ACTION RESEARCH AS A KNOWLEDGE GENERATING CHANGE METHODOLOGY

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Abstract

The paper outlines an action research project conducted within an Australian public sector organisation with the purpose of changing a key internal business process. Despite the significant challenges incurred by using a change methodology considered to be 'radical' within this conventional, hierarchically structured, organisation, the business process was transformed successfully and productivity has increased significantly within the organisation. Furthermore, the action research approach generated pertinent new knowledge; greatly enriched various forms of intangible capital within the organisation; and created a precedent with respect to greater collaboration and democracy within the organisation. In encouraging this approach to managing change within hierarchically structured organisations, the paper advocates caution in its introduction and warns of the challenges that it poses for power management in such organisations.

Introduction

This paper reports on an action research project conducted within a medium-sized public sector organisation in Australia. As a regulative body, report writing is a core business activity but the organisation has struggled to create a standard report format with which all its stakeholders are satisfied. As a consequence, the productivity of senior staff is compromised through much time being spent by them on formatting the reporting tool (the *MS Office* suite) to their satisfaction. Several attempts have been made by the organisation to create a standard template form but each outcome has failed to gain stakeholder acceptance.

Cultural change in hierarchically structured organisations is notoriously difficult (Dovey & Fenech, 2007; Zuboff & Maxmin, 2002). In particular, the top-down power management practices, usually embedded in the culture of such organisations, ensure that unless change is driven vigorously from the top, it is unlikely to succeed. In this respect, as Zuboff & Maxmin (2002: 21) point out, in spite of a huge body of change management literature the more organisations change in rhetorical terms, the less they appear to change in practice:

> Change management would not be the industry it is if organizations were changing. Change management is huge precisely because organizations are *not* fundamentally changing. … the standard enterprise logic is organized to reproduce itself at all costs, even when it is commercially irrational to do so.

A key factor in the resistance to profound change in organisations is the threat that such change poses for the power interests of stakeholders. In this respect, Stanley's (1978) concept of 'technicism' – the transformation by those with power of human/social problems (characterised by competing power interests and alliances) into 'technical' problems (that, supposedly being value-neutral, do not necessarily challenge prevailing power bases and interests) – provides a plausible explanation for the failure of many organisations to transform appropriately. It also explains the relative ease with which technical change is accomplished in contrast with cultural change in organisations. Thus, while technical change may flourish in organisations, cultural change is rare.

In this paper we attempt to demonstrate the contribution that action research, as a change methodology, can make to organisations and to change theory – particularly as it relates to cultural change in organisations. We draw attention, here, to two aspects of this unusual

approach to change; aspects that we view as being especially novel. The first is that action research democratizes the governance of the change process by advocating the broad distribution of power with regard to the change management process. This results in everyone 'living dangerously' in that those holding formal power in the organisation have to put themselves and their positions at risk by voluntarily delegating their formal power to others positioned layers below them in the organisational hierarchy. Similarly, those so empowered during the action research process have to defend their newly-acquired power, in the interests of the change process, against any attempts by those with greater formal power in the organisation to 'pull rank' if the process begins to go in a direction that does not suit their power interests. Resisting such intervention from powerful others could constitute, in practice, a 'career-threatening' act for those lower in the organisation's power hierarchy. This is particularly true when trying to introduce change through action research in hierarchically structured organisations – organisations that Semler (2007) argues are run on militaristic lines and that Charles Handy (1997:26) refers to as 'totalitarian' in their governance practices.

The second innovative contribution of action research to change management is that it includes a research dimension whereby new knowledge about the management of change is generated and documented. Unlike other change methodologies, action research opens all aspects of the change process to external scrutiny by making public all documentation and data upon which change decisions are based (Greenwood and Levin, 2007). It thus offers both practical and research value: the practical value emerges from learning associated with the creation of new work practices and knowledge bases which, when applied, may transform a range of organisational issues. The research value is attained via new theoretical insights gained from the rigorous collective analysis of action, and new knowledge that is constructed through the encouragement and facilitation of self-reflexive practices that lead to transformational learning. Via a form of *praxis* - whereby theory and action exist in dialectical relationship, with theoretically-informed-action leading to action-informed-theory and so on in spirals of knowledge-enhanced action - thought and action are continuously evaluated and transformed. In this way new knowledge that is pertinent to the issue being addressed is generated, made explicit, and used to inform more relevant strategic action. As such, the action research process encourages 'double-loop learning' (see Argyris & Schön, 1996) whereby the deep structure of the problem/issue under scrutiny is exposed. Such learning can lead to profound individual and organisational change (McNiff *et al* 2003; Greenwood and Levin, 2007). Furthermore, action research facilitates the embedding of change processes in

the culture of the organisation – something, that Choo (1998) argues, is essential for survival in dynamic environments.

In 2007, one of the authors of this paper was asked to take on the role of project manager in a renewed attempt to create a standard *MS Office* template for reports generated by the organisation. Although this technical change project represented a relatively minor 'incremental' change to a core organisational practice, her decision to use the project as an opportunity to explore the possibilities for successful cultural change resulted in her choice of action research as the change methodology; one that would challenge the cultural norms and assumptions of the organisation. In particular, her intention was to introduce, through this project, new practices that would contribute to a more democratic and collaborative foundation for future projects in the organisation. Knowing that without the CEO on side, this 'hidden' cultural change agenda had no chance of success, she agreed to take on the role on two conditions: firstly that, as the project manager, she reported directly to the CEO; and secondly, that action research would be used as the change methodology for the project. At that stage, the CEO had no idea what action research was but consented to both conditions.

The Organisational Context

The organisation is a medium-sized government organisation with seventy staff; three of whom are Tribunal members and the rest part of a Secretariat. Although the organisation has a range of functions, its primary roles are regulation of government monopolies, monitoring of utility licences, and the provision of independent advice to government.

Organisational governance is split into two layers: a formal review output layer controlled by the Tribunal; and a business layer controlled by the CEO and Core Executive Board. The organisation is patriarchal and hierarchical in nature. Despite being funded by government, the Tribunal's decision making remains independent; the business layer, however, can be subject to government control. The staff contingent consists primarily of economists and lawyers. These individuals are organised into small project groups that report to industry directors, who sit on the Core Executive Board.

Since its inception in 1992, the organisation has quadrupled in size and enjoys a sound reputation for professionalism. However, with organisational growth and maturity has come the need for ways of working more productively with existing staff resources. Over the years

its fundamental report writing tool – the *MS Office* suite – has been customised organically but never explored to its full potential, such as in automated templates. Similarly, as the organisation has grown and become more vulnerable to the negative features of a hierarchical structure, a culture of 'inertia' and non-collaboration has become endemic, posing significant risks with respect to organisational performance and reputation.

Cultural Change in Organisations

Bennis (1990) has referred to change as the 'metaphysics of our age'. This is particularly true of cultural change where, given the human-centric nature of such change and the ontological issues associated with it, historically embedded values and deeply socialised assumptions are the targets of transformation (Kofman & Senge, 1993; Jones & Hendry, 1994). However, much of the change literature is underpinned by positivist assumptions that discount the role of human volition in change situations. For example, Hayes (2002:128) employs the popular positivist explanatory framework of systems theory when arguing that change is governed by general physical laws rather than intentional human action:

> organisations, like all open systems, seek to maintain a state of
> equilibrium; they tend to gravitate to a condition where all the component
> parts of the system are aligned with each other.

Similarly, Jansen (1996: 286) employs the metaphor of a pendulum when she claims that forces are always drawn back to 'a characteristic center'. Such ontological assumptions of change being governed by forces beyond human volition – with the only option open to people being that of understanding the general scientific laws governing the system in order to manage the re-alignment of its constituent elements with a view to regaining equilibrium more quickly - explain why people are seldom recognised as being at the centre of change situations. These assumptions – that can also be seen in Lewin's (see Schein, 1996) famous 'force field theory of change' where he metaphorically equates the principles of social change with those of magnetic science - pervade much of the change management literature.

If forces for and against cultural change are viewed as social in nature and origin, alternative paradigmatic frameworks – such as constructionist perspectives where the nature of any social reality is assumed to be value-laden and emergent – are required for their understanding and explication. Under such assumptions, the condition of any particular social 'reality' can be viewed as a consequence of the dominance of one or more stakeholder groups in an on-going

political contest. Change, in such situations, thus depends largely on the capacity of these stakeholder groups to generate and leverage appropriate power bases. In this respect, we explore three 'types' of such 'political' force:

1. Personal Forces

From a constructionist perspective, the social construction of reality is based upon beliefs, values and human interests. Thus, in general, those with vested interests in the political *status quo* will attempt to sustain it, while those who perceive their interests being better served in a changed social order will attempt to transform it (Dunphy *et al*, 2003). In this respect Neck (1996: 212) argues that the critical issue in managing such forces is that of collective scrutiny of peoples' *perception* of what is in their interests:

> resistance to change, might depend to a large degree on how one perceives
>
> and thinks about it.

However, perceptions and interpretations of individual interests are influenced by personal mental models (assumptions about self, others and the 'way the world works'). Senge (1990:8) defines these as:

> deeply ingrained assumptions, generalizations, or even pictures or images
>
> that influence how we understand the world and how we take action

These assumptions play a major role in the way in which individuals respond to change. As mental models are tacitly formed throughout life experience and have strong emotional dimensions, individuals' past experience of change can be a decisive factor in how they respond to change in the present (Kotter, 1995). Thus personal forces can constitute a powerful barrier – cognitive and emotional – to transformational endeavours.

2. Cultural Forces

Schein (1985: 9) defines culture as:

> a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration, that has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems.

Culture is, thus, a tacitly acquired set of socially constructed assumptions that have become embedded in the collective consciousness of a group with a shared history, as a 'taken-for-

granted' rationale for everyday behaviour. In this respect, organisational culture represents an unquestioned 'guide to action', or inaction, in accordance with a group's tacit understanding of a body of 'recipe knowledge' developed by its forebears in response to specific problems and challenges of the past (Dunphy *et al*, 2003). Thus culture rarely informs explicit governance documents in organisations; it is, as Simpson (2005) contends, more often through the 'unwritten ground rules' for organisational behaviour that culture finds expression.

Culture has been a strong factor in human survival on the planet. As Dovey (2008:50) argues, in a world that changed imperceptibly, if at all, culture,

> provided a set of accurate recipes for dealing with all the known challenges faced by a group. However, in a world of turbulence and rapid change, culture can become the proverbial 'stone around the neck' of many organisations (and societies) as they attempt to negotiate a changing world with a set of obsolete behavioural recipes unconsciously embedded in the minds of their members.

Similarly, Markus & Benjamin (1997: 59) comment that 'organisations behave the way they do because they have found that behaviour successful in the past'. However, such behaviours may be inappropriate and counter-productive in a changed world with new challenges that are unlike anything the group/organisation has encountered before. Cultural forces are, thus, particularly important for change managers to address, and this requires refined strategy (Kanter *et al*, 1992; Schein, 1988).

3. *Political Forces*

From a constructionist perspective, organisations are seen as emergent social constructs that are created and adapted in alignment with the interests of the most powerful stakeholders. In this respect, Kumar & Thibodeaux (1990: 360) view organisations as a continuum of political relationships – as 'essentially political systems consisting of shifting coalitions' - while Jones (2004: 39), conceptualises them as a 'set of explicit and implicit rules that prescribe the way members behave'.

Power relations are usually structurally embedded in the enterprise logic of an organisation. Miles *et al* (1997:7) define enterprise logic as the 'overall logic shaping a firm's strategy,

structure, and management processes into an effective whole', while Dovey & Fenech (2007: 574) describe the concept thus:

> (enterprise logic) refers to the *deep structure* (or ideological underpinning) of an organisation, and is based upon a set of shared assumptions, values and attitudes (cultural and personal forces) that are manifested in the taken-for-granted everyday practices of the organisation. … Through a political process in which structural arrangements are put into place (particularly with respect to the politics of power and resource management) that gradually become manifest in cultural norms (shared assumptions, values, beliefs) and mental models (assumptions about 'how the world works'), a range of institutional, organisational and personal practices, that endorse the shared assumptions about the 'reality' of these ideological arrangements, becomes formalised. This ultimately leads to patterns of behaviour that reflect the hegemony of this logic.

Kanter (2004) points out that when the enterprise logic is aligned with the explicit mission of the organisation, all three forces (personal, cultural and political) work in synergy to create positive outcomes. When, however, the enterprise logic is contradicted by new strategic leadership endeavours, all three forces combine to defend the organisation from change – usually with detrimental organisational impact.

In this project a constructionist perspective on change management was taken; and an action research change model was adopted that addressed both the tacit and explicit dimensions of the enterprise logic that underpins life in the organisation under research. In this respect, we endorsed the argument of Heifetz & Halle (1996) that if long term sustainability is to be achieved, change should be a participative process with an emphasis on ownership rather than one that is imposed on stakeholders.

The Action Research (AR) Process

As a research methodology located within a constructionist theoretical paradigm, AR assumes a values and power basis to any social reality. It, therefore, openly acknowledges its 'political' and knowledge interests in the proposed change and expects resistance from those with specific interests in the *status quo*. Such resistance to change is addressed in AR through the

encouragement of direct participation in the change process by all whose interests are likely to be impacted by it.

As a 'change' methodology AR was well suited to addressing the identified organisational issue for the following reasons:

- The business process under scrutiny impacts 90% of organisational stakeholders.
- There was widespread dissatisfaction with the prevailing process,
- The issues underpinning the process were interpretive in nature and needed an open and collaborative environment for effective scrutiny, exploration and resolution.
- The organisation preaches 'collaboration' as a business practice for those organisations that it supports (from both a regulatory framework perspective and as a business decision-making model). However, within the organisation, the philosophy that it proclaims to others is not practised, and internal processes are generally tightly controlled from the top rather than being collaborative in nature.

Members of the project core group (the initiators and facilitators of the AR process) were nominated by the Core Executive Board and ranged from administrative staff through to technical and director level staff (four analysts, two support staff, two managers and one director). One of the authors was nominated by the CEO as the 'project leader' and she reported directly to him. Due to the project's high internal political profile, neither funding nor bureaucratic obstacles hindered the process of its implementation. A consultant was available to provide technical advice but she did not constitute part of the core group.

As a change methodology and a research process, data collection and analysis is a continuous process in AR. In this respect AR has two agendas: a 'practical' agenda aimed at the achievement of a specific organisational goal and an understanding of the nature of the emergent strategic process engaged therein; and a more formal 'research' agenda through which new knowledge about the organisation – especially as this relates to the strategic agility of the organisation is concerned - is uncovered. From the perspective of the 'practical' agenda of this AR project, the initial core group meetings involved establishing, and reaching consensus on, a set of 'values' upon which all participant interaction would be governed; and on the establishment of the project scope. A consequence of the history of failed attempts to address the problem, and notification by the project manager that an action research

methodology would be adopted in the project, was that these initial meetings were characterised by nervousness and scepticism. However, as collective resources such as trust and a sense of genuine ownership of the process emerged, meetings took on a momentum of their own and direct facilitation by the project manager became unnecessary. Subsequently, this group spent most of its time in spirals of 'action' that incorporated debate, reflection, analysis, and explication of the tacit insights gained through this process, and embedding these in renewed strategic frameworks. In such endeavour, 'success' (achievement of the goal) is the ultimate 'evidence' of appropriate data collection and analysis. However, failure to achieve the goal highlights a breakdown in the effectiveness of the action research process: either through the collection of poor or inappropriate data on which decisions were based; or misinterpretation of the data (for whatever reason – complacency, arrogance, inappropriate assumptions, etc.); or deliberate distortion of the data to serve vested interests. The collective scrutiny of the reasons for failure of any specific form of strategic action leads to new learning about the organisation and the cultural constraints and enablers within it. This new knowledge leads to the transformation of strategic approaches to the task, making them more appropriate and effective. Within the project, data upon which this dialectical process was based were sourced from all staff in the organisation, and included relevant emails, memos, minutes of meetings, presentations, artefacts, and the formal metrics of project outcomes (productivity measures) that were continuously conducted within the organisation throughout the duration of the project. Furthermore, the minutes of core group meetings, the various iterations of strategy documentation (including the data upon which each iteration was based), and a 'learning journal' (kept by the project manager) were additional forms of documented data that emanated from the core group itself. These data were collected, discussed and debated by core group members and any other stakeholders who wished to participate in particular meetings. On the basis of the 'creatively abrasive' interaction at these meetings, new strategic action was decided upon and documented (clearly showing in this documentation the data that underpinned the decisions taken by the group). In this way 'emergent' strategy was created, executed, monitored and evaluated for its effectiveness in addressing the issue. This process is very similar to that advocated by the strategy-as-practice theorists where the focus is upon 'praxis, practitioners and practices ... much of what is generally construed as strategy work involves talk ... and the routines of everyday activities' Chia (2004: 29). Furthermore, the documented 'evidence' (data) upon which decisions were made was open to the scrutiny and challenge of any of the stakeholder groups within the organisation, and newly constructed

knowledge was socialised and 'tested' by core group members acting as project ambassadors throughout the organisation.

The purpose of the post-implementation review process was to address the more formal research agenda of the project: to make explicit the learning gained about managing change through action research in the organisation. As such, it focused upon the ten core group members and on two key 'external' stakeholders - the CEO and the consultant – in the project. In-depth post-implementation tape-recorded interviews, lasting around thirty minutes each, were conducted with all twelve of these people and the interview transcripts were independently analysed by the two authors of this paper. Those interviewed were asked only one question – how they had experienced the project – and the interviewer then probed their response, seeking more detailed explication and understanding of the interviewee's sense-making of the experience and attribution of value to aspects of it. The purpose of this approach was to allow the constructs to be generated by the interviewees rather than by the interviewers. As we were trying to access the perspective of those who had direct experience of the phenomenon (rather than gather responses from them to interviewer assumptions about it), this was considered the appropriate approach to accessing such knowledge. The analysis of the typed transcripts followed a hermeneutic approach whereby, through empathic interpretation, key 'meanings' were independently identified in each transcript, with only those units of meaning that were identified by both authors accepted as valid interpretations of the transcript data. Thereafter, the 'dominant themes of meaning' were identified across the twelve transcripts. To qualify as a dominant theme, a unit of meaning needed to have been raised in at least seven of the interviews.

While the research is subject to the usual limitations of potential bias and distortion in action research, the use of non-participant stakeholders (such as the CEO of the organisation and the second author) represented an attempt to mitigate these limitations by ensuring a degree of 'triangulation' in the evaluation of the project. Through such measures we intended to ensure the veracity of the research results and, thus, confidence in the validity of our claims.

The Research Findings

From the 'practical' change agenda perspective, the results have been exceptional. In contrast to the years of failure to address this strategic issue, within nine months the project achieved consensus among all stakeholders upon a standard template for reports. As a consequence

thereof, significant productivity gains have been achieved. Official internal statistical data reflect a 23% increase in the number of reports generated by the organization (with no additional resources) in the six-month period of January – June 2008 (post-template) compared to the six-month period of January – June 2007 (pre-template). As a change process aimed at transforming a core business process in order to raise the productivity of the organization to new levels, the AR intervention has been an undisputed success. Several dominant themes, with respect to the project's 'practical' success, emerged from the post implementation review interviews:

o *The Value of Shared Ownership of the Change Process*

The collective ownership of the process appears to have been a critical factor in the success of the AR project. While initially sceptical about the degree to which staff would genuinely own decisions - several people commented on previous experiences where promises of 'ownership' proved to be rhetorical devices used by those in authority to 'be seen to be empowering' staff - the interviews reflect consensus on the genuine ownership of project decisions by the staff, and the positive impact that this had on the project outcome. An important benefit derived from this authentic ownership of the process was the generation of vital intangible capital - particularly *morale* capital and *social* capital - as resources such as trust, commitment, confidence and resilience became available to participants through a sense of their empowerment, increasingly bonded relationships, and growing belief in the possibility of realising the project's objective. As a consequence, participants voluntarily invested extra time into the process and, as the incident with the CEO discussed later shows, refused to allow those with more formal power to over-rule collectively-taken decisions.

o *The Value of Thorough Discussion and Debate*

Participants commented on the AR process not imposing restrictions (time or otherwise) on discussion or debate. As a consequence, these discussions revealed shared concerns as well as the unique interests of different stakeholder groups. Furthermore, the depth of analysis achieved through the AR process gave them an appreciation of the complexities associated with the problem at hand and a broader perspective on related organisational issues. Significantly, the 'creative abrasion' facilitated by these intense discussions and debates, generated valuable 'conceptual capital' in the form of creative ideas and new knowledge that led to the crafting of more effective solutions. For example, challenging questions pushed the

knowledge boundaries of the consultant and this, in turn, led to the creation of new knowledge that enhanced the efficiency of the tool and end-user satisfaction. As commented on by the consultant, had this been a traditional process where she worked with the group as its technical expert, it is highly unlikely that the outcome would have exceeded the expectations embedded in the original project scope.

- *The Creation of a Negotiated Order Early in the Project*

All ten members of the core group commented on the effectiveness of the 'Guiding Principles for Collective Engagement', established at the group's first session, in facilitating authentic interpersonal engagement without destructive conflict. As a result, over the duration of the process, the group learnt how to enact the principle of *critique* effectively. Furthermore, the egalitarian AR social environment eliminated any form of hierarchy (positional, intellectual, or professional) and this enabled the group to gain advantage from its diversity of membership. Core group members claimed that previous attempts to resolve the issue had been driven by a 'top-down' approach in which those lower in the organisational hierarchy had felt that their opinion was not taken seriously. However, in this case, participants (and the stakeholder groups to whom they reported) were challenged to question their positions on the issue under research, and to embrace the opportunity for transformational learning available via the forms of critical enquiry encouraged by the AR process.

- *The Importance of Broad Representation in the Change Team*

A majority of those interviewed made the point that the group had benefited from having broad organisational representation. For the first time, after many attempts to resolve this issue, membership of the 'project team' consisted of individuals whose work would be impacted by the change; who therefore had a stake in creating an effective solution; and who would represent the interests of different stakeholders and layers in the hierarchy of the organisation. However, contrary to AR procedure which advocates voluntary participation, core group members were nominated by the Core Executive Board and this broad representation was achieved more by luck than good judgement. We draw attention to this point because while the AR literature highlights voluntary participation as a key requirement for the stimulation of collaboration and commitment, this is not always achievable in

hierarchically structured organisations. In future AR initiatives within this organisation, the value of voluntary participation will be impressed upon senior management.

By encouraging the buy-in of key external stakeholders, the core group ensured the alignment of its objectives with broader organisational needs. A good example of this occurred at a formal briefing of an external team when many individuals from other teams attended even though they had already been briefed by their representatives. It became clear that their presence was motivated by a desire to participate more fully in the process.

o *AR's Creation of the Intangible Resources that Facilitate Learning and Knowledge Creation*

This dominant theme relates to the intangible capital resources (such as trust, confidence and courage) generated by the AR process through its strengthening of relationships within the stakeholder community. These intangible resources were manifested in the sense of urgency that developed among the core group members and that motivated them to collaborate quickly and effectively in generating the requisite knowledge for the success of the project (in his interview, the CEO raised this as a major achievement of the project). They were also manifested in the growing confidence of the core group and other staff to challenge existing systems and practices. This enabled the stakeholder community to explore the 'deep structure' of the issue through double-loop learning (Argyris & Schön, 1996) – exploring the mental models upon which the issue was founded - and to confront the personal, cultural and political forces that have undermined change within the organisation for years. This courage to engage in transformational learning – what Kofman & Senge (1993: 19) describe as learning 'not about tools and techniques' but 'about who we are' – is generated 'only with the support, insight and fellowship of a community' that encourages us to 'face the dangers of learning meaningful things' (Kofman & Senge, 1993: 20). This collaborative generation and leveraging of key intangible resources – effectively facilitated by the AR process - is what Senge (2003) argues is the key differentiator between organisations that can change from those that fail to change. Frequent, authentic, face-to-face communication underpinned this knowledge generation and leveraging process and, through it, trust was built and critical learning practices such as 'risk taking' and 'making oneself vulnerable by admitting ignorance' became embedded in the project's nascent culture of learning.

The informal AR environment was also credited with strengthening relationships that facilitated the flow of knowledge across the stakeholder community. Most meetings are reported to have resembled workshops where ideas were generated and discussed in free-flowing form. Increasingly this led to the record keeping of what had been done becoming linked to knowledge outputs rather than formal process documentation. This resulted in the process becoming uncluttered of traditional meeting procedures and more focused on collaborative exploratory learning activities. This prioritisation of social collaboration over formal procedures echoes the strategy-as-practice literature referred to earlier in this paper and endorses the point by Senge and Scharmer (2006: 205) that, 'knowledge creation is an intensely human, messy process of imagination, invention and learning from mistakes, embedded in a web of human relationships'.

In summary, these themes demonstrate AR to be an effective change management process – even in a hierarchically structured organisation – and one that fosters significant organisational learning. Within this project, the AR process created genuine ownership which led to commitment; commitment led to relevant learning-through-collaboration; the knowledge constructed from this learning led to successful results; and these results reinforced collective ownership of, and pride in, project endeavour. In this respect, each cycle of action enhanced the knowledge gained from the previous cycle – a pattern typical of the generic action research spiral of knowledge generation and, what Kanter (2004) refers to as, an upward spiral of confidence.

From the perspective of the project's 'hidden agenda' of initiating cultural change within the organisation, the post implementation review interviews reflect the AR process as having challenged the cultural politics of the organisation in many ways. One of the more prominent challenges relates to prevailing organisational decision-making practices where the emancipatory principles of AR – through concepts such as participation and democracy – are in direct opposition to the top-down decision-making practices that are a feature of the organisation. This challenge was most clearly demonstrated when the CEO attempted to over-rule one of the core group's decisions – thus putting at risk its sense of ownership and empowerment. Although the group stood its ground and the CEO subsequently backed off, the incident highlighted the precariousness of an AR process within a hierarchically structured organisation. In this respect, while congratulating the group on an excellent result, in his post-

implementation interview the CEO signaled the key challenge that the AR process poses for power management and accountability within hierarchically structured organisations when commenting that:

> At the end of the day, I am going to be the one who signs off on this so I want to be happy with the product. I think what I have to do is to ensure that the group is led to produce something I am happy with. I don't particularly want to say, 'your work is no good - do it my way' because that will reduce the willingness of people to do this sort of thing in the future. On the other hand, I cannot allow the group to come up with something that I think is unsatisfactory or not in the organisation's interests. So I need to influence the group sufficiently to ensure that its work actually is useful for the organisation.

The core group's resolve to stand firmly by its decision despite the challenge from the CEO was encouraged by the powerful morale capital resources generated by the AR process. Such resources can become a potent source of transformation within organisations and, as such, constitute a significant threat to the political *status quo*. This was further demonstrated when, in their post-implementation interviews, a number of participants explicitly stated their opposition to future change initiatives if these were not to enjoy the same conditions of empowerment as this AR process. In particular, the project had highlighted for these knowledge workers the link between their empowerment and their capacity to generate new knowledge. As pointed out by Gaventa and Cornwall (2006), knowledge creation is a highly political process – and participants' new awareness of this phenomenon is likely to fuel future challenges to the traditional power management practices in the organisation. In this respect, a key implication of our findings is that for AR to be successful in a hierarchical environment, the process must have the buy-in of key senior stakeholders: the more direct the participation of those with formal authority, the less intimidating the process will be for them.

Another challenge was constituted by the unconventionality of the AR process: as one person expressed it, it 'diverged from the cultural norms of the organisation'. When pressed to elaborate, this person stated that the authentic collaboration of the AR process was a change from the usual tokenistic attempts at collaboration within the organisation. Furthermore, this person claimed, critique (as opposed to criticism) as well as practices such as dialogue and critical collective analysis, needed to be introduced throughout the organisation. As such, she

was demonstrating the shift from 'dependent to independent thinking; from efficiency to effectiveness orientation; and from operational to strategic thinking' highlighted by Zuber-Skerritt (1996: 91) as typical consequences of the AR process for participants.

An aspect of the project not raised by sufficient participants to qualify as a dominant theme but still an important one from our perspective was that of how the AR approach challenged conventional project management practices. Within this project, the AR process was conducted without recourse to any conventional project management methodology. Instead it created a democratic structure whereby the project scope and the guiding principles for interaction and collaboration were created and owned by participants. These principles thus guided the process rather than dominating it as conventional project management methodologies can do if viewed as an externally imposed framework into which organisational requirements and practices must fit. As Kendra & Taplin (2004) point out, the traditional mantra of 'in scope, on time, and within budget' is seldom achieved and these methodologies rarely facilitate genuine organisational learning. Furthermore, by focusing on the technical aspects of change management, the human/social aspects of project management are often ignored by them (Kanter, 2001). In contrast, the AR process demonstrated very different assumptions and orientations that included:

- issues of scope being continuously uncovered through stakeholder dialogue. While no conventional project management methodology would tolerate changing scope, the AR process was flexible and allowed for ongoing refinement based on a broader understanding of issues (as these emerged). For example, several essential business components, initially missing from the project scope, were identified through debate - this was not evident at the start of the process and thus would not have been addressed via traditional project management methods;
- commitment to scope generally means a commitment to timing and budget yet in this project significantly greater productivity was achieved than within a similar timeframe in earlier attempts. This resulted from participants volunteering personal time when others were unable to fulfill commitments due to pressures of core work, and from their flexibility in the use of resources;
- the AR methodology is oriented towards the long-term and, as highlighted by the consultant in her interview, delivers a superior and more durable outcome than

conventional project management methodologies, as well as more pertinent learning with respect to future business benefits.

Conclusion

There is little doubt that the successful outcomes of this project can be attributed to the AR methodology used in the project. This attempt resolved the issue in nine months - in contrast to the years wasted in previous unsuccessful attempts. Furthermore, new learning practices have been introduced to the organisation, and key intangible capital resources – such as creativity and trust – have been generated by participants as they generated and leveraged new business knowledge via the AR self-governing process. This new knowledge has greatly enhanced the effectiveness and efficiency of the targeted business process and, thereby, facilitated significant productivity gains for the organisation.

The research also shows that the collaborative process encouraged by AR, has made an impression on all stakeholders (including the CEO) of the organisation. Through this project, key stakeholders have been made aware of the contradiction between the organisation's promotion of collaboration as a 'best practice' to its external stakeholders, and its failure to engage in such practices within its own domain. Furthermore, they have been exposed to more effective ways of constructively addressing the personal, cultural and political forces that underpin resistance to change within the organisation. In particular, all acknowledged the way in which participant commitment flourished under the democratic order established by the AR process; and all saw how, under these emancipatory circumstances, positive business outcomes emerged from the collective challenging of assumptions/beliefs in a genuine endeavour to learn, transform, and produce a successful outcome for the organisation.

A factor in the latitude given to this project by the CEO was its low level of risk. As an internal process its exposure to external scrutiny was relatively low. If, however, it had had external dimensions, it is highly unlikely that managers within this organisation would have risked the level of empowerment that project participants enjoyed. As initiators of cultural change, however, internal AR projects may be an ideal way to 'soften up' hierarchically organisations for more radical change. Despite the constraints imposed by an institutionally-embedded mental model that favours managerial control of all organisational processes, this research demonstrates that AR can work in hierarchical organisations if introduced slowly (and, initially, in relation to internal processes) and strategically (with the full support of the

organisation's CEO). When this research commenced, few had any idea of the quality of knowledge that it would generate or the business results it would achieve. Neither did anyone anticipate its power to lay the foundation for more effective collaborative practices within the organisation in the future.

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