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ORGANIZATIONAL RESTRUCTURING AND MIDDLE MANAGER SENSEMAKING

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This longitudinal, qualitative study examined "sensemaking" during an imposed shift from hierarchical to decentralized organization. We identified a "replacement" pattern of schema development in which middle managers moved from shared through clustered sensemaking, to shared but differentiated sensemaking. Our findings provide evidence that different change processes lead to different patterns of schema development. Further, they highlight the socially negotiated nature of schema change and the significance of middle managers' lateral social interactions in shaping change in the absence of senior management.

As managers seek to create greater organizational flexibility in response to environmental turbulence, organizations are moving away from integrated hierarchical structures to more modular forms (Schilling & Steensma, 2001). Responsibility, power, and resources are decentralized to semiindependent units based around a set of core activities and coordinated through contractual and "mutually beneficial" relationships (Child & McGrath, 2001: 1137). Organizations in many industries are also increasingly geographically distributed. Both these trends elevate the role of middle managers. Simultaneously, the increasing separation of senior and middle managers reduces interaction between these two groups, although such interaction is important for creating alignment in organizations (Bartunek & Moch, 1987; Gioia & Chittipeddi, 1991; Gioia, Thomas, Clark, & Chittipeddi, 1994; Gioia & Thomas, 1996; Isabella, 1990; Labianca, Gray, & Brass, 2000; Poole, Gioia, & Gray, 1989). This observation raises the issue of how middle managers resolve the cognitive disorder created for them by organizational restructuring (McKinley & Scherer, 2000) to develop the new structures designed by their seniors.

We believe that middle managers' role as change agents will continue to increase in importance as organizations become increasingly complex and geographically distributed, even when senior management has already laid down a strategic direction. Current trends in organizational forms make it essential to extend current research on the strategic importance of middle managers (Floyd & Wooldridge, 1997; Huy, 2001, 2002) toward a better understanding of how "middles" influence organizational transition. Researchers need to understand how middle managers interpret change, and how their schemata, or interpretive frameworks, develop and change. This was the focus of our study.

In this research, we examined the middle manager role in processes of change, as opposed to the more commonly researched senior manager role in change. We studied the "sensemaking" (Gephart, 1993, 1997; Weick, 1995) of middle managers during a top-down change initiative in which senior managers outlined a new structure that replaced a traditional integrated hierarchy with a more modular and decentralized organization of semiautonomous business units. The seniors then left it to middle managers who were primarily individuals based outside the head office, to develop the operational details of this structure. The middle managers were thus recipients of change as much as its implementers. They had to make the new structure work but had little involvement in the up-front change design or decision making.

Our findings show that it is crucial to understand change recipients' reactions to change and the way they shape change in the absence of senior management. The role of middle managers during planned radical change is typically deemphasized in comparison to that of senior executives (Huy, 2000). We

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found, however, that, especially in geographically dispersed organizations, senior managers became "ghosts" in the sensemaking of middle managers, rather than being active directors of change. Senior managers acted more as agents of "indirect infection" (Ford, 1999b) influencing organizational meanings (Donnellon, Gray, & Bougon, 1986; Morgan, Frost, & Pondy, 1983; Pettigrew, 1985; Pondy, 1978, 1983) through the presence of their actions and words in stories, rumors, and gossip shared by others. Particularly in decentralized organizations, it is the actions, behaviors, gestures, and language of peers, and their shared personal experiences, that have a more direct impact on middle manager schema development and change outcomes. The focus to date on vertical interactions between senior managers and others has obscured the importance of horizontal interactions within organizations.

In the sections that follow, after reviewing the literature on change, restructuring, and sensemaking, and describing our methodology, we present a first-order analysis (Van Maanen, 1979), which tells the story of change through the eyes of the research participants, and a second-level analysis that develops a model of the schema change process.

CONCEPTUAL BACKGROUND

The last ten years have seen an increasing research interest in new organizational forms; more than one journal has devoted an issue to the topic, including the *Academy of Management Journal* (2001, volume 44, number 6) and *Organization Science* (1996, volume 7, number 3, and 1999, volume 10, number 5). The belief is that increasing environmental dynamism and uncertainty and, in some industries, hypercompetition, require greater organizational flexibility and therefore new forms of organizing (Child & McGrath, 2001; Daft & Lewin, 1993; Schilling, 2000; Schilling & Steensma, 2001; Volberda, 1996; Whittington, Pettigrew, Peck, Fenton, & Conyon, 1999). Movement away from traditional hierarchies to modular and network organizations is often accompanied by "delayering," decentralization, "downscoping," and outsourcing. Coordination through contractual and other forms of relationships is required between units both internal and external to the changing organizations.

The implementation of senior management's restructuring plans by middle managers is not a passive process (Whittington, 2002). Middles connect an organization's strategic and operational levels through mediation, negotiation, and interpretation (Floyd & Wooldridge, 1997) and are an undervalued lynchpin in the strategy process, particularly in planned radical change (Huy, 2001, 2002). Organizational change of the magnitude needed for a shift from a traditional hierarchy to a more modular organization requires a change in organizational interpretive schemes (Bartunek, 1984; Gioia et al., 1994)—the shared assumptions that govern the way the members of an organization conceive of their organization and their environment. Such change requires a shift in individuals' schemata (Bartunek & Moch, 1987; Labianca et al., 2000; Poole et al., 1989). Researchers cannot appreciate the role of middles in organizational restructuring unless it is recognized as involving a process of cognitive reorientation entailing accompanying changes to the informal side of organizations (Porras & Robertson, 1992; McKinley & Scherer, 2000).

Sensemaking, Cognition, and Change

When individuals face change, they experience surprise, a "gap" in their expectations vis à vis their experience (Louis, 1980; Louis & Sutton, 1991). They start to act in a more conscious and less automatic (Fiske & Taylor, 1991) sensemaking mode and to interact with each other to make sense of what is going on around them and to determine how they should respond (Weick, 1995; Weick & Roberts, 1993). In the face of change, individuals exchange gossip, stories, rumors, and accounts of past experiences, and they take note of symbolic behaviors and actions (Gioia & Chittipeddi, 1991; Gioia et al., 1994; Isabella, 1990; Labianca et al., 2000; Poole et al., 1989). Through these social processes, recipients of change develop new understandings and interpretive frameworks. To appreciate how middle managers resolve the cognitive disorder caused by change initiatives, researchers need to explore the sensemaking that occurs between them during change.

Sensemaking is a conversational and narrative process through which people create and maintain an intersubjective world (Brown, 2000; Gephart, 1993, 1997; Watson & Bargiela-Chiappini, 1998). There are many channels through which concepts and ideas can reach a "sensemaker," both spoken and written, and both formal and informal. Sensemaking practices include conversations, utterances, documents, and storytelling (Boje, 1991, 1995; Gephart, 1991, 1997), and they can be symbolic (Weick, 2001), such as when they refer to the actions and behaviors of others. Sensemaking plays a central role in cognitive reorientations (Gioia & Chittipeddi, 1991; Gioia et al., 1994; Gioia & Thomas, 1996; Isabella, 1990). Shifts in organizational conversations facilitate change (Barrett, Thomas, & Hocevar, 1995; Ford, 1999a, 1999b; Ford & Ford, 1995; Heracleous & Barrett, 2001).

Schemata are central to organizational sensemaking. As structured units or clusters of thematically related knowledge (Fiske & Taylor, 1991; Thorndike, 1984; Rumelhart & Ortony, 1977) that can be hierarchically organized with embedded subschemata, they constitute the cognitive structures or frameworks by which generic concepts derived from past events and experiences are stored in memory (Bartlett, 1932; Rumelhart & Ortony, 1977). Schemata are demarcated from one another by categorizations, or defining features, which develop from perceived similarities and differences (Porac & Thomas, 1990). As such, schemata act as data reduction devices (Bartunek, 1984; Bartunek & Moch, 1987) enabling individuals to negotiate a complex and confusing world. Since people draw on schemata to interpret, understand, and respond to events and data, these clusters of knowledge "emphasize our active construction of reality" (Fiske & Taylor, 1991). They "are the bases upon which one relates knowledge, attributes meaning and fashions understanding" (Poole et al., 1989: 272).

Organizational schemata or interpretive schemes (Bartunek, 1984) are frames of reference shared among members of an organization or its subgroups (Moch & Bartunek, 1990). There is a debate as to the extent to which individuals share organizational schemata (Barr & Huff, 1997; Labianca et al., 2000). Since cognition is an individual phenomenon (Larson & Christensen, 1993), it is not known to what degree individuals' schemata overlap and to what degree cognitive representations are shared. In the absence of shared meanings, coordinated action can result from shared communication mechanisms (Donnellon et al., 1986). Yet during times of stability, some level of shared understanding is likely to exist to enable coordinated activity (Barr & Huff, 1997; Bartunek, 1984; Langfield-Smith, 1992) to occur without constant renegotiation of the social order.

Schema Change

Schemata have a tendency to endure, even when individuals are faced with disconfirmatory evidence (Bartunek & Moch, 1987; Fiske & Taylor, 1991). However, studies of cognition and change have suggested that schemata can change (for instance, through senior managers' actions [Bartunek, 1984; Isabella, 1990; Labianca et al., 2000; Poole et al., 1989]), although scholars know more about the ways that schemata are maintained than about how they change (Fiske & Taylor, 1991). Researchers have advanced several models for schema change. Bartunek (1984, 1993) proposed a *conflict model,* according to which changes in schemata occur through dialectical processes: the interaction of old and new ways of understanding result in a synthesis. Labianca and his colleagues (2000), in contrast, emphasized a *schemata comparison* phase that occurs at the individual level and results in the social negotiation of shared organizational schemata. In their view, schema change occurs through the eventual replacement of the old with the new. They attempted to link their results to models of schema change identified in social cognition, arguing that their findings supported the *conversion model* (Rothbart, 1981; Weber & Crocker, 1983). In the conversion model, schemata can change massively and suddenly in response to dramatic or salient instances that deviate from prior experience; change here is an immediate, all-or-none process.

Weber and Crocker (1983) found more evidence for the *bookkeeping model* (Rothbart, 1981) and the *subtyping model* of schema change. The bookkeeping model features incremental fine-tuning of schemata via each new piece of discrepant information so that change occurs gradually. In the subtyping model, subcategories develop within a higher-order schema, creating greater differentiation in response to discrepant information that cannot be assimilated by incremental adjustment of the existing schema. The divergent findings of these studies suggest that these different models may result from differing change contexts.

Our concern here is with organizations' structural change from integrated hierarchy to a more decentralized form and how middle managers make sense of such change. Our guiding premise is that such change will challenge existing middle manager interpretive schemes, leading to cognitive disorder (McKinley & Scherer, 2000). The middle managers will engage in active sensemaking (Gephart, 1993, 1997, Weick, 1995) as they try to resolve the ambiguity and uncertainty that result from the tension created by the need to be differentiated from other middle managers by work goals, yet achieve coordination (Lawrence & Lorsch, 1967). Both vertical and horizontal communications will be important, but hierarchical barriers will tend to make lateral communication the more significant mechanism for middle managers trying to make sense of restructuring, and key interpretations will be generated through these lateral processes. To address these issues, we examined the process of schema development and the schemata used by middle managers before and during change. We sought to answer three related questions: What are the patterns of schema change? How does middle manager sensemaking inform the schema development process? What is the relationship between schema change and restructuring?

METHODS

Data Collection

A longitudinal interpretive case study approach was used (Eisenhardt, 1989; Yin, 1994), an approach consistent with the process orientation of the study. The research setting was a recently privatized utility in the United Kingdom that was implementing planned strategic change (Romanelli & Tushman, 1994) in response to forthcoming changes in its competitive environment. Our research focused on middle manager experiences of a major restructuring initiative in the utility's core business division. In line with current organizational trends toward more modular organizational forms, the restructuring split the old division into three new divisions: a small Core Division for handling strategic business responsibilities and activities, and two support divisions, Engineering and Services, responsible for maintaining the utility's asset base and end customer services. This split created an internal market for the provision of services to the Core Division that was intended to drive down costs while maintaining quality and improving service. Contracts were to be put in place between the three new divisions to create internal supplier-customer relationships. Should any part of the support divisions fail to offer competitive services in terms of quality and price, the Core Division would be allowed to contract out (outsource) these services to other organizations. The restructuring initiative involved redundancies (layoffs), delayering (reduction in number of hierarchical levels), new working practices, and the intent to change from a technical, risk-averse culture to an empowered, customer-focused organization.

The appointment of an overall executive director and three divisional directors marked the start of implementation in March 1993. April 1993 to April 1994 was a designated transition phase, after which the contracts would go into operation. A team of consultants and senior managers (the *review group*) developed a blueprint and rationale for the new structure, along with job roles and staff numbers. Implementation involved the rollout of the change plans developed by the design team. The middle managers had to develop the details of their roles and responsibilities themselves once appointed to (reassigned within) the new structure. In return for research access, the first author provided feedback on the progress of change from the middle manager perspective to the divisional directors.

Tracking of the implementation progress by middle managers in all three divisions started in August 1993, after they had taken up their appointments in the new structure, and continued until July 1994. Diaries, a form of personal document (Denzin, 1989; Taylor & Bogdan, 1984), were the primary data collection mechanism. Although data collection through diaries has a variety of strengths and weaknesses (Balogun, Huff, & Johnson, 2003), a key strength is that they provide an insider's account of a situation (Burgess, 1984) and can be used to track what participants do in the absence of a researcher (Perlow, 1997, 1999).

Twenty-six middle managers from a group of about 90 managers at the level of interest across the three divisions acted as diarists. The first author requested identification of potential diarists from the new organization charts with a view toward having most departments and interfaces represented. At an initial briefing, the diarists received individual diaries, which initially they completed fortnightly, but they moved to monthly reporting as the pace of change slackened. The diaries contained separate entries for each time period with five questions: What is going well and why? What is going badly and why? What problems do you foresee? What have been the significant events? What rumors and stories are circulating? The diaries were solicited logs (Burgess, 1984) rather than intimate journals. In line with our focus on sensemaking, the questions were designed to elicit the thought processes of the diarists, giving insight into how they were interpreting the changes and why, and the impact of this interpretation on them and on the change process. Within each division, a change manager worked alongside the divisional director to help implement the changes. These managers also acted as diarists.

Frequent contact was maintained with the diarists by telephone to follow up on queries raised by the diary entries. Review meetings were held with the change managers and diarists every six to eight weeks on a divisional basis to feed back initial interpretations from the diaries and get feedback on the accuracy of these. Beginning in April 1993, which was prior to the start of the tracking, and continuing throughout the change process, the first author spent time individually (and occasionally collectively) with the three divisional change managers to discuss their views on how change was progressing. These meetings also provided information on the senior manager perspective on change. The regular visits to the site for meetings and interviews provided observation and background data on the nature of the organization.

One-to-one in-depth interviews with all diarists took place in October 1993 and toward the end of the research. The first interviews were relatively unstructured, the purpose being to establish the different perspectives, responsibilities, and back-

grounds of the diarists, to find out how comfortable they were with the role of diarist, and to follow up on existing diary entries. In the second interviews, diarists were asked to reflect back on the change process and to discuss things that had, from their perspective, gone well or had been damaging in more detail. The first researcher extracted from the diaries all the obstructions and facilitators of change identified by the diarists for each division and used these to prompt recall about past events during the interviews.

By the end of the research, the diarists were happy to discuss their perceptions of change progress in a group. The diaries were, therefore, replaced with focus groups. Maintaining the study's focus on how the diarists were interpreting the changes and why, these groups explored two questions: what is going well and why, and what is going less well and why. The groups lasted on average two hours. In the Core Division, final interviews were conducted in April 1994, and subsequent data were collected from diarists at three focus groups held from April to July. In Engineering and Services, the final interviews were in early May, and subsequent data were collected in two focus groups in late May and July. Change documentation from the senior managers and the change managers, such as team briefings and workshop documents, provided additional data triangulation (Eisenhardt, 1989) on the change interventions as well as information actually given to staff, as distinct from diarists' perceptions.

Although data were elicited in several ways—through diaries, interviews, and focus groups—all these mechanisms provided comparable qualitative data on the diarists' interpretations of the change process. The diaries, when transcribed verbatim, yielded 242 pages of data. All the interviews and focus groups were taped and transcribed verbatim. The first interviews each lasted an average of an hour and yielded 353 pages when transcribed. The second interviews lasted an average of one and a half hours, and transcription yielded 538 pages. The focus groups provided another 170 pages. In addition, the first author took notes from all meetings she attended and recorded her observations either that evening or the next day. Some meetings with the change managers were taped. These meeting notes provided an additional 182 pages of data.

Data Analysis: Patterns of Schema Change

The analysis proceeded in stages. First, we made extensive use of narrative (Langley, 1999; Pentland, 1999). The first author wrote a story of change for each division from the diarists' perspective by pulling together their different accounts and the documentary evidence to create a "thick" description (Lincoln & Guba, 1985). The intent was to capture the ebb and flow of change interventions and activities and the diarists' interpretations of these events. In line with our questions about the middle manager schema development process, we examined the data for schemata concerning how the organization operated both prior to and during the restructuring. This early analysis revealed two types of schemata: those having to do with the organization (the content of change), and those having to do with the change process (Moch & Bartunek, 1990).

We then examined the data, by division, for more detailed emergent classifications and patterns (Taylor & Bogdan, 1984) that connected to form the tentative schemata identified from the stories. Initially our categories were very detailed, and based on the terminology of the diarists to create "in vivo" codes (Strauss & Corbin, 1990; Van Maanen, 1979). This stage was equivalent to "open coding" as performed in grounded theory (Strauss & Corbin, 1990: 61). As our coding progressed, we were able to create broader categories of related data items. In keeping with our definition of schemata as thematically related knowledge with embedded subschemata, separated by perceived similarities and differences, we first clustered thematically related categories to create subschemata and then grouped thematically related subschemata into higher-level schemata. We used NUD.IST, a text analysis program (Wolfe, Gephart, & Johnson, 1993), to code and search our data and to enable reorganization of data into emerging themes (Gephart, 1997) or subschemata. As our coding progressed, we were able to use the tree-based search facilities of NUD.IST to reorganize the detailed codings into related categories, and then into emergent lower-level schemata, which we could then group into our higher-level schemata relating to either the organization (change content), or the change process. We included only subschemata identified for more than one diarist to omit idiosyncratic data. While we recognize that particular individuals may have particular ways of seeing things, we were looking for shared themes.

From the stories, we also identified different schemata associated with distinct time periods. We identified differences between (1) organizational schemata existing prior to the start of change in April 1993 (time 0), (2) organizational and change schemata existing in the early days of change, while appointments were still occurring (time 1, August and September 1993), (3) organizational and change schemata as change progressed (time 2, October–March 1994), and (4) organizational and

change schemata as contracts came into place (time 3, April–July 1994). We coded our schemata by these time periods so we could build a deeper understanding of how the schemata content developed through time. Table 1 shows the schema identified prior to the change that we labeled "organization as hierarchy," and Tables 2–4 present both "organization as multidivisional" schemata and the change process schemata subsequently identified in each of the three change time periods for the three different divisions. The tables show how the content of these schemata changed over time for each division and thus provide evidence on both the schemata identified *and* how they changed.

This research meets many of the criteria laid down by Lincoln and Guba (1985) for the trustworthiness of qualitative data. The first author had a prolonged engagement with the research site, during which the data were collected in real time. Multiple methods and sources of data collection were used. Research participant feedback was also used, with the researcher sharing her findings with the diarists at review meetings. We created a thick description of the findings to enable their transfer to other settings. Finally, three independent academic peers knowledgeable in the research area audited the research.

The first-order analysis that follows tells the story of the restructuring from the diarists' perspective and provides evidence for the coded themes (Tables 1–4) through use of representative quotes from the diaries, interviews, focus groups, and meetings. It shows how the middle managers' schemata changed through time and the impact of this development on change outcomes. The second-order analysis (Van Maanen, 1979) explores the patterns of schema change identified in the first-order analysis (and portrayed in Tables 1–4) and builds our explanatory framework. Accounts of both the first- and second-order analyses, split into the same time periods as the tables, follow, with the second-order analysis for each time period following immediately after the first-order analysis. Our findings show that decentralization and modularization initiatives created a particular pattern of schema development for middle managers. The imposition of a new structure rendered old schemata about how to coordinate redundant and replaced them with new provisional schemata about how things would work in the future. These schemata then evolved through social processes of interaction among middle managers as they tried to coordinate their activities to meet their respective new goals. The way the new structure developed depended on the interpretations the middle managers arrived at. These findings build on what we know about how schemata change, demonstrate the importance of lateral processes of sensemaking between middle managers during change, and highlight the significance of the middle manager change role.

TABLE 1
Shared Organizational Schema prior to Change

Schema and Subschema	Time 0
Organization as hierarchy	
Common purpose	Keeping the lights on. Work done on basis of goodwill and cooperation. We work for one company as equals. We run cost centers. Technical excellence
Control	Senior managers controlling. Blamed for making mistakes.

RESULTS

The Start of Change

Following the director appointments, all staff were either reappointed to the new structure through a briefing and counseling process, or accepted exit terms. This process started for senior managers in April 1993 and ended with junior staff in September. Planned interventions included new structures, systems, roles, and responsibilities. The review group initiated use of the phrase "business as usual" to capture their view of how to keep the business running during the transition. Individuals were to continue to do their old duties alongside their new duties, until whoever was to be responsible for the old duties in the new structure took them on. This arrangement applied primarily to the Engineering and Services Divisions. They had to continue to do tasks that the Core Division was ultimately to be responsible for until suitable Core Division systems and processes were in place to enable full uptake of these responsibilities. To ensure everyone understood the changes, an extensive communications exercise was undertaken. "Roadshows" with a video explaining the changes, followed by "vision workshops," were held for everyone. Team briefings provided information on progress and other change issues.

The Core Division, with about 300 staff members, had to take over planning duties currently performed by Engineering and to develop new working practices, such as specifying and monitoring contractual work. Unpriced, shadow contracts

TABLE 2
Core Division Schema Development

Schema and Subschema	Time 1 August–September 1993	Time 2 October 1993–March 1994	Time 3 April–July 1994
Change process	Workload: Keeping business going while changing. We need to develop our own roles/responsibilities. Contracts will resolve responsibilities.	Workload: Keeping business going while changing. We need to develop our own roles/responsibilities.	Contracts will resolve responsibilities. "Business as usual" necessary. Contracts to parallel run with business as usual. Business as usual starting to get in the way. No transition management for interdivisional resolution. Review group output not detailed enough/ black holes.
Organization as multidivisional			
Interdivisional relationship	We cooperate. (One diarist) Contracts may make things worse.	We cooperate. (One diarist) Contracts may make things worse. We need to liaise/work together.	We are cooperating. We need to liaise/work together. We can work together through the contracts.
	Interdivisional tensions. Barriers/walls between divisions. Defense of turf. Who does what? Lack of cooperation.	Interdivisional tensions. Barriers/walls between divisions. Defense of turf. Who does what? Lack of cooperation. Perception life easier/no threat in Core.	Interdivisional tensions. Defense of turf. Lack of cooperation (declining). Perception life easier/no threat in Core.
Control			Blamed for making mistakes in other divisions.

TABLE 3
Engineering Division Schema Development

Schema and Subschema	Time 1 August–September 1993	Time 2 October 1993–March 1994	Time 3 April–July 1994
Change process	This is not like any change we have done before. Workload.	Workload. "Business as usual" needs to cease. We need contracts asap to tell us who does what. "Business as usual" used as an excuse. Review group output not detailed enough/black holes. No interdivisional problem resolution.	Workload. "Business as usual" needs to cease. "Business as usual" used as an excuse. Review group output not detailed enough/black holes. No interdivisional problem resolution. "Business as usual" necessary initially. Contracts starting to end "business as usual."
Organization as multidivisional			
Interdivisional relationship	We run profit centers.	Contracts will make things worse.	Contracts resolving who does what. We can work together contractually. We can cooperate.
	Interdivisional tensions. Attitudes of them and us. Defense of turf. We are now contractors/no longer own assets. Core behaving like prima donnas. We are doing Core's work/"business as usual." Who does what.	Interdivisional tensions. Attitudes of them and us. We are doing Core's work/"business as usual." Who does what. Pressure greater in Engineering.	Interdivisional tensions. Attitudes of them and us. Defense of turf. We are doing Core's work/"business as usual." Who does what. Pressure greater in Engineering.
Interbusiness relationship	IBT means we can build real businesses. Them and us. Walls between businesses. Different workloads/perks. Defense of turf (e.g., sharing of tools, ring fencing own business). Who does what/who pays for what.	IBT means we can build real businesses. We cooperate. Them and us. Walls between businesses. Different workloads/perks. Defense of turf (e.g., sharing of tools, ring fencing own business). Who does what/who pays for what.	IBT means we can build real businesses. We are cooperating. Them and us. Walls between businesses. Different workloads/perks. Defense of turf (e.g., sharing of tools, ring fencing own business). Who does what/who pays for what.
Control	Senior managers controlling.	Senior managers controlling. Blamed for making mistakes.	Senior managers controlling. Blamed for making mistakes.

[a] IBT is the utility's interbusiness trading system.

TABLE 4
Services Division Schema Development

Schema and Subschema	Time 1 August–September 1993	Time 2 October 1993–March 1994	Time 3 April–July 1994
Change process		Workload. No transition management/interface resolution.	Workload. No transition management/interface resolution. "Business as usual" needs to cease (with contracts). "Business as usual" an excuse. "Business as usual" necessary early on. Lack of detailed output from review group.
Organization as multidivisional			
Interdivisional relationship	We run profit centers.		
	Interdivisional tensions. Defense of turf. Who does what.	Interdivisional tensions. Defense of turf. Who does what. Other divisions not taking on new duties/exploiting Services.	Interdivisional tensions. Defense of turf. Who does what. Core not taking on new duties/exploiting Services.
Control		Senior managers controlling.	Senior managers controlling. Blamed for making mistakes.

would be in place for April 1994, and full commercial relationships between the divisions would start in April 1995. An office move was also planned to locate most of the division's staff together away from the head office.

Engineering, which was responsible for maintaining and developing the utility's asset base for the Core Division, was split into three further businesses. Staff previously located within a central resource pool were now appointed as dedicated repairs, construction, or maintenance staff. The rationale for this split was that there were differences in the natures of the tasks, the types of resources required, and the extent to which work could be predicted and planned. Within each business, staff members were organized into four geographic regions working out of regional offices and depots. Each business interfaced directly with the Core Division through the contracts. When there was a need for the businesses to use each other's staff or equipment, they would use a new interbusiness trading (IBT) system, a form of transfer pricing, to charge each other. The division needed to improve productivity and drive costs down by reengineering working practices, introducing flexible working practices, devolving duties, and reducing the number of depots. Much of this work was to be completed or underway by mid 1994. A planned 10 percent reduction in staff through exits would leave around 2,300 staff in Engineering. Further redundancies were possible. In his July 1993 interview, the Engineering change manager commented, "Its very hard to find a sunny-side up way of saying what's happening . . . if you win you keep your job, that's as good as it gets."

The Services Division was responsible for providing end customers with services. There was little change in the responsibilities for staff in this division. However, they also needed to reengineer their working practices, with a focus on using new technology to enable flexible working and reduction in staff, and they needed to introduce new work scheduling systems. Working parties were examining the options open to Services through the autumn of 1993. Implementation was planned for the second half of 1994 and would lead to redundancies.

The following section describes the change process as experienced by the diarists in the three time periods: time 1, August and September 1993, when all job appointments were finalized; time 2, October 1993 to March 1994, when the diarists were attempting to make the new structure work; and time 3, April 1994 to July 1994, when the contracts came into force. A division and data source (interview diary, or focus group) are given for each long quotation. Quoted words within the text are from either interviews or diaries.

Time 1 First-Order Analysis: August–September 1993

From common purpose to interdivisional and interbusiness tensions. Prior to the imposed structural change, a shared schema of *common purpose* captured how the middle managers worked together (see Table 1). Their work involved "keeping the lights on" (delivering the service to people's houses) and technical excellence. They worked together cooperatively on the basis of "goodwill," and as equals, within cost centers, to achieve this:

> I think people still remember the days when they were all together with the same terms of conditions, and if something applied to one of them it applied to all of them, and now it doesn't. (Engineering, interview)

> We over the years have just accepted that the cost of the job is the cost after all the oncosts have been added on, which is totally unrealistic, because these are group average oncosts to pay for everything . . . head office, group finance. . . (Engineering, interview)

> The engineer was king at one time. With the accountant beginning to come in, the engineer is now the end product of the job. . . . Technical quality not cost and profit was what mattered. (Engineering, interview)

> If you ask one of the engineers to design and make you a penknife, it will take 6 months and cost £150K, but it will last forever. (Core, preliminary meeting)

By the end of September, all staff members had been appointed to their new positions in the new structure. This imposed change from hierarchy to decentralization involved a significant shift in working patterns and challenged the old assumptions of common purpose since there were now three divisions with different, although linked, priorities. The future introduction of contracts pointed to the need for all three divisions to operate as stand-alone (profitable) businesses, with Engineering and Services only doing work required by the Core Division. Diarists in Engineering and Services saw the introduction of contracts as a shift to profit center management.

> If you're going to be a profit center manager you've got to be able to identify all your costs, and this (IBT) is a way of doing it. To me it's the first time we've ever really looked at costs, and it's really focusing everybody's attention. (Engineering, interview).

In all three divisions, there was evidence of tensions between colleagues who used to work cooperatively, but were now coming to terms with a structural change that challenged the old company norms. In the Core Division (see Table 2, time 1), the finance department diarist, who was not to have a contractual relationship with his counterparts in the other divisions, reported a cooperative working relationship, but the other diarists talked in their diary entries of barriers and walls between divisions, defense of turf in Engineering and Services, issues of "who does what," and a "lack of cooperation." It was feared that contracts could make things worse, with individuals only doing exactly what was specified and nothing else.

> Creation of individual divisional identities is putting up barriers. Already a view that Engineering and Core are working against each other, rather than together. (Core, diary)

> Work which does not clearly fall into one or other departments' responsibilities, is being passed around until someone accepts it. (Core, diary)

> The approach from some Engineering staff is, "Unless you can prove it is me who should do it—I'm not interested." (Core, diary)

> I have been passed a comment from Engineering. The words quoted by the senior [Engineering] individual concerned are as follows: "We are in the process of building walls so that we can show a profit within our part of the business." (Core, diary)

Engineering Division members (see Table 3, time 1) were also commenting on a "them and us" attitude, defense of turf in the Core Division, and issues of "who does what." In addition, the Engineering managers were starting to think of themselves as *contractors* instead of as equals working cooperatively. The Core Division people were "prima donnas" who were "giving orders." "Business as usual" (carrying out both old and new duties until the old were assumed by someone else) was unpopular since it meant Engineering continued to do Core's work.

> Core staff are reluctant to take on responsibility but quick to give orders with a "make them have it attitude." We all need to work together. (Engineering, diary)

> Engineering staff have had a pride in the ownership of the network but now are made to feel like contractors. We must be careful not to destroy this pride. (Engineering, diary)

> I was the policy maker . . . I no longer have that power. Operational issues are a Core thing. (Engineering, diary)

> People in Engineering feel that the Core . . . (are) . . . prima donnas . . . in what they are and what they aren't going to dictate to Engineering who up until 5 or 6 months ago were their colleagues. . . . Core seem to think that it is their system and they are going to

> run it and from day one they will dictate all the rules and everything else. Basically they will try and tread on you, give you as hard a time as possible. (Engineering, interview)

> My problem is that in Engineering we are under a lot of pressure with less staff and Core have taken the staff. . . . If there is an interdivisional problem, you get a glib answer, "Oh it is business as usual, we've not taken that duty on yet." (Engineering, interview)

Middle managers in Services (see Table 4, time 1) were similarly experiencing defense of turf and who does what issues in their interdivision relationships:

> Everybody is trying to hold their corner . . . whereas previously we would have cooperated together better than we are doing now, because this guy is watching his budget and I am trying to watch mine. (Services, interview)

The problems between the divisions were reflected on a smaller scale within Engineering, now split into three new businesses (see Table 3, time 1). This split created another divide in what had been a united workforce working cooperatively to "keep the lights on." There were noticeable differences between the three businesses, although it was argued that these were due to the different goals of each business unit:

> The workloads between the three businesses seem imbalanced. Construction numbers have been reduced, yet Repairs seem overstaffed for the amount of work. Low fault incidence means that staff are underutilized. (Engineering, diary)

Just as contracts had been introduced between the divisions, signaling a move to a more commercial environment, the IBT system had been introduced into Engineering as a device to enable each business to be managed as a profit center. On the one hand, the introduction of IBT was welcomed as it enabled the diarists to "build real businesses" by highlighting who used what services and how much these services cost. On the other hand, walls between businesses were developing, with defense of turf. There were also "who does what" conflicts, particularly between repairs and maintenance.

> The teams in repairs, construction and maintenance all seem to be working against each other, building barriers. (Engineering, diary)

> Plant and equipment is being locked away or chained up. Staff are reluctant to help each other—even to the point of not answering somebody else's phone. (Engineering, diary)

> In my region I am fighting a losing battle every day. I seem to be at the losing end with Repairs every day (about what's what). (Engineering, diary)

Uncertainty over how change should progress. All diarists had concerns about the way the change process was occurring. The Core and Engineering diarists were experiencing workload problems in keeping the business going while introducing change; diarists commented on long working hours. The Core division diarists also had believed that the review group would prepare the details of the new structure but found this was not the case.

> I think people have struggled with their jobs. They came into this situation totally in the dark. Certainly we thought the review group would hand over something that worked, but we didn't inherit any of that. We inherited a sort of concept and we were going to make it work, and it took a few months to realize that's what had happened. (Core, interview)

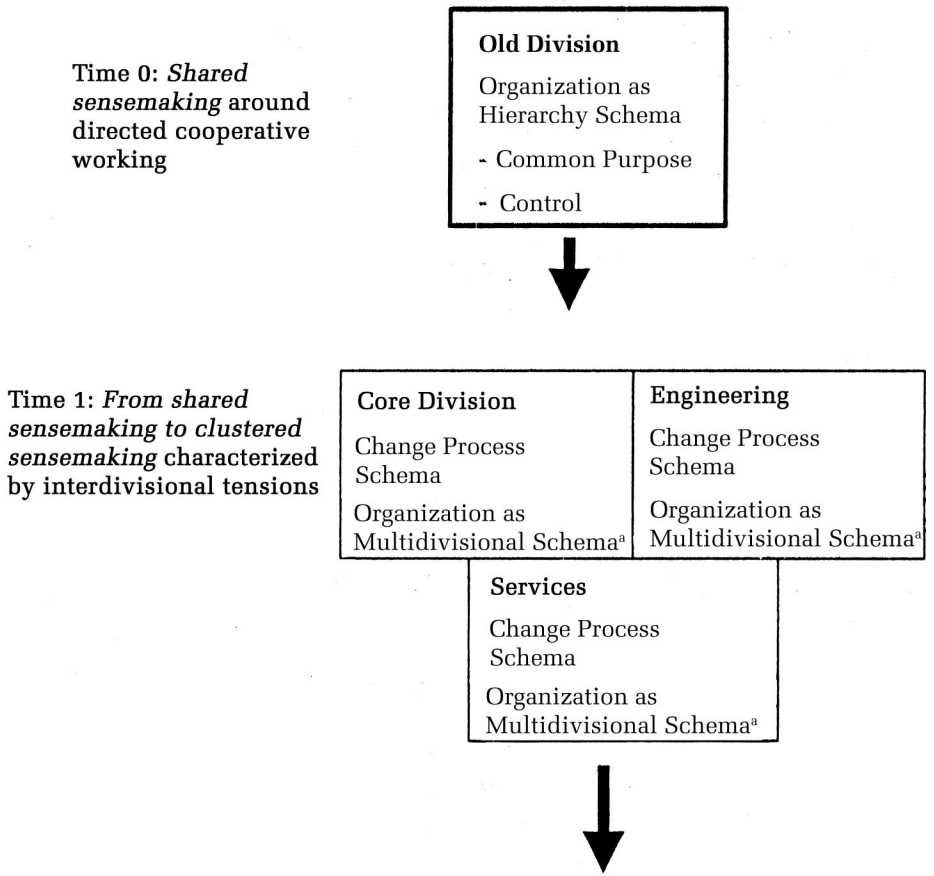
Similarly, the Engineering diarists recognized that this change was different from any other change they had been through. In an interview, one said, "I think it's just a totally different way of doing the job than we have ever done."

Second-Order Analysis, Time 1: Middle Manager Sensemaking and Schema Change

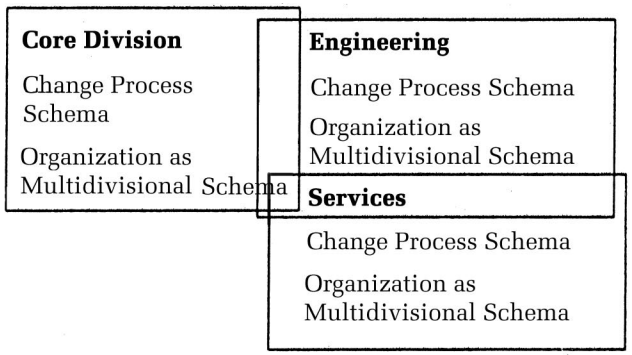
The "big bang" imposition of a decentralized organizational form destroyed shared middle manager sensemaking around old norms of common purpose. Figure 1, which outlines the pattern of schema development among the utility's middle managers throughout the period studied, highlights this change. (See the headings "Time 0" and "Time 1"). Instead, patterns of clustered sensemaking developed around new divisional goals and identities. The new contractual structure replaced the old "organization as hierarchy" schema with an "organization as multidivisional" schema at time 1 in all three new divisions. Yet the subthemes that surfaced within these divisional schemata were very different, revealing little commonality in the newly formed middle manager groups' interpretations of the new structure and its impact. Interdivisional tensions developed as a result, as well as interbusiness tensions between the three new businesses in Engineering, as individual middle managers sought to build stand-alone profit centers. Figure 2, which traces changes in degree of overlap of interpretations in the three new divisions of the utility, shows how little the members of the three divisions had in common at time 1.

Work settings have four components—organizing arrangements, social factors, physical setting, and technology (Porras & Robertson, 1992)—that shape the behavior of organization members. In the change process observed here, changes in organiz-

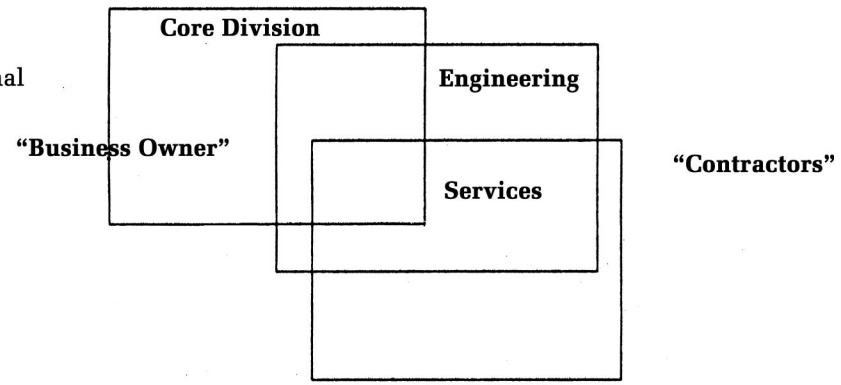
FIGURE 1
Pattern of Schema Development



Time 2: *Clustered sensemaking* characterized by interdivisional tensions and liaison attempts from Core Division

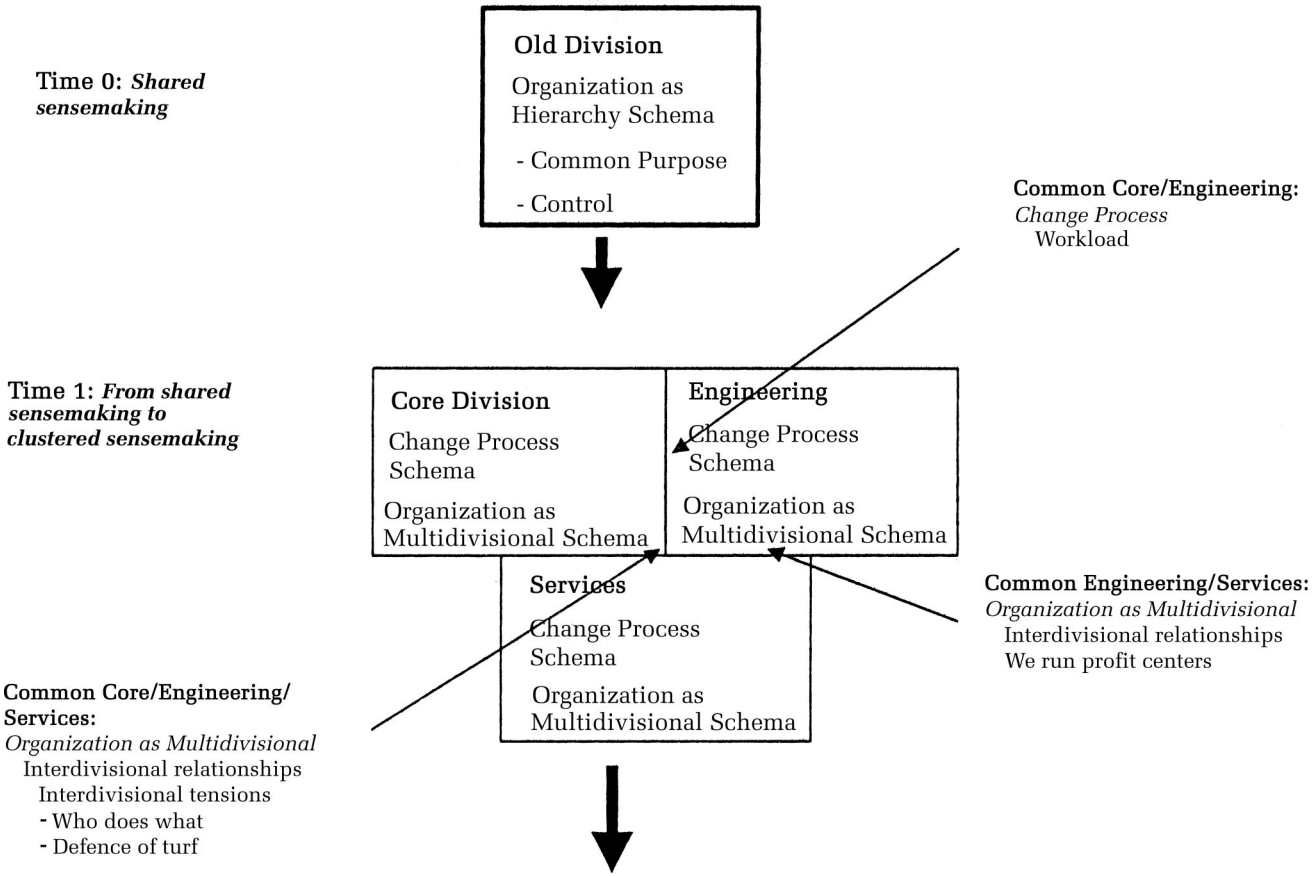


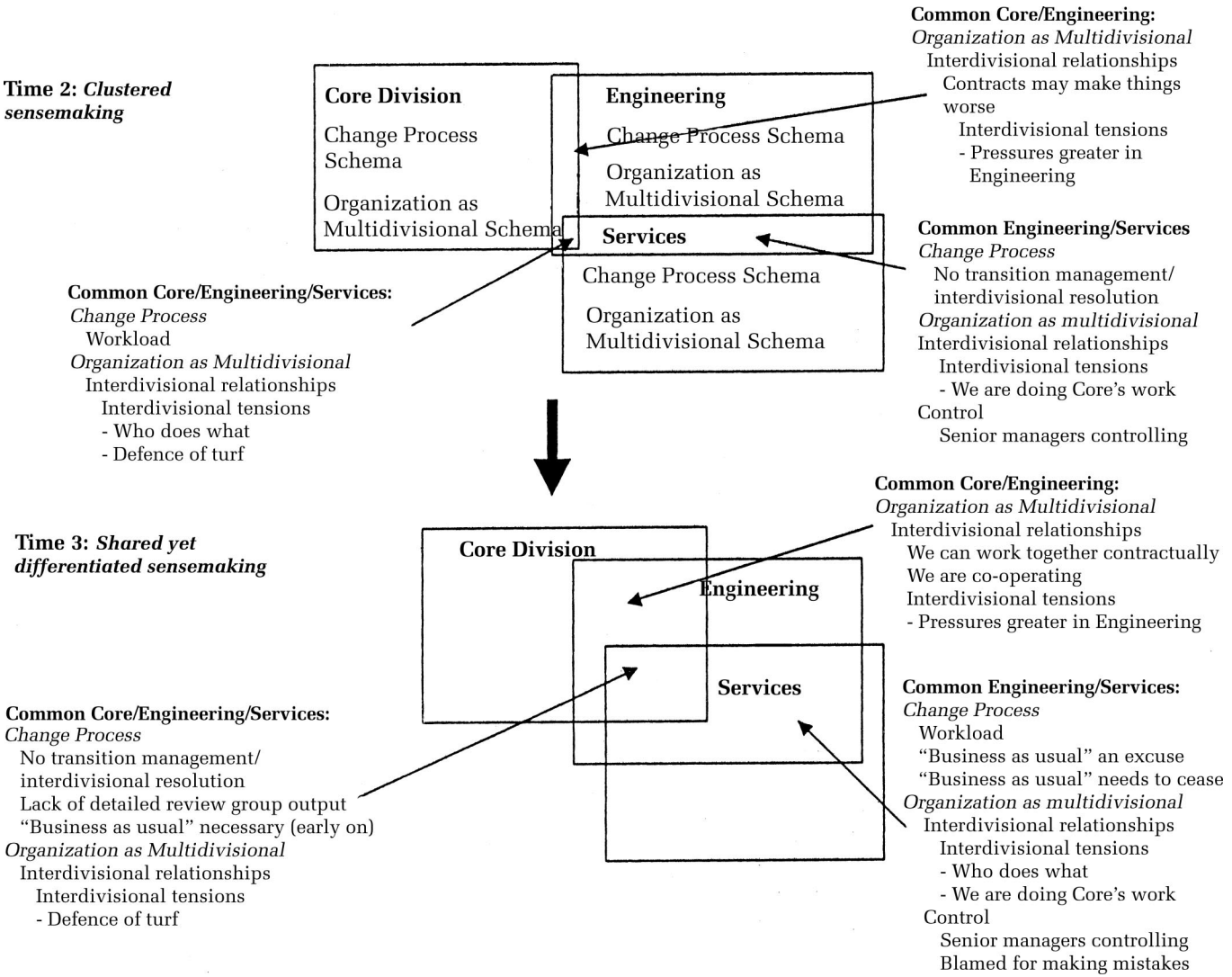
Time 3: *Shared yet differentiated sensemaking* characterized by interdivisional contractual working



[a] The organization as multidivisional schema includes the interdivisional relationships, control, and interbusiness relationships (Engineering) subschema.

FIGURE 2
Increasing Overlap in Understanding between Divisions




Time 2: *Clustered sensemaking*
Core Division
Change Process Schema
Organization as Multidivisional Schema
Engineering
Change Process Schema
Organization as Multidivisional Schema
Services
Change Process Schema
Organization as Multidivisional Schema
Common Core/Engineering:
Organization as Multidivisional
Interdivisional relationships
Contracts may make things worse
Interdivisional tensions
- Pressures greater in Engineering
Common Engineering/Services
Change Process
No transition management/ interdivisional resolution
Organization as multidivisional
Interdivisional relationships
Interdivisional tensions
- We are doing Core's work
Control
Senior managers controlling
Common Core/Engineering/Services:
Change Process
Workload
Organization as Multidivisional
Interdivisional relationships
Interdivisional tensions
- Who does what
- Defence of turf
Time 3: *Shared yet differentiated sensemaking*
Core Division
Engineering
Services
Common Core/Engineering:
Organization as Multidivisional
Interdivisional relationships
We can work together contractually
We are co-operating
Interdivisional tensions
- Pressures greater in Engineering
Common Core/Engineering/Services:
Change Process
No transition management/ interdivisional resolution
Lack of detailed review group output
"Business as usual" necessary (early on)
Organization as Multidivisional
Interdivisional relationships
Interdivisional tensions
- Defence of turf
Common Engineering/Services:
Change Process
Workload
"Business as usual" an excuse
"Business as usual" needs to cease
Organization as multidivisional
Interdivisional relationships
Interdivisional tensions
- Who does what
- We are doing Core's work
Control
Senior managers controlling
Blamed for making mistakes

ing arrangements were imposed through the new structure, goals, and contractual relationships, and the new accounting systems under development to allow for more precise allocation of costs and profit. Structural change also led to some imposition in technology with the specification of new responsibilities and workflows between divisions (and between businesses in Engineering). In addition, there was imposed change in the middle managers' physical setting, with staff increasingly located together in offices within their new divisions, businesses, and teams. However, although the divisional directors had espoused changes in social factors, such as a shift from control to empowerment, nothing was formally done to shape either the company's management style (the schema of *control,* Table 1) or other aspects of its operation, such as interaction processes (the schema of *common purpose,* Table 1), or, more generally, its culture. Since changes in one component require accompanying changes in others, the imposition of changes to organizing arrangements, technology, and physical setting forced evolution of old schemata—particularly the common purpose schema.

The new schemata developed and were sustained by horizontal processes of social interaction between middle managers. The new modular structure created sensemaking fault lines by fragmenting one group into three new communities, which then had to establish new patterns of interaction and coordination consistent with their new (individual) goals through negotiation with each other. The new structure forced a process of "deidentification" (Fiol, 2002) through destruction of the old and replacement with something new. Through the diarists' reflections on the way things were, the first-order analysis revealed that the old schema concerning equality, cooperation, service (keeping the lights on), and technical excellence before cost was challenged by the restructuring into internal customer supplier divisions. Deidentification led to a loss of meaning and to ambiguity and uncertainty—a situation that leads to active sensemaking. Deidentification also disrupted the focus on a common goal, here represented by the common purpose schema. It was no longer possible for the middle managers to develop the future through recourse to past experience; current experience and experimentation were the only available means. Poole and his colleagues argued that "by accepting institutionalized schemas, an organization member acquires trustworthy formulas for obtaining desirable consequences when handling situations and interpreting the organizational world" (1989: 272). The new structure rendered existing trustworthy middle manager formulas for coordination of their work obsolete. The first-order analysis shows how, instead, the middle managers developed their new interpretations through, for example, their direct experiences of the behavior of others, gossip and rumor about senior management behavior, and shared stories of their experiences with and interpretations of the new structure. Reciprocal behavior and symbolic reinforcement (Johnson, Smith, & Codling, 2000) are important influences on developing interpretations. The behavioral responses the diarists encountered in others, such as defense of turf, prima donna behaviors, and lack of cooperation, provided feedback for their developing schemata about how the new structure was to work. Cooperation was blocked by differences in meaning and, during time 1, a lack of shared communication behaviors (Donnellon et al., 1986). Similarly, visible and symbolic indicators affected interpretations. The new structure itself, with its maintenance and development of company assets through contractual relationships, was highly symbolic, and it contributed to early interpretations by members of Engineering that their new status was that of contractors. Physical indicators were also present, such as the centralization of Core Division at a site away from Engineering and Services, the colocation of staff within businesses within Engineering, and perceived differences in working patterns, hours, and potential job security.

First-Order Analysis, Time 2: October 1993–March 1994

Growing interdivisional and interbusiness tensions. A weekend team-building event was organized for the divisional directors in October 1993, and a senior manager meeting to discuss interdivisional issues followed in November. The directors were concerned about the developing tensions. Quarterly senior manager meetings were then put in place. However, the final interviews revealed that these meetings had no impact for the diarists on the interdivisional issues since no visible output or actions resulted from them.

All three divisions were focused on implementing their required new working practices and systems. The Core Division completed their office move. Engineering made progress on many initiatives; for example, plans to reduce the number of depots were announced, engineer timesheets were introduced, and additional workshops were held for managers to improve understanding of the three-business split and forthcoming changes. Devolution of duties continued. Yet these activities had no impact on the "them and us" feeling between divisions and between businesses. The activities

were internal to the businesses and divisions. In both the Core and the Engineering divisions, it was believed that the growing perception that pressure was greater in Engineering wasn't helping divisional tensions (see Tables 2 and 3, time 2). Engineering now also believed, like the Core Division, that *contracts could make things worse.*

> Engineering are looking to Core and seeing Core not doing a great deal at the moment. That's perhaps the most negative thing at the minute. (Core, interview)

> The frustration of hearing Core staff (who were formerly working in busy unit offices on work now part of Engineering) saying they are bored, have nothing to do, whilst we are struggling to keep the business's head above water. (Engineering, diary)

> The introduction of formal contracts between Core/Engineering will cause renewed friction. Core already have the staff needed to police contract conditions. Engineering will need additional resources or increase the workload on engineers. (Engineering, diary)

In the Services Division (see Table 4, time 2), the tensions between themselves and both Core and Engineering were being fueled by the perception that neither of the other divisions was taking new duties from Services, as was called for in the new structure.

> Engineering staff do not seem to understand the change and appear to be wanting to carry on as before. Operations work closely with Engineering on many jobs which has created problems. (Services, diary)

However, the Core Division diarists also actively sought to diffuse tensions. At the interviews in October, and in subsequent actions, it became clear that the Core diarists saw the need for themselves to liaise and work with their opposite numbers in the other divisions. They wanted to work with their ex-colleagues rather than with external contractors.

> Everybody I've talked to have said we want to work together. . . . We need to succeed together, there's no way personally I want to see Engineering fail. . . . I'd rather keep the contractors internal, because whenever you've got contractors working who are still part of the same company, then they will still protect our interests. . . . In Engineering there is still the strong feeling that it is their system, they own the system . . . if you give it to an outside contractor, who's not got that feeling, he won't show ownership. (Core, interview)

Since they were concerned about the interdivisional issues, the Core diarists also invited the diarists from the other two divisions for a joint meeting as a gesture of goodwill. The two-hour joint meeting took place in November. Much discussion of problems occurred, facilitated by the three change managers, but no issues were resolved. The meeting appeared to confirm rather than change interpretations. One Engineering diarist commented that nothing could change the perception of many of the staff in his division that in two years time half the workforce would be "down the road" (made redundant). Another said that it was interesting that the Core middle managers did not appear to have as many problems as the Engineering and Services people. Meanwhile, in Engineering, the them and us feeling between the businesses continued. Diarists said they were cooperating despite the problems, and a working party was set up to sort out the division of responsibilities. But there were still ongoing arguments between businesses over turf and over "who does what" and "who pays for what."

> I have had several occasions where I only wanted two men to do a job and three men have turned up . . . and I've said I don't really need three men and they have said well I'm sorry that is a three-man team . . . I've got to stop all three men, so all three men come to you. My argument is that I only want two men, I'm only prepared to pay for two men. (Engineering, interview)

Frustration with the change process. In Engineering, and to some extent in Services, frustration with the change process was growing. It was thought that the practice of "business as usual" needed to cease, as it was adding to the workload for Engineering, who now had less staff than formerly and ongoing exits. When would Core take on their new duties? Invoking "business as usual" was viewed as an excuse for not taking responsibility for things—both the divisions and the businesses were "hiding behind this." The diarists also thought that "contracts [were] needed 'asap'" so they could determine "who does what."

> Engineering was set up to act as a contractor, to carry out work required by Core. As a result of that we exited staff accordingly. The problem of the prolonged business as usual is that our staff were exited and Core have failed to take on the duties they should have done. Structures and numbers are out of sync. (Engineering, interview)

> There must be a change from business as usual if we are to make progress in the future. Core are now masters at claiming it's business as usual. (Engineering, diary)

Lack of knowledge of the contracts in Engineering combined with the lack of detailed output from the review group led to "black holes" in the design of the new structure. Diarists could still not pin

down the duties they were responsible for. Both Services and Engineering saw lack of transition management and interdivisional problem resolution as an issue. These problems were discussed at some length at diarist feedback meetings in both divisions.

> It [review group output] was hyped up. I think maybe the skeleton was put together by the review group, but the flesh wasn't put on the bones until way after. It was one of those things, on the 1st of April, the structure will be in place, and it never was. It will take us time to put the flesh on the bones. (Services, interview)

From control to **. . .** ***control?*** The changes involved an espoused shift in culture to delegated authority to support the changes to a contractual organization with managers running profit centers. The old senior management style (see Table 1) was one of top-down control, and blame for mistakes:

> I have to basically ask my Dad on everything that I want to do that's radical. . . . The power is at the top. If you want things signing [authorized], you want things to happen, you go upwards. (Engineering, interview)

> They are running an enquiry like, people are going to die when they find out who caused the problems, and they will be hung at the top of head office, and left there to rot as an example to all of us. (Engineering, preliminary meeting)

However, by time 2, frustration was growing with the lack of movement away from the control-blame culture toward empowerment for profit center managers in both Engineering and Services (see Tables 3 and 4). This was an issue in Engineering at time 1, and it became a major issue for both Services and Engineering at time 2. The lack of movement contradicted the espoused shift to profit centers.

> To be frank I felt more freedom and empowerment prior to the restructuring. . . . My local initiatives have been kicked into touch [stopped by senior managers] I haven't been allowed to do local initiatives. (Engineering, interview)

> They say you can only have 4% overtime, you can't let your foreman take his van home, you can't sign expense forms of over x . . . . (Services, interview)

> We get the same thing wrong time and time again, but it's no problem as long as you've got a head on a pole. (Engineering, interview)

Second-Order Analysis, Time 2: Middle Manager Sensemaking and Schema Change

Patterns of clustered sensemaking remained (see Figures 1 and 2, time 2) with only small areas of overlap existing between the divisions. In the Core Division, the interdivisional relationship schema evolved to include a subschema of "we need to liaise/work together" with the other divisions to resolve interdivisional tensions (see Table 2, time 2). However, the main differences between times 1 and 2 lay in the evolution of the change process schemata and in the impact of this development on the interdivisional tensions (Tables 3 and 4, time 2). There was resentment about the assumption that middle managers would perform their old and new duties simultaneously in Engineering (and subsequently, in the time 3 data, in Services). In addition, a lack of knowledge of who did what created "black holes" and arguments, prolonging "business as usual," given the antagonistic relationships. As a result, despite the Core Division managers' attempts to liaise, interdivisional (and interbusiness) tensions remained. The diarists could see no planned interventions or attempts by their seniors to resolve the situation, although the senior managers acknowledged that interdivisional tensions were undesirable. As the director of the Core Division said, "We are trying to create a trading relationship. Those are not always comfortable relationships, but they have to be professional relationships."

In this time period, we saw two different negotiation processes around the evolution of the social factors occurring in response to forced changes in other work setting components (Porras & Robertson, 1992). First, there was an ongoing developmental negotiation process leading to the creation and evolution of the interdivisional (and business) relationship schemata that had replaced the old common purpose schema. During time 2, the interdivisional and interbusiness schemata continued to evolve through horizontal social processes of interaction between middle managers within the context of Core Division liaising. Vertical interaction with senior managers about divisional and business relationships was still lacking; for example, the middle managers were seeing no output (actions or communications) from the senior managers' interdivisional quarterly meetings.

In addition, we saw residual conformity leading to maintenance of the old control schema associated with the old "organization as hierarchy" schema. The structural change forced change in the common purpose schema but did not render obsolete the old rules of hierarchical control between senior and middle managers within the individual new divisions. As the first-order analysis revealed, in the Engineering and Services Divisions the senior managers continued to control decisions and to blame people for making mistakes rather than

thank them for getting things right. This continuation of the old management style was a problem for the middle managers in these two divisions since it thwarted their attempts to achieve the espoused move to profit centers by taking local initiatives to develop their businesses. Reinforcement of the old control schema continued throughout the change process. The middle managers continually compared their experiences of senior management style to their existing control schema and their expected delegated decision-making schema (Labianca et al., 2000) for the new working environment. A vertical negotiation process was occurring between middle managers and their seniors, with experiences of senior manager actions, such as stopping middle manager initiatives, impacting middle manager interpretations. However, there were also reinforcing horizontal social processes whereby the middle managers shared stories about their experiences with each other. As a result, there was no move from the old to the espoused new schema.

First-Order Analysis, Time 3: April–July 1994

More differences over the change process. By the start of the second year of change, Engineering and Services were still working on the implementation of their new working practices, but most of the planned changes for the Core Division were in place. The unpriced shadow contracts were being introduced, starting with a repairs contract in April. The implementation of the contracts highlighted confusion over the continuation of "business as usual" between the divisions (Tables 2–4, time 3). The diarists from the Core Division felt that middle managers in Engineering and Services still needed to cover both their prechange and postchange duties and understood that the current year was to be a parallel run of the practice of "business as usual" and the contracts.

> It is supposed to be parallel running at the moment with the contracts being used as guidance, black holes being reported . . . there is supposed to be a period of bedding in of the contracts. (Core, focus group)

The diarists in the Engineering and Services Divisions both wanted the contracts to put an end to the continuation of their old duties because of workload issues, and both these groups now viewed "business as usual" as an *excuse.* Some Core Division diarists had sympathy for the middle managers from the other two divisions, saying in July that they were expected "to do business as usual for nothing" and that "it [business as usual] became basically a dirty word." However, Engineering and Services diarists did acknowledge that the "business as usual" approach was essential early on.

> I think it did work initially, and it needed some kind of statement like that, but I think people are using that as a back stop. It's been used as an excuse. (Services, interview)

> It's been necessary to keep the job rolling, but in terms of pushing the change forward, it hasn't helped. . . . We've been trying to set ourselves up as a contractor, and . . . while we're at it, we'll keep Core's part of the job going. (Engineering, interview)

Resentment over "business as usual" was still strong because of the extra work and pressure it placed on Engineering and Services.

> Core can back heel any responsibility they don't want, knowing full well that we'll end up with the customer screaming at us. But we're not staffed to do it. . . . The business as usual is Core business activity. We've lost the staff who used to do the work, and Core staff numbers included for it, and they've still not taken responsibility for it. (Services, interview)

> We are still the bucket. (Services, focus group)

> The result of that is we are getting further and further behind with targets . . . if we don't meet our targets, we don't get a contract. That's our future. (Engineering, interview)

Given their experiences of unresolved divisional interface issues and the ongoing tensions, diarists in all three divisions now agreed that the lack of transition management for interdivisional problem resolution had caused and was continuing to cause problems. Also, all agreed that a lack of detailed output from the review group had led to "black holes."

> I think they've got the broad principles right. . . . But they didn't get down to enough detail. They closed the room up when everybody had finished, and just hoped it was all going to work out, and they probably needed some form of overviewing team, to pull it all together and iron out the wrinkles. (Services, interview)

Resolution yet tension: The new interdivisional and interbusiness relationship. From the Core Division perspective, the relationship with Engineering was improving, suggesting they could work together through contracts. The Engineering focus groups also revealed some improvement in the interdivisional relationship with the Core as the contracts were implemented. The use of contracts was starting to end the practice of "business as usual," and the contracts were resolving the issues of "who

does what," leading to a feeling that the divisions could work together contractually and cooperate. The Core Division was making efforts to identify and resolve problems with the contracts and to work with the Engineering Division.

> There was a lot of doom and gloom about the contracts at the last meeting. . . . The problems that have been seen by other managers in Engineering with the repairs contract, certainly seems to have changed. . . . They have been a lot more involved with the other contracts and actively seeking information to brief down to staff so that they are ready when it is actually negotiated and goes in. (Core, focus group)

> Contracts, the reason that is effective, is because we know what the hell we should be doing at last . . . There are still problem areas . . . but generally we now know where we're going, who should be doing what. So that's good. (Engineering, interview).

> They are making life a heck of a lot better because we have got things down in black and white now. . . . Core are actually admitting that there are grey areas, and they are saying well let's put them down and we'll get them right for next year. (Engineering, focus group)

However, earlier problems were not forgotten, and the ongoing change process issues, such as continuation of the practice of "business as usual," meant that tensions remained between the divisions.

> I could write a book on it. Some of the things that were said at senior manager level within the first two or three months. . . . Such as we're here to make sure that Engineering deliver, we're going to grind the so-and-sos down, I've paraphrased that. (Engineering, interview)

Although the tensions between Engineering and Services decreased, there was less improvement in relationships between Core and Services. The Core Division's newly centralized customer liaison department was the main Core-Service interface. The centralization had taken longer than expected and was proving harder to accomplish in terms of developing common working practices. As a result, the department was not picking up work Services believed it should be taking on, prolonging the dual duty of "business as usual" and Service's resentment of the Core. Since Engineering interfaced with other parts of the Core Division as well as with this department, there was more scope for an earlier reduction in "business as usual." The focus groups in all three divisions discussed the impact of the interdivisional tensions on customer service standards. Response times were slipping. The interbusiness tensions within Engineering also remained, although it was thought that the contracts would reduce the pressure from the issues of "who does what" and "who pays for what."

Control, not empowerment. Cultural issues also remained a theme. Diarists in Engineering and Services continued to experience senior manager control and blame for mistakes rather than thanks for doing well. The Core Division diarists consistently pointed to a continuation of control in the other two divisions but presented a mixed picture of movement against this in their own division; some talked of old-style managers who still operated through the old management style, and others were experiencing more open management—particularly from their divisional director.

> I think we still do have a blame culture. There seems to be an insecurity all the way up the management ladder. . . . When things go wrong you feel that edginess. . . . There is still a lot of management information that is sucked up, primarily to surround yourself with some facts and hope that nobody is going to pin it to you. (Services, interview)

Second-Order Analysis, Time 3: Middle Manager Sensemaking and Schema Change

Patterns of shared yet differentiated sensemaking were developing (Figures 1 and 2, time 3), with more commonality in the content of the different divisional schemata, as the implementation of the contracts facilitated different conversations and negotiations among middle managers across the divisional interfaces. The new conversations and negotiations enabled contractual cooperation around new compatible, yet different, divisional goals. The commonality between Services and Engineering was strong, both in terms of the change process schema and the organization schema: a shared "contractor" schema was developing. At the same time, the Core Division was developing a "business owner" schema. The Core Division middle managers were sympathetic concerning the issues facing the other two divisions, but they saw the second year as a parallel run of contracts with "business as usual," since this dual course matched their needs. Thus, there was still conflict among the change process schemata of the divisions. Although cooperation was developing through the contracts, both between divisions and between businesses, some level of tension remained as the different divisional (business) middle manager groups strove to meet their different goals and protect their different interests. These tensions were also affecting customer response times. In addition, there was no shift away from the control-blame culture in Engineering and Services.

Therefore, in the data from time 3 we see further development of the interdivisional (and interbusiness) relationship schemata. Middle managers were going through "reidentification" (Fiol, 2002) as they came to terms with the new goals of their different divisions/businesses. More commonality in the content of the interdivisional (and business) schemata developed through ongoing horizontal processes of social interaction between middle managers around the contracts leading to patterns of shared yet differentiated sensemaking. However, we continued to see residual conformity in the control schema and complaints in Engineering and Services about continuation of the old management style growing rather than abating. The Core and Engineering interdivisional schemata were showing more similarities, and there was more movement toward a cooperative contractual relationship between these divisions than was evident in the relationship between the Core Division and Services. We hypothesize that, as the centralized customer liaison department in the Core Division developed subsequent to our research, leading to a reduction in the practice of "business as usual" and a focus on contractual responsibilities, the Services interdivisional schema would have evolved in line with the Engineering schema. The pattern of interdivisional schema evolution was reflected in the Engineering interbusiness schema, with cooperation developing between the different businesses, but in the context of within-business differences. Shared meanings are not necessary for coordinated action (Donnellon et al., 1986): shared communication mechanisms may be sufficient. Given the different divisional goals, it is possible that greater overlap in meanings would not have developed between the divisions, and instead cooperation would have been achieved through the communication protocol provided by the contracts.

DISCUSSION

We examined change from a middle manager perspective during an imposed shift from hierarchy to a modular organizational form in order to identify patterns of schema change, understand how middle manager sensemaking informs schema development, and consider the relationship between schema change and restructuring. Our study helped us to better understand the schema comparison phase (Labianca et al., 2000) in organizational restructuring from the point of view of middle managers as "change recipients"—those who are being told to change but who have had no influence on the decision. They have the challenge of grasping a change they did not design and negotiating the details with others equally removed from the strategic decision making.

Figures 1 and 2 summarize the schema development pattern identified in our analysis. At time 0 (prior to April 1993), there was shared understanding around the old schema of "organization as hierarchy—common purpose." During time 1, the sudden imposition of a new modular organizational form introduced differentiation that led to the breakdown of a sense of common purpose and to deidentification. The restructuring created sensemaking fault lines between the new organizational groups, which had to be resolved through intergroup negotiation. Shared sensemaking was replaced with clustered sensemaking around new divisional "organization as multidivisional—interdivisional relationships" schemata, and a change process schema was introduced. Over time, these differences in schemata were, to some extent, resolved. Patterns of shared yet differentiated sensemaking developed through Core Division liaison efforts (time 2) and contract implementation (time 3). The new organizational units started to coordinate their activities in new ways yet also adjusted to their individual goals. By time 3, the Engineering and Services Divisions were moving to contractor positions, and the Core Division, to a business owner position. However, particularly in Engineering and Services, we also saw residual conformity to the old control schema.

Within these overall patterns of schema change, we find similarities to the findings of Labianca and his coauthors (2000). Both that study and the present study demonstrate sensemaking and individual and collective schema change occurring through processes of social interaction. Labianca and his coauthors also found new schemata developing through an ongoing process in which people compare encountered behaviors and actions to old and new (expected) schemata until consistent reinforcement of the new schemata (and no reinforcement of the old) lead to adoption of the new. This process is a "relocation sequence" (Albert, 1992) in which there is initially a duality of old and new schemata and then migration from old to new. We saw something similar in the control schemata in Engineering and Services. A new schema of devolved decision making was introduced. However, the horizontal and vertical social processes of interaction continued to reinforce the old control schema, leading to failed relocation instead of migration to the new schema.

In other significant ways, our findings differ from those of Labianca and his colleagues. Albert (1992) suggested that change may also occur through a "replacement sequence," which involves the de-

tachment of an organization from its current position and its reattachment to a new position. There is no duality of old and new schemata. This sequence better represents what occurred with the shift from "common purpose" to "interdivisional (and interbusiness) relationships" (Figure 1). Senior managers' invocation of business as usual was an attempt to create a relocation sequence in which both the old and new schemata would exist in parallel. Yet the introduction of the new structure effectively rendered the old common purpose schema obsolete, leaving the middle managers to adopt tentative interdivisional/business relationship schemata that subsequently evolved through horizontal negotiation. We thus saw schema change occurring through *replacement* of old with new, followed by incremental adjustment of the new schema. The schema evolved from resentment and tension, to tension but contractual cooperation, through processes of inter- and intragroup negotiation. The initial replacement of "common purpose" was consistent with a conversion model of schema change (Rothbart, 1981), since there was a sudden shift from the use of one schema to the use of a different one. Labianca et al. also found support for the conversion model, although their data suggested that the cause of the sudden conversion in schema use was the weight of evidence disconfirming the existing schema, rather than forced obsolescence. However, we also found support for Rothbart's bookkeeping model in the subsequent evolution of the interdivisional and business schemata.

The multiple groups introduced into the change process by the restructuring initiative created what we have called patterns of clustered sensemaking. As a result, the way the interdivisional (and interbusiness) relationship schemata evolved also supports the conflict model of schema change suggested by Bartunek (1984, 1993). In this model, when alternative schemata exist or surface within different groups, often because of differentiation of position, conflict centered on the interaction of these different schemata occurs. This conflict can involve domination of one perspective by another, or a dialectical process whereby more equal subgroups inform the schema development process through their negotiations. We saw both processes at work in this study. The senior managers imposed an intended new structural schema, but then it evolved and developed through interdivisional negotiation. The interdivisional relationship schemata here were affected by the differing views of the middle managers in the Core Division ("We want to liaise/cooperate") and in Engineering and Services ("We are now contractors"). This differentiation in the new structure meant that the different groups were likely, ultimately, to evolve different schemata rather than reach a synthesis.

Again, our findings on the coexistence of different schema change models differ from those of Labianca and his coauthors (2000), who argued that individual-level schema comparison and social negotiation better described their findings than a conflict model did. In their study, the tensions existed between management and lower levels, and the research team aided the process of dialectical interaction (Bartunek, 1983), facilitating the resolution of these tensions and the emergence of a jointly negotiated new schema. In our study, there were lateral tensions between the different middle manager groups (as well as vertical tensions over the control schema), and there was no facilitation between the different managerial groups. These conditions were more prone to more overt schematic conflict.

Different situations thus appear to lead to different patterns of schema change. A number of particular contextual factors appear to have influenced the schema development patterns we have identified. First, this setting involved imposition of a new way of working and coordinating (the new structure), as well as an attempt to change management style. Furthermore, the change style was directive rather than participative, and we saw none of the management commitment that Labianca et al. identified for the espoused change in management style. It's not surprising, then, that in contrast to the results of previous studies we found that (1) when change is imposed, forcing a break from the past, a replacement sequence of schema change may be more likely for change recipients than a relocation sequence. Furthermore, (2) a replacement sequence affects subsequent schema evolution: schemata evolve incrementally from comparison with experience, with no duality and comparison of old and new (expected) schemata. Finally, (3) the conflict model may be more prevalent when there are no channels or mechanisms to facilitate the resolution of conflict caused by differences in schemata.

Finally, like Bartunek and Moch (1990), we introduce the possibility of conflict and coevolution between the observed change process schema and change content schema. The senior managers designed a process ("business as usual") to match a relocation sequence in which the old common purpose schema would continue alongside the interdivisional relationship schema. The Core Division attempted to follow this sequence, as they needed "business as usual" (that is, the Engineering and Services Divisions' performance of their traditional duties as well as their new ones) to continue while

they established themselves. However, the change content schema ("interdivisional relationship") came about through the sudden replacement occurring with the imposition of the new structure. Engineering and Services were rapidly moving to contractor positions as redundancies reduced manpower and the new businesses were introduced in Engineering. These developments created a conflict in the change process schemata of the divisions ("business as usual necessary" versus "business as usual needs to cease"). The mismatch between the attempts by Engineering and Services to work to the new content schema and the attempts by the Core Division to work to their change process schema in turn affected the further development of the content schema by exacerbating interdivisional tensions.

In addition to identifying patterns of schema change, we also need to understand what informs the schema development process. How is middle manager cognitive disorder resolved, and what is the relationship between managers' sensemaking and the way restructuring develops? Clearly, middle managers do a lot of experimentation in the absence of a clear and shared view of how a new structure is to be made operational. They use both vertical and horizontal social processes of interaction, but, as expected, given vertical structural barriers, most interaction occurs horizontally, between middle managers. The nature of the relationships that develop, and the way the new structure operates, are thus determined by these middle manager processes of interaction. Change outcomes—here, interdivisional and interbusiness tensions leading to poor customer response times—may not be the ones intended by senior managers. Middle manager sensemaking occurs primarily outside of senior management control. This may be because, as here, middle managers are largely remote from their seniors. Yet the delayering that often accompanies decentralization removes hierarchical layers between senior and middle managers, simultaneously reducing opportunities for interaction up the management chain. The middle manager lateral processes occurring in change contexts, which have so far received less attention than vertical processes, are therefore critically important.

It is not only the formal lateral processes that play a significant role in schema change, but also the multiple (and largely informal) conversational vehicles: stories, gossip, and rumor; behaviors and actions; discussions and negotiations; and sharing of personal experience and interpretations of change interventions. Our findings regarding what gets shared through such conversations support other research on the importance of senior management's symbolic influence on the change recipient sensemaking process (Donnellon et al., 1986; Gioia & Chittipeddi, 1991; Gioia et al., 1994; Isabella, 1990; Morgan et al., 1983; Pettigrew, 1985; Pondy, 1978, 1983; Poole et al., 1989). However, our findings also suggest that the actions, behaviors, gestures, and language of peers and their shared personal experiences and interpretations have a more direct impact on change outcomes, and therefore on the way a structural blueprint designed by seniors works in practice.

Implications for Practice

Moves to more modular organizational forms introduce sensemaking fault lines between previously integrated organizational units. These units need to bridge the fault lines to coevolve while simultaneously evolving internally to adapt to their new, more independent goals. Attention to design and transition management is required for the interfaces as well as for the individual units. When senior managers redesign their organizations, they need to consider social factors alongside the other aspects of the work settings (Porras & Robertson, 1992). In addition, managers need to consider the issues this research raises about the synchronization of change process and content schemata. A replacement sequence of schema development forced by imposed structural change has advantages, as there is no going back. However, in the absence of extensive up-front design, decisions on how a structure is to work in practice fall to middle managers, and keeping the affected business going in the meantime may be problematic. A relocation sequence, in which new structures are put in place gradually, resolves the transition management issue but allows for incomplete adoption of change plans and possible derailing of the process.

The important role of middle managers in developing new organizational structures and other changes designed by their seniors requires acknowledgement. There is an assumption in the practitioner literature that top managers can direct change. Although we do not deny the influence of senior manager actions on the new negotiated understandings that develop in an organization during a change, we do question the extent to which leaders can manage the development of change recipients' schemata—particularly in the larger, geographically dispersed, modularized organizations we are increasingly seeing. Most research cited has used both theoretical and empirical findings to argue that senior managers need to better stage-manage their conversations with recipients, often with a particular emphasis on symbolic interven-

tions. This research reveals the significance of recipient sensemaking that occurs in the absence of senior managers, with peer actions influential in shaping the meanings that develop. Change leaders need to pay more attention to these lateral processes while recognizing that interrecipient sensemaking and therefore, change itself, may not lie fully within their control. As conversational and other socially constructed perspectives on change suggest, change recipients *create* change. They determine its outcomes through their social processes of interaction and the meanings they develop as a result—and therefore, the term "change recipient," with its implication of passive acceptance, may be inappropriate. Determining stakeholders' "deep structures" in advance (Bartunek, 1993; Heracleous & Barrett, 2001) may enable a change leader to better understand the various responses to a change initiative, but it does not make the responses predictable. Furthermore, in larger organizations, with their greater diversity of individuals, understanding the multiple meanings that are developing is a challenging proposition.

However, this research does show that during organizational change it is essential to tap into, monitor, and understand the multiple interpretations that are developing among recipients. It is also important to understand why these interpretations are developing and the outcomes to which they are leading, so that appropriate actions can be taken. Black holes in design can also be expected to occur in all change initiatives. The tracking of change progress in ways similar to that done here might be used to identify the multiple interpretations and black holes as they arise. Specific transition management resources and interventions are needed to track the progress of change, resolve black holes and design problems as they occur, and facilitate the resolution of conflict based in schematic differences.

Implications for Future Research

Like much of the organizational change and sensemaking literature we draw on in this article, this research examined patterns of change in only one organization and in one form of restructuring. Although we have only focused on a particular instance of restructuring, the context of decentralization and modularization gives our findings broader relevance. The patterns we uncovered in middle manager sensemaking may exist in other changes involving these characteristics. In line with Lincoln and Guba (1985), we have provided a thick description of the setting so that readers can better assess how well our findings may fit other settings. But, as with any single case study research, issues arise about the generalizability of our findings to other instances of structural change involving shifts to more decentralized forms. We acknowledge that the generalizability of our model of schema change needs to be established through further research.

This research shows that different types of change processes can lead to different patterns of schema development. However, we looked at a top-down, directive change involving a substantial restructuring and a significant break with the past in terms of working practices. As a result, we have only been able to make limited suggestions as to how patterns of schema change vary with context. A more bottom-up and participative restructuring initiative, or a different type of initiative, such as a merger, might lead to different patterns. We need more studies of the nature of cognitive reorientations accompanying change in order to fully model how the process of schema change varies with the nature of change. We also only looked at middle managers. It is likely that the process of senior management schema development during restructuring is very different, with different triggers and negotiation processes. More research effort is needed to understand the roles of both middle and senior managers in restructuring initiatives and in other change contexts.

In addition, research issues specific to modular organizational forms remain. These restructuring initiatives create considerable cognitive disorder and entail a certain cost associated with cognitive renegotiation. How can such costs be minimized and the transitions made easier for those involved? The rhetoric of the modular organization is that it increases market flexibility, but for this to be the case, managers need to be able to alter their patterns of interaction to keep pace with structural shifts. How feasible is this when such alterations may require a simultaneous cognitive reorientation?

These issues suggest scholars need to know a lot more about the sensemaking processes that accompany both change to and change within modular organizational forms. Our research enabled us to offer some tentative propositions about the patterns of schema change accompanying structural shifts, and it highlighted the critical shaping role of middle manager sensemaking. To make further progress, researchers need to develop greater understanding of how specific aspects of change context and design affect patterns of schema development and the implications of observed effects for how managers facilitate change in organizations. Yet this research also highlighted the key role of social interaction in schema development. It is through these processes of social negotiation that

new understandings and ways of working develop. These processes are also the more visible aspects of schema change, and thus they may be crucial for leaders of change to understand and seek to facilitate. Future research on schema changes occurring in strategic and structural change settings could usefully pay more particular attention to the effects of social engagement and the roles in it of senior managers, middle managers, and others.

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