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# Stakeholder Power and Organizational Learning in Corporate Environmental Management

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## Abstract

The literatures on stakeholder engagement by companies and organizational learning give little consideration to the power (or influence) of stakeholders to affect the process or content of organizational learning. These literatures generally assume that common ground between companies and their stakeholders can be established as a prerequisite for learning, that learning is a quasi-autonomous process unaffected by the motives or power of stakeholders, and that actors have the power to fulfil roles that are critical in fostering learning. The paper seeks to address these omissions, examining how and why stakeholder power and organizational learning interact, drawing on comparative case studies of the environmental management practices found in two major companies. The evidence from these cases suggests a complex relationship between the ambition of company goals, the structure of learning, and the influence of stakeholders on the process and outcomes of learning. Exploitative learning routines were effective when stakeholder influences converged, whereas explorative learning took place without convergence but the implementation of this learning was hampered. We suggest that this raises important issues for companies that seek to undertake both exploitative and explorative learning and that future studies of organizational learning should take more explicit account of the effects of stakeholder power.

**Keywords:** environmental management, stakeholders, power and influence, organizational learning

Organization scholars are increasingly interested in the means by which organizations learn and adapt. Organizational learning addresses ways in which information processing affects the behavioural capacities of organizations (Argote 1999; Huber 1991; Miner and Mezias 1996), while the resource-based view of the firm focuses on the competitive advantages obtained through learnt capabilities that are hard to imitate (Barney 1991, 2001; Hart 1995). These perspectives highlight the benefits of organizational knowledge; yet, they often ignore the effects of the distribution of power between stakeholders on organizational learning. It is assumed that stakeholders or actors willingly cooperate to advance the state of organizational knowledge (Clegg 1989; Contu and Willmott 2003; Coopey 1996; Perrow 1986; Phillips et al. 2000; Romme 1999), leading to the notion that organizations only need to have the right mechanisms in place in order to learn. Power is not seen to affect learning and performance.

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Our study addresses the issue of power in relation to organizational learning. We focus on the relationship between the power of stakeholders and types of learning, learning processes and learning roles. And we consider how and why these relationships arise in the corporate environmental management practices in two companies.

Freeman (1984: 46) defines a stakeholder as 'any group or individual who can affect or is affected by the achievement of an organization's objectives'. We use a more restrictive definition of stakeholders as 'individuals or groups who significantly affect an organization's behaviour' (cf. the 'Stanford definition' in Mitchell et al. 1997). This definition implies that organizations have internal stakeholders as well as actors from outside constituencies, acting alone or in constellations. Stakeholder influence occurs when a stakeholder makes another actor behave in ways that (s)he would not otherwise do (Dahl 1957). We share Mintzberg's (1983) view that influence is the equivalent of power, as power that is not exercised is insignificant, and influence is a materialization of power. We studied the influence exerted by stakeholders on learning by business organizations in the context of corporate environmental management. The term 'environment' as used in the paper refers to the natural resources context within which companies operate (Egri and Pinfield 1996), unless it is preceded by adjectives such as 'social' or 'business'. Corporate environmental management concerns the ways companies deal with issues raised by their natural-resources context (Gladwin 1993). Organizational learning occurs when companies increase their behavioural capacities as a consequence of information processing (Huber 1991; Kim 1993).

Our theoretical framework is grounded in the literature on multi-stakeholder cooperation and organizational learning, which we extend by drawing on the literature about power and influence. Our empirical analysis focuses on two companies identified by external stakeholders as environmentally proactive. These companies were otherwise different in terms of their sector of operation, their external stakeholders and their corporate environmental management practices. This implied the possibility of observing different ways of learning.

The paper has five sections. First, we present and discuss theoretical ideas about multi-stakeholder cooperation and organizational learning. This highlights the failure of this literature to take much account of power and its effects on learning. Second, we outline the empirical methods used in our two case studies. In the third section, we describe the two case companies, the ambition of their corporate environmental management practices, their management structures and learning routines, and their main internal and external stakeholders. The evidence from the two cases is compared and related to the literature. Finally, we draw conclusions and provide suggestions for further research.

## **Theoretical Framework**

The corporate environmental management literature spans organizational strategies (Hall and Roome 1996; Hoffman 1997; Kolk and Mauser 2002;

Roome 1992), reporting and auditing (Ball et al. 2000; Gray et al. 1993), management systems (Kolk 2000; Spencer-Cooke 1998), marketing (Elkington 1998; Elkington and Burke 1989; Prakash 2000), corporate relationships with regulators, non-governmental organizations and other stakeholders (Carroll 1996; Hoffman 1997; Stead and Stead 2000; Turcotte and Pasquero 2001), supply chain management (Hart 1995; Wycherley 1999), and research and development (Roome 1994). In the past decade, significant changes have taken place in business practices in these areas. In all these areas, high performance involves organizational learning to process new information, to improve internal structures and approaches, to develop new products, and to adapt the organization to (changing) contexts.

The literature on organizational learning deals with types of learning (Argyris and Schön 1978, 1996; March 1991; Weick and Westley 1996), learning processes (Argote 1999; Huber 1991; Kim 1993), learning curves (Argote 1999), learning paths (Cohen and Levinthal 1990; Cyert and March 1992; Levitt and March 1995; Nelson and Winter 1982), group composition (Argote 1999; Weick and Westley 1996) and learning roles (Nonaka 1996; Senge 1999; Tushman and Nadler 1996). The specific elements of theory we use to frame our discussion of environment-related organizational learning are environmental stakeholder engagement and integration that provide learning spaces in relation to types of organizational learning, learning processes and roles that support learning.

### **Multi-Stakeholder Cooperation and Learning Spaces**

The systemic character of corporate environmental management has been described, which involves knowledge and ideas from a variety of actors in and beyond business organizations (Roome 1994). For example, developing a new product with fewer environmental burdens involves different internal departments (purchasing, production, marketing, and research and development), as well as external constituencies (suppliers, customers and regulators) and environmental interests. Hart (1995) suggests that the concept of product stewardship (i.e. assumed responsibility for products throughout the product chain) involves companies working across the links in the product chain.

Corporate environmental management calls for interaction between actors to resolve different perspectives on issues, options and their outcomes, and to make choices. This notion is not new. Chevalier and Cartwright (1966) describe environmental issues as meta-problems (i.e. interconnected problem sets), where responses to any issue in the set generally affect the set as a whole. Solutions, therefore, need to be devised that address the problem set as a whole, involving *multi-actor cooperation* designed to assess problems, find solutions and evaluate outcomes (Glasbergen 1998; Gray 1989; Hajer 1996; Roome 1994; Turcotte and Pasquero 2001; Westley and Vredenburg 1991). Cooperation of this kind is seen as 'socially contrived mechanisms for collective action' (Hardy and Phillips 1998: 222). Not surprisingly, engagement between companies and other actors [stakeholders] has become an important theme in corporate environmental management literature and

practice (De Bruijn and Tukker 2002; Hart 1995; Roome 1994; Sharma and Vredenburg 1998). It is argued that 'stakeholder engagement' is important for companies to establish social legitimacy (Hoffman 1997; Oliver 1990; Westley and Vredenburg 1991), undertake joint action (Clarke and Roome 1999; De Bruijn and Tukker 2002; Stafford et al. 2000), and for learning by firms and their partners (Roome 1994; Sharma and Vredenburg 1998; Turcotte and Pasquero 2001).

Organizational capabilities that foster cooperation and environmental learning are a critical part of stakeholder engagement (Clarke and Roome 1999). Hart (1995) argues that the ability to integrate inputs from stakeholders is based on previously learnt skills. Clarke and Roome (1999) suggest that learning and action from multi-stakeholder engagement is influenced by a more complex mix of factors, including organizational antecedents, market positioning, technology, access to stakeholder networks, sensitivity to multiple perspectives and ability to facilitate inputs from different internal and external stakeholders.

While some compatibility of stakeholders' objectives is seen as a basis for agreement or consensus on action (Oliver 1990; Phillips et al. 2000), in practice, stakeholders often have divergent interests and objectives (Heugens 2003). Indeed, behavioural theory has long held that organizations consist of multiple parties with conflicting interests (Cohen et al. 1979; Cyert and March 1992; Hickson et al. 1986; Mintzberg 1983; Schein 1996) and that actors with similar interests form coalitions. In the same way, external stakeholders may adopt an antagonistic attitude on the basis of divergent interests (Hardy and Phillips 1998; Pfeffer and Salancik 1978). When clashes of interest arise and continue, problems cannot be solved unambiguously. While the very existence of organizations suggests that working together has an added value that exceeds the negative effects arising from conflicts of interest, these negative effects can undermine organizational effectiveness (Clegg 1989; Perrow 1986). The literature on multi-stakeholder cooperation and learning does not address how common ground between companies and stakeholders is established.

## **Organizational Learning**

### **Types of Learning**

Two different types of learning are commonly discussed in the literature. At one extreme, exploitative learning (March 1991) is the acquisition of new behavioural capacities framed within existing insights. An example is the fine-tuning of existing technology in oil refinery installations to reduce air emissions. Exploitative learning is described in the literature as 'single-loop' (Argyris and Schön 1978, 1996), 'adaptive' (Senge 1990), 'operational' (Coopey 1996), 'first-order' (Fox-Wolfgramm et al. 1998), 'evolutionary', 'frame-taking', 'reactive' (Weick and Westley 1996) and 'incremental' (Miner and Mezias 1996).

At the other extreme, explorative learning (March 1991) occurs when organizations acquire behavioural capacities that differ fundamentally from existing insights. Exploration is about discovery, variation, effectiveness,

flexibility and innovation (March 1991; Weick and Westley 1996). An example is the conception of a new plant using design principles that aim to reduce pollution at source. This type of learning is referred to under labels such as 'double-loop' (Argyris and Schön 1978, 1996), 'generative' (Senge 1990), 'strategic' (Coopey 1996), 'second-order' (Fox-Wolfgramm et al. 1998), 'revolutionary', 'frame-breaking', 'proactive' (Weick and Westley 1996) and 'radical' (Miner and Mezias 1996).

Different (organizational) structures are conducive to different types of learning. Mechanistic structures with tightly coupled relationships between actors foster exploitative learning in stable contexts, while organic structures with loosely coupled relationships are favourable to the occurrence of explorative learning in changing contexts (Burns and Stalker 1961; Hansen et al. 2001; Rowley et al. 2000; Weick and Westley 1996).

### **Learning Processes**

Stages in the process of organizational learning are discussed in the literature. Kim (1993) and Morgan (1997) describe learning as the acquisition, interpretation and implementation of new knowledge, whereas Huber (1991) identifies the acquisition, dissemination, interpretation and storage of new knowledge. We adopt Argote's (1999) view that organizational learning involves three stages: acquisition, sharing and storage. Interpretation is not seen as a discrete stage but more as an activity arising throughout the learning process. Furthermore, implementation is not a necessary element of the process, as learning refers to the evolution of cognitive capacities, which may or may not lead to action.

Organizations acquire information in different ways: through 'experiential learning' (Huber 1991), 'learning by doing' (Argote 1999; Levitt and March 1995), or 'trial-and-error learning' (Miner and Mezias 1996). New knowledge can be created through experiments or introspection (Miner and Mezias 1996). Organizations also learn 'vicariously' by picking up information from external sources (Huber 1991; Miner and Mezias 1996), for example by adopting technical solutions practised by competitors or advised by regulators. Frequent repetition of activities leads to acquisition of tacit knowledge.

Information is often filtered in search processes because available information exceeds the information-processing capacity of the firm, leading to 'satisficing behaviour' rather than the pursuit of comprehensive solutions to problems based on full knowledge of issues, options and outcomes (Bazerman 1997; Lindblom 1959; Simon 1976, 1991).

Sharing information serves two purposes. Individuals or departments need information acquired by others (Simon 1973) to help formulate responses to problems that affect the larger organization. This is more necessary for the systemic issues, which characterize corporate environmental management. Second, local knowledge, relevant or adaptable to other settings, does not have to be reinvented (Von Hippel 1994). Information and knowledge can be shared through face-to-face communication, with the aid of technology (Argote 1999; Nonaka 1996; Romme and Dillen 1997), or through the distribution of documents (Argote 1999; Romme and Dillen 1997). Knowledge is

also embodied in technology (Argote 1999), in physical and organizational structures (Argote 1999; Romme and Dillen 1997), or routines as repetitive patterns of activity (Cohen and Bacdayan 1996; Nelson and Winter 1982; Romme and Dillen 1997; Weick and Westley 1996).

New information is stored in personal memory (Argote 1999; Huber 1991; Nelson and Winter 1982; Simon 1991), documentation (Levitt and March 1996), technological appliances (Argote 1999; Huber 1991; Levitt and March 1996), embodied in physical or organizational structures (Argote 1999; Levitt and March 1996), or routines, which constitute standardized operational solutions (Argote 1999; Cohen and Bacdayan 1996; Huber 1991; Levitt and March 1996; Nelson and Winter 1982).

The reasons why actors do not share information include the time taken for communication that could be devoted to other tasks (Hansen et al. 2001) and the loss of valuable resources through sharing (Argote 1999; Barney 1991). Learning processes are generally assumed to be quasi-automatic and the literature does not question *why* organizational members would identify problems and engage in learning (Huber 1991; Morgan 1997), or why actors would wish to share information (Hargadon and Sutton 1997).

### **Learning Roles**

Attention has focused on the facilitation of learning through the performance of specific roles. Nonaka (1996) identifies three learning roles in knowledge-creating companies. Front-line employees create knowledge through their detailed know-how of particular technologies, products or markets. Middle managers collect and examine information from different sources and build bridges between senior managers and front-line employees. Senior managers provide the normative setting in which activities take place, designing standards and crafting strategies.

Senge (1999) distinguishes three types of leadership roles in organizational learning and change. Local line leaders apply new ideas or practices and are accountable for direct results. Internal networkers or community builders are embedded in organization-wide communication networks. They actively diffuse new solutions. The access of networkers to local and executive levels is important in creating an organization-wide basis for new ideas and practices. Executive leaders provide organizational space for learning and innovation, setting normative frames, providing moral support, guiding change processes and allocating financial resources.

Tushman and Nadler (1996) identify four roles critical to innovation as a learning process: idea generators, who combine technologies, markets and products in creative ways and whose ideas constitute conceptual breakthroughs; internal entrepreneurs or champions, who apply these ideas to practical settings; boundary spanners or gatekeepers, who link (local) information and knowledge by translating and disseminating information throughout the organization; and sponsors or mentors, senior managers who stimulate and protect new ideas and provide the resources needed to develop innovations.

These typologies suggest similar roles: bringing forward practical experience and/or responsibility for applying new knowledge; connecting pockets

of knowledge, translating and disseminating knowledge through networks; and sponsoring or fostering knowledge creation by crafting strategies and allocating the necessary resources. In addition, Tushman and Nadler identify idea generators, which has no equivalent in other typologies. Similar roles have been identified in the development of knowledge and innovation for corporate environmental management, although this work carries the proviso that the systemic character of environmental issues requires engagement of a far wider range of internal and external actors, with more divergent interests and motives than other areas of practice. This, in turn, requires well-developed capabilities to connect actors in collaboration (Roome 2001).

In this study, we adopted Tushman and Nadler's typology of idea generators, internal entrepreneurs, boundary spanners and sponsors. These roles in the learning process connect with the stages in organizational learning identified earlier. Knowledge is obtained through inferential learning or reflection of (internal or external) idea generators and the experiential learning of internal entrepreneurs. Knowledge is accumulated — across and within the organization's boundaries — through vicarious learning by boundary spanners, which they or others then disseminate. This is stored in the technology, architecture or routines used in the organization. Sponsors provide the space and resources to foster this process.

Different resources underlie various types of power: operational power is the ability of employees (not) to implement decisions (Clegg 1989; Pfeffer 1992; Valley and Thompson 1998); informational power stems from the possession of valuable knowledge (Burt 1998; DiMaggio and Powell 1983; French and Raven 1968; Messick and Ohme 1998); economic power relates to financial or other economic resources (French and Raven 1968; Mintzberg 1983; Mitchell et al. 1997; Pfeffer and Salancik 1978); and social power is based on social norms and values (DiMaggio and Powell 1983; French and Raven 1968; Messick and Ohme 1998; Mitchell et al. 1997). An uneven distribution of resources leads to a mix of influential and less influential actors (Hardy and Phillips 1998; Mintzberg 1983; Oliver 1990; Pfeffer and Salancik 1978; Phillips et al. 2000).

Apart from the work by Contu and Willmott (2003), Coopey (1996) and Romme (1999), the literature on learning assumes that stakeholders have power sufficient to perform their roles. Where the effects of power are considered, this tends to focus on actors within organizations with at least some sense of common organizational purpose. In the case of corporate environmental management and its systemic character, a wider set of stakeholders are potentially involved in contributing to learning within companies. Our empirical study was framed to consider the relationship between learning types, processes and roles, and the power of stakeholders.

## **Empirical Method**

Our study was based on case studies of two major companies based in the Netherlands. The case study method enabled us to address questions of 'why'

and 'how' (Yin 1994). It also provided a basis for identifying, interrelating and contextualizing multiple conjunctural causal factors (March 1979; Ragin 1987) and enabled observation of the dynamics of unfolding processes (Simon 1991). These characteristics were important, given our investigation focused on learning as process evolving through the interaction of a variety of actors.

The companies produced physical goods, in the chemical industry and the food sector. They are referred to as Chemical and Food to provide anonymity. The companies were selected because they were regarded by outside commentators as environmentally proactive organizations. We expected to find evidence of relatively advanced corporate environmental management practices, stakeholder engagement and accompanying learning processes. The companies operated in different sectors and had different environmental objectives. Access was made possible through members of the Management Team (MT) of each company. They were asked to identify the central actors (i.e. the persons who play a pivotal role in the management of corporate environmental issues). At Chemical, this was the head of the staff department of Environment, Safety and Health (ESH); at Food, it was the corporate environmental coordinator. At Chemical, we analysed the whole company. At Food, the analytical unit was the corporation.

The metaphor of organizational learning is a difficult construct to operationalize. In directly productive settings, learning can be assessed by charting progress on a 'learning curve' (Argote 1999). Similarly, innovation can be measured in terms of patents or new products brought to market. However, learning in corporate environmental management involves many actors and has many possible manifestations, and our focal organizations operated in different industries and faced different environmental challenges. Learning as performance was, therefore, related to the environmental objectives set out by each company in their mission statement. At Chemical, this was environmental performance beyond regulative compliance, and we studied the company's compliance record and activities that were not required by law. Food's mission was environmental sustainability, which we studied in terms of environmental measures by the company as well as the organization's quantified performance regarding different aspects of sustainability.

The construct of power was operationalized by determining which internal and external stakeholders were perceived as important by the central actors in each company (Pfeffer and Salancik 1978), using a scale ranging from 'slightly' to 'very' important. We assessed the nature of the resources (such as formal authority, information, or implementation capacity) of these stakeholders, together with the demands they expressed or expectations they held, and the focal organizations' responsiveness to these demands and expectations.

Data sources involved interviews, secondary sources and field impressions. Semi-structured interviews were held with the central actors to identify critical stakeholders and gain a qualitative guide to the nature and strength of the influence of these stakeholders in shaping company decisions with regard to the management of environmental issues. A 'snowballing' (Simon and Burstein 1985) or 'names generators' (Angot and Jossierand 1999) method

identified the network of major internal and external stakeholders. The most influential stakeholders were then interviewed using semi-structured interviews to find out how they characterized their relationships with the central actors. Interviews with the different stakeholders allowed for source triangulation by comparing statements from different respondents (Miles and Huberman 1994; Yin 1994). This was supported by a search of documentary and other information.

In total, 11 persons were interviewed in the Chemical case: the two central actors, four other internal stakeholders and five external stakeholders; eight persons were interviewed in the Food case: the central actor, four other internal stakeholders and three external stakeholders. Interviews ranged from 0.75 to 2.5 hours. If possible, interviews were tape-recorded and transcribed. Reports not tape-recorded were sent to the interviewees for verification.

Secondary sources included annual financial reports, annual environmental reports, annual overviews of activities, government policies, periodicals, public relations brochures, an environmental covenant between government and industry, and organization charts. In total, 34 documents were used for Chemical and 27 for Food. Visits were made to the production sites of both organizations. The interview reports and other information were analysed by the researchers involved. The case descriptions are reported in the following sections. Unless indicated otherwise, these relate to the situation in 1999.

## **Corporate Environmental Management and Stakeholders**

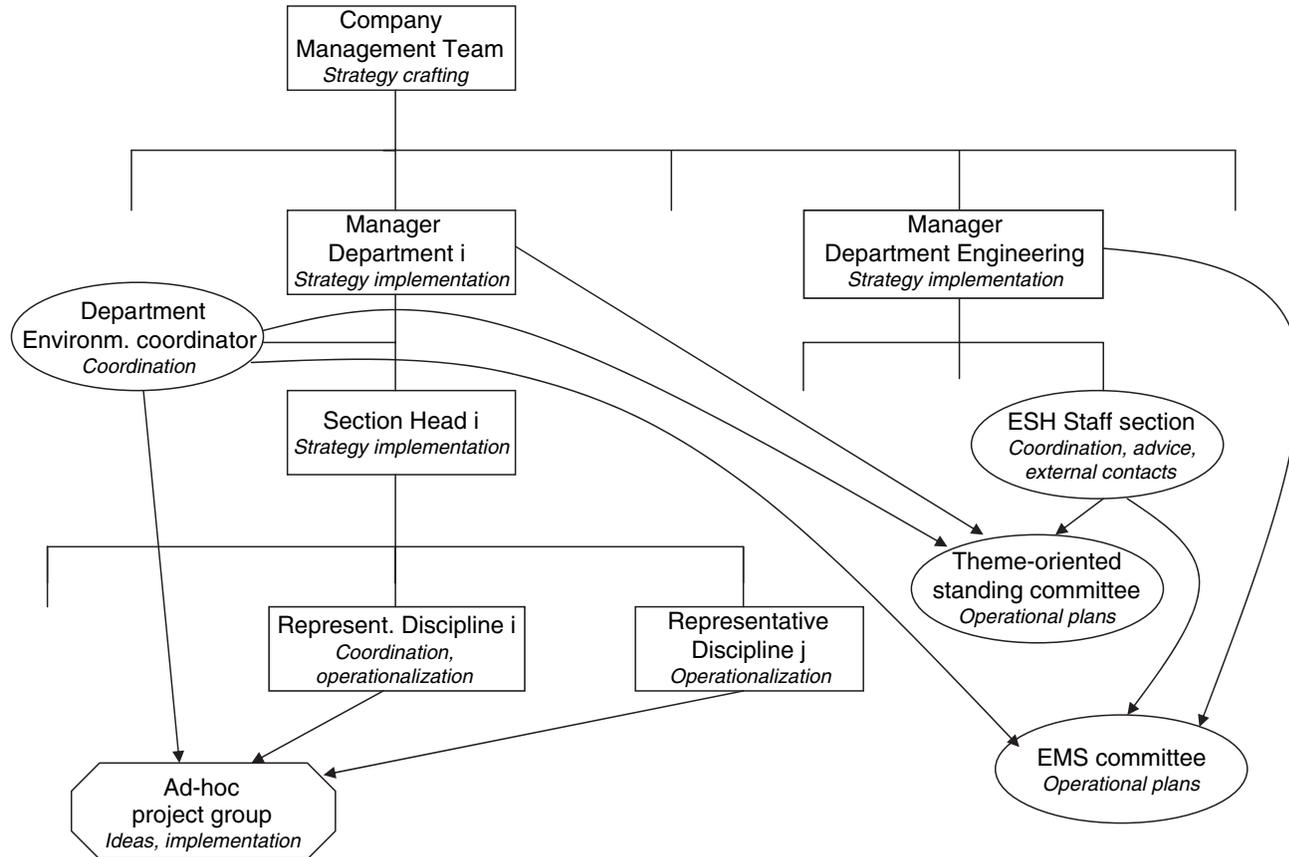
In this section, we describe the background to each company, the corporate environmental management structure, and the main internal and external stakeholders — highlighted in italics — identified by the central actors at both companies.

### **Chemical's Environmental Management Practices and Internal Stakeholders**

Chemical was founded by a publicly owned non-European parent company several decades ago. In the Netherlands, 1500 employees manufacture chemical products, mainly for the consumer market but also for professional purposes. Chemicals are sourced from all over the world and used to produce a small range of final products. Chemical located in the Netherlands in order to take advantage of the quality of a natural-resource input critical to its production processes. Several physically and organizationally separate production lines are situated at the site. Each production line manufactures relatively homogeneous products. The production lines share common functions, including purchasing, marketing, personnel, engineering, research, and environment, safety and health. Virtually all of Chemical's products are marketed outside the Netherlands.

Chemical was obliged to acquire ISO 14001, the standard environmental management system (EMS), by its parent company to ensure compliance with

Figure 1. Environmental Management Structure of Chemical



environmental regulations, support continued improvement in environmental performance, and satisfy present and future expectations. All departments are affected by certification. Chemical's ambition is to exceed regulatory compliance, although the company first wants to secure regulatory compliance and ensure its economic viability. This ambition is shared throughout the company. Chemical wants to be seen as a clean company, without major environmental problems.

After initially failing to acquire ISO certification, the company employed the help of a consultancy firm. The certified EMS includes performance targets that are reasonably achievable. Chemical follows its parent company's highly formalized organizational structure and strong attention to risk minimization. It has an extensive set of manuals specifying environmental procedures and protocols. Chemical is party to several environmental covenants that bind it to negotiated environmental targets agreed with the government, including one involving the national chemical industry.

Chemical's environmental management structure is shown in Figure 1. The MT has extensive formal power and is headed by a non-Dutch representative of the parent company. Other MT members represent functional areas, such as a production unit, personnel and engineering. The MT sets environmental objectives, which focus on critical environmental themes, such as noise, effluent water and solid waste.

The engineering department controls the *ESH staff section*, which provides environmental advice to the MT. The head of ESH and the company's environmental coordinator acquire and filter information from external environmental contacts and internal sources. The company has a closed — or at least controlled — position towards the outside world. Most employees have no direct external contacts. In communications, ESH representatives express a preference for certainties (for example, unambiguous permits, even though this might decrease the company's room for manoeuvre). ESH scans external environmental information and issues relevant to the company. They closely monitor developing and new legislation through government publications and periodicals of trade and employers' associations. They participate in a forum involving organizations in the same industrial zone, municipal officers, local politicians and environmental staff from other chemical companies.

Theme-oriented standing committees act on environmental objectives formulated by the MT. Each committee is chaired by an *MT representative* (perceived as very important by the central actor), and involves an ESH representative and *delegates from all departments* concerned with the environmental theme at hand (regarded as quite important). The committees formulate operational plans, which are guided by the use of a stakeholder-weighting technique, devised for the company by consultants.

The relevant operating departments implement operational plans. Departmental coordinators, backed by their departmental heads, communicate operational plans to each section (i.e. subdepartment) head. Section heads routinely appoint 'problem owners', responsible for resolving specific operational problems. Problem owners come together in ad hoc project groups drawn from one or several departments. They have the required expertise to

realize the operational objectives set by the standing committees. These ad hoc groups reflect on possible solutions, which tend to be based on previously acquired experiences or drawn from other parts of the organization. The most favoured solutions and their financial implications are communicated to the standing committee for approval. Once approval has been granted, resources are allocated to realize the solutions.

Activities required by the formal EMS are organized through similar routines. All of Chemical's environment-related processes are consistent with the expectations of its parent company for clear, formal structures and routines based on extensive documentation and intensive internal communication to identify problems, exchange knowledge, ideas and solutions, and allocate resources.

Chemical has implemented many technical changes for environmental reasons. These include an extensive registration of the substances it uses, changes in its production process to replace toxic substances, and more sparing use of the natural resource on which it relies. Chemical has a record of good housekeeping, application of total energy management, use of a biological air purification filter, in-house pre-processing of effluent water, prevention and recycling of solid waste, and acoustic insulation. Chemical's overall environmental performance has improved progressively, in some areas sharply. Over the last few years, the company's air emissions, solid waste and effluent water have decreased, while its energy efficiency has improved. Compliance with environmental regulations is ensured in all areas, with occasional and minor exceptions.

### **Chemical's External Stakeholders**

Chemical's major external stakeholders are set out in Table 1. This table identifies external environmental stakeholders and the basis for their interaction with the company as seen by the central actors, together with the stakeholders' perception of this interaction. Chemical regards *local governmental bodies and other local regulators* as its most important external stakeholders. Their importance stems from Chemical's commitment to comply with prevailing regulations set out in four separate permits, pertaining to air emissions, effluent water, solid waste, noise, energy efficiency, and the use of a critical natural resource. Local authorities use the ALARA (as-low-as-reasonably-achievable) principle, in order to avoid costly measures that challenge existing business. Permits are reviewed periodically and have become increasingly stringent with regard to resource efficiency and maximum emission levels. Local regulators argue that Chemical makes significant claims on their time and wants to rule out any uncertainty that a new environmental permit might engender. This leads to greater regulative security, yet reduces the company's room to manoeuvre or innovate with new environmental practices. Once a new permit has been obtained, Chemical tends to interpret it in its own way without further communication with the regulator. Some emissions also involve significant government-imposed charges, which vary with the level of emission. Chemical seeks to reduce emissions and charges through internal technical measures,

Table 1. Chemical's External Environmental Stakeholders

Stakeholder	Basis for interaction	Stakeholder perception	Additional observations
Local regulators	<ul style="list-style-type: none"> <li>• Permit to exploit the natural resource used in its processes</li> <li>• Permit for noise</li> <li>• Permit for air emissions, solid waste, and energy efficiency</li> <li>• Permit for effluent water</li> </ul>	<ul style="list-style-type: none"> <li>• Company is proactive</li> <li>• Chemical implements too much according to its own interpretation</li> <li>• Chemical makes excessive claims on their time, yet creates too rigid a structure for itself</li> </ul>	<ul style="list-style-type: none"> <li>• Permits become increasingly restrictive at periodic reviews</li> <li>• Chemical's technical practices are influenced by the level of levies on waste</li> <li>• Obtaining permit requires intensive consultations with government</li> </ul>
Chemical trade association	<ul style="list-style-type: none"> <li>• Head of ESH is a member of several of the association's working groups</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical is regarded as a recent and active member</li> </ul>	<ul style="list-style-type: none"> <li>• Association uses networks with chemical companies for technical and legal information exchange</li> <li>• Groups review environmental problems and may provide creative solutions</li> </ul>
National employers' association	<ul style="list-style-type: none"> <li>• Head of ESH is a member of several of the association's working groups</li> </ul>	<ul style="list-style-type: none"> <li>• Chemical is a good, active member</li> </ul>	<ul style="list-style-type: none"> <li>• The purpose of these groups is to align all employers, nationwide and across all sectors</li> </ul>

for example by pre-processing effluent water. Representatives of the local government and other regulators (such as the Water Board) indicate that Chemical generally complies well with its regulations. They regard Chemical as a well-performing company.

Chemical recently became a member of the *national chemical trade association*, which it regards as a slightly important stakeholder. The association was a party to the 1993 chemical industry covenant, which set voluntary emission-reduction objectives between the industry and the national government. The association oversees the covenant and exerts pressure on companies to ensure their contribution to industry-wide performance. Chemical complies with the covenant. The company is an active member of several of the trade association's working groups, which exchange information on 'best practices' for pollution prevention and emission control. The trade association's network also gives advice on company-specific technical, legal or organizational problems.

The aims of the — quite important — *national employers' association* are to align the objectives and positions of Dutch employers, regardless of the industry, on nationally relevant issues such as tax reforms with environmental implications. The national association is party to several environmental covenants, including packaging and energy benchmarking. Chemical is an active member of this association: it has joined national covenant schemes

and participates in several working groups. Environmental information is exchanged through the association's member network.

### **Food's Environmental Management Practices and Internal Stakeholders**

A Dutch family established Food a century ago. Members of the original family are the main shareholders. The company manufactures and markets branded food products to domestic consumers. Food has more than 20 subsidiaries on four continents. The corporate headquarters and several subsidiaries are based in the Netherlands. Food recently took over a number of other food companies. It employs over 1000 people in the Netherlands and twice this number in other countries.

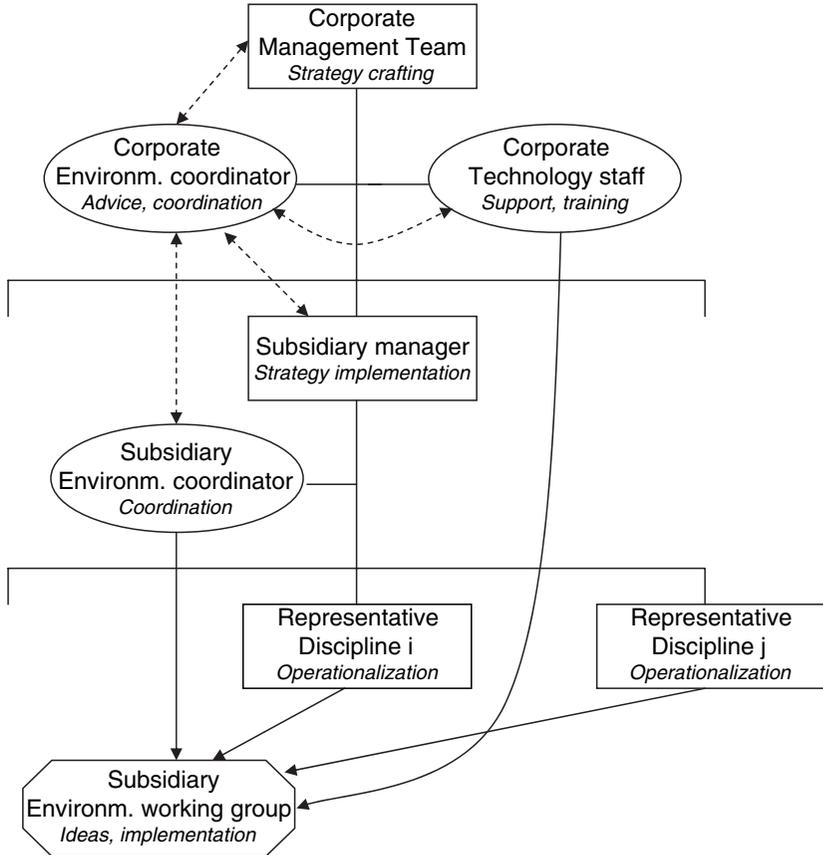
Food has a strong environmental commitment inspired by its present CEO, a member of the owning family. The commitment to environmental sustainability is defined as the absence of or compensation for the company's (negative) environmental impacts. This is a core corporate value. Food aims to achieve this ambition by the year 2005. A number of individuals in top and middle management actively foster this sustainability value. They have to motivate a larger majority of benevolent but passive employees to embrace this value, while taking account of a small resistant minority. While employees in all departments and positions accept environmental concerns, the sustainability ambition is not evenly shared throughout the organization. The highest commitment is at the top of the organization rather than at the operational level. Support from staff positions is more active than in line functions, and the offices are more intensely involved than the factories.

The commitment to environmental sustainability and its 'stretch targets', together with some real environmental improvements, has given the outside world an excellent image of Food's environmental position. The company is very open to contacts with a range of external interests. These are maintained at different levels. There is an openness to communicate externally throughout the organization. Communications are informal, with numerous face-to-face meetings, while there is little use of documentation.

Food's corporate environmental management structure is shown in Figure 2. The corporate MT is the highest decision-making authority. The CEO is regarded as a crucial actor. He is the company's foremost environmental champion, admired for his value-driven leadership by many internal and external constituencies. He is strongly motivated by a personal, religiously inspired commitment to nature conservation. Environmental sustainability was explicitly incorporated into the company's mission statement as a core value on his insistence. The CEO regularly launches strategic environmental initiatives and uses his formal power to create new staff functions to support the environmental ambition. Other members of Food's MT have charge of functional domains (such as manufacturing and human resources) and geographical areas (such as Europe and the Americas). The MT determines corporate strategies, including that for the environment.

The *corporate environmental coordinator* and two assistants advise the corporate MT. They take initiatives to promote the company's environmental

Figure 2.  
Environmental  
Management  
Structure of Food



values in a uniform way. The coordinator's work is steered by the CEO to ensure consistent messages. The corporate environmental coordinator has excellent external contacts with national government, environmental pressure groups and universities. He has been actively involved in strategic issues, such as the conception of a company-wide EMS and reflections on the significance of corporate environmental sustainability for the company. A technical support unit is in charge of setting corporate environmental standards, contributing to environmentally benign solutions and setting up a company-wide environmental database. *Corporate technical staff members* are considered to be slightly important.

Food's subsidiaries operate worldwide. The corporate environmental coordinator has regular contacts with subsidiaries in order to communicate corporate objectives. Performance-related pay for the company's general managers is partly dependent on environmental performance. General managers are in charge of implementing corporate strategies. They delegate environmental affairs to *subsidiary environmental coordinators*, who are regarded as quite important. They carry out this activity in addition to their 'ordinary' production-related tasks. Subsidiary environmental coordinators

are in charge of operational contacts with local government regulators needed to obtain environmental permits. They also lead environmental project groups, which consist of representatives of the functional areas of the subsidiary involved, a member of the corporate technical staff and an outside consultant. At present, environmental initiatives are taken on an ad hoc basis. The project groups are not (yet) fully operational because they face competing time claims, especially to meet short-term production targets. The envisaged *modus operandi* of environmental project groups is to brainstorm problems defined higher up in the organization. Proposed solutions are then based on experiences elsewhere in the subsidiary, in other subsidiaries of Food, or outside the company (through the input of outside consultants). The best ideas that come forward are explored in greater detail, and — if retained — submitted to higher levels for financial endorsement.

Food operates a quality management system to the standard of ISO 9000. It intends to set up a formal EMS (such as ISO 14001) along the same lines. The current absence of a formal system is consistent with the non-systematic approach towards environmental issues at Food and the founding family's attitude towards organizing the business as a whole. The lack of such a system and the limited human resources for environmental management are also partly related to the adverse market conditions in some markets in which Food operates.

Food has undertaken a number of significant internal environmental initiatives. These include installation of solar panels and wind turbines, purification and recycling of effluent water, use of surface water for cooling purposes, a green office plan (including the use of recycled paper and LPG for company-owned cars), separation and recycling of solid waste, use of thinner packaging materials and promotion of environmental awareness. The company is engaged in reforestation projects to compensate for its carbon dioxide emissions. On the other hand, Food has a high waste production rate, and its housekeeping leaves considerable room for improvement.

Food uses an assessment system to measure its environmental performance in line with its ambition for environmental sustainability. This is based on quantitative yardsticks for issues such as carbon dioxide emissions, acidification, water consumption, effluent water and solid waste. These yardsticks measure the performance at every subsidiary. The assessment system was developed for Food by external consultants. Over the last decade, Food's aggregate environmental impact measured by this tool has fallen by 50 percent, though the company is still a long way from its own target of zero impact by 2005.

### **Food's External Stakeholders**

Food's most significant external environmental stakeholders identified by the central actor are represented in Table 2. Food regards the *national government* as a very important stakeholder because it sets the Dutch national environmental policy and standards. Food wants to maintain good communication with the government, as it shares an interest in bringing about a transition to

Table 2. Food's External Environmental Stakeholders

Stakeholder	Basis for interaction	Stakeholder perception	Additional observations
National government	<ul style="list-style-type: none"> <li>Collective learning on sustainable development through joint reflection</li> </ul>	<ul style="list-style-type: none"> <li>Food is considered a beyond-compliance partner with shared ambitions</li> </ul>	<ul style="list-style-type: none"> <li>Ideas are exchanged in an open atmosphere</li> <li>Outcomes are not directly applicable</li> </ul>
Transport companies	<ul style="list-style-type: none"> <li>Greening the distribution chain of Food's products</li> </ul>	<ul style="list-style-type: none"> <li>The company is seen as environmentally conscious</li> </ul>	<ul style="list-style-type: none"> <li>Food initiates new ideas, but transporters are reluctant to join</li> </ul>
Environmental pressure groups (NGOs)	<ul style="list-style-type: none"> <li>Societal awareness of sustainability issues</li> <li>Donation of Food to NGO projects</li> </ul>	<ul style="list-style-type: none"> <li>Food is recognized for its environmental leadership</li> </ul>	<ul style="list-style-type: none"> <li>Food maintains this relation to maintain a good public image, not to learn from the NGOs</li> </ul>

sustainable development. Food views this as a partnership through which the company and government can learn. For example, the company participates in a government–business platform that addresses the concept of industrial environmental sustainability. This platform has regular, open brainstorming sessions, in which participants from different industries try to translate the notion of sustainability into their respective business contexts. Food sees this as a very important way to obtain new concepts and ideas. A representative of the national government indicates that Food is a particularly proactive company in its work and its involvement with the platform.

In its supply-chain, Food perceives the *transport companies* it contracts as slightly important because of the contribution of product distribution to the overall environmental impact of Food's products. Transport companies are not only involved in distribution, but also in storage and order picking. Food sees many possibilities for bringing about environmental and economic gains through improved logistics. Food's environmental ambitions are acknowledged by a major carrier, who nevertheless indicates that distribution is driven by logistical considerations and the need to ensure product availability at sales outlets. This can lead to partial truckloads of products.

Food sees *environmental pressure groups* as having slight importance. Their role as custodians of social interests and values and potential to generate negative publicity through campaigns is recognized. Food maintains open relations with a variety of environmental pressure groups and contributes financially to their projects. Yet, the company regards these groups as reactive and lacking creative ideas about innovative business practices. These groups do not contribute to the implementation of Food's sustainability objective. Indeed, a regional environmental group considers Food to be an absolute front-runner in environmental sustainability, an example to business as a whole.

## Discussion

Comparison of the two companies is complicated by the fact that Chemical was analysed at the company level, whereas Food was observed at the corporate level. Nevertheless, the cases provide evidence of the complex relationship between organizational learning and stakeholder power. We follow the structure of the earlier theoretical section to discuss our findings on multi-stakeholder cooperation and learning spaces as well as different aspects of organizational learning (types, processes and roles).

### Multi-Stakeholder Cooperation and Learning Spaces

Chemical's objective of environmental performance beyond regulative compliance leads it to measure its performance against precise targets, set on the basis of regulatory standards from the local authorities — after consultation with company representatives — and beyond-compliance targets determined by the MT. Internal and external stakeholders do not question these targets once they are set. New environmental targets are brought forward through routine procedures, which meet the parent company's ambition to control for environmental risk. Standing, theme-oriented committees, consisting of representatives from different organizational levels and departments, agree upon the best ways to operationalize the strategic targets. When these committees have reached agreement, they are implemented in the different departments, where 'problem owners' are appointed to meet further environmental challenges. Outcomes are fed back to standing committees to enable information sharing with other departments. When internal solutions cannot be found, Chemical turns to external working groups of the chemical and national trade associations. Some external stakeholders criticize Chemical for a perceived lack of communication, but all agree that the company is proactive and acts beyond compliance. Chemical recognizes the systemic nature of environmental issues and operates established routines through which the interests of different stakeholders are channelled. There is a relatively high degree of cooperation among stakeholders, whose inputs are required to realize the corporate environmental mission. This has led to good performance within a tightly defined framework.

Food's ambition to become an environmentally sustainable business is conceptually clear. This objective was not formulated under external pressure, but is the CEO's personal conviction and has been adopted by Food's MT. While top management commitment to this ambition exists, it is not uniformly shared at lower levels, especially in production units. This lack of commitment can be explained by a perceived lack of necessity and the conflict between priorities. Food is searching for ways to translate its ambition into reality. While it has clear (stretch) targets, it lacks the means to achieve them. The CEO has taken the lead in constituting a corporate staff group to search for solutions that meet the company's environmental objective, but the organization lacks an acknowledged, routine corporate environmental management structure. Working groups are not institutionalized and convene on an ad hoc basis. Consequently, there is a lack of routines for sharing information and

coordinating actions. One external stakeholder contributes to the achievement of industrial sustainability by sharing knowledge at an advanced level, but the company does not actively cooperate by learning explicitly with other outside actors. Stakeholders are vested with power as a result of the company's ambition. Yet, this ambition is hampered by the lack of a routine structure through which to implement change. This can be understood against the (historical) backdrop of the attitude of the owning family towards conducting business. While Food has made important progress towards achieving sustainable business, it lacks sufficient common ground and cooperation to resolve certain environmental challenges, including high waste production. These findings suggest that convergence of stakeholder interests is crucial in effective learning and action. Divergent interests among (internal) actors has been addressed in the literature (Cohen et al. 1979; Cyert and March 1992; Hickson et al. 1986; Mintzberg 1983; Schein 1996), as has the necessity of securing the resources provided by crucial (external) actors (Pfeffer and Salancik 1978) and the need to achieve cooperative platforms (Glasbergen 1998; Gray 1989; Hajer 1996; Hart 1995; Roome 1994; Sharma and Vredenburg 1998; Turcotte and Pasquero 2001; Westley and Vredenburg 1991). Yet, the literature has too easily assumed that convergence of stakeholders' interests can be attained. Moreover, the possibility that stakeholder power is influenced by company ambition and routine has not been addressed.

### **Organizational Learning at Chemical and Food**

Learning at Chemical focuses on performance beyond regulatory compliance, although this ambition is pursued within existing frames of reference. Environmental initiatives involve the adaptation of existing practices, through efficiency measures, good housekeeping, total energy management and pre-processing of effluent water. The company is engaged in exploitative learning.

Chemical's environmental management is highly structured, with well-established routines, extensive written communication and frequent official meetings. Its parent company considers such a structure as the key to risk management and continuous improvement. Strategic decisions of the MT are effected through similar routines. Internal stakeholders are committed to these routines and cooperate willingly. External relations are also highly structured. Membership of working groups of chemical and national trade associations is largely geared towards obtaining operational information through established structures.

Learning at Food centres on environmental sustainability. The company has made important progress over the last decade through efficiency-related measures (including fewer packaging materials and recycling of effluent water) and highly visible initiatives (such as the generation of renewable electricity and reforestation projects). Yet, the company realizes that present gains in performance will not meet its zero-environmental-impact objective for 2005. Food searches for conceptual insights outside existing frames, particularly through its contacts with the national government and companies in other industries. The company learns exploratively.

Food's environmental management is relatively loosely structured. Strategic decisions are communicated to lower levels, to be implemented according to their own insights. There are no company-wide committees or working groups to operationalize strategic decisions. Food does not have a formal management system or routinized approach, because the family owners adopted a relatively informal approach in their running of the company. Initiatives tend to be ad hoc. There is no company-wide commitment to established environmental targets, and a certain degree of resistance or indifference is encountered, especially at operational levels. Food has regular contacts with the national government, but not with other external stakeholders. The company does not seek to structure or control outside contacts, which are often informal in nature.

With respect to learning roles, these are well defined at Chemical. The MT fulfils a sponsor role, establishing proactive objectives, setting up theme-oriented committees and providing ample financial, technical and human resources to implement environmental targets. The ESH department uses routines to provide a boundary-spanning capability. Project groups act as internal entrepreneurs. Ideas are generated by this group but within conventional frames, consistent with the exploitative nature of Chemical's learning. Learning roles rely less on individuals and more on routines and surrounding team structure.

At Food, the CEO acts as a sponsor through his moral and formal support. The corporate environmental coordinator takes on the role of boundary spanner through his contacts with external stakeholders and his function as information broker between the corporate and subsidiary levels. The external platform set up by the government acts as an idea generator, providing innovative ideas about the concept of corporate environmental sustainability. The role of internal entrepreneur was less clear. At Food, learning roles rely strongly on individuals and operate within a rather ad hoc management structure.

Nonaka (1996), Senge (1999) and Tushman and Nadler (1996) agree that learning roles should be well connected. The routines at Chemical provide this connection, whereas it is based more on interpersonal networks at Food. Apart from this interconnectedness, power is also important. The stakeholders that fulfil major learning roles all have power bases (such as formal authority, knowledge and implementation capacity) to which others are sensitive. Learning appears effective if actors playing critical roles have the power necessary for these roles, as evidenced by Chemical. If the power base of stakeholders is weak or if critical actors use their power to resist, learning is hampered. These aspects are insufficiently addressed in the literature.

Our findings suggest that Chemical's highly formalized routines are compatible with exploitative learning. By contrast, Food's loose management structure is positively related to explorative learning. This difference seems to stem from the ambitions set for environmental management in each company. These outcomes indicate how organizational ambitions affect the type of organizational learning, and the power and motivation of stakeholders. All its major, powerful stakeholders support Chemical's exploitative learning.

Food's ambition and stretch targets support explorative learning, which meets with resistance at operational levels. Learning is not initiated and performed quasi-automatically, as assumed in the literature (Huber 1991; Morgan 1997). While the importance of shared norms and commitment is recognized (Hargadon and Sutton 1997; Senge 1990), learning is contingent on the willingness of critical actors to contribute their knowledge. Interestingly, Food's ambition has vested some stakeholders with greater influence and failed to motivate others to engage, through their indifference or conflicting priorities.

### **Types of Learning and Stakeholder Power**

One of the key observations of our study was that the two case companies engaged in fundamentally different types of learning for power-related reasons. The literature identified previously discusses the relationship between learning types — exploitative and explorative — and organizational structures. Exploitative learning arises within tightly coupled relationships, where routinized learning occurs with established actors, whereas explorative learning occurs in more loosely coupled networks of dissimilar actors (Burns and Stalker 1961; Hansen et al. 2001; Rowley et al. 2000; Weick and Westley 1996). However, the literature says little about why type of learning and stakeholder power interact.

The learning types and organizational structures found at Chemical and Food conform to theory. Chemical engages in exploitative learning and it has a highly formal and closed organizational system to identify and prioritize stakeholders. The company interacts with key environmental stakeholders, scanning for emerging environmental issues and initiating responses in a structured way; it thereby draws mainly on internal sources. This is based on explicit routines and controlled responses. Stakeholder inputs converge around the establishment of environmental demands on the company, while the search for solutions to improve the company's environmental performance is progressive, incremental and mainly internal. Food, by contrast, has an explorative learning style. It lacks a stringent hierarchy for control and is relatively porous to inputs and ideas. In its environmental work, Food connects to a system of informal, loose relationships with a diverse set of stakeholders. It engages in these external networks to pick up novel and innovative ideas that are required to meet its ambitious strategic target of environmental sustainability. Internally, Food does not have a formalized management system or structure through which environmental learning is developed, transmitted and acted on. There is significant divergence among stakeholders: a constellation of senior managers and some external stakeholders strives for environmental sustainability; other external stakeholders play a marginal role, while internal operational units seek to maintain local operating performance.

Chemical's exploitative learning stems from the power of the — publicly owned — parent company and its business philosophy, where a commitment to environmental goals is part of risk management. This power is exercised

through the parent company's representative as chair of the MT, as well as the requirement to have in place an environmental management system with ISO 14000 certification and routines that coordinate responses to key external stakeholder demands. At the operational level, actors wield their informational and operational power in concert to implement the strategic objectives set. Environmental learning and performance are subordinated to Chemical's economic objectives and operations.

Food's explorative learning is driven by the CEO, who — on behalf of the owning family — uses his extensive formal power to promote the ambition of environmental sustainability. This ambition has high importance at the corporate level. There is wide recognition that it cannot be accomplished within the existing business model and requires knowledge from outside the sector to be combined with internal knowledge in order to affect change. This approach vests innovative, external stakeholders with significant informational power over the development of new practices within the company. The outcomes of this explorative learning process are, however, broadly disconnected from concerns at the operational level, where stakeholders direct their operational power towards primary production targets. This is exacerbated by the absence of an established environmental management system or routines that provide for the exchange of ideas between operational and strategic levels. While the ambition of the company empowers some stakeholders, the lack of a routinized system disempowers the contribution of many internal stakeholders and undermines the overall attainment of the environmental ambition Food has set. This leads to the view that stakeholders with the power to determine an organization's ambition and to establish routines have a remarkably strong impact on the power of other stakeholders and significantly affect the type of learning that ensues.

## Conclusions

We have considered stakeholder power and organizational learning in the context of corporate environmental management practices. Our aim was to examine how and why learning types, processes and roles relate to the distribution of power among stakeholders. We based our observations on case studies of two companies. Our evidence shows that one company, Chemical, had a risk management perspective, a highly structured, routinized environmental management approach and was involved in exploitative learning. This was driven and supported by its parent company and internal MT. Ample resources were devoted to gaining new insights leading to environmental performance beyond compliance. It had well-articulated learning roles, a framework to assess stakeholder interests, and used stakeholder demands as a spur to internal problem solving. The company's environmental ambition and approach to risk, together with its stakeholder-weighting system, were used to identify key external stakeholders, whose inputs contributed to the definition of problems. Chemical then mainly used internal stakeholders as a source of knowledge and ideas to identify solutions to these problems; it

allocated resources needed to adapt its operations to meet these problems. External stakeholders had power as problem setters but were given, or took, little power in contributing ideas or knowledge to help solve those problems. When solutions could not be found internally, external working groups of national associations were addressed. In terms of roles, problems were defined externally while the internal routines and structures for learning provided a framework through which roles of idea generation, internal entrepreneurship, boundary spanning and sponsorship were performed. The routine structure gave power to individuals to perform roles, and the structure linked these roles together to permit effective, exploitative learning.

Food had higher environmental ambitions and a values-based approach, with a more loosely structured environmental management system in which individuals assumed significance. The CEO and his family actively fostered Food's explorative learning. Market conditions and production priorities meant that resources were not readily available to support these ambitions. Nevertheless, the company's stretch targets led to a search for new insights. The company had less well-articulated learning roles, no framework to assess stakeholder interests, and used its stretch targets and ambition as a spur to learning and innovation. Food took an informal approach based on personal networks to identify which external stakeholders and platforms might provide it with learning spaces. The widespread recognition of the company's high ambition, and its relations with external stakeholders, served to forestall the (formal or social) power of some stakeholders and elevate the (informational) power of others. Food used external and internal stakeholders as a source of knowledge and ideas, allocating the resources needed to meet their own internal targets. Central actors had power as problem setters, but weakness in internal structures and routines meant that solutions were more difficult to implement because of resistance arising from lack of commitment or conflicting priorities. In terms of roles, idea generators were internal and external, while internal entrepreneurship, boundary spanning and sponsorship were very much personalized and lacked the support of a routine system.

The findings of our study support the claim that power is an important factor in the theory and practice of organizational learning and stakeholder engagement, especially in connection with corporate environmental management. However, our study suggests that power is far from absolute: in part it is possessed by stakeholders, in part it is vested by organizations involved in learning or stakeholder engagement, and in part it is determined by the ambition of organizations and the type of learning and relationships they have with other actors. It is clear that an alignment of powerful interests is supportive of exploitative learning and the implementation of such learning. Explorative learning does not require an alignment of interests up to the point where it is necessary to implement the results of learning. However, it does require commitment of those with ideas and knowledge to come together in learning spaces and the capacity or cognitive power of individual actors to recognize the potential of the ideas generated in those spaces. Certainly, we observed that the power (or influence) to fulfil roles crucial to learning is important but that power can come from many sources: personal skills,

knowledge and networks, formal authority and operational capacity; these sources turned out to be different in the two case companies. It is interesting to speculate how power might affect organizations involved simultaneously in explorative and exploitative learning and the ability to learn how to learn. These areas appear increasingly critical in organizations that face the issue of how to redefine their role and position in society. We see this as a fruitful area for future research.

In general, theories of multi-stakeholder cooperation and organizational learning have tended to ignore the crucial issue of power. However, to address power and influence adequately in these contexts and to develop an appreciation of how and why stakeholder influence might affect organizational learning, we need to view the processes of learning in their full complexity. Our study suggests that power is important, but its importance is contextual and shapes learning and stakeholder engagement not simply in direct and immediate ways but through complex systems involving multiple causalities. Our evidence pertains to environmental management practices. We anticipate that similar findings will hold in other settings that are characterized by systemic complexity.

The only precondition we can set is that future studies of organizational learning and stakeholder engagement should place greater emphasis on the potential impact of stakeholder power. Moreover, the design of these studies should take into account the nature of mutual causalities affecting the interactions between stakeholder power and organizational learning, mediated through factors such as organizational ambitions, routines, networks, institutional contexts and personal attributes (including personal vision, leadership and skills).

## Note

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