

Resources in Emerging Structures and Processes of Change

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In this paper I argue that understanding resources through a social practice perspective enables us to understand more about the role of resources in change. In particular, social practice theory enables us to view resources in context as mutable sources of energy rather than as stable things that are independent of context, and to analyze the reciprocal relationship between actions and resources as they change. This approach to understanding resources requires an elaboration on current social practice theory and provides a new way to understand organizational change. This perspective is used to show how resources transform in unexpected ways as a result of change in organizational routines and how this transformation of resources makes resistance to change difficult to predict.

Key words: resources; organizational change; structuration theory; resistance; practice theory

Introduction

Resources are an important aspect of organizations. Resources have received a great deal of attention from organization theorists, and several different perspectives on resources have been developed. The political economy model (Zald 1970, Wamsley and Zald 1973), the power-dependence model (Thompson 1967), and the resource dependency theory (Pfeffer and Salancik 1978, Pfeffer 1982) all suggest that resources flow from the external environment and that the ability of an organization to control the flow of vital resources is critical to its success. These theories assume an open systems perspective (Katz and Kahn 1966) and suggest that the management of dependencies is a critical organizational function.

More recently, the resource-based view of strategic management and the dynamic capabilities approach that is built on the resource-based view have turned the focus of attention from the external environment to the internal aspects of a firm and the ways that a firm uses its resources (Barney 1991, 2001). Resources, from this perspective, are the “specific physical (e.g., specialized equipment, geographic location), human (e.g., expertise in chemistry), and organizational (e.g., superior sales force) assets that can be used to implement value-creating strategies” (Eisenhardt and Martin 2000, p. 1107). They are “firm specific assets that are difficult if not impossible to imitate” (Teece et al. 1997, p. 516). From this perspective, resource bases are “heterogeneous and sticky” (Teece et al. 1997, p. 514). These features have led one group of researchers to suggest that “a firm should pay more attention to its resources than to its competitive environment” (Das and Teng 2000, p. 32). The resource-based view and the dynamic capabilities approach help us to see that, rather than being dependent on the external environment, firms create at least

some of their resources. Indeed some of the resources they rely on are the relationships they create with other organizations (Eisenhardt and Schoonhoven 1996) and their internal organizational culture (Barney 2001).

An institutional perspective on resources adds to this picture by showing that the utility of resources changes as the relationships among participants in the field change (Leblebici et al. 1991). From this perspective, we see that resources are dependent on the configuration of the field. Leblebici et al. (1991) show how the relevant resources in the U.S. radio broadcasting industry changed over time as the dominant players changed from manufacturers to advertising agents to networks and finally to local stations. Moreover, they show that the process of change is an endogenous process in which new practices redefine the relevant resources.

In this paper I combine the mutability of resources from the institutional perspective with the internal focus of the resource-based view to propose a practice-based theory of organizational resourcing. I show that, in addition to field changes, changes in internal organizational processes are an important influence on resource mutability. Specifically, I show how changes in the internal processes of an organization can take one kind of resource and recreate it as a different resource. Understandings from social practice theory enable me to develop these connections and developing these connections enables me to extend the understanding of resources in social practice theory.

Social Practice Theory and Resourcing

One strand of social practice theory has identified resources as an important aspect of structure. Structuration theory defines structure as “rules and resources, recursively implicated in the reproduction of social systems” (Giddens 1984, p. 377). In structuration theory

resources and rules constitute a modality that facilitates the structuring process (Giddens 1984; Orlikowski 1992, 2000; Wilmott 1987). According to Giddens (1979), resources, which might be either authoritative or allocative, provide the ability to dominate while rules provide the ability “to go on” (pp. 67–69).

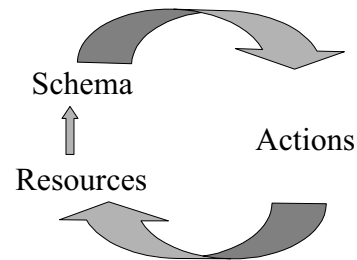
Even among scholars who use structuration theory to understand organizational processes the concept of resources has remained underdeveloped (Sewell 1992, p. 9). Instead, resources have often been viewed as influencing but not being influenced by work processes (Ranson et al. 1980) or as inseparable from rules (DeSanctis and Poole 1994, Riley 1983, Orlikowski 2000).

In an exception to the general rule, Sewell has separated rules and resources. He has defined resources as “anything that can serve as a source of power in social interactions” (Sewell 1992, p. 9) and he has distinguished between rules and resources by suggesting that rules are virtual while resources are actual (Sewell 1992, p. 13). This distinction, however, is problematic in that it contradicts a basic principle in structuration theory, that “phenomena become resources . . . only when incorporated within processes of structuration” (Giddens 1984, p. 33, cited in Orlikowski 2000, p. 406). Sewell’s distinction also appears to contradict his own definition of resource as “anything that can serve as a source of power in social interactions” (Sewell 1992, p. 9), because it rules out the possibility that schemas can be resources. Though he acknowledges that formal rules are resources, less-formalized schemas such as norms and rules of thumb are also used as sources of power in social interactions as ethnomethodology has shown us.

Studies exploring the implementation of technology using a structuration approach to examine the reciprocal relationship between structures and work processes could also be understood as studies that separate resources from rules (Barley 1986; DeSanctis and Poole 1994; Garud and Rappa 1994; Orlikowski 1992, 2000). Although it is tempting to interpret the technology as the resource in these studies, Orlikowski makes clear that, rather than being a part of structure (schemas and resources recursively implicated), technology is an artifact (Orlikowski 2000). She states, “It is only when repeatedly drawn on in use that technological properties become constituted by users as particular rules and resources that shape their action” (Orlikowski 2000, p. 408). Thus, it is the “technology in practice” rather than the embodied technology that constitutes rules and resources. These studies do convincingly show that we cannot define rules and resources independent of their use.

In this paper, I separate resources from rules or schemas when I refer to them throughout the rest of the paper. I do not separate them based on a priori characteristics but rather on their use in context. Resources enable

Figure 1 Resourcing Cycle



actors to enact schemas. Resourcing is the creation in practice of assets such as people, time, money, knowledge, or skill; and qualities of relationships such as trust, authority, or complementarity such that they enable actors to enact schemas. Thus, children must be turned into students to enable teachers to enact teaching schemas. And the types of students that are created influence what particular teaching schemas can be enacted. At the same time, the actions taken that enact various teaching schemas will create different kinds of students. This cyclical relationship is depicted in Figure 1, which expands the reciprocal relationship between structure and action to include the relationship between resources and schemas.

I use this cycle to understand a particular case of organizational change. Observation of a single setting over more than four years enables me to trace the unfolding of resources and schemas as a new organizational structure emerges. In this paper I show how actions, in the form of organizational routines, create resources that enable people to enact schemas and create more resources. In the case explored in this paper, the building directors of residence halls in a large state university needed to turn their student staff members into teams with particular characteristics in order to enact their preferred schemas about how to be building directors. The analysis shows the cyclical relationship among actions in the form of work processes, resources, and schemas and how changes in work processes (organizational routines) altered resourcing, which altered the ability to enact schemas in this context.

During the period of study, the organization redesigned and partially centralized some of its work routines. The effort was a partial success. There were substantial changes in the way work was done, but there was also resistance and subversion and a great deal of ill feeling. The example is useful for a number of reasons. It takes place in an organization in which there was broad agreement about organizational goals and even about the goals of the change process, and the redesign effort was a mutual attempt of subordinates and management to solve problems that were commonly felt. Thus, problems with the outcome of the process cannot easily be attributed to either divergent conceptions of the organizational mission or to heavy-handed management.

Information, trust, authority, the configuration of the communication network, and the interconnections among the resident staff are some of the resources that were created in this case. These resources enabled staff members to enact some schemas more readily than others. As a result, the staff members themselves became a resource for their supervisors enabling and constraining the ability of the supervisors to enact their schemas. Resistance emerged as the supervisors found that the staff members became less capable over time of enacting the schemas that the supervisors wanted enacted.

In the following, I first describe the location of the field research and my methods of data gathering and analysis. Then I present the case and the changes in organizational routines. I analyze the effects of the changes with respect to the availability of resources and discuss how these changes help us understand the dynamics of resources and structural change. Finally, I present the implications for theories of change and for bringing about change.

Methods

The case takes place in a student housing department of a large public university. Approximately 35,000 students attend the university. The student housing department provides housing for approximately 10,000 single students and 4,000 married students with their families. The data used in this paper were gathered as part of an ethnographic study of the work processes in this department.

Data Gathering

I gathered data in stages. First, I conducted 20 formal unstructured interviews throughout the organization. These interviews gave me an understanding of how employees viewed their work and their organization, how units were organized, and how they coordinated with other units. Based on these interviews I focused on specific routines that were identified by the organizational participants as central to the work of the organization. The larger study examined five routines including budgeting, hiring, training student staff members, and opening and closing buildings. Each of these routines takes place once or twice per year in a relatively scripted manner. The hiring and training routines are the starting point for this paper.

I engaged in extensive data gathering over the next four years. I spent approximately 1,750 hours in observation, participation, and conversations of various sorts. Over the four years, this averages to between 5 and 10 hours per week. There were some weeks when I spent much more time in the organization and others when I spent much less time. I also gathered 10,000 electronic messages (e-mail) from both supervisors and subordinates. E-mail became a common form of communication over the period of observation, and increasingly coordination and discussion took place through this medium.

Data Analysis

It is always hard to say where data gathering stops and data analysis begins. Whether explicitly, as proposed by Glaser and Strauss (1967) or implicitly, one is always trying to make sense of one's data and thinking about what more one can find out. My approach at this stage was to find out as much as I could about the organization, its members, and their work practices. Conscious analysis of these data waited until the formal observation period ended.

Formal analysis involved three steps that took place roughly concurrently and over a period of several years. The first step was to write a manuscript that pulled together the information I had gained about both the organization, in general, and the organization's members' specific routines. This manuscript included detailed descriptions of organizational units and positions, organizational culture and attitudes, and dispositions of individuals as they pertained to the organizational routines I studied. It also contained detailed descriptions of each of the routines, who participated in them, what they did, and how the routines changed over the years of observation.

The second step involved approaching the data from a metatheoretical perspective. I used ethnomethodology, semiotics, dramaturgy, and deconstruction as the metatheories that drove this analysis. Each provides a perspective that encourages the researcher to ask particular questions of the data. As with any analytical tool, each of these metatheories has assumptions that must be consistent with the data for the analysis to be appropriate. In the case of my data, each of these metatheories was consistent, and I used each of the metatheories to examine the data. The analyses themselves are available in a separate publication (Feldman 1995). Examining the data through several different metatheoretical lenses allowed me to develop new understandings of the data I had gathered without going beyond what I had actually observed or been told. The reason for this part of the analysis was consciously to break the order of information as it had been presented to me. I did not discount the original order, but sought to develop alternatives.

The third step took place once I had found some theories that helped me to think about the microprocesses of the organizational dynamics I had observed. The theories I found most useful were structuration theory (Giddens 1979, 1984) and theories of practice as developed by Bourdieu (1977, 1990), Lave (1988), and Ortner (1984, 1989). As I read these theories, I used the concepts to organize my observations of the routines. This exercise led me to an appreciation of the relationship between action and structure through the medium of practice. This appreciation underlies much of what I understand about the relationship between work practices, structure, and change that I discuss in this paper.

A final step is ongoing as I write articles in which I try to explain what I have come to understand and why I believe it is important. The effort involves shaping the data in a way that will help people to understand the point I wish to make without violating the sense of the observations. The reason for this effort is that ethnographic research yields observations that are relevant to many points of theoretical interest and that these observations are tangled and interwoven in the fabric of everyday life. As I attempt to pull out and follow one strand, I must make decisions about what constitutes a strand, and about what surrounding fabric needs to be explained in order to make sense of the strand. During this process I find that questions arise that did not arise from any of the previous analytical efforts. I interpret this as a function of the richness of the data rather than a failing of any of the earlier analytical efforts.

In this paper I use data from a variety of sources, some documents, some taped meetings, and some e-mail messages. I do not use the data to prove but to exemplify. The case, as with any case, is very rich. In the following, I focus only on a narrow segment of the actions and ideas present in this case to illustrate the interaction between schemas and resources and their role in organizational change.

The Case

The main actors in the case are two groups of professional administrators. The first group is building directors; they are professionals who work in but do not live in the residence halls. They are responsible for managing student resident staff members and for making sure that the residence halls run smoothly. They often provide counseling and educational services to both residents and resident staff. The other group is the central administrators; they supervise the building directors.

During the four years of observation, these two groups worked together to change some of the work practices of the organization. They both came to recognize that the building directors could not fulfill the demands being made on them and that something needed to be done to make their work more manageable. Both groups noted the inability of the building directors to attend scheduled meetings and to complete written work such as monthly activity reports. One of the areas that everyone felt could be improved was the process of hiring and training the resident staff of about 350 students. Consequently, they redesigned and partially centralized the hiring and training routines. The building directors generally² supported the redesign of these routines. Most of the ideas that were used in the new routines were ones that individual building directors had used previously. The redesign was more efficient, reducing duplication of effort, and relieving building directors and their resident staff members of several tasks. It also allowed the entire organization to use the ideas that had worked the best for

individual building directors, and enabled the organization to put more resident staff in contact with experts who could make only one or a limited number of appearances. Almost everyone agreed these were good ideas.

Over time, however, the building directors became unhappy with the changes and came to believe that the central administrators did not understand the demands of their jobs and did not support them in their work. They acted to subvert the new hiring process and complained often about the new training process. Meanwhile, the central administrators thought the redesign was a success and were mystified by the building directors' unhappiness. They continued to move forward with the changes they were promoting in the hiring and training routines. This difference in perspective led to an increased polarization over the time of observation. Building directors came to believe that the central administrators did not understand the nature of their work and were trying to undermine them, and central administrators came to believe that the building directors were not team players. My analysis suggests that the creation of resources or resourcing plays a major role in this story. In the following I describe the changes in the routines and how these routines affected the ability of the building directors to enact their preferred schema for being building directors.

Changes in the Hiring and Training Routines

Between January and March the housing division hires (or rehires) approximately 350 student resident staff members. The resident staff members are housing division employees who live in the residence halls. Starting in late summer the housing division trains the students who have been hired. There is an intensive training period at the beginning of the school year, followed by in-service training throughout the year. The hiring and training routines are connected not just in the sense that people who are hired are later trained, but also in the sense that the hiring process is designed to be the beginning of training.

The changes in the hiring and training routines were intended to be changes in the way the routines were conducted, rather than in hiring criteria, or the skills that were developed during training. As we will see, changes in the way hiring and training were conducted eventually became changes in the characteristics of the resident staff, but these were not the intended changes. The intended changes were to centralize parts of the hiring and training routines. This allowed the unit to take advantage of economies of scale, to reduce the load on the building directors, and to implement the procedures that had worked best over the years throughout the unit even where there were new building directors in place.

The hiring process changed from one that took place entirely within each residence hall (with coordination between residence halls taking place only on an ad hoc

and informal basis) to a routine that started and ended with central coordination. In the old routine, each residence hall had different application forms and applicants had to prepare applications for each hall in which they were interested in working. The staff in each hall did their own screening of all who applied followed by a second interview process for those whom they thought most appropriate for the hall. The staff in each hall made offers to the applicants they wanted to hire: many good applicants received multiple offers. In the new routine all applicants received the same application form and participated in a centralized screening process before they were interviewed within the residence halls where they wished to work. After interviewing people who had passed the centralized screening process, the people in each residence hall selected the candidates they wanted to hire. When more than one residence hall wanted to hire the same person, the conflict was resolved before making an offer to the applicant.

The training routine changed in a similar way. In the old routine, training consisted of about a week of team-building and skill-building activities before the school year began, followed by a series of in-service sessions and weekly staff meetings over the course of the year. Almost all of these sessions took place within each residence hall, always with the same relatively small group of people (from 5 to 40 people) who would be working and living together in the hall that year, and were facilitated or at least coordinated by the building director of that building. The new routine also started with a week of skill building before the school year began, but the sessions were not organized around specific residence halls. Some of the sessions were for the entire resident staff (approximately 350 people); sometimes multiple sessions on a particular topic would be offered so that resident staff members could choose any of three or four sessions to attend. Even when the new routine provided training to small groups, the members were not necessarily from the same residence hall. In fact, the other significant change, which was a specialist system, made this unlikely.

The specialist system identified several different specialties such as eating disorders, drug and alcohol abuse, safer sex, and sexual assault, then designated at least one student staff member in each residence hall to become an expert on each topic. The group of student staff members met with experts in the subject who might be affiliated with the university or with housing, but who might also be from the community at large. These experts provided general training as well as information and support for dealing with incidents that arose in the residence halls. These specialist groups met on a regular basis.

Resourcing

How these changes affected the ability to enact schemas is a complex question. I will only be able to begin to

provide an answer. In the introduction to this paper I claimed that work practices such as organizational routines not only require resources but also create them. In this section I show this empirically.

Let me start with an example of a particular situation that illustrates circumstances that arise in residence halls: the need to deal with a person who is suspected of being bulimic. This situation can be dealt with in a variety of different ways, each requiring different resources. The following shows two ways people could and did deal with a bulimic in the hall. One happened before the new hiring and training processes were fully enacted, and the other happened after. I argue that the practices engaged by organizational members at the different times created the different resources that were used to deal with this situation.

In the first case, the building director found out early in the year that there had been a lot of vomiting in public restrooms. She alerted all of the resident staff members about the situation and provided them with information about the disorder. She then held a series of information meetings for the resident staff members so that they could supply information and support for each other and for residents who were affected by the situation. Later, it turned out that one of the residents was a recovering bulimic and was suffering from *déjà vu* experiences. Again, the resident staff members gathered and the building director provided more information about the eating disorder and how it affects people so that they could provide support for this resident and others who might have similar problems. A few weeks later the building director again discussed the disorder with senior staff members and talked about their needs for information. They decided to create an in-house expert and staff support system. The staff members coordinating this effort met with the building director “to discuss strategy, goals and hoped-for outcomes and to review the resource materials at hand.” The efforts continued throughout the year with broad dissemination of information across resident staff members and throughout the residence hall community. (Taken from BD Role Report, Story 2.)

The specialist system that was developed as part of the new training routine provided another way for staff members and residents to deal with such incidents. In the second bulimia case the resident staff member suspected a person on the hall of being bulimic and contacted the resident staff specialist on eating disorders. The resident staff specialist contacted the outside expert who provided information about bulimia. The resident staff specialist urged the suspected bulimic to get medical care. As in most cases, including the bulimia case discussed above, approaches to the bulimic showed no discernable effect on the bulimic’s behavior. The building director did not find out about the suspected bulimia until the end of the year when the resident would not

move out of the hall. At that point, he found out that the resident had been having problems throughout the year and that two of his resident staff members (the one who lived near the resident and the eating disorder specialist) as well as many residents knew about these problems.

In the first case, the presence of a person with an eating disorder in the residence hall was treated as a community event. The building director was informed early on and she coordinated the resident staff members to understand the eating disorder, the people who were afflicted by it, and the effects on the residents who live around a bulimic. In the second case, the presence of a person with bulimia was treated as an individual event. The resident staff member whose specialty was eating disorders gathered information and the information was supplied to the bulimic.

One can have different opinions about which way of dealing with bulimia was better, but they were certainly different. The building directors who presented these stories were convinced that the first approach was better. The building director who presented the second story ended by saying that the way the process unfolded was frustrating for him because it put him in the position of “acting like an aggrieved landlord” rather than an educator. He was unable to have any effect on the suspected bulimic, but more than that, he was unable to use the incident as an opportunity to educate the rest of the community and to help them moderate their reactions toward the suspected bulimic.³ (Taken from BD Role Report, Story 4.)

Organizational Routines as a Source of Resourcing

These ways of dealing with bulimia illustrate three theoretical points about the creation and recreation of resources. First, organizational practices alter both the

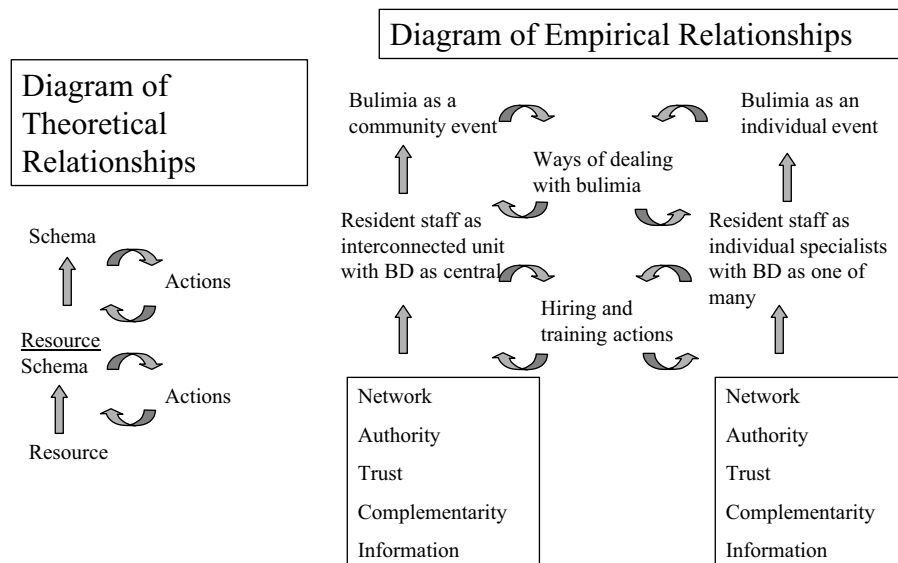
existence of and the meaning of assets (such as information) and qualities (such as trust or complementarity) so that they can be used differently as resources. Second, the same quality or asset used differently becomes a different resource and energizes different schema. Third, assets and qualities that are resources in relation to some organizational practices might be schemas in relation to others.

In the following discussion we trace the development of resources. Figure 2 provides a summary of the discussion from both a theoretical and an empirical perspective. The empirical diagram traces out the example of the two ways of dealing with bulimia. Though the same thing is happening theoretically in both cases, empirically they are different and, thus, there are two empirical representations. In the discussion below, the theoretical and empirical aspects are intermingled.

Resources that were used in each way of dealing with bulimia might go by the same name, but they were fundamentally different in how they affect an actor’s ability to enact schemas. These include relational qualities such as authority, trust, connection, and complementarity; and informational assets such as expertise and organizational knowledge. The old and new hiring and training routines are the work practices that affect the construction of these qualities and assets such that how they can be used as resources (or how they could resource the schemas) was altered. In the following I focus on the development of relational resources, though informational assets are necessarily implicated in the resourcing picture.

Relational resources are qualities of relationships that enable people to work together (Dutton et al. forthcoming). Relational resources might take the form of networks or connections that increase understanding about both the skills and the willingness of other people (Baker

Figure 2 Resource Development



2000, Baker et al. 2003, Ibarra 1992, Granovetter 1973, Uzzi 1997). Relational resources also take the form of the quality of connection (Dutton and Heaphy 2003). In this case, trust, authority, complementarity, and information are qualities of the relationships that influenced the way people were able to work together.

The different hiring and training routines created different networks for the resident staff members. The way hiring and training were enacted in the first case helped to create a self-contained network. At this time, there were tight connections between resident staff members and the building director and among resident staff members and very little, if any, connection outside the residence hall. The new hiring and training routines created a different kind of network. Student staff members were connected to specialty experts and to student staff in other residence halls. Although student staff members were still connected to people in their residence halls, these connections were attenuated.

These networks served as different kinds of resources for dealing with the bulimia situation. They created different understandings about who was willing and able to deal with eating disorders and different paths for information to flow through. In the first case, actions were widespread throughout the residence hall but people outside the hall were not brought into the action. Similarly, information flowed throughout the residence hall but remained primarily within the residence hall. In the second case, the network encouraged localizing action to a small group within the residence hall and engaging the outside expert. The information flow followed a similar pattern.

Authority was a relational quality that energized different schemas in the two ways of dealing with bulimia. In the first case the building director was the clearly established authority in the residence hall. When the first case took place, as indicated by the hiring and training routines, all of the interactions of the resident staff members, from the time they applied for the position to the time they resigned from the job, went through the building director. By the time the second case took place, the resident staff members had interactions with people from the central administration, with building directors from other buildings and with outside experts. Many of these interactions took place without the presence of the building director for their particular residence hall. At this time, authority was more distributed. These different ways in which authority was developed constructed it differently as a resource. In the first case, the building director had the authority both to provide information about bulimia and to make it an issue for the entire resident staff. In the second case, the outside expert had the authority to provide the information, whereas the building director still had the authority to make it an issue for the entire resident staff. Because the resident staff member dealing with the second situation went only to

the outside expert, only the information providing part of the authority was exercised.

The relationships developed during the hiring and training processes not only affected the distribution of authority within the residence halls, but also affected the distribution of trust. In the first case, the resident staff trusted each other and the building director to provide the support and information they needed to deal with the situation. In the second case, the resident staff trusted the specialist system and the outside expert. The hiring and training routines in operation when the first bulimia case took place provided the resident staff members many opportunities for team building within the residence hall. The team within the residence hall had numerous discussions about sensitive issues before they came to this particular bulimia discussion. They had shared their feelings about issues such as bulimia with each other and with the building director, feelings that are often difficult to talk about. By the time the second case took place, the hiring and training routines made less time available for team building within the residence hall. There were also fewer discussions of sensitive issues because these took place primarily within the specialist groups. Although this specialization was more efficient in terms of providing information, it did not give the resident staff members the opportunities to explore their own and other people's reactions to these sensitive issues. Therefore, whereas trust was developed in each case, in each case it was a different kind of trust. In the first case, it was trust in a co-located group of people to deal with a broad set of issues. In the second case, it was trust in a distributed group of people to deal with one area of expertise. In the first case it was more emotionally based trust, whereas in the second case it was more informationally based trust.

The complementarity of resident staff and the way they worked as a team was different at the two times that the cases took place, and acted as different kinds of resources. In the first case, the staff members worked as a team to put together a picture of what was happening in the residence hall and what would be useful for the staff members to do for the residents and for each other. In the second case, the staff members worked as a team to distribute tasks so that everyone did not have to be involved in all of the issues taking place in the residence hall. These ways of working as a team depended on the development of different kinds of complementarity that were created and recreated, in part, through the hiring and training processes in use at the two different times.

The first case took place when the hiring process allowed more diversity in the qualities of resident staff members. This diversity was a highly valued feature of the staff group because the staff members relied on one another to be able to gain a better understanding and to be able to relate to the many and diverse residents who lived in the hall. This concern with building diverse

teams is reflected in a hiring discussion that took place early in the fieldwork. The person being considered had lived in the same residence hall where he wanted to work. He was known by the resident staff to be a “partyer.” The discussion involved the fact that he would probably continue to party while being a resident staff member and that would be a problem. However, people argued that his partying would help him understand and relate well to residents whom some resident staff did not understand or relate well to. The ultimate decision in this case was to hire him. The value placed on variety was sufficiently high to warrant tolerating the probable costs.

At the time the second case took place, the hiring process was filtering out many potential staff members who, like the partyer, would help to make a diverse team. In the new process, applicants were evaluated on their ability to conceptualize and to communicate; their capacity for group participation; their tolerance of others; their self-confidence, maturity, and potential for leadership; and their understanding of the staff role. All of these characteristics were universally valued and had been used in the old hiring process. The difference is that in the new process a person, like the partyer, would be screened out before his unusual contribution to the resident staff could be assessed. In the new process, certain qualities acted as a filter and all staff members had to have them. This standardization of resident staff promoted by the new process fit well with and reinforced the specialist system in which each staff member needed to be able to deal with anyone in the residence hall who presented the specific kind of problem for which the staff member was responsible.

Information was an important asset. In dealing with bulimia two kinds of information were particularly relevant. One was the information that there was a bulimic in the hall. The other was expertise about bulimia. Both were affected by the changes in the hiring and training routines. The change in information about the bulimic was a change in who received the information. As discussed under the network configuration and the distribution of authority, in the first case the information was widely distributed within the residence hall. In the second case the information was shared only with the residence hall eating disorder specialist and the outside expert on eating disorders. These different distributions of information influenced what actions would be taken and also influenced the expertise about bulimia.

Expertise about bulimia was altered because of the context in which it was provided. Because the knowledge of the bulimia was held in common by the residence hall staff members in the first case and because these staff members had experience discussing sensitive issues, the expert information provided by the building director was embedded in an informational context that included comments by people who had had the

disorder or who had close friends who had the disorder, and discussions about the feelings that are associated with being around bulimics and with watching bulimics destroy their lives. This informational context was absent in the second case where the outside expert provided information either in group meetings of people who did not know one another well or on a one-to-one basis. Thus, the expert information about the disorder had very different effects. In the first case, the information provided a common understanding for the resident staff and helped them to coalesce as a support team. It also provided the same base for interacting with the residents around this situation. By contrast, the way information was provided in the second case provided much more privacy for the bulimic. Many of the resident staff members, including the building director, did not know of the person’s problem throughout the year.

One could say that the same resources were available in each of the cases. Certainly there was the same number of staff members with very similar personal characteristics. In both cases there were networks, a distribution of authority, trust, complementarity, and information within resident staff groups. The networks, authority, trust, complementarity, and information that were created by the hiring and training routines in the two periods, however, were different, the way they could be used was different and, as a result, they energized very different schemas. The earlier routines created resources that energized the “resident staff as interconnected unit” schema. The later routines created resources that energized the “resident staff as individual specialists” schema. These schemas, in turn, became resources for a variety of schemas that are enacted in the residence halls. The comparison of the different schemas for dealing with bulimia provides an example of how the creation of these different kinds of resident staff teams enables some schemas and disables others.

The development of the resident staff as a resource that enabled the building directors to enact various schemas is the next step in resource development and illustrates that a schema in one context can be a resource in another. In the theoretical diagram in Figure 1 actions are paired with a schema-resource set. Figure 2 shows the same pairing. In Figure 2, however, the schema for the one set of actions becomes the resource for another set of actions. Thus, in the empirical relationships, the hiring and training routines (actions) create and recreate the resources of network, authority, trust, complementarity, and information. These resources energize the two alternative schemas of resident staff as interconnected units and resident staff as individual specialists. These resident staff schemas, in turn, become resources that energize different schemas about bulimia in relation to the different actions taken to deal with bulimia. As we see in the section on the development of resistance, these schemas about resident staff also become resources in

relation to schemas about the role of the building directors. In particular, they energize or make it possible to enact the building director as either educator and community leader, or landlord.

Summary

The claim here is that the creation of a resource is conditional on the actions that create and draw upon it. Hiring and training actions made resources available that constrained and enabled resident staff members’ actions. Resident staff members’ actions made resources available that constrained and enabled the building directors’ abilities to deal with situations, like the bulimia incidents. The theoretical diagram shows that, depending on the action, the same asset or quality can be either a resource or a schema. The empirical diagram shows that in the case we have been looking at the different hiring and training actions taken at the two different times created different kinds of authority, networks, trust, complementarity, and information that enabled different schemas of the resident staff. Though resources are not generally thought to have agency, in this case the resident staff members do have agency, and their managers can also use them as a resource. For example, when the resident staff members were enacted as interdependent units they could be used as a resource to enact the “bulimia as community event” schema and the “building director as educator and community leader” schema. When the resident staff were enacted as individual specialists, they became a resource to enact the “bulimia as individual event” schema and the building

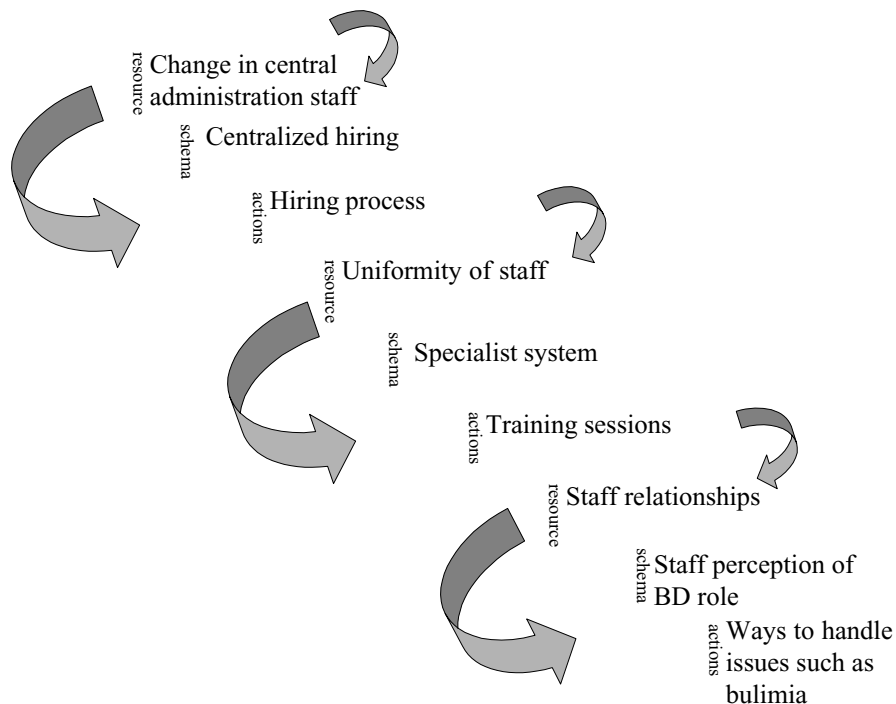
directors found it difficult to use them to enact the “building director as educator and community leader” schema. Theoretically, “bulimia as a community event” or “bulimia as an individual event” is also a resource in combination with another schema and the cycle continues indefinitely, or as the Indian story tells us, “it is turtles all the way down” (Geertz 1973, p. 29).

Resistance

Resourcing is an important process to understand because it incrementally empowers some schemas over others. The incremental nature of the change can help us understand how resistance to change can emerge and why resistance might emerge in a process of change later rather than earlier. In this case, resistance emerged as the building directors realized how the change in resources that resulted from the changes in the hiring and training routines altered their ability to enact the roles they wanted to play. Briefly, the building directors’ preferred schema for their own role was as educators and community builders. Over time they found themselves increasingly less able to engage in the actions consistent with this role. This change is illustrated by the bulimia example. The resource that the resident staff had become did not enable them to enact themselves as educators and community leaders. Resistance to the changes in the hiring and training routines began to emerge as a result.

Figure 3 illustrates the cycle from resource to scheme to action and back to resource that I observed in the residence hall in relation to this one set of practices. There are many different ways that any particular change in any of these elements could and do develop. The

Figure 3 Empirical Example of Resourcing Cycle



particular tracing that I supply here helps to see the relationships between hiring, training, resident staff practices, and building director practices that eventually manifest themselves as resistance. In each case, new actions created new resources that enabled new schemas and new actions.

There was, of course, much more going on in this unit than is portrayed by this rather linear depiction. Neither the building directors nor the central administrators were of one mind, and individuals did not come to their conclusions at the same time. People saw different aspects of the situation and different aspects meant different things at different times. The summary is faithful to the broad outlines, but there were many details, important for other understandings, that are necessarily omitted in order to see this general picture.

Moreover, it is clearly not the case that the structuration process moves strictly from resources to schema to action. This is surely only part of what is going on and the earlier discussion of how the same thing could at times be a resource and at other times be a schema is part of the complexity that I do not include in this summary. That the theoretical picture can be easily portrayed in this way and that portraying it in this way enables me to tell so much of the empirical story, however, provides reassurance that this is a useful way to think about the dynamic in question.

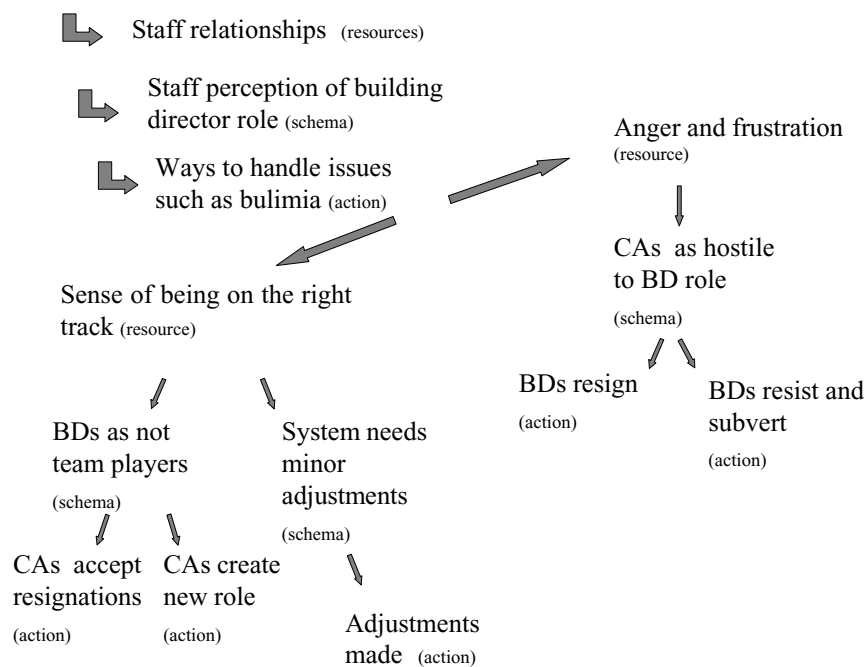
Centralized hiring of resident staff was enabled by a change from three to four central administrators in the unit (resource). Centralized hiring was the schema enacted by the new hiring routine (action). This hiring routine produced resident staff members who were more

uniform than previous groups of resident staff. The uniformity of the staff members was a resource that made it possible to create the specialist system (schema)—a system that required staff members that each had the ability to be specialists. The specialist system was enacted through the training sessions (action). These training sessions contributed to the set of resident staff relationships described above that altered the perception of the building director role and enabled different ways of dealing with situations such as bulimia. Of course, it does not stop there.

Resistance emerges in Figure 4, which picks up at the last set of resource, schema, and action—the staff network configuration, and the staff perception of the building director role and ways of dealing with situations such as bulimia. Unlike Figure 3, the tracing develops in two different directions. There is a divergence between the resources that building directors derive from this new way of dealing with situations such as bulimia and the resources derived by the central administrators. Building directors find incidents such as the one described above as a source of anger and energy to resist the changes that have taken place. Central administrators interpret these incidents as signs that they were on the right track and they increase their commitment to the changes that have taken place. These differences set into motion different schemas and different actions for the two groups.

The building directors, at this point, almost all thought that the central administrators did not understand and, therefore, did not appreciate the role they played in making things run smoothly in the residence halls. The following comment made by a building director about the

Figure 4 Resistance Emerges in Resourcing Cycle



training of staff members during a discussion of the building director role expressed this feeling:

...as long as no one got blown away with a K-24 or whatever you call those things or, you know, a fire didn't sweep through on May 1st, the definition of success is the same...even a training program that was 50% less wonderful than what you all do now, as long as it doesn't superstitiously result in a (inaudible) blowing people away, the alarm would not go off (3/23/89, Tape 1, Side B, @370).

Resistance is one of the actions that building directors took. For example, they complained that the training sessions were too large and that there was not enough time for team building. They also engaged in subversion. For instance, some building directors started holding open some of the resident staff positions and hiring for these positions during the summer when they could by-pass the centralized hiring process. But some of the building directors simply resigned and went on to other jobs.

The way things such as the second bulimia case were dealt with received a different response from the central administrators. Although they did not think such outcomes were ideal, they did think that it showed that the specialist system on the whole was working. Thus, they became even more committed to working out the kinks in the specialist system. The resistance and subversion of the building directors mystified them and they started to feel that the building directors were not team players. This made it easier for them to accept their resignations and to continue designing ways of modifying the structure through both changes in the role of the building director and changes in the specialist system without worrying about buy-in from the building directors.

Separating the concepts of resource and schema facilitates our ability to ask questions about this case and understand it more fully. Was the disagreement between the central administrators and the building directors a disagreement about schemas or about resources? Did the central administrators want the building directors to be enacting a different schema or did they not understand what resources were important to enacting the community leader schema? Were there other resources that could energize the community leader or educator schema? Were there other ways to create the resources needed to energize the community leader or educator schema now that the hiring and training routines were not doing as much to create this resource? Could other work practices be modified so that they helped to create more of the resources that were eroding as a result of the change in the hiring and training routines?

Implications for Organization Theory

The understanding of resources and resourcing that I propose has implications for our theories of resource dependence, our understanding of incremental change

and of resistance to change. I first summarize the discussion as it relates to ideas about resource dependence and then turn to a more extended discussion of how resourcing helps us understand incremental change and resistance to change.

The theory of resource dependence focused our attention on the things supplied by the external environment and the importance of controlling the flow of these things (Pfeffer and Salancik 1978). One would never want to go so far as to say that things supplied by the external environment do not matter, but it is clear that these things are just part of the story. What is done with these things matters. Moreover, some assets and qualities that energize schemas have little to do with the things that have often been called resources. Trust and connections, for instance, have great potential to energize schemas. A theory of resourcing broadens our understanding of what a resource is and helps us understand that our actions are a way of creating resources. Because organizational practices such as organizational routines are a source of repeated actions organizational practices are important to the process of resourcing.

Understanding Incremental Change

Many scholars have argued that organizational change is incremental and continuous (Brown and Eisenhardt 1997, March 1981, Orlikowski 1996, Tsoukas and Chia 2002, Weick 1984, Weick and Quinn 1999). Brown and Eisenhardt, for instance, argue that for many organizations "change is not the rare, episodic phenomenon described by the punctuated equilibrium model but, rather, it is endemic to the way these organizations compete" (1997, p. 1). Weick and Quinn argue that "[C]hange never starts because it never stops" (1999, p. 381).

Moreover, scholars have also pointed out that it is the underlying dynamics of organizing that produces incremental and continuous change (March 1981, Orlikowski 1996, Tsoukas and Chia 2002, Feldman and Pentland 2003). For instance, March claims that organizational change is often the result of "conventional, routine activities" (March 1981, p. 575). Structuration theory provides an explanation for this observation. The activities March speaks of produce and reproduce structures, and these structures constrain and enable future actions. Thus, Orlikowski argues that situated change occurs through recurrent and reciprocal variations in practice over time (1996, p. 66) and Feldman and Pentland argue that change occurs through the selective retention of variations in performances of organizational routines (2003, p. 113).

The perspective on resources I propose helps us understand more about this structuring process and how incremental and continuous organizational change occurs. Incremental change occurs as actions, schemas, or resources change. Because the three are interdependent,

change in any of them has the potential to bring about change in all of them. The particular focus of this paper has been on how changes in actions (in the form of organizational routines) affect the creation of resources and the ability to enact schemas with those resources. The ability or inability to enact schemas, in turn, affects the actions that are or can be taken. Over time these gradual changes add up to what we perceive as the emergence of a new organizational structure.

Understanding the context-dependent and dynamic nature of resources is important to a structuration explanation of incremental change. If resources are either exogenous or fixed, then the structuration dynamic is inhibited and incremental change is limited. It is only when resources as well as schemas are fluid that incremental change can occur as a result of endogenous organizational processes.

Understanding Resistance to Change

The resourcing perspective also helps us understand resistance to change. Resistance is not a simple phenomenon (Armenakis et al. 1993, Westly 1990, Knights and McCabe 1998, Carnall 1986). Piderit argues that both resistance and its causes are multidimensional (2000). Whereas resistance is often associated with negative intentions and a general dislike of change (Argyris 1976, Schein 1993), studies show that resistance might also arise from positive intentions (Piderit 2000, p. 784). The case I analyze suggests that even when people are quite willing to change, resistance can emerge. Indeed, there was only one person who was resistant from the start. Resistance among the building directors grew as they found it increasingly difficult to enact the resources they thought appropriate for their work.

Scholars note the emergence of resistance in change processes (Carnall 1986, Knights and McCabe 1998, Piderit 2000). Carnall relates the emergence of resistance and other forms of opposition to “the experience of injustice and control over resources and information combined with the emergence of leaders able to mobilize support” (1986, p. 763). Knights and McCabe (1998) relate resistance to power and politics and suggest that the practices that people become attached to not only allow them to fulfill expectations but also help them create meaning. They claim that “often resistance takes the form of protecting established practices . . .” (p. 772). They point out that because people’s identities are bound up with their work, change threatens not only material but also ontological security (Knights and McCabe 1998, p. 793). Piderit relates the emergence of resistance to the lack of support for the project from both management and coworkers (2000, p. 788).

My findings suggest a new way of understanding both where resistance emerges and why it emerges gradually. The identification of schemas that can no longer be enacted as the impetus for resistance suggests

that specific knowledge-based or identity-based schema might be threatened by changes in resources. Ezzamel and Willmott (1998) show a similar emergence of resistance when a change to self-managed teams make it difficult for team members to enact their preferred schema of “mate” and push them toward becoming each other’s supervisor.

The role of resources in the emergence of structure helps to explain why the emergence of resistance might gradually grow over time. The realization that changed actions fail to produce resources needed to enact schemas that are important to the participants is a reason for resistance. As changes transpire, new relationships and interactions emerge. Changes in work practices and the resulting resources enable people to take some new actions and constrain some old actions. But the resources that are constructed and, therefore, the schemas that are enabled and constrained are not immediately obvious and are not constant. Which schemas will be reinforced and which weakened is not always clear from the outset but tends to emerge over time, as in this case.

In the case described in this paper, as actions created resources that enabled the enactment of new schemas building directors found that they no longer had the resources they had relied on in the past to enact their preferred schemas (e.g., the residence hall as a community rather than a collection of individuals and themselves as educators rather than landlords). As these consequences of the reciprocal relationship between resources, schemas, and actions were perceived, resistance grew. It took building directors time to understand that the new hiring routine made it more difficult for them to create complementarity in their resident staff team, and it took even longer to understand the implications of not having such a team. Once these unanticipated consequences were perceived, resistance began to emerge.

Understanding the emergence of resistance as part of change processes has implications for dealing with resistance. Some scholars suggest that creating readiness for organizational change will help to deal with resistance (Armenakis et al. 1993). This suggestion assumes that resistance starts at the beginning of the change process. This approach, however, is unlikely to work for the kind of resistance that took place in this case. In the case analyzed here, there was a high degree of readiness and, indeed, enthusiasm for the change. In addition, there was a high degree of involvement of members at relevant hierarchical levels. What participants were not ready for were the consequences of the change that only became apparent gradually over several years.

Understanding the role of resources in resistance can help to manage resistance as it emerges. Specifically, the relation between resources and schema provides a useful point of departure for analyzing resistance. It helps us ask questions about what schemas are being

threatened and supported. Separating resources from schemas enables us to ask questions about whether it is the schemas that need to change or if resources can be provided in some other way.

Implications for Managing Change

The view of resources and resourcing presented here has several implications for managers dealing with the challenge of organizational change. The first implication is that managers need to recognize that the actions that accomplish work are related to the creation of resources that are used in doing the work. There is no guarantee that this relation is efficient or even functional, but it is intrinsic to the way people come to understand how to do their work. Changes in organizational routines that are made independent of changes in the work environments or the definition of the job are likely to cause consternation, at the very least, and might cause a great deal of resistance. Managers need to consider seriously how new or changed routines affect the availability of resources. Failure to consider this aspect of the changes seems likely to produce cynicism and a lack of trust on the part of the employees. Recognizing the importance of the resources created through organizational routines and the need to make it possible for people to do the work that they think they are supposed to be doing is an important part of developing a change process that works for subordinates as well as for supervisors.

A second implication of this research is that managers should expect unanticipated consequences of the change processes and should expect to be surprised about the specifics of the unanticipated consequences. Managers should expect more change than they ask for when redesigning any part of what employees do. Specifically, managers should not expect that the changes they propose are capable of being made independent of the other ways that their employees have of accomplishing work. Involving employees in planning change is one way of reducing unanticipated consequences. But that only eliminates the consequences that the employees can anticipate and that the managers cannot. Even people who do a job well and are very reflective about it are often not able to articulate all that is involved in accomplishing their work. “Competent practitioners usually know more than they can say. They exhibit a kind of knowing-in-practice, most of which is tacit” (Schon 1983, p. viii). In addition, they are not necessarily able to see the connections between the actions they take, the resources they create, and the schemas they are subsequently able to enact. Therefore, managers should not expect that employees are able to anticipate or articulate all the consequences of change.

Some have proposed the involvement of subordinates as essential to success in change efforts (Kanter 1983, Kotter 1995, Light 1998). This advice is based, in part,

on the work of scholars who have studied the difficulty in articulating the logic of practices (Bourdieu 1990; Carlile 1997, 2002; Lave 1988; Schon 1983). They suggest that people might not be able to articulate their practices, but they will have an implicit understanding of what will work and what will not. This research could be taken to imply that employee involvement will produce change that suits the needs of the subordinates. Certainly, in the case I have described management believed that the support and involvement of the building directors in creating new routines meant that the new routines would be useful to them. My research suggests that this expectation is not realistic. At least it is not realistic to expect that this success will be achieved on the first try. To the contrary, people will not necessarily be able to foresee what will work. As March (1981) describes, “Organizational change develops meaning through the process by which it occurs.” Therefore, “specifying what the change means can be difficult, not because of poor information or inadequate analysis, but because of the fundamental ways in which changes are transformed by the process of change” (p. 569).

Conclusion

This paper establishes that, in order to enact schemas, assets and qualities need to be drawn on in action. Because resources are created and recreated through action, neither can they be defined independent of context nor are they static. Organizational change efforts resulting in changes in action affect the resources that organizational participants are able to use. I show that understanding more about the relationship between work practices and the production and reproduction of resources helps us understand more about the process of change and the emergence of resistance to change. The process of resourcing is illustrated in this paper through the intensive examination of a particular context. The situated nature of the process of resourcing makes the specifics of the context important, although the specifics will be different in each context.

This case does not include some of the obstacles that could occur in a change process. For instance it omits the subordinates who simply do not want to change and the subordinates and supervisors who have radically different beliefs about what the organization should be doing. Although these obstacles are real, this analysis shows that even when they do not exist there are still substantial issues to deal with. There are certainly many jobs in which both subordinates and supervisors have a common interest in changing how they accomplish their work in order to do their work more effectively and more efficiently. This case shows, however, that this is not enough to ensure a smooth change process.

Another issue that needs to be addressed about this specific case is the nature of hiring and training.

Employment practices have been found to be a primary mechanism for fostering social capital, which is a form of organizational resource (Leana and Van Buren 1999). There are, no doubt, organizational routines that are more peripheral to the structure of the organization, but the dynamics are not unique to hiring and training. One would expect similar effects from changes in the way the budget is produced or changes in production routines as illustrated by Barley (1986).

Moreover, in this case the changes in hiring and training routines were only supposed to change the process, not the outcome. The intent of the change in the hiring process was not to change the type of person hired but to change the process of hiring. The change in the type of person hired was a consequence of the standardization in the new process rather than a result of different criteria. Similarly, no one set out to change the values and skills that staff members learned through training and the staff members still learned most of the same values and skills. But they also learned different ways of dealing with problems because of the way that the hiring and training were structured.

Finally, we need to explore the possibility that I happened to find extraordinarily naïve managers who did not understand what more savvy managers would. There are surely managers who, perhaps as a result of past experience with similar situations, might have foreseen the impact of changing the hiring and training routines. And, if I have done my job well, the impact seems obvious to the reader. The people I observed, however, were well educated and thoughtful, they had worked in a variety of organizations, and they accomplished a great deal in the housing division and throughout the university where they worked. Moreover, unanticipated consequences of organizational changes are not a new or uncommon phenomenon (Trist and Bamforth 1984/1951; Weick 1979; Ezzamel and Willmott 1998). If naïveté is the explanation, then naïveté is an important organizational phenomenon for us to understand and the theory of resourcing is a partial explanation of it.

Many organizational scholars have pointed out the importance of portraying organizations as dynamic and depicting the process of organizing with verbs rather than nouns. In this paper I suggest that resources are a fundamental part of organizing that also deserve this treatment. Thinking in terms of resourcing turns our attention to the mutable nature of resources and the opportunities we have to energize different schemas through the actions we take.

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Endnotes

¹Extended descriptions of the data gathering and analysis can be found in Feldman (1995, 2000) and on my website.

²There was one building director (of 12) who objected to the redesign from the beginning; the others ranged from cautiously to wholeheartedly supportive.

³In assessing this situation it is important to know that because of the need to vomit privately and to dispose of the vomit, a considerable stench is often associated with bulimia in a residence hall. Residents living nearby are often quite upset by the smell and may be hostile to the bulimic. Indeed, in the case reported above, such hostility was a part of the community behavior.

References

- Argyris, C. 1976. Single-loop and double-loop models in research on decision making. *Admin. Sci. Quart.* **21** 363–375.
- Armenakis, A. A., S. G. Harris, K. W. Mossholder. 1993. Creating readiness for organizational change. *Human Relations* **46**(6) 681–703.
- Baker, W. 2000. *Achieving Success through Social Capital*. Jossey-Bass, San Francisco, CA.
- Baker, W., R. Cross, M. Wooten. 2003. Positive organizational network analysis and energizing relationships. K. Cameron, J. Dutton, R. Quinn, eds. *Positive Organizational Scholarship*. Berrett-Koehler, San Francisco, CA.
- Barley, S. R. 1986. Technology as an occasion for structuring: Evidence from observations of CT scanners and the social order of radiology departments. *Admin. Sci. Quart.* **31** 78–108.
- Barney, J. B. 1991. Firm resources and sustained competitive advantage. *J. Management* **17** 99–120.
- Barney, J. B. 2001. Is the resource-based “view” a useful perspective for strategic management research? Yes. *Acad. Management Rev.* **26**(1) 41–56.
- Bourdieu, P. 1977. *Outline of a Theory of Practice*. Cambridge University Press, New York.
- Bourdieu, P. 1990. *The Logic of Practice*. Stanford University Press, Stanford, CA.
- Brown, S. L., K. M. Eisenhardt. 1997. The art of continuous change: Linking complexity theory and time-paced evolution in relentlessly shifting organizations. *Admin. Sci. Quart.* **42**(1) 1–34.
- Carlile, P. 1997. Understanding knowledge transformation in product development: Making knowledge manifest through boundary objects. Unpublished doctoral dissertation, University of Michigan, Ann Arbor, MI.
- Carlile, P. 2002. A pragmatic view of knowledge and boundaries: Boundary objects in new product development. *Organ. Sci.* **13**(4) 442–455.
- Carnall, C. A. 1986. Toward a theory for the evaluation of organizational change. *Human Relations* **31**(3) 745–766.
- Das, T. K., B. Teng. 2000. A resource-based theory of strategic alliances. *J. Management* **26**(1) 31–61.
- DeSanctis, G., M. S. Poole. 1994. Capturing complexity in advanced technology use: Adaptive structuration theory. *Organ. Sci.* **5**(2) 121–147.
- Dutton, J., E. Heaphy. 2003. Coming to life: The power of high quality connections at work. K. Cameron, J. Dutton, R. Quinn, eds. *Positive Organizational Scholarship*. Berrett-Koehler, San Francisco, CA.
- Dutton, J., J. Lillius, J. Kanov. The transformative potential of compassion at work. D. Cooperrider, R. Fry, S. Perderit, eds. *New Designs for Transformative Cooperation*. Stanford University Press. Forthcoming.

- Eisenhardt, K. M., C. B. Schoonhoven. 1996. Resource-based view of strategic alliance formation: Strategic and social effects of entrepreneurial firms. *Organ. Sci.* **7** 136–150.
- Ezzamel, Mahmoud, Hugh Willmott. 1998. Accounting for teamwork: A critical study of group-based systems of organizational control. *Admin. Sci. Quart.* **43**(2) 358–396.
- Feldman, Martha S. 1995. *Strategies for Interpreting Qualitative Data*. Sage, Thousand Oaks, CA.
- Feldman, Martha S. 2000. Organizational routines as a source of continuous change. *Organ. Sci.* **11**(6) 611–629.
- Feldman, Martha S., B. Pentland. 2003. Re-theorizing organizational routines as a source of flexibility and change. *Admin. Sci. Quart.* **48**(1) 94–118.
- Garud, R., M. A. Rappa. 1994. A socio-cognitive model of technology evolution: The case of cochlear implants. *Organ. Sci.* **5**(3) 344–362.
- Geertz, C. 1973. *The Interpretation of Cultures*. Basic Books, New York.
- Giddens, A. 1979. *Central Problems in Social Theory*. University of California Press, Berkeley, CA.
- Giddens, A. 1984. *The Constitution of Society*. University of California Press, Berkeley, CA.
- Glaser, B. G., A. L. Strauss. 1967. *The Discovery of Grounded Theory: Strategies for Qualitative Research*. Aldine de Gruyter, New York.
- Granovetter, M. 1973. The strength of weak ties. *Amer. J. Sociology* **78** 1360–1380.
- Ibarra, H. 1992. Homophily and differential returns: Sex differences in network structure and access in an advertising firm. *Admin. Sci. Quart.* **37** 422–447.
- Kanter, R. M. 1983. *The Change Masters*. Simon and Schuster, New York.
- Katz, Daniel, Kahn, Robert L. 1966. *The Social Psychology of Organizations*. Wiley, New York.
- Knights, D., D. McCabe. 1998. When “life is but a dream”: Obliterating politics through business process reengineering? *Human Relations* **51**(6) 761–798.
- Kotter, J. P. 1995. Leading change: Why transformation efforts fail. *Harvard Bus. Rev.* **75**(March/April) 59–67.
- Latour, Bruno. 1996. *Aramis or the Love of Technology*. Harvard University Press, New York.
- Lave, Jean. 1988. *Cognition in Practice*. Cambridge University Press, New York.
- Leana, Carrie R., Harry J. Van Buren III. 1999. Organizational social capital and employment practices. *Acad. Management Rev.* **24**(3) 538–555.
- Leblebici, H., G. R. Salancik, A. Copay, T. King. 1991. Institutional change and the transformation of interorganizational fields: An organizational history of the U.S. radio broadcasting industry. *Admin. Sci. Quart.* **36**(3) 333–363.
- Light, P. C. 1998. *Sustaining Innovation*. Jossey-Bass, San Francisco, CA.
- March, J. G. 1981. Footnotes to organizational change. *Admin. Sci. Quart.* **26** 563–577.
- Orlikowski, W. J. 1992. The duality of technology: Rethinking the concept of technology in organizations. *Organ. Sci.* **3**(2) 398–427.
- Orlikowski, W. J. 1996. Improvising organizational transformation over time: A situated change perspective. *Inform. Systems Res.* **7**(1) 63–92.
- Orlikowski, W. J. 2000. Using technology and constituting structures: A practice lens for studying technology in organizations. *Organ. Sci.* **11**(4) 404–428.
- Ortner, S. B. 1984. Theory in anthropology since the sixties. *Comparative Stud. Soc. Hist.* **26**(1) 126–166.
- Ortner, S. B. 1989. *High Religion: A Cultural and Political History of Sherpa Buddhism*. Princeton University Press, Princeton, NJ.
- Pfeffer, J. 1982. *Organizations and Organization Theory*. Pitman Publishing, Inc., Marshfield, MA.
- Pfeffer, J., G. R. Salancik. 1978. *The External Control of Organizations: A Resource Dependence Perspective*. Harper and Row, New York.
- Piderit, S. K. 2000. Rethinking resistance and recognizing ambivalence: A multidimensional view of attitudes toward organizational change. *Acad. Management Rev.* **25**(4) 783–794.
- Ranson, S., B. Hinings, R. Greenwood. 1980. The structuring of organizational structures. *Admin. Sci. Quart.* **25** 1–17.
- Riley, P. 1983. A structurationist account of political cultures. *Admin. Sci. Quart.* **28** 414–437.
- Schein, E. 1993. How can organizations learn faster? The challenge of entering the green room. *Sloan Management Rev.* (Winter) 85–92.
- Schon, D. 1983. *The Reflective Practitioner*. Basic Books, New York.
- Sewell, W. 1992. A theory of structure: Duality, agency and transformation. *Amer. J. Sociology* **98**(1) 1–29.
- Sproull, L., S. Kiesler. 1992. *Connections: New Ways of Working in the Networked Organization*. MIT Press, Cambridge, MA.
- Teece, D. J., G. Pisano, A. Shuen. 1997. Dynamic capabilities and strategic management. *Strategic Management J.* **18**(7) 509–533.
- Thompson, James D. 1967. *Organizations in Action*. McGraw-Hill, New York.
- Trist, E. A., K. W. Bamforth. 1984/1951. Some social and psychological consequences of the longwall method of coal-getting. D. S. Pugh, ed. *Organization Theory*, 2nd ed. Penguin, London, U.K.
- Tsoukas, H., R. Chia. 2002. On organizational becoming: Rethinking organizational change. *Organ. Sci.* **13**(5) 567–582.
- Uzzi, B. 1997. Social structure and competition in interfirm networks: The paradox of embeddedness. *Admin. Sci. Quart.* **42** 35–67.
- Van de Ven, A. H., M. S. Poole. 1995. Explaining development and change in organizations. *Acad. Management Rev.* **20**(3) 510–540.
- Wamsley, Gary, Meyer Zald. 1976. *The Political Economy of Public Organizations: A Critique and Approach to the Study of Public Administration*. Indiana University Press, Bloomington, IN.
- Weick, K. E. 1979. *The Social Psychology of Organizing*, 2nd ed. Addison Wesley, Reading, MA.
- Weick, K. E. 1984. Small wins: Redefining the scale of social problems. *Amer. Psych.* **39**(1) 40–49.
- Weick, K. E., R. E. Quinn. 1999. Organizational change and development. *Annual Rev. Psych.* **50** 361–386.
- Westly, F. 1990. The eye of the needle: Cultural and personal transformation in a traditional organization. *Human Relations* **43**(3) 273–293.
- Willmott, H. 1987. Studying managerial work: A critique and a proposal. *J. Management Stud.* **24**(3) 249–270.
- Zald, Mayer N. 1970. Political economy: A framework for comparative analysis. *Power in Organizations*. Vanderbilt University Press, TN, 221–269.