

**Critical reflections on management basics: challenges
and implications for corporate responsibility and
sustainability research**

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Abstract

Research in corporate responsibility and sustainability has been challenged for its lack of critical thinking (Kallio & Nordberg, 2006; Newton, 2002; Welford, 1998) and even for its “uninteresting, and insignificant” questions (Starik, 2006: 433, citing Sharma). Rather than focus directly on the ‘hijacking’ or dumbing-down of research agendas (Welford, 1997), my approach to a critique of ‘mainstreaming’ in corporate responsibility and sustainability research targets the oversimplification and positivism in conceptualizations of key organizational phenomena and processes.

In this paper I argue that the academic rigor and practitioner relevance of much research in this field is compromised by the adoption of conventional and misleading conceptualizations of, amongst others, organizational context, theories of change, concepts of corporate culture, the nature of strategy-making, and the often missing dimensions of power and politics in organizations. These limitations have serious implications for expectations and assumptions of change, relevance for practitioners, and approaches to management education for sustainability.

In this conceptual paper I argue that a more critical and reflexive approach to corporate responsibility and sustainability research requires as a starting point revisiting some key organizational and management concepts. The paper is structured around unpacking and challenging the dominant conceptualizations of some organization and management studies fundamentals in the literature on corporate responsibility and sustainability.

To this end I draw on a diverse range of critical approaches in organization and management studies, along with some relevant resources from sociology of the environment.

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Introduction

In this conceptual paper I argue that a more critical and reflexive approach to corporate responsibility and sustainability research requires as a starting point revisiting some key organizational and management concepts. The paper is structured around unpacking and challenging the dominant conceptualizations of some organization and management studies fundamentals in the literature on corporate responsibility and sustainability.

To this end I draw on a diverse range of critical approaches in organization and management studies, along with relevant resources from sociology of the environment. In the following section I briefly outline the kinds of critiques made of research in corporate responsibility and sustainability as a background to my approach to a critique of ‘mainstreaming’ in these literatures. In the next section I outline a number of oversimplifications and omissions in the literatures under six key headings. In the concluding section I point to some implications of my critique for assumptions and expectations of organizational change, practitioner relevance and engagement, and for approaches to management education for sustainability. I plan to further develop the paper in the future by drawing on my empirical research with food manufacturers in the UK.

Some Critical Remarks

It is widely acknowledged that the position and legitimacy of organizations and their management are being increasingly challenged by concerns about the environmental and social costs of doing business. Yet, much of what is written or espoused in the name of tackling such consequences of organizational and management activity fails to challenge conventional management theory and practice, with many approaches serving to maintain the status quo.

Research in corporate responsibility and sustainability has been challenged for its lack of critical thinking (Ählström, Macquet, & Richter, 2007; Kallio et al., 2006; Newton, 2002; Welford, 1998) and even for its “increasingly uninspiring, uninteresting, and insignificant” questions (Starik, 2006: 433, citing Sharma). The critiques often focus on the ‘hijacking’ of research agendas and outcomes by industry interests and a ‘business-as-usual’ approach to responsibility and sustainability initiatives (Ählström et al., 2007; Kallio et al., 2006; Welford, 1997).

Beyond a consideration of corporate engagement with these issues, other commentators have argued that ‘environmentalism itself’ is no longer critical (Jamison, 1996; Szerszynski, Lash, & Wynne, 1996) – so perhaps is it unsurprising that corporate responsibility and sustainability research and practice is characterized by less than critical approaches.

Rather than focus directly on the ‘hijacking’ or dumbing-down of research agendas (Welford, 1997), my approach to a critique of ‘mainstreaming’ in corporate responsibility and sustainability research targets the oversimplification and positivism in conceptualizations of key organizational phenomena and processes. 10 years ago, Welford critiqued the “oversimple and modernist categorizations” and the “emphasis on positivism and rationality” (1998: 2-3) in the work of industry and academe around corporate environmental management and sustainable

development. Ählström et al (2007) more recently argues that the dearth in critical perspectives on environmental management research continues, and echoes Welford's (1998) critique of the positivist tradition, the outputs of which tend to focus on 'marginal adjustments' or 'business-as-usual'.

In this paper I want to take a step back, or perhaps sideways, to look at the representations and assumptions about 'organization' and 'management' in research on corporate responsibility and sustainability. My purpose in this paper is to address the simplification and reliance on modernist assumptions in the conceptualization of organizational phenomena and processes that have implications for the rigor and relevance of research in this field.

In this task I draw on an eclectic bag of resources: some well established, but at times neglected, management and organization theory, some resources from sociology of environmental knowledge, and critical management studies. Drawing on the latter, I want to argue that, rather than "'knock' management" (Alvesson & Willmott, 1996: 4),

"the theory and practice of management is poorly served by [research] that lack a *critical* perspective on the challenges and dilemmas currently confronting those working and managing in modern organizations" (Alvesson et al., 1996: 1-2).

My ambition is to challenge the version of organization and management theory assumed, or brought to bear, in much research and writing in this field and to suggest that there are other ways of conceptualizing some key organizational phenomena and processes, that might help provide a better account of the management and organizational challenges involved and that may help better understand corporate responses to responsibility and sustainability pressures.

I argue that the academic rigor and practitioner relevance of much research in this field is compromised by the adoption of conventional and misleading conceptualizations of, amongst others, organizational context, theories of change, concepts of corporate culture, the nature of strategy-making, and the often missing dimensions of power and politics in organizations.

Reflections on Key Management Basics

Although the field of organization and management research is highly eclectic and in many ways fragmented and influenced by many intellectual disciplines, the positivist paradigm is well established and dominates the more critical and interpretive approaches. We should question the usefulness of a natural science model for the study of organizations as social systems, however this is not the place for a thorough examination of positivism and its alternatives – see Johnson & Duberley (2004) for an excellent examination. There is also not a simple distinction between qualitative and quantitative management research, it should be noted that qualitative social science research is also frequently underpinned by a positivist approach, often seen to be important for publication (Johnson et al., 2004). Its influence on research in corporate responsibility and sustainability is therefore not surprising, but is nevertheless a curious state-of-affairs for a topic that one would expect to attract those with an interest in the critical study of management and organization (Newton, 2002).

In this section I challenge received wisdom with respect to some key organizational phenomenon that may be a barrier to progress, and attempt to make the case for a more grounded understanding of the social realities of organization and management.

The Nature of Organization Reality – Verbs rather than Nouns

I have been pointing to critiques of the literature influenced by positivism (e.g. Ählström et al., 2007; Welford, 1998). In contrast, a range of approaches see organization and management more in terms of emergent processes or ‘enactment’ (Daft & Weick, 1984). Actor-network theorist John Law calls for tales of *ordering* rather than order, and of verbs rather than nouns (Law, 1994) – as did Weick (1979) nearly 30 years ago. Tsoukas (1994) wants to replace a ‘social engineering’ approach with that of ‘reflective action’. The former emphasizes “objectivity, detachment and control” whereas a reflective action perspective “underscores the constructed (enacted) nature of organizational phenomena, and it looks at the latter as being inherently ambiguous and in need of interpretation.” (Tsoukas, 1994: 2).

Much of the corporate responsibility and sustainability literature reflects a very functional, rational views of organization, neglecting the significant amount of work in organizational theory drawing attention to the social, political, negotiated and cultural practices through which organizations (and the environment) are constructed, maintained and transformed in particular ways, and the messy, political, and ambiguous nature of organizational reality and human subjectivity (Alvesson & Deetz, 2000). There is also reflected a view of organizations (and the natural environment) as ‘given’ independent of human actors’ interpretations, enactment or constitution through available or taken-for-granted models, concepts and practices. The tendency to reify ‘the organization’ can render invisible the complex and sometimes tentative accomplishment of organization by organizational members. A view of organization as enacted runs through the critique in the following sub-sections.

Organizational Context

Following from above, conceptualization of the relationship between organizations and the wider context are important for a number of reasons.

A surprising feature of much of the literature on corporate responsibility and sustainability has been their decontextualised approach. This is an important oversight both because of the embeddedness of organizations in wider political, economic and cultural (and ecological) contexts and the situated, context-dependent nature of human activity. Empirical and theoretical consideration of the relationships between contexts and activity are important in examining the situated ways in which organizational actors engage with and make sense of the challenges of responding to environmental change and new societal pressures.

In terms of conceptualizing the relationship between organization and context, a good deal of work adopting an institutional perspective (DiMaggio & Powell, 1991; Scott, 2001) emphasizes that social actors and organizations do not simply 'respond' to objective conditions or pressures 'out there', but that actors also (more or less actively) engage in defining and interpreting their 'external' environments (Hoffman, 1999). The more useful institutional analyses argue that the 'organization' and the 'field' should not be treated "as separate and distinct" and look to "the field-level processes by which collective rationality is arbitrated, channeled, and formed" (Hoffman & Ventresca, 2002: 10).

Furthermore, the importance of the cultural context or embeddedness for the ways in which organizations attend to environmental and other issues is not "merely contextual" (Wynne, Simmons, Waterton, Hughes, & Shackley, 2001) but is key to understanding organizational engagement with, for example, sustainability agendas and the ways in which these are constituted. The cultural and historical location and development of ideas, material and social

infrastructures and processes are key to understanding social action and interpretation (Welford, 1998).

Organizational change

There are two tendencies in the literature that I wish to counter here. Following my comments above, one is a tendency in the literature to represent organizations as reified entities capable of, or characterized chiefly by, strategic and rational action, or populated by individuals capable of rational action that could be mobilized if only they could be better informed. The second, related pattern, is the unrealistic calls for “monolithic, system-wide culture change ... [that] oversimplifies both the concept of culture and the process of organizational change.” (Jermier & Forbes, 2003). I return to the concept of organizational culture below. My critique is not that we shouldn't expect, or call for, significant change but is in relation to the often naïve or unrealistic expectations of organizational change that seem to ignore the significant body of work in organization and management studies on the challenges this entails.

Newton (2002), for example, is critical of the normative calls and “evangelical spirit” of the literature that downplays the obstacles, reducing discussion to “wishful thinking”. He further critiques the use of inadequate models of learning and change in the greening of organizational literature, which naively assume that change will occur through education in environmentally sound practices, suggesting (as others do) that approaches to learning in which learning follows action are more useful in general, and that it is more likely that green learning will follow green action. In critiquing “rational, linear theories of planning and change”, Pettigrew (1990) calls for research that explores

“the complex, haphazard, and often contradictory ways that change emerges and to construct a model that allows for an appreciation of conflicting rationalities, objectives and behaviours. [and argues that] change is multifaceted; involving political, cultural, incremental, environmental, and structural, as well as rational dimensions.” (Pettigrew, 1990: 268).

We should also look for the different kinds, and levels of influence, of potential ‘change agents’ rather than be tied to the notion that change is primarily guided by the actions of senior organizational members. Change can come from unexpected places, the acknowledgement of which has implications for how we approach empirical research on corporate responsibility and sustainability.

Strategy making

The extent to which there has been a strategic integration of environmental strategy with business strategy is presented as a common condition or barrier for improved corporate environmental performance (e.g. McCloskey and Smith 1995; Welford 1998). The nature of strategy in organizations has been one of the hotly debated topics in management and organization theory and much of the literature on business and the environment presents an extremely linear, rational, normative view of strategy formation and decision making processes.

This limited view of strategy is critiqued in Newton’s (2002) drawing on an actor network theory view of processes of emergent ordering to argue that intended “ecostrategies” are unlikely to be realized as such. Johnson, Melin & Whittington (2003) are also critical of focusing on strategic activities solely in their reported form and look instead at the day-to-day

organizational practices “that make up strategy and strategizing in practice.”. A range of approaches in organization and management studies have for some time critiqued the rational, linear view of strategy making, including ‘processual’ approaches such as Mintzberg’s work on strategy as ‘emergent’ and the distinction between intended and realized strategy, calling attention to patterns in ‘streams of actions’ rather than focus on isolated decisions (Mintzberg & Waters, 1985).

The emerging ‘strategy as practice’ perspective also offers an alternative lens on how organizational members *do* strategy in practice and “the messy realities of doing strategy as lived experience” (Jarzabkowski, 2005: 3). How to research the actualities of strategy making from this perspective also presents a challenge for management researchers, suggesting ethnographic research or at least some element of observation. These kinds of approaches I would argue are particularly important in developing our understanding of how it is that organizational members struggling with the complexities of ‘responding’ to the difficult new challenges that attending to corporate responsibility and sustainability pressures entails. Perhaps especially where these new pressures are likely to confront in an explicit way current business strategies and priorities.

Organizational Culture

That organizational cultures can act as a barrier to organizational change and the integration of new social and environmental principles is an important acknowledgement. However, the particular way that culture and cultural change is conceptualized in a good deal of the organization and management literature is problematic and has been applied unchanged to the organizational greening literature. Further, an analysis of the cultural and historical institutional framing of issues and solutions is forfeited for common calls for culture change grounded in an understanding of corporate culture in a functionalist vein where culture is viewed as binding and

guiding values, for common calls for the engineering of a strong environmental organizational culture, and the development of corporate environmental mission statements and new and shared values.

There are a number of competing and contradictory conceptualizations of culture and culture change in the organization and management studies literatures (Meyerson & Martin, 1987). One basic distinction is that of viewing culture as something an organization *has* that is amenable to management control and the alternative is a view of culture as something an organization *is* (Smircich, 1983). These distinctions clearly have implications for thinking about processes of culture change. It is the first of these notions of culture that is often enacted. One limitation with this is the assumption that that there is consistency and consensus in an organization around shared cultural values and meaning. Common sense should tell us that such a functionalist view is highly unrealistic and that organizations are characterized as much by competing values and politics. As Alvesson puts it, it would “be odd if CEOs, typists, factory workers, engineers and product designers shared norms and acted upon them in similar ways.” (2002: 49) . In relation to environmental interpretations and action, Howard-Grenville (2006) shows how the ‘cultural categories’ of different organizational sub-cultures influence interpretations of and responses to environmental signals.

The second limitation is the suggestion that management somehow stands outside of this culture in their ability to manipulate cultural values and practices. In this regard Alvesson (2002) draws attention away from the idea of organizational leaders as cultural engineers, working *on* culture, to focus on leaders as working *within* culture, shaped and constrained by, as well as reproducing and producing, culture.

A broader approach to cultural analysis in corporate responsibility and sustainability research would add greatly to our understanding of the challenges for organizational members in attending to these relatively new agendas. Alvesson (2002) argues that the use of culture studies in organizations to call into question taken-for-granted understandings and dominant ideologies remains underdeveloped. This should extend beyond the boundaries of the firm to consider the wider cultural historical paradigms that frame agendas and issues. In this way environmental problems can be seen as cultural and political issues as well as technical problems (Szerszynski, 1996). As Alvesson (2002) suggests “[i]t is ... not impossible to consider culture as a guideline and a social glue as well as a set of blinders and a collective mental prison. Or a local manifestation as well as reflection of broader societal patterns.” (2002, p. 195). People make sense of the problems they face through reference to “historically anchored cultural ideas” as well as local sensemaking (Alvesson, 2002: 158-159).

Power and politics

One consequence of reifying ‘the organization’ is a neglect of politics and conflict; a unitary view of organizations ignores the lack of consensus, and the multiple interpretations and enactments of issues within organizations (Green, Morton, & New, 2002). In Howard-Grenville’s (2006) study of how organizational sub-cultures can shape interpretations of environmental issues, she points to the relative power of different sub-cultures in influencing action, and rightly argues that power is often not acknowledged in much literature on environmental management.

Ählström and Egels-Zandén (2008) argue that there is a dearth in research on the processes of “inter-organizational negotiations, conflicts and collaborations” that generate

particular definitions of corporate responsibility (2008: 231) – I would also add to this a recognition of processes of *intra*-organizational negotiation over issue interpretation. There may be considerable disagreement and competing knowledge claims in organizations over problem definition and issue interpretation, yet we talk of ‘organizational response’ when viewed from a distance. Organizational actors and functions will differ in their relative power to influence agenda setting and in making a ‘business case’ for certain actions. What counts as ‘evidence’ is open to contestation. As Hoffman and Ventresca put it, examination of how corporate responsibility and sustainability are defined in organizations “lead us to questions of values, norms, politics, and power.” (2002: xxii). This kind of analysis is well established in the field of environmental sociology (e.g. Irwin, 2001; Lash, Szerszynski, & Wynne, 1996). Decision-making over which organizational actors and functions acquire responsibility for corporate responsibility and sustainability is also a political process – as well as being an indication of how the organization is attempting to deal with the natural environment (Fineman, 1997).

The contested character of environmental issues also adds to this political mixing pot. Constructivist approaches to environmental knowledge call attention to the cultural construction of scientific and other institutional knowledges and the contested character of environmental change and risks (Burningham & Cooper, 1999; Burningham & O'Brien, 1994; Irwin, 2001; Szerszynski et al., 1996). However, these debates and consequent challenges for organizational greening appear not to have permeated much of the literature on organizational greening. Where uncertainty or ambiguity is acknowledged this is often understood to be an organizational deficit problem to be rectified by improved information systems rather than a wider feature of debates on environmental change.

Conclusions and Implications

I want to argue that these limitations have significant implications for: (a) expectations and assumptions of change; (b) relevance for practitioners; and (c) approaches to management education for sustainability.

Decontextualized, apolitical accounts that rely on a view of organizations and organizational members as purely rational and instrumental will produce unrealistic expectations and assumptions of the potential and processes of organizational change. Understanding what is required for significant change, beyond attending to 'low hanging fruit' requires a better understanding of the realities of organizations as social systems or networks. There is a need to look beyond overly prescriptive panaceas, the difficulties and limitations of which have been expressed in the more critical organization and management literatures.

These accounts are also potentially problematic in terms of engaging practitioners where assumptions and prescriptions seem to be inconsistent with organizational members' situated experience. From my empirical research in a range of organizations it is clear that many organizational members are keenly aware of the ambiguous and often arbitrary nature of organizational 'reality', and the discrepancies between their 'lived experience' and that of the 'front stage performances' (Law, 1994) that are mobilized in their interactions with external agents. We do them a disservice in representing organizations otherwise.

In my research with organizations in the UK on their engagement with environmental sustainability pressures, organizational members also acknowledge the uncertainty over scientific knowledge, and the many other factors involved in their own decision making over sustainability issues and the political negotiations required, despite their expressed desire for 'more sound evidence'. Furthermore, some contributions to the literature can be seen to reinforced the status

quo by representing organizations as mobilized for action (Stubbs, 2000) – many organizational members are more critically aware than academic contributors appear to be.

In terms of approaches to management education for sustainability, critical management studies scholars argue for approaches that encourage critical reflection on experience, and confronting taken-for-granted assumptions, rather than the teaching of tools and techniques. Reynolds and Vince (2004) aptly argue that:

“a *critical* approach to management education offers support for managers at a time when, as is generally agreed, the uncertainties and moral imperatives that characterize their working context mean that purely instrumental or technical solutions are likely to prove practically inadequate and professionally dissatisfying” (Reynolds et al., 2004: 443).

I am hoping that running through this paper is the notion that much of the published research in corporate responsibility and sustainability presents a picture of organizational life that is quite different from that of the experience of organizational members. Rather than (or as well as) being critical of organizational behaviour, our challenge is to critically engage with organizational members’ experience and understanding *and* to question our own practice as researchers and educators (Reynolds et al., 2004).

Another related challenge is that corporate responsibility and sustainability research should attempt to contribute to reorientation in management and organization studies rather than aligning with or borrowing from its more conservative or mainstream intellectual traditions. According to Kallio and Nordberg (2006) this may currently be a rather remote possibility.

References

- Ählström, J., & Egels-Zandén, N. 2008. The processes of defining corporate responsibility: a study of Swedish garment retailers' responsibility. *Business strategy and the environment*, 17(4): 230-244.
- Ählström, J., Macquet, M., & Richter, U. 2007. The lack of a critical perspective in environmental management research: distortion in the scientific discourse. *Business strategy and the environment*, (early view).
- Alvesson, M. 2002. *Understanding Organizational Culture*. London: Sage.
- Alvesson, M., & Deetz, S. 2000. *Doing critical management research*. London: SAGE.
- Alvesson, M., & Willmott, H. 1996. *Making Sense of Management: A Critical Introduction*. London: Sage Publications.
- Burningham, K., & Cooper, G. 1999. Being constructive: social constructionism and the environment. *Sociology*, 33(2): 297-316.
- Burningham, K., & O'Brien, M. 1994. Global environmental values and local contexts of action. *Sociology*, 28(4): 913-932.
- Daft, R. L., & Weick, K. E. 1984. Toward a model of organizations as interpretation systems. *Academy of Management Review*, 9(2): 284-295.
- DiMaggio, P. J., & Powell, W. W. (Eds.). 1991. *The new institutionalism in organizational analysis*: The University of Chicago Press.
- Fineman, S. 1997. Constructing the green manager. *British Journal of Management*, 8: 31-38.
- Green, K., Morton, B., & New, S. 2002. Greening organisations: purchasing, consumption and innovation. In A. McMeekin, K. Green, M. Tomlinson, & V. Walsh (Eds.), *Innovation by demand: an interdisciplinary approach to the study of demand and its role in innovation*: 129-150. Manchester: Manchester University Press.
- Hoffman, A. 1999. Institutional evolution and change: environmentalism and the U.S. chemical industry. *Academy of Management Journal*, 42(4): 351-371.
- Hoffman, A. J., & Ventresca, M. J. (Eds.). 2002. *Organizations, Policy, and the Natural Environment: Institutional and Strategic Perspectives*. Stanford: Stanford University Press.
- Howard-Grenville, J. A. 2006. Inside the "black box": how organizational culture and subcultures inform interpretations and actions on environmental issues. *Organization & Environment*, 19(1): 46-73.
- Irwin, A. 2001. *Sociology and the environment*. Cambridge: Policy Press.
- Jamison, A. 1996. The shaping of the global environmental agenda: the role of non-governmental organisations. In S. Lash, B. Szerszynski, & B. Wynne (Eds.), *Risk, environment and modernity: towards a new ecology*: 224-245. London: Sage Publications.
- Jarzabkowski, P. 2005. *Strategy as practice: an activity-based view*. London: Sage Publications.
- Jermier, J. M., & Forbes, L. C. 2003. Greening organizations: critical issues. In M. Alvesson, & H. Willmott (Eds.), *Studying management critically*: 157-176. London: Sage.
- Johnson, G., Melin, L., & Whittington, R. 2003. Micro strategy and strategizing: towards an activity-based view. *Journal of Management Studies*, 40: 3-22.
- Johnson, P., & Duberley, J. 2004. *Understanding Management Research*. London: Sage Publications.

- Kallio, T. J., & Nordberg, P. 2006. The evolution of organizations and natural environment discourse: some critical remarks. *Organization & Environment*, 19(4): 439-457.
- Lash, S., Szerszynski, B., & Wynne, B. (Eds.). 1996. *Risk, Environment & Modernity: Towards a New Ecology*. London: Sage Publications.
- Law, J. 1994. *Organizing modernity*. Oxford: Blackwell.
- Meyerson, D., & Martin, J. 1987. Cultural change: an integration of three different views. *Journal of Management Studies*, 24: 623-647.
- Mintzberg, H., & Waters, J. A. 1985. Of strategies, deliberate and emergent. *Strategic Management Journal*, 6: 257-272.
- Newton, T. J. 2002. Creating the new ecological order? Elias and Actor-Network Theory. *Academy of Management Review*, 27(4): 523-540.
- Pettigrew, A. 1990. Longitudinal field research on change: theory and practice. *Organization Science*, 1(3): 267-292.
- Reynolds, M., & Vince, R. 2004. Critical management education and action-based learning: synergies and contradictions. *Academy of Management Learning and Education*, 3(4): 442-456.
- Scott, W. R. 2001. *Institutions and Organizations* (Second ed.). London: Sage Publications.
- Smircich, L. 1983. Concepts of culture and organizational analysis. *Administrative Science Quarterly*, 28: 339-359.
- Starik, M. 2006. In search of relevance and impact: introduction to a special feature on the state of organizations and the natural environment research. *Organization & Environment*, 19(4): 431-438.
- Stubbs, M. 2000. Action, knowledge and business-environment research: a case for grounded constitutive process theories and a sense of audience. *Business Strategy and the Environment*, 9(1): 24-35.
- Szerszynski, B. 1996. On knowing what to do: environmentalism and the modern problematic. In S. Lash, B. Szerszynski, & B. Wynne (Eds.), *Risk, environment and modernity: towards a new ecology*: 104-137. London: Sage Publications.
- Szerszynski, B., Lash, S., & Wynne, B. 1996. Introduction: ecology, realism and the social sciences. In S. Lash, B. Szerszynski, & B. Wynne (Eds.), *Risk, environment and modernity: towards a new ecology*: 1-26. London: Sage Publications.
- Tsoukas, H. 1994. Introduction: from social engineering to reflective action in organizational behaviour. In H. Tsoukas (Ed.), *New thinking in organizational behaviour*: 1-22. Oxford: Butterworth Heinemann.
- Weick, K. E. 1979. *The social psychology of organising*. New York: McGraw-Hill.
- Welford, R. 1997. *Hijacking Environmentalism: Corporate Responses to Sustainable Development*. London: Earthscan Publications.
- Welford, R. 1998. Corporate environmental management, technology and sustainable development: postmodern perspectives and the need for a critical research agenda. *Business strategy and the environment*, 7(1): 1-12.
- Wynne, B., Simmons, P., Waterton, C., Hughes, P., & Shackley, S. 2001. Institutional cultures and the management of global environmental risks in the United Kingdom. In W. C. Clark, J. Jäger, J. van Eijndhoven, & N. M. Dickson (Eds.), *Learning to manage global environmental risks*, Vol. 1. Cambridge, Massachusetts: MIT Press.

