Building the Sustainable Organisation:

Synergies, Tensions and Implications for Change and Leadership

ABSTRACT

This paper draws out the synergies and tensions between corporate human and environmental sustainability at both theoretical and empirical levels. Given these synergies and tensions, we examine the challenges that achieving an integrated and practicable understanding of corporate sustainability poses for change agents and develop suggestions for change strategies and skills sets required to reduce the tensions and maximise the synergies. We then explore the leadership qualities required to influence, inspire and implement these changes. We examine suggestions that 'feminine' leadership styles associated with values-based rationality may be more likely to support these changes and that leaders who embrace diversity will foster the new knowledge required to build sustainable value for all stakeholders.

Key words: stakeholders, sustainable value, corporate sustainability, change strategies, leadership styles, human and environmental sustainability

Building the Sustainable Organisation:

Synergies, Tensions and Implications for Change and Leadership

Introduction

The central theme explored in this paper is how to bring about changes which build the sustainable organisation, adding sustainable value to all organisational stakeholders, including the natural environment. Since the World Conference for Sustainable Development at Rio in 1993, sustainability has been promoted as an integrated concept. In terms of corporate sustainability, for instance, the triple bottom line approach emphasises the simultaneous consideration of social, economic and environmental objectives. According to this approach, an organisation's progress towards sustainability is assessed according to the extent to which it addresses: social or human sustainability criteria of equity, work-life balance and participation; environmental criteria of environmental justice, ecological responsibility and renewal and economic criteria of high performance and long-term survival.

The challenge of integrating economic, social and environmental aspects of sustainability in the context of the contemporary corporation reflects the ongoing meta-debate on the dualistic relationship between the natural and socio-economic spheres. This area of interest tends to be confused by debate between the major dualisms of science/ social science, North American 'abstract empiricism'/ European 'grand theory' (Jamison 2000; Mills 1973), and realism/ constructivism. Underpinning these dualisms in the way they are played out in the sustainability discourse are major issues in the modernist/ postmodernist debate – issues such as the colonization of the local and rural by the global and the urban, and the exploitation of the South by the Global North. In this paper we examine the role that ecofeminist theory has played in drawing together some of these dualisms by bringing together such themes as environmental degradation and the institutional gender and indigenous discrimination (Dumble 2001). In acknowledging and reflecting on these dichotomies and contradictions in how we theorize the relationship between the social and natural worlds we explore a more pluralistic understanding of the relationship between the dimensions of sustainability that is relevant to the contemporary corporation and the implications for change and leadership.

Synergies between the elements of corporate sustainability

Achieving an integrated and practicable relationship between the social, environmental and economic dimensions of sustainability has been the subject of considerable contestation across many disciplinary areas. For corporate managers, the most immediate area of interest has been the relationship between economic sustainability and other elements of corporate sustainability.

The business case for sustainability has emphasized the synergies between social, economic and environmental sustainability. Arguments in the literature on corporate social responsibility have promoted the pursuit of human sustainability, in terms of both human resource and other stakeholder relations issues, as good for the economic bottom line (Dunphy and Griffiths, 1998). From this perspective, designing work systems according to sustainable, rather than intensive, requirements and standards achieves better outcomes for all stakeholders (Doherty, Forslin, Shani and Kira 2002). In the integrated model of sustainable work systems, one stakeholder is not exploited over another and the natural environment is recognised as a key stakeholder with rights to be protected.

In the specific argument which links human resource strategies and sustainability, it is held that human resource strategies underpin good environmental performance and business success (Daily and Huang 2001; Dunphy, Griffiths and Benn 2003; Wilkinson, Hill and Gollan 2001). For instance, human resource factors which affect the quality of environmental management systems include commitment from top management, the flow of information through the organization, a variety of training and development systems, teamwork, rewards and employee empowerment (Daily and Huang 2001).

In order to achieve human resource sustainability and hence sustained business performance and positive employee outcomes of equity, development and well-being, human resource policies and practices need to be integrated into all functions of the organisation for sustained business performance, including environmental management (Delany, 2001; Gollan 2003; Pears, 1976; Dunphy and Griffiths, 1998). Some writers argue that designing the technical changes required for environmental sustainability must be given more recognition as a reflexive process. They call for the establishment of reflexive loops, use of reflective skills and an awareness of the power relations underlying organizational learning. These too, are humanistic elements of the organization (Moldaschl and Brodner 2002). So in these approaches, specific human resource strategies are required to support environmental sustainability. Recent work has also shown that the development of bridging social capital and multidirectional information flows leads to organisational learning and knowledge creation (Benn, Dunphy and Martin 2004; This new knowledge reflects the capacity for innovation that enables strategic sustainability (Dunphy et al, 2003)

But environmental values can also support human sustainability through supporting the development of new knowledge. Recognition of the intrinsic value of the diversity of life forms which is key to the thinking of deep ecologists (Smith 1998), for instance, underpins the non-hierarchical, participative, and decentralised organizational systems invoked by the ecocentric management model (Egri and Herman 2000; Shrivastava 1995).). Such a perspective on organization systems adopted by a corporation which accepts and fosters diversity will arguably facilitate multidirectional information flows and enable knowledge creation (Hardy, Phillips and Lawrence 2003). In another connection between human or social and environmental sustainability, there is some evidence that environmental sustainability can facilitate the development of social aspects of corporate sustainability. Recent research indicates that companies can use successful environmental initiatives to develop the binding and cohesive cultural change necessary to become a learning organisation (Benn and Dunphy 2003).

Tensions between the elements of sustainability

But does attempting the simultaneous achievement of human and environmental sustainability inevitably mean a trade-off with negative consequences for at least one or the other? There are obvious contradictions between a business orientation on the environment as a source of profit (Elkington 1998; Frankel 1998), also expressed in the literature of ecological modernization (Mol and Sonnenfeld 2000) and a more critical, values-based approach to corporate greening (Banerjee 2003; Egri and Pinfield 1996; Newton 2002). The latter approach is informed by the critique of the accumulative logic of the 'treadmill of production' (Jamison 2000; Gould et al 1996; Sachs 2001).

Another source of tension between the human and ecological elements of sustainability is the focus on human capability to achieve sustainability and the anthropocentricity of knowledge and technological development. At an operational level, while a humanistic approach and investment in employee development produces stakeholder benefits (Dunphy and Griffiths, 1998;

Gollan, 2000; Gollan, 2003), it may also cause companies to reduce money spent in replacing beyond end-of-pipe with pollution prevention environmental management systems. At a strategic level, an emphasis on principles of natural capitalism such as the use of biologically inspired production models or closed loop production systems (Lovins, Lovins and Hawken 1999) is technocentric. It minimizes the importance of the 'people element' of the organization and the importance of people themselves changing the value they place on the environment and issues such as social justice.

Moreover, a preoccupation with sustainable technology development to reduce resource scarcity or waste disposal issues arguably encourages the ongoing recognition of nature for its instrumental value (Harding 1998). Such an anthropocentric approach puts humans outside the realm of the natural world. It restricts the development of the interconnectedness and reciprocity associated with a more 'ecocentric' perspective (Shivastava 1995). For advocates of 'ecocentrism', organizations should reflect in all their actions the unity of the human and non-human and model themselves on natural systems where everything is connected to everything else (Merchant 1990).

The processes of organizational change required for corporate sustainability create another area of tension. Critics have argued that the 'steps to corporate sustainability' approach based on the human journey metaphor means that corporations are never required to become sustainable; the overall aim remains the maximization of economic growth. Such critics agree with Sachs: 'ecological reform must walk on two legs: scrutinising as well as moderating goals' (Sachs: 16). The human journey metaphor effectively justifies the corporation staying permanently in a situation of 'weak sustainability' (Milne, Kearins and Walton 2003).

There are also tensions between socio-cultural calls for diversity and the need to implement resource efficiencies. Some writers attack the importance of creating eco-efficiencies through the establishment of large-scale and highly technical environmental management systems (see Sachs 2001). On this view a sustainable social order can only be achieved if human settlement becomes much smaller in scale, more localized and thus culturally more diverse.

Achieving environmental sustainability may also require an overemphasis on Taylorist principles, particularly in early stages of achieving compliance and lead to intensive, rather than sustainable work systems (Doherty et al 2002). Further tensions at the strategic planning level arise in association with the unbounded nature of environmental risk (Beck 1992) and the fact that the social perpetrators of the risk may be far distant from the effects (Beck, Giddens and Lash 1994).

One of the leading drivers of sustainability is the need to meet compliance demands by regulatory bodies. Within organizational settings and research institutions – particularly with an engineering and scientific focus on sustainability – the em_t ...asis has been on generating new technological solutions to the problems of environmental degradation (Hawken, Lovins and Lovins 1999). These solutions include more efficient filtration systems, the use of bio products to eat or neutralize waste, and the use of new technologies to maximize natural resource usage while not pushing natural ecosystems to the brink (Pears 2000). Such technological solutions are often seen as the answer, but quite often they provide organizations with excuses to not question their core values or only marginally change their activities (Tibbs 2000).

Haigh (2003), for instance, reports on an exploratory study that has examined the impact of e-government capabilities on the natural environment. The growing requirements of organizations to deploy information systems strategically (Boar, 2001) and to engage in ecologically sensitive practices (Holliday, Schmidheiny & Watts, 2002; Dunphy, Griffiths & Benn, 2003) led to an examination of the impact of new technologies on sustainability. Haigh's study found that e-government initiatives created eco-efficiencies that were more apparent than real as they were a result of moving resource consumption from within the organization to outside the organization. For instance, paper-based processing systems and organizational resources were moved to an on-line capacity. The expectation was that customers or consumers of the product/ service would use the on-line capacity to place orders and to pay and, as a result, internal processes were less resource intensive. Hence the argument has been that technologies associated with supply chain management and procurement and marketing channels have been turned 'green' (Digital Europe, 2002).

However, preliminary evidence shows that in many of these cases engagement in these activities only hides the environmental costs, because for instance, printing costs are pushed onto consumers. The study also found that economic growth enabled by e-business would erode eco-efficiencies, if dematerialization rates did not equal the growth rates (Chang Yang). For example, several cases displayed instances where transaction volumes offset eco-efficiencies created. The study also found the existence of a measurement gap – leaving organizational managers handicapped in their decision making by not being able to compare or account for dissimilar ecological impacts in a standardized way (Haigh 2003).

Haigh's work leads us to conclude that technologies and engineering efforts need to be integrated into value based changes that adopt a holistic view of sustainability endeavors. Otherwise in the end technology driven sustainability may actually be counterproductive.

Organizational change and skills sets for sustainability

The synergies and tensions between the human and ecological approaches to sustainability can be summarised as follows:

Synergies:

- Human sustainability leads to better economic performance
 Bridging social capital leads to organisational learning and knowledge creation
- Human capability facilitates environmental sustainability

Tensions:

- emphasis on human capability is an anthropocentric approach and privileges human interests over the moral rights and interests of non-human species
- emphasis on technological capability and innovation encourages a mechanistic view of the organisation rather than the interconnectedness necessary for stronger sustainability
- the stepwise approach to improving human capability in order to deliver the business case for sustainability leads to an emphasis on the means rather than the ends.

Given these synergies and tensions, what skill sets are required to actualise these synergies and resolve these tensions so that practical action can take place?

There are three levels of skill sets required. These are:

- skills of systems diagnosis
- skills of constructing macro change strategies
- micro intervention skills

The skills of systems diagnosis require a new mindset on the part of change agents that abandons the dominant managerial metaphor of the organization as a machine (Dunphy and Griffiths 1998; Morgan 1998). We must now learn to view the organization as a purposive, self- renewing, open, living system co-evolving with key aspects of its social, political, economic and ecological environment. (Birch 1999; Capra 2002). The shift in mindset also involves abandoning the concept of objectivity, derived from an outmoded Newtonian view of science, which places us as managers and change agents in an objective stance outside the system we are analyzing, managing or changing. Despite our best intentions, our own analytical approach will be influenced by our position and role in the system and our values and interests. Involving key stakeholders in the process of analysis and implementation so that they contribute to the diagnosis from their perspectives and 'own' the diagnosis and the proposed solutions is the closest we can come to an objective stance.

There is a wide range of diagnostic approaches that are, however, often differentiated and treated possessively by professionals

who specialise in human or ecological analysis and intervention. There is a need to unify these approaches and/or bring those who practice them into a team that is working together in scanning the emerging corporate environment for opportunities to move the organization further down the sustainability path defined above. That there are substantial business benefits for doing so has been amply documented. (Dunphy et al 2003; Lovins and Lovins and Hawken 1999).

The skills of constructing macro change strategies have also been widely documented in the organizational change literature (Stace and Dunphy 2001; Darwin, Johnson and McAuley 2002; Strickland 1998). It is important to avoid the guru-dominated, 'one right way' fundamentalism that specifies a universal strategy for implementing change – a kind of silver bullet guarenteed to work in all circumstances. What is needed instead is a contingency approach to selecting and developing change strategies. Figure 1 gives a matrix of combining standard change 'intervention' strategies with the levels at which interventions may be made. Different change consultants tend to specialise in one area of the matrix and sometimes use the strategy that they are familiar with instead of the one most suited to the particular organizational needs for change as diagnosed. Relating diagnostic strategies to this matrix can overcome this problem by suggesting the specific strategies that are appropriate and the organizational level at which they should be employed.

The dominant stream of thought in the management literature assumes that change agents, particularly managers, are not only viewing the system from outside but also acting powerfully from outside to change it. We are in fact part of the evolving system we are analyzing and trying to change and, in most cases a relatively small influence in relation to the other forces within it and acting on it. Understanding and, where possible, aligning with those forces amplifies the power of the change agent and the strategies employed. Our ability to achieve this depends in part on our level of skill in some key 'micro skill' areas.

Skilled change agents have a range of technical and interpersonal micro skills. (A high level of skill in the latter is often referred to as 'emotional intelligence'). (Salovey, Mayer and Curuso, 2002). Figure 2 gives a summary outline of the range of relevant micro skills needed to make the macro change strategies work effectively. One of the best kept secrets in the management literature is that even the most intelligently selected and planned change strategies fail when not implemented by skilled change agents with the appropriate micro skills. It is rare for a single change agent to have the full range of skills needed for a complex organizational change program and this is particularly true for change toward sustainability. So once again this suggests the need for a team approach to the implementation of change toward sustainability. Note that both in the internal operation of such teams and in their working out the implementation of change with other interest groups inside and out- '4e the organization, the skills of conflict resolution are vital in resolving tensions. The skills of leadership such as visioning are vital for gaining commitment to realise opportunities. This brings us to the issue of the challenges for the leadership of sustainability.

Leadership for the integration of sustainability elements

What models of leadership can account for these tensions and synergies and enable the actioning of corporate sustainability in complex organisations? This section of the paper argues the case for a model of corporate sustainability which emphasizes the synergies between social, economic and environmental sustainability and minimizes the tensions. If such an approach is to be actioned and the requisite skill sets needed to achieve this are to be enacted in organizational settings then traditional leadership models with their emphasis on purposive rational action need to be rethought (Due Billing and Alvesson, 2000). A more values-based and inclusive approach to change based on the precept of the interconnectedness of life forms is required (Dunphy et 2003; Gldwin et al 1995; Shrivastave 1995). As well, in leading change of the nature proposed in the previous section, leaders will have to acknowledge and seek to implement sustainable work systems, that is, systems in which one stakeholder is not exploited over another and in which the natural environment is seen as a key stakeholder. What might such a leadership model look like? We propose that theoretical developments in relation to 'feminine' leadership could well provide insights into a way forward to actioning corporate sustainability. Additionally empirical studies of organizations where women have achieved a critical mass as senior/leadership levels (Chesterman, Ross-Smith and Peters, 2003) reveal that, at this level,

women can influence change in ways compatible with the notion of a sustainable work system.

The purpose here is not to suggest that women per se have a 'unique way of leading change or that there is something inherently better about 'feminine' ways of leadership. To suggest this is to invite charges of essentialism (McNay, 1992). Rather it is to emphasize firstly, that the presence of women at senior levels in organizations brings a level of diversity to organizational leadership – diversity of experience, values and opinions. Chesterman et al (2003), for instance, found in their study of a major financial institution that when women are present, the senior management of the organization is seen as more collaborative and consensual; there is more emphasis on building teams and individuals; more consultation; changes in styles of communication; less competitive behaviour; an emphasis on honesty and approachability; a greater level of multitasking and balance, and a valuing of staff. Similarly in an empirical study of senior management cultures in the Australian tertiary sector they found a wide spread perception that having a critical mass of women at senior levels was important in altering leadership styles to become more collaborative and consultative with an emphasis on flexibility and on the inherent values of the organization. (Chesterman, Ross-Smith and Peters, 2004).

Others argue that the presence of women in leadership roles is not enough to achieve change of the nature that we are proposing here. In their analysis of the role of top management teams and corporate illegal activity, Daboub, Rasheed, Priem and Gray (1995) argue that the higher the level of homogeneity in top management teams in terms of demographics such as agc, gender, education level and race, the more likely it is that team will to decide to engage in illegal activities. These authors advocate a move toward increasing the diversity of such teams as a means of ensuring that ethical decision making occurs at this level in organizations. In proposing a model of leadership that strongly resonates with the skill sets needed for sustainable change Meyerson and Ely (2003:137) argue it is not enough to simply add diversity by increasing the representation of women and other diversity groups. They suggest we must change "what constitutes leadership, regardless of who is in the role". Their theory is that it "is not about gender alone but about the ways in which differences of all kinds can become a resource for individual and organizational change." For this to occur they argue "that people to truly engage each other's differences and, themselves become transformed in the process". A key to achieving the type of leadership that we are suggesting involves a review of past and power relations (Merchant, 1996). In leading change such leaders would encourage people to "use their cultural identity differences – which give rise to different life experiences, knowledge, and insights – to inform alternative views about their work and how to accomplish it" (Meyerson and Ely, 2003:137).

Conclusion

In clusion, we propose that a values-based model for leadership would facilitate the integration of the elements of sustainability, capturing the synergies and resolving the tensions. Most importantly it would stimulate the multi-directional information flows associated with the creation of new knowledge necessary for the building of sustainable value for all stakeholders. Embracing the precept of integration of the diversity of life in all its forms requires crossing gender, species and national boundaries. Women emerge as leaders when qualities such as collaboration, working with diversity, and networking are recognized - as leaders they can also enable these characteristics of the sustainable corporation.

References

- Banerjee, B. 2003. Who sustains whose environment. Sustainable development and the reinvention of nature. *Organization Studies*. January
- Beck, U. 1992. The Risk Society. London: Sage.
- Beck, U., 1999. World Risk Society, Cambridge: Polity Press.
- Beck, U., Giddens, A. and Lash, S. Reflexive Modernisation. Cambridge: Polity Press.
- Benn. S. and Dunphy, D. 2003. Human and Ecological Factors: A Systematic Approach to Corporate Sustainability. Paper presentation. *Academy of Management Conference: Democracy in a Knowledge Economy*. Seattle.
- Benton, T. Beyond Left and Right? Ecological Politics, Capitalism and Modernity. In M. Jacobs (Ed), *Greening the Millenium?*: 34-46. Oxford: Blackwell Press.
- Birch, C.. 1999. Biology and the Riddle of Life, Sydney: University of New South Wales Press.

- Boar, B. 2001. The Art of Strategic Planning for Information Technology. 2nd edition. New York: John Wiley & Sons
- Capra, F. 2002. The Hidden Connections: integrating the Biological, Cognitive and Social dimensions of life into a science of sustainability, New York: Doubleday.
- Chang Yang, J. (undated) Environmental impact of e-commerce and other sustainability implications of the information economy. *Industrial Technology Research Institute*. Working Paper of the Research Group on the Global Future. Center for Applied Policy Research
- Chesterman, C., Ross-Smith, A., and Peter, M., 2003. Senior women executives and the cultures of management. *Unpublished* report to a major Australian financial institution.
- Chesterman, C., Ross-Smith, A., and Peter, M., 2004. Changing the landscape? Women in academic leadership in Australia. *McGill Journal of Higher Education* (forthcoming)
- Daboub A., Rasheed, A., Priem, R., and Gray, D. 1995. Top management team characteristics and corporate illegal activity *Academy of Management Review*, 20, no 1: 138-170.
- Daily, B. and Huang, S. 2001. International Journal of Operations and Production Management. 21, (12): 1539-1352.
- Delany, K. 2001. Futurising human resources How to achieve sustainability. *IBIS Best Practice Business Improvements*, : 8-9.
- Digital Europe. 2002. Review of eco-efficiency concepts in Europe: Towards and application of European-Based Policies on Material Flows and Energy. Final Report.
- Debarty, P., Forslin, J., Shani, A. 2002. Creating Sustainable Work Systems. London: Routledge.
- Due Billing, A. and Alvesson, M. 2000. Questioning the Notion of Feminine Leadership: A Critical Perspective on the Gender Labelling of Leadership. *Gender, Work and Organization*, 7(3): 144-157.
- Dumble, L. 2001. Vandana Shiva. In J. Palmer (Ed), Fifty Key Thinkers on the Environment: 313-321. London: Routledge.
- Dunphy, D., Griffiths, A. and Benn, S. 2003. Organizational Change for Corporate Sustainability. London: Routledge.
- Egri. C.P., and Hornal, R.C. 2002. Strategic environmental human resource management and perceived organizational performance: An exploratory study of the Canadian manufacturing sector. In S. Sharma and M. Starik (Eds.), *Research in Corporate Sustainability: The Evolving Theory and Practice of Organizations in the Natural Environment* (pp. 205-236), Northhampton, MA: Edward Elgar Publishing.
- Egri, C.P., and Pinfield, L. 1996. Organizations and the Biosphere: Ecologies and Environments. In S. Clegg, C. Hardy and W. Nord (Eds.), *Handbook of Organization Studies*: 459-483. London: Sage Publications.
- Elkington, J. 1998. Cannibals with Forks. London: Capstone.
- Frankel, C. 1998. In Earth's Company. Business Environment and the Challenge of Sustainability. Gabriola Island, BC: New Society Publishers.
- Giddens, A., 1996. Beyond Left and Right: the future of radical politics. Polity Press: Cambridge.
- Gle 'vin, T., Kennelly, J., and Krause, T. 1995. Shifting paradigms for sustainable development: Implications for management theory and research. *Academy of Management Review.* 20: 874-908.
- Gollan, P. 2000. Human resources, capabilities and sustainability in Dunphy, D., Benveniste, J., Griffiths, A., and Sutton, P. (Eds.). Sustainability The corporate challenge of the 21st century: 55-77. Sydney: Allen and Unwin..
- Gollan, P. 2003. Human resources, capabilities and organisational sustainability A way forward. Paper presented at the SA Public Sector Human Resources Conference, *Renew, Foster, sustain HR Building for Organisational Sustainability*, 6th August, 2003, Adelaide.
- Gould, K., Schnaiberg, A. and Weinberg, A. 1996. Local Environmental Struggles: Citizen activism in the Treadmill of Production. Cambridge and New York: Cambridge University Press.
- Haigh, N. 2003. Linkages between e-government and sustainability outcomes: An exploratory study, Master of Technology Management, Research Project, UQ Business School. The University of Queensland.
- Harding, R. 1998. Environmental Decision-making. Sydney: Federation Press.
- Hardy, C., Phillips, N. and Lawrence, T. 2003. Resources, Knowledge and Influence: The Organizational Effects of Interorganizational Collaboration. *Journal of Management Studies*, 40: 321-347.
- Hawken, P. Lovins, A and Lovins, H. 1999. Natural Capitalism: Creating the Next Industrial Revolution. London: Earthscan.
- Holliday, F. Schmidheiny, S. and Watts. 2002. Walking the Talk: The Business Case for Sustainable Development. Greenleaf Publishing.
- Jamison, A. 2000. On the ambiguities of greening. *Innovation*, 13 (3): 249-265.

- McNay, L. 1992. Foucault and Feminism: Power, Gender and the Self. Cambridge: Polity Press.
- Merchant, C. 1996. Earthcare: women and the environment. New York Routledge.
- Meyerson, D. and Ely, R. 2003. Using difference to make a difference. In D. Rhode (Ed.) *The difference "difference" makes: women and leadership.* California. Stanford University Press
- Mills, C. W. 1973. The Sociological Imagination. Harmondsworth: Penguin.
- Milne, M., Kearins, K. and Walton, S. 2003. Business Makes a 'Journey' out of 'Sustainability': Creating Adventures in Wonderland? Paper presentation. *Academy of Management Conference: Democracy in a Knowledge Economy*. Seattle.
- Mol, A. and Sonnenfeld, D. (Eds) 2000. *Ecological Modernization around the World: Perspectives and Critical Debates*. London: Frank Cass.
- Moldaschl, MF and Brödner, P 2002. A reflexive methodology of intervention. in P Docherty, J Forslin and R Shani (Eds) *Creating Sustainable Work Systems: Emerging Perspectives and Practices*, London et al: Routledge, 180-190.
- Morgan, G. 1998. Images of Organization. San Francisco: Berrett-Koehler.
- Newton ,T. 2002. Creating the New Ecological Order? Elias and Actor-Network Theory, *Academy of Management Review*, 27, No 4: 523-540.
- Pears, A. 1998. Towards sustainability: a corporate focus. *Preamble*, Unpublished, Centre for Corporate Change, Australian Graduate School of Management, The University of New South Wales, Sydney.
- Pears, A. 2000. Technologies and processes for ecological sustainability. In D. Dunphy (Eds.) *Sustainability: The Corporate Challenge of the 20th Century*, Sydney: Allen and Unwin.
- Plumwood, V. 1993. Feminism and the Mastery of Nature. London: Routledge.
- Sachs, W. 2001. Global Ecology and the Shadow of Development. In W. Sachs (Ed) *Global Ecology:* 3-21. London and New Jersey: Zed Books.
- Salovey, P., Mayer, J.D. and Caruso, D., 2002. The Positive Psychology of Emotional Intelligence. In Snyder C.R. and Lopez S.J. (Eds), *Handbook of Positive Psychology*: 159-171. Oxford: Oxford University Press
- Shaw, P. 2002. Changing conversations in Organizations: a complexity approach to change, Routledge, London.
- Shiva, V. 2001. The Greening of the Global Reach. In W. Sachs (Ed). *Global Ecology:* 149-155. London and New Jersey: Zed Books.
- Shrivastava, P. 1995. Ecocentric Management for a Risk Society. Academy of Management Review, 20: 118-137.
- Shrivastava, P. 1996. *Greening business: Profiting the corporation and the environment*, Cincinnati, OH: Thompson Executive Press.
- Skinner, B.F. 1972. Beyond Freedom and Dignity. Toronto: Bantam Books.
- Smith, M. 1998. Ecologism: towards Ecological Citizenship, Buckingham: Open University Press.
- Stace, D. and Dunphy, D. 2001. Beyond the Boundaries: Leading and re-creating the successful enterprise, 2nd ed, McGraw Hill
- Starik, M., and Rands, G.P. 1995) 'Weaving an integrated web: Multilevel and multisystem perspectives of ecologically sustainable organizations', *Academy of Management Review*: 20, No. 4, 908-935.
- Tibbs, H. 2000. 'The technology strategy of the sustainable corporation'. In Dunphy, D. et al (Eds.), Sustainability: The Corporate Challenge of the 20th Century. Sydney: Allen and Unwin.
- Wilkinson, A., Hill, M., Gollan, P. 2001, 'The Sustainability Debate: Themes and Issues',
- International Journal of Operations and Production Management: 21, No.12: 1492-1502.

Microskills of Effective Change Agents

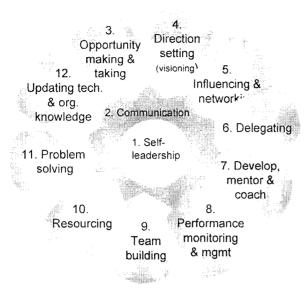


Figure 1

Th	ne Dur	nphy	Interventi	on Strate	gy
1	3 £	ture	Matrix	system In	ura) Ge

	, s s Matrix				37.816 77 62 78		
Level	merger/ acquisition	restructure	Mati change chero	Work design	human syste design	Cultural change	
whole organisation							
division			_				
intergroup relations							
workgroup							
interpersonal relations							
individual							
person	'hard' interventions			'soft' interventions			

F. are 2