitly assumed or explicitly specified by observers, determine the attribution of accomplishment (Reyes & Zarama, 1998). In addition, they expand the capacities and possibilities available to learners (Krippendorff, 1995).

Conceptions of knowing and learning in organizations are therefore ones that will have profound implications for how one evaluates, and catalyzes, organizational learning. In particular, how we think about and conceptualize communication is vital not only to how we conceive what an organization is, but also, more crucially, to our practice and what we bring to any role that we might have within, or with, an organizational change process.

In relation to 'organizational learning for sustainable development' (OLSD) – arguably the crucible of organizational learning theorizing – some have tried to build bridges between the organizational learning literature and that of sustainable development. Importantly, the role of communication is always given particular treatment (e.g. Clarke & Roome, 1999; Courtice & Swift, 2002; Winter & Steger, 1997). More often than not, each of these attempts displays notions of communication that are more unidirectional than truly interactive. The attempts belie understandings of organization more akin to the first realist understanding alluded to above.

Organizational learning with a social-constructionist, action orientation

One of the more promising pieces of research, from my point of view, in what I term an OLSD context, was action research that set out to determine how a particular advocacy organization garnered interest in its work (Bradbury, 2001; Bradbury & Mainemelis, 2001). Bradbury developed the model of 'co-operative ecological inquiry' – a process theorized as being interactive and dependent on 'genuine dialogue'. However, Bradbury's model was compromised by a realist notion of 'systems thinking' that regards 'systems' as descriptions of observable, well-defined phenomena, rather than 'systems' as negotiated, and consensually agreed constructs. The latter understanding of systems thinking is inevitably more dialogic and conducive to mutual inquiry and organizational learning. This point is important because it relates to the practice of developing 'systems for enabling
<table>
<thead>
<tr>
<th>Authors</th>
<th>First-order tradition</th>
<th>Second-order tradition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argyris and Schön (1978)</td>
<td>Researchers engage in deviation-correcting learning (single-loop learning)</td>
<td>Researchers explore assumptions, values and purposes, and learn how to learn</td>
</tr>
<tr>
<td>Maturana and Varela (1987)</td>
<td>Science is an observer-independent activity, in which it is irrelevant who makes a claim; language is representational</td>
<td>Science is observer-dependent; what is said is said by somebody to someone else; language is a process of co-ordinating behaviour</td>
</tr>
<tr>
<td>von Foerster (1992)</td>
<td>An observer is apart from the universe; language is representational</td>
<td>An observer is a part of the universe; language is self-referential</td>
</tr>
<tr>
<td>Krippendorff (1993, 1995)</td>
<td>Explanations are representational and context-independent</td>
<td>Explanations are relational, contextual, and part of ongoing conversations</td>
</tr>
<tr>
<td>Schön (1995)</td>
<td>Researchers operate on a technical high-ground</td>
<td>Researchers operate in a swampy, socially-relevant lowland</td>
</tr>
<tr>
<td>Wadsworth (1997)</td>
<td>Researching takes place ‘on’ others</td>
<td>Researching takes place ‘with’ others</td>
</tr>
<tr>
<td>Maturana and Bunnell (1998)</td>
<td>An observer adopts an ‘engineering look’ at the world without awareness of his/her participation in the observed</td>
<td>An observer adopts a ‘poetic look’ at the world with awareness of his or her participation in the observed</td>
</tr>
<tr>
<td>Checkland (1999)</td>
<td>Systems exist in the world, with inquiry having a descriptive goal</td>
<td>Systems are heuristic methodological devices for organising inquiry</td>
</tr>
<tr>
<td>Ison and Russell (2000)</td>
<td>A researcher is separate from the ‘system’ under consideration</td>
<td>A researcher grounds in experience and context the concepts used to define and act, and takes responsibility for these conceptualisations</td>
</tr>
</tbody>
</table>

Notes: Not all authors used the terms, ‘first-‘ and ‘second-order traditions’, but I believe that their perspectives correspond with the distinction.
organizational learning’. The participation of those involved in developing such ‘systems’ might go unquestioned, for example, when the constitution of such systems are taken for granted rather than conceived as available to inquiry and further action research.

Distinguishing ‘first-’ and ‘second-order’ approaches to enabling transformation (Ison & Russell, 2000) is useful for designing interventions. The differences between first- and second-order traditions revolve around issues of relationship, responsibility, context, communication, and participation.

First-order approaches tend toward realist epistemologies, and reify systematic, interventionist assumptions about how to solve real-world problems. They, ‘describe the system [of interest to the researcher] as if it was an objective set of operations functioning independently of its historical and social creation’ (Ison & Russell, 2000, p. 209).

The first-order tradition has been the predominant mode of research and education that objectifies knowledge, disembodies particular communicative, relational and emotional dynamics, and treats the student as a consumer with a knowledge deficit. In this mode, there is little opportunity to acknowledge student – or teacher, for that matter – perspectives, emotions and experience as bases for understanding, building relationship and collaboration.

Second-order approaches, in contrast, emphasize a view of the social world in which matters of process, history, context and the researcher’s purpose become as relevant as accurate representation. Acknowledging the researcher in the researching is more in tune with a second-order research tradition, which tends toward participative action research. Specifying the situation becomes an acknowledged, appreciative act, in a second-order approach, which stresses facts-as-perceptions rather than as objective representations. Second-order approaches emphasize that interpretation determines situation definitions, decisions and activities, which themselves influence research outcomes. They also acknowledge political considerations, but are perhaps more social than political (Bunnell, 2002). Moreover, these approaches regard action research as a means to improving a situation on an ongoing basis from the perspectives of its participants, rather than solving a problem once and for all regardless (Checkland, 1994). Second-order approaches attend to emotional dispositions as much as they do to rationality and operate through an ethic of invitation and acceptance of the ‘Other’ as a legitimate co-researcher. I cite a list of authors, whose writings help make sense of the distinction, in Table 1.

First- and second-order traditions of research have concomitant notions of communication, where first-order communication holds onto the realist assumptions of clear translation rules, such that the context of expression and interpretation becomes irrelevant. Conceptions of learning as knowledge transference hold the assumption that knowledge passes from the informed and masterful teacher, manager or policy-maker to the uninformed and unable pupil, member
of staff or practitioner; it accords with a ‘blueprint’ approach to managing (Hernes, 1999). A ‘second-order’ perspective on the other hand, is one of embodied relationality, where two observers face each other and can choose to acknowledge each other’s presence with the awareness that each will have her, or his, own perspective.

The concomitant notions of first- and second-order notions of communication are conveyed in Tables 2 and 3.

Unfortunately, first-order metaphors – of the conduit and of data-transmission – conceal the interpretive processes that are inescapably human and inevitably present in any process of engendering ‘buy-in’ and embedding change. Our neurobiological structures will always entail interpretative processes in the light of our historied biological, experiential and intellectual structures. Krippendorff (1993) asserted that the conduit metaphor of learning denies the learner their capacity and tendency to derive their own meaning from and interpretation of what is offered. A second-order approach acknowledges the inevitable and inescapable position of the researcher, and thus avoids the belief in total objectivity. It also does not slide into subjectivism because the other is clearly engaged in a mutual, interactive and co-adaptational process (Maturana & Varela, 1987). Moreover, the ongoing development of the research process is likely to convey an emergent rather than blueprint design, in which the researcher manages more by means and relationships than by targets and pursuing them regardless.

### Table 2 Forms of ‘first-order communication’

<table>
<thead>
<tr>
<th>Communication type</th>
<th>Characteristics</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Transfer</td>
<td>• Linear</td>
<td>• TV broadcasting</td>
</tr>
<tr>
<td></td>
<td>• Clear and accepted rules for encoding and decoding</td>
<td>• Extension of R&amp;D</td>
</tr>
<tr>
<td></td>
<td>• Hierarchical</td>
<td>• ‘Classroom learning’</td>
</tr>
<tr>
<td>Information Exchange</td>
<td>• Clear and accepted rules for encoding and decoding</td>
<td>• World wide web</td>
</tr>
<tr>
<td></td>
<td>• Signals can be different</td>
<td>• Telephone lines</td>
</tr>
<tr>
<td></td>
<td>• Networked</td>
<td>• Economic transactions</td>
</tr>
<tr>
<td></td>
<td>• Non-hierarchical</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Here communication is defined as interaction, despite these two first-order forms entailing limited interaction in the true sense of the word. These forms are epitomised in modernist information theory, but have long historical roots. They have underlain many assumptions related to objectivity and meaning in science and economics.
Modelling organizational learning for sustainable development (OLSD)

The method for OLSD that I present stems from sponsored research that I undertook between 1999 and 2004, which aimed to evaluate the change occurring in some UK-based companies facilitated by an organization advocating, and enabling, sustainable development (Meynell, 2003). The organization used an internationally recognized model of sustainability and an accompanying strategic decision-making framework called The Natural Step (Robèrt, 2002).

In order to evaluate organizational learning for sustainable development (OLSD) at work in the relationships between the advocacy organization (the

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**Table 3** Forms of ‘second-order communication’

<table>
<thead>
<tr>
<th>Communication type</th>
<th>Characteristics</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback</td>
<td>• Monitoring direction</td>
<td>• Thermostat/steersman</td>
</tr>
<tr>
<td></td>
<td>• Sender is also receiver</td>
<td>• Production line quality monitoring</td>
</tr>
<tr>
<td></td>
<td>• Self-referential</td>
<td>• Single-loop learning</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Personal reflective practice</td>
</tr>
<tr>
<td>Conversation</td>
<td>• Interactive</td>
<td>• Daily conversation</td>
</tr>
<tr>
<td></td>
<td>• Negotiable</td>
<td>• Dinner party</td>
</tr>
<tr>
<td></td>
<td>• Interpretive</td>
<td>• Middle Eastern market place</td>
</tr>
<tr>
<td></td>
<td>• Complex</td>
<td>• Improvising comedy</td>
</tr>
<tr>
<td></td>
<td>• Fuzzy</td>
<td>• Appreciative systems research</td>
</tr>
<tr>
<td></td>
<td>• Potentially emergent</td>
<td>• Group dynamics</td>
</tr>
<tr>
<td></td>
<td>• Open to learning</td>
<td>• Double and triple-loop learning</td>
</tr>
<tr>
<td></td>
<td>• Potentially transformative</td>
<td>• Authentic participative researching</td>
</tr>
<tr>
<td></td>
<td>• Mutual</td>
<td>• Reflective encounters</td>
</tr>
<tr>
<td></td>
<td>• Unpredictable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Appreciative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Exploratory</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Dynamic</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Relational</td>
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</tbody>
</table>

*Notes:* Here, second-order communication is defined as involving self-referential, circular interactions. ‘Regulation’ is important in manufacturing, for example, whereby humans monitor and regulate actions in the light of purposes and the criteria they choose to evaluate actions, relative to purposes. ‘Conversation’ is taken to be a primary form of communication; it entails self-referential interaction as well as interaction with other autonomous living systems.
research sponsor) and their clients, it was appropriate to consider what a process of OLSD might look like. I therefore devised an heuristic, ‘second-order’ model of OLSD to represent my understanding of the phenomenon, a model that gave rise to ‘second-order’ evaluation and analytical strategies. Both the model and the strategies may be pertinent for understanding, evaluating and facilitating organizational learning per se in other contexts besides that of my research.

The model was a second-order model because at its heart was the notion of the ‘conversational lineage’, something that arises from the mutual processes of interaction, interpretation and coordination between people. I defined a conversational lineage as:

-a set of distinctions that persist through dynamic conversations over time. (Meynell, 2003, p. 46)

In addition, ‘Crucially, the characteristics and constituents of any particular lineage are defined by an observer who makes boundary judgements about what the constitutive distinctions of a conversational lineage might be, and about the extent to which the lineage persists’ (Meynell, 2003, p. 46). A conversation thus might inherit discernible distinctions of a lineage from past conversations, which become its resources in the present, and might provide resource for future conversations. Making distinctions constitutes an inevitable part of ongoing processes of living. The act of making a distinction is simple, involving the reification of something from its background, and helps to direct, situate, and ground processes of learning (Reyes & Zarama, 1998). I suggested that a conversational lineage unfolds through recursive sense-making in relation to emotions and the resonances a lineage will have for its participants. Consensual coordination, coexistence, conversation, and learning are relational activities (Maturana & Bunnell, 1998). We learn by making connections with ‘the Other’ in the context of, and relative to, our own history, understanding and practices. Emotions are the ground to these coordinations, being domains of relational behaviour that we feel internally; for example, we cannot kiss loved ones when angry (Bunnell, 2002; Maturana & Bunnell, 1998). Emotions influence the development of a conversational lineage through the process of interactive coordination between its participants.

A conversational lineage is therefore a metaphor that evokes the characteristics of recurring and inherited themes that are discernible over time, and which contribute to the emergence, definition, and ongoing life of an organization, its organization, and its structures. The notion helped me to characterize a basic unit of analysis for evaluating OLSD.

Box 1 retells a true story that encapsulates the notion of the conversational lineage.

Conversations can be understood as a key constituent of an organization – for example, the United Nations or General Motors – and how it emerges, persists through time, and possibly evolves. More specifically, one can regard a
### Box 1 From Taiwan to Halifax: the story of a conversational lineage

Mark worked for the largest manufacturer of carpet tiles. There is a 40% chance that an office, library or hotel – anywhere in the world – will have installed in it the carpet tiles produced by Mark’s company. He had been in Taiwan on business, and was facing a 16-hour flight back to the UK. He realised he would be sitting next to the same passenger for the whole flight and so he struck up some conversation. They found out what each other did, who they did it with, and where they did it.

Mark eventually introduced a subject close to his heart, namely that of the greenhouse effect. He inquired whether his neighbour knew that flying by aeroplane was the most polluting form of mass transit known, in terms of the emissions it contributed to global warming. His neighbour said yes, he had read about it somewhere. Did he know that planting trees helped to absorb the carbon dioxide gas emitted by flying? Yes, his neighbour had heard about that too. Mark continued. ‘Well, the company I work for calculates my share of carbon gas emissions by my flying on this plane today, and the number of trees required to absorb my share.’ His neighbour seemed intrigued. ‘And that’s not all, the company I work for will not only calculate those things. It will also actually plant the requisite number of trees to absorb my share, and, as a token gesture, it will plant as many trees as are required to absorb every other passenger’s share of carbon gas emissions by them flying on this plane today.’

What happened next was surprising. Mark’s neighbour told his work colleague about what Mark’s company was doing. The work colleague of Mark’s neighbour told the person on the other side of the aisle from him, and she told the airhostess about what Mark’s company was doing.

A few moments later, there was an announcement from the flight captain. ‘Good morning, ladies and gentlemen, we are currently cruising at 30,000 feet. As you can see, there is a clear sky, and we are expecting a smooth journey back to London Heathrow. You might be interested to know that there is a passenger on board today who works for a company that will plant as many trees as are required to absorb all the carbon dioxide emissions from this flight. This flight is therefore carbon neutral, and is not contributing to the greenhouse effect. I personally would like to acknowledge what this person and his company are doing to make the world a better place. Thank you for your attention, and I hope you have a pleasant flight.’

A week later, Mark was back in his office near Halifax in Yorkshire, England, when he received a letter from the Chief Executive of the airline with which he flew. The chief executive asked him whether the story about what Mark’s company was doing was true. Mark, no doubt, followed up on this coup by giving the Chief Executive a call.

**Notes:** Mark told this story from his experience in his after-dinner speech at a ‘Sustainability Masterclass’ in Cheltenham, UK, on 27 January 2003.
specific activities, and orient trajectories of activity and relationship through time. Any decision that takes place in an organization will manifest, develop or threaten a pre-existing pattern of organization and its structures.

Conversations that evolve into intra- and inter-organizational conversational lineages may do so as the result of an interweaving of conversation, action, and reflection, and thus indicate processes of change. I posited the emotion of...
enthusiasm as an appropriate indicator of possibilities that might arise as the result of a process of organizational learning. Our horizons, options, perspectives and capabilities thus have the potential to expand through our relationships, interactions and conversations with, and in relation to, the other. Frustration, on the other hand, could point to organizational and structural constraints to learning; having said that, there may also be the ‘seeds of possibilities’ for future action in those situations that organizational members experienced frustrations. Frustration, indications of difficulties in communication, or the lack of expected activities might signify organizational and structural constraints to organizational learning. I also posited that the richer, more poignant, more reified, or more resonant a recognizable conversational lineage, having developed through broadly positive emotions, would more likely influence strategy, decisions and activities in the future.

Figure 1 is an interactivity diagram\(^2\) that portrays the role of the conversational lineage in a process of OLSD. Significantly, the diagram conveys the notion that conversational lineages mediate between organizational members on the one hand, and the creation and maintenance of an organization’s organization and its structures on the other. The OLSD model clearly portrays the idea that the conversational networks of individuals, and their emerging lineages, constitute an organization’s organization, and sustain, threaten and transform organization and organizational structures.

### A second-order evaluation methodology

A second-order evaluation methodology led to a more ‘emergent research strategy’ that was appropriate, given the learning in the field – in contrast to desk research – that was required. A first-order research approach would not have entailed such openness to how members of the sponsor’s client companies could interpret, and find particular meaning, use and relevance in the sponsor’s theoretical offerings to their own situations, based on their experiences. The evaluation was more a formative than a summative evaluation, therefore (Patton, 1990); the former aims to contribute to improving an initiative, situation or process, while the latter aims to reach more definitive conclusions as to the effectiveness of an initiative. In this, the research was akin to action research. A summative evaluation would have been inappropriate because sustainable development is a notoriously wide-ranging and all-encompassing concept. An audit that accounts for an organization’s relative sustainability and the extent of progress in sustainable development would have been misguided if not impossible, as it would have required unattainable or unavailable knowledge (Robèrt, Holmberg & Lundqvist, 2000). This was sufficient on the basis that understanding the phenomena of OLSD would, theoretically, enable its further facilitation.
It was also appropriate to avoid setting expectations on what specific organizational practices those in client companies learning with the research sponsor should or should not enact. Imposing pre-determined measures for expected outcomes is an aspect of first-order research (Webber, 2000). Second-order research, in contrast, aims to listen to what is important to those involved in the research, and to evaluate why the research might be meaningful for them. This is not to say that I discarded all aspects of the well-established first-order research tradition. Indeed, I retained its best aspects, for example, a commitment to rigour and thoroughness.

Second-order ideas sensitized me to how others made sense of, and negotiated, their roles and responsibilities in their daily practices in the light of their learning with the research sponsor. These included the idea that knowing and learning occur as part of an individual’s sense-making amidst ongoing manners of unique ‘structural coupling’, relative to his or her own history as an embodied being (Maturana & Varela, 1987). They included the idea that practitioners brought with them their own patterns of perceiving and experiencing that arise from their various traditions of understanding (Ison & Russell, 2000) – for example, engineering or human ‘resource’ management. They included the idea that one person’s structural coupling in one organizational domain would be different to that of another person in the same domain. In addition, they included the idea that an individual’s structural coupling would be different for the same person in different organizations, cultures, departments or project teams. Importantly, the second-order ideas led to vigilance. The status of a researcher’s conceptions of the social world would inevitably influence how s/he approaches the social world. A second-order approach thus tries to account for the origins, purposes, and anticipated futures of the conceptualization process itself, just as much as it does for the so-called empirical world to which these conceptualizations give rise.

In practice, one might think that a second-order approach is necessarily participative. However, I would suggest that it can inform, but is not necessarily participative in the sense of, ‘co-operative’ models of inquiry. Having said that, the approach is necessarily engaging, and, assuming an authentic level of interaction is experienced, is the kind of humane research that ‘co-operative inquiry’ advocates have encouraged. Of course, a second-order approach could be applicable in a more explicitly participative research methodology.

**Evaluation research practice: OLSD in practice**

An emergent research strategy informed by a second-order evaluation methodology was realized through three stages of research.

The first stage entailed ‘getting to know’ members of the research sponsor
organization, and the theoretical sustainability model and concomitant design and decision-making framework with which they facilitated sustainable development with client organizations. This was done via (11) semi-structured interviews; (around 40) ‘scheduled conversations’ (such as pre-arranged informal meetings and phone conversations); and (at least eight) informative ‘chance conversations’ with members and associates of the sponsor organization. Guiding themes to the inquiry included career history, personal understandings of sustainable development, and personal perspectives on their own situation, organization and work.

The second stage entailed familiarizing myself with the intra-organizational ‘coal-face’ situations where members and associates of the research sponsor actively facilitated learning, design and decision making for sustainable development with members of their client organizations. Familiarity was developed via attendance and participant observation at (20) training and ‘client network’ meetings over a three-year period, and via (seven) semi-structured interviews, (five) scheduled conversations, and (at least 30) informative ‘conversational encounters’ with members of the client network. Guiding themes included themes from the first stage, plus experiences of interaction and relationship between members of the sponsor organization, facilitators and their client members, and organizational strategies.

The third stage entailed more in-depth researching with members of the client companies themselves, whether or not they were actively connected to the sponsor’s client network. This third stage involved (15) semi-structured interviews with members of three client companies themselves. Guiding themes to this stage of the inquiry included those from the first and second stages, plus roles and responsibilities, organizational structures and key working relationships. Inevitably, these latter themes arose in conversations in the previous two stages, but became more sharply defined in this third stage.

Qualitative data relating to people’s experiences and stories was collected (Clandinin & Connelly, 1998), which included ‘relationship diagrams’ of organizational members’ working relationships (Lane et al., 2002). I sustained desk research throughout the research period, focusing on the fields of corporate sustainable development (e.g. Kaczmarski & Cooperrider, 1999), systems practice for managing complexity (e.g. Zimmer & Chapman, 2000), and organizational learning theory (e.g. Pawlowsky, 2001). I also captured my own ‘first person’ reflections in a learning journal throughout the research period.

Adopting a second-order approach underlay the acknowledgment of my role as researcher in the conceptualization, design, decision making, and facilitation processes throughout the research. It underlay the research quest to enable and listen to others tell, and for the researcher to appreciate their stories and reflect on their experiences; too much questioning can interfere with another’s ability to tell their stories (Webber, 2000). It meant not shying away from
sharing the researcher’s own perspectives, when appropriate, whilst engaged in an everyday, meandering and conversational approach to researching in practice (Shaw, 2002), whether that was embodied via semi-structured interviews or during coffee breaks in day-long meetings. More often than not, far from biasing responses, sharing my own perspectives enabled interviewees and co-researchers to clarify their own perspectives in contrast to my own; they would take every opportunity to ‘inform’ me of how things ‘really’ were!

**An analytical strategy for evaluating OLSD**

The primary analytical purpose was to discern patterns of experience, and constraints and possibilities, in processes of OLSD. A pre-analysis task entailed examining the data for the emotional tones that wove through the perspectives and experiences of those encountered through the field research. By the emotional tone of the data, I mean the distinction between enthusiasm and frustration. As discussed, discerning the basic emotional tone of the data would convey a possibility for, or a constraint to, OLSD, which gave a basis to construct well-bounded narrative accounts associated with activities in any particular organization. For example, enthusiasm was discerned in the following statement:

> The whole sort of decision-making process was better informed, shall we say, and with a certain sort of zeal behind it as well (to) find a better solution to do the job with the objective of making it more sustainable. (Meynell, 2003, p. 131)

The following statement was believed to convey frustration:

> I've found I've wasted a lot of time on the environmental sector because of the way in which accountants think . . . It's hard work on the environmental side, because of the length of time it takes to get a deal to fruition and the mindset of people out in the sticks. (Meynell, 2003, p. 193)

In constructing the accounts, I was keen to convey a variety of perspectives and experiences, where possible. For this, I employed a process of abductive inference, which entails creative inference and a synthetic logic that responds to surprise and anomaly (Aliseda, 1988), and accepts that facts do not speak for themselves; abduction possibly lies at the root of all thinking and distinction making. This was thus applicable for an emergent, second-order research strategy. The narrative accounts that emerged, therefore, were rich with many voices. I wanted to represent a variety of perspectives where they occurred, rather than present singular trajectories of OLSD, something that other researchers aiming to evaluate OLSD with companies have tended to do (e.g. Nattrass & Altomare, 1999). I argue that it is a practice that, in itself, could inhibit further OLSD. The narrative accounts would therefore reflect the multi-vocal, complex nature of organiza-
tions, and insinuate the kind of ‘polyphonic’ and interactive dynamics that give rise to conversational lineages (Boje, 2001). Whilst clear that a narrative account was not equivalent to a conversational lineage, I constructed the accounts of OLSD in the belief that they pointed to the occurrence of conversational lineages that reflected the work of my sponsor. I hypothesized that a conversational lineage relating to my sponsor’s work would reflect an organization’s trajectory of OLSD, whether or not research participants explicitly recognized, or referred to, the trajectory as sponsor-influenced.

Fourteen narrative accounts emerged from the data, which related to OLSD in five organizations; six of the accounts were of possibilities of OLSD, and eight were of constraints. An example of a narrative of possibility that emerged entailed members of a project team contracted to design and build a new hospital becoming ‘evangelical’ about sustainable development as a result of working with my sponsor. An example of a narrative of constraint that emerged consisted of organizational budgeting procedures that limited capital expenditure, and thus blocked investment in energy-saving technologies that would make relatively greater savings over their lifetime.

The practice of analysing the OLSD processes that took place within these five companies involved four stages.

The first stage entailed distinguishing a set of distinctions that were relevant to the work of the advocacy organization, and then tracing their occurrence in the narrative accounts. A specific set of relevant distinctions was helpful for tracing the emergence and evolution of conversational lineages related to the work of my sponsor. They revealed how organizational members’ learning was relevant to an ongoing, organizational trajectory of learning (for sustainable development). I then set about reviewing the narrative accounts for explicit and implicit conversational lineages, and marked the place where distinctions ‘occurred’ in the narrative accounts. The occurrence of these distinctions was not necessarily attributable to the direct influence of the advocacy organization, but could be said to have reflected its input and thus its influence.

The second stage entailed analysing the organizational levels in and across which a conversational lineage did or did not develop. Assessing the organizational levels in, from and between which the conversational lineages did or did not emerge and develop indicated the extent of OLSD. The organizational levels were: interpersonal; departmental; inter-departmental; intra- and inter-organizational network of relationships; and conversations. With reference to the model of OLSD in Figure 1, I suggested that conversational lineages give rise to distinct organizational levels, by conscious or indirect design. These levels can then be manifest in structural elements, for example, recruitment practices, the design of office layouts, or salary packages. An example of organizational levels was discerned from the following narrative:
Dave began exploring whether things like recycling paper and plastic cups were possible, and thought the best way would be to get all staff on site involved, because waste is created ‘by every individual in the bank’. He organised collection bins for paper, aluminium cans and plastic cups to be distributed across the site. He then realised he needed to get people to use them. The site had about 250 staff at the time. To raise awareness he briefed senior management [...] on what he wanted to do. He invited members of staff to join him in an ‘ecology focus group’ consisting of representatives from each department, roughly one rep per fifty members of staff who was ‘keen on green issues’. (Meynell, 2003, p. 108)

This narrative excerpt alluded to a few distinctions discerned as relevant, and conveyed a network of relationships involving senior managers, everyone on site, and an emergent group who ‘were keen on green issues’. This excerpt related to a narrative that conveyed how a conversational lineage began at personal and interpersonal levels and eventually developed through a departmental to organizational and inter-organizational levels.

The third and fourth stages of analysis entailed two ‘meta-analyses’ that enabled reflection on the first two analyses and made judgements about the extent of processes of OLSD.

The third stage thus constituted a ‘meta-analysis’ that compared and contrasted all the narrative accounts in order to document the range of possibilities for, and constraints to, OLSD with TNS UK. This entailed a content analysis of the narrative accounts. The constraints to OLSD turned out to be situation specific.

The final stage of analysis constituted a meta-analysis, which again involved revisiting all the narrative accounts, with the aim of determining a set of ‘potentially influential organizational and structural factors’ (Meynell, 2003, p. 109) for the development of OLSD. This process was speculative. The set of potentially influential factors did not emerge from the actual data, but from the interplay between the data, my own learning journey, and what appeared to be relevant theories in the field. Through my desk- and field-work some concepts such as those of ‘conversation’ and ‘relationship’, ‘context’, ‘constraint’ and ‘possibility’, and ‘emotion’ and ‘enthusiasm’ kept surfacing as relevant. These concepts were very influential in the development of a set of potentially influential organizational and structural factors on OLSD. For the record, potentially influential factors on OLSD included, for example, the extent to which adequate investment was forthcoming, organizational strategy was clear, or the extent to which there were opportunities for open-ended and reflective conversations in the organization. It was then possible to assess the extent of OLSD by revisiting each of the narrative accounts to observe where these factors could or could not have been influential, and how the situations of organizational members and their initiatives were similar or differed from one another. For example, the existence of intra-organizational learning networks in one company seemed to enable the
relatively speedy development of a sustainability conversational lineage within a business unit, which then found its way to the management board, and informed the development of an organization-wide sustainability policy.

A pertinent question that arose concerned the objectivity of the narrative accounts, and thus the validity of the analytical strategy. The question implied the 'more developed' possibilities for OLSD were only discerned because the accounts were merely constructed in such ways. This highlights a tension between the realist and constructivist methodological stances adopted in the research. The concern can be addressed with the observation that those accounts that reflected less developed possibilities of OLSD did not necessarily stem from less in-depth research encounters. Indeed, one of the accounts that conveyed the least developed form of OLSD did so as the result of the most sustained research engagement with an organizational member. Moreover, I did not intend the accounts to be read as representative of the whole organizations from which they arose, nor as describing reality as it was apart from my conceptualizations. Rather, the accounts were intended as my perspectives on the situated possibilities and constraints that organizational members appeared to have experienced and perceived as significant. I was wary of making definitive conclusions; hence, my speculating on potentially influential factors in the second meta-analysis. Of course, the analytical process is potentially one that could be conducted by more than one evaluator or could be conducted collaboratively.

Conclusions

Adopting a second-order, emergent research strategy and methodology contributed to the development of a model of OLSD, with the notion of the conversational lineage at its core, which could then be used as an evaluation yardstick. Developing the second-order model of OLSD is novel in the context of action research and management science literatures, as it not only brought second-order cybernetic and systemic theories of organization, knowing and learning, into a theory of organizational learning; the model may also give insight into the process of organizational learning per se and facilitate its further practice owing to the stress on interactivity. I argue that unitarist conceptions of organization, and first-order notions of systems thinking, can actually inhibit the process of organizational learning. I propose that the model bridges a significant gap in management science between literature in the fields of organizational learning and sustainable development that proved more fruitful than a first-order approach in the context of my research. A second-order approach was found to be effective for appreciating multiple perspectives and the specificities of people’s situations. It is potentially important when considering wider social responsibility issues and such processes as stakeholder engagement and participative decision making.
Adopting a second-order approach led to a research methodology that focused on the experiences and real-world situations of the advocacy organization that sponsored the research, and their client companies, enabling the appreciation of the particular complexities of their situations. A second-order evaluation strategy – which acknowledged the appreciative and interpretive dimensions of interaction and evaluation, and in which researching conversations were conceptualized as being themselves potentially contributing to processes of OLSD – was welcome in the light of the constraints and possibilities provided by the initial conditions of the research.

The analytical strategy emerged in connection with my expectation that the research should enable an evaluator and a practitioner to discriminate progress in facilitating OLSD. The outcomes of my analysis enabled me to give recommendations to my sponsor about its management, organization and facilitation arrangements, and practices.

If undertaking the research again, I would have a much keener ear from the outset as to the emotions I experienced others expressing, and the extent to which they were alluding to possibilities and constraints. I encountered the notion of the conversational lineage late into the research period. Other limitations of the research included the fact that it was not an environmental, social and sustainability audit, nor was it systematically compared or connected to one. This could be an opportunity for further research, namely, how managing emotions coupled with the constraints and possibilities to facilitating OLSD that arise in conversations are connected through time with specific social- and biophysical-impact indicators. The research provided neither the scope nor resources to investigate the influence of external stakeholders on the development of intra-organizational conversational lineages, as theorized in the OLSD model. The conversational lineages that were discerned were not regarded as whole-scale representations of all the conversations that were had or were taking place. A conversational lineage could stretch out indefinitely, potentially, certainly over a longer period and across wider domains than research of this scope and size could encounter. I was therefore wary of making definitive conclusions, hence my speculating on potentially influential factors on the process of OLSD. Importantly, the narrative accounts were constructed, and the emerging analyses were undertaken to contribute to further reflection and dialogue, which, I understand, they were successful in doing.

I believe the second-order, heuristic model of OLSD and evaluation and analytical strategies adopted and constructed are potentially applicable in other contexts relating to organizational change and influence. What is required is for evaluators to engage others in how they perceive situations, thus building rich pictures of those situations. Then they need to consider the relevant distinctions they wish to trace, and make assessments as to the geographic, temporal and emotional domains in which they arise. Finally, they can speculate on the poten-
tially influential factors on the evolution and persistence of any given conversa-

tional lineage.

Notes

1 The distinction between organization and structure comes from Maturana and
Varela (1987) and has been experienced by some as useful for distinguishing
between appropriate kinds of organizational development (e.g. Ison & Russell,
2000).

2 An interactivity diagram is a development of the multiple cause and sign graph
diagrams (Lane et al., 2002), which arose out of conversation with a colleague
at The Open University. The difference with an interactivity diagram is that it
specifies the kinds of interaction that take place between subjects, objects and
processes.

3 I discerned eight, incommensurable and relevant distinctions that were related to
the sustainability model and decision-making framework espoused by my spon-
sor; for example, the notion that effective, strategic decision making would be
grounded in an awareness of the non-negotiable constraints of how the whole-
ext system works (Robèrt, Daly, Hawken & Holmberg, 1997).

4 These ranged from ‘awareness raising’ to ‘systemic thinking’, ‘role or project
focused training’, and, ‘collaborative emergent learning’, the latter of which I
took to be the most advanced and promising reflection of OLSD. Briefly, collabo-
rative emergent learning referred to the possibility for related conversational
lineages developing and evolving to significant degrees across organizational
levels, involving a range of actors, and entailing a range of activities that corre-
sponded with those implied by my sponsor’s decision-making framework.

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