

C

E



Center for  
Effective  
Organizations

---

**WHEN PEOPLE GET OUT OF THE BOX:  
NEW ATTACHMENTS TO CO-WORKERS**

**CEO PUBLICATION  
G 94-19 (262)**

**SUSAN A. MOHRMAN**  
*Center for Effective Organizations*

**Susan G. Cohen**  
*Center for Effective Organizations*

**March, 1994**

To appear in: *The Changing Nature of Work*.  
Ann Howard (ed), San Francisco, Jossey-Bass (in press)

---

**Center for Effective Organizations - Marshall School of Business  
University of Southern California - Los Angeles, CA 90089-0806  
TEL (213) 740-9814 FAX (213) 740-4354  
<http://www.marshall.usc.edu/ceo>**

**WHEN PEOPLE GET OUT OF THE BOX:  
NEW ATTACHMENTS TO CO-WORKERS**

Susan Albers Mohrman  
Susan G. Cohen

*ABSTRACT*

New approaches to designing and managing organizations are changing the assumptions that have been built into traditional hierarchical organizations and the performance required by organizational participants. This paper describes the shift from the old "box and line" organization, defined by job descriptions and boss-subordinate relations, to the new team-based lateral organization. People emerging "out of the box" have different work demands, changed relations with co-workers and managers, and different perspectives on accountability and equity. This paper explores what we have learned and what we still need to learn about what happens to people and their relationships in the new, team-based organization.

## **When People Get Out of the Box: New Attachments to Co-Workers**

Environmental and technological changes are leading to fundamental upheaval in organizations. Hundreds of thousands of jobs lost through downsizing, delayering, automating, and globalizing highlight the urgency of responding to new competitive pressures by becoming more efficient and effective, and reflect the emergence of a new logic of organizing (Galbraith, Lawler & Associates, 1993). New approaches to designing and managing organizations are changing the assumptions that have been built into traditional hierarchical organizations, and the performance required from organizational participants.

Organizations are in the middle of transformations so fundamental that employees' experience of work and their relationship to the organization are undergoing gut wrenching change. Organizations are collective enterprises. They involve the establishment of patterns of interaction that integrate the contributions of many individuals in order to carry out the mission of the organization and accomplish its goals. Organizational change is leading to new patterns of interaction and new integrating mechanisms that are fundamentally changing the relationships among the individuals in an organization, and the relationship of the individual to the organization. An employee who left the workforce in the early 1980's and returned in the late 1990's would find a landscape so altered that new ways of understanding the organization and the relationships within the organization would be required.

The transformation is in progress, and the new patterns, integrating mechanisms, structures, systems and processes are in a sense still being designed --on-line by organizational participants trying to cope with their new reality (Mohrman and Cummings, 1989). The broad parameters of the emerging organizational architecture have been articulated (e.g., Nadler et al., 1992 Galbraith, Lawler et al., 1993). The organization will be designed for execution (Galbraith, 1994). Organizations will assume a variety of forms that are determined by competitive requirements and strategy. Organization design will be a tool for effective performance; consequently, it will be dynamic. People will, in effect, work in organizations that are continually transforming themselves. In general, organizations will be flatter, and a new lateral orientation will supplement and to some extent replace the old hierarchical logic. This will give rise to

increasing use of teams and other lateral organizing mechanisms, and will require the creation of high involvement organizations in which people are empowered to influence performance. (Lawler, 1992; Mohrman, 1993; and Galbraith, 1994).

This new organization architecture (Nadler et al., 1992) will require substantial change in the human resource practices of the organization--the practices that shape and manage the employment relationship of the individual to the organization. It also will yield a change in the work that is performed by the individuals in the firm. The very nature of the organization as a collective endeavor is undergoing transition, and with it, the relationships among organizational members is in flux.

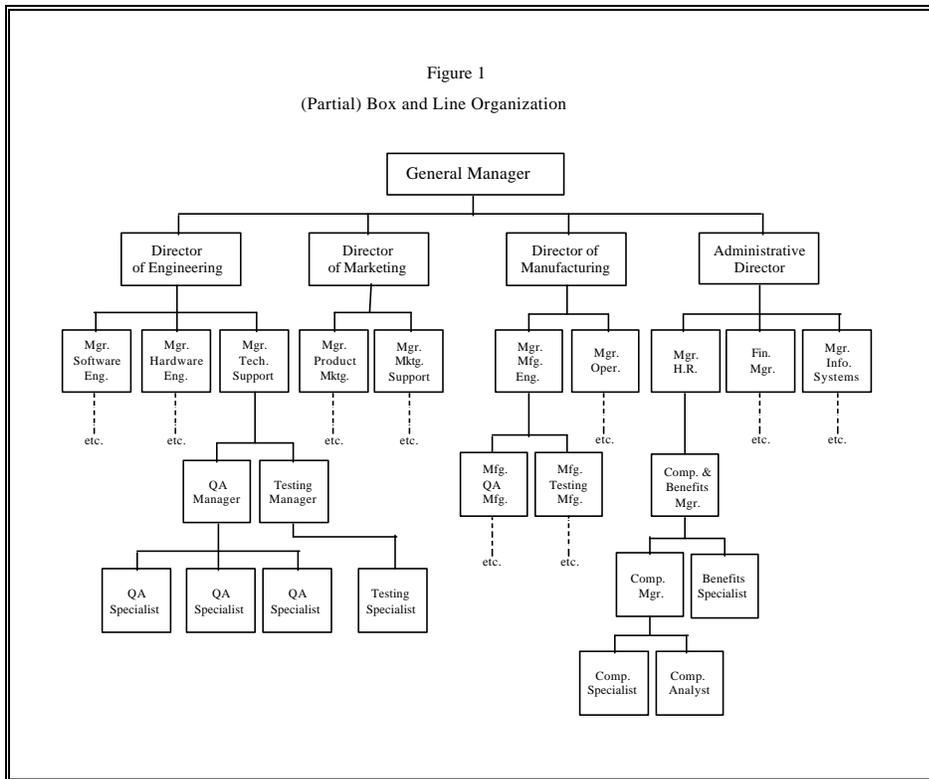
This chapter will examine the nature of these changes in the way people relate to each other in the organization. We take the position that these changes in relationship arise because of the change in the organizational context in which individuals perform their work. Consequently, we will start by depicting the context in a manner that illuminates the changes that are occurring in how people relate to one another. The chapter will in part be built on the results of studies conducted at the Center for Effective Organizations over the past ten years, examining emerging organizational forms and their impact on people. In particular, we will base much of the paper on a recently completed set of studies of teams and teaming in various white collar and knowledge work settings. These studies examined the dynamics of emerging organizational forms by focusing on organizations purposefully transitioning to be team-based. In addition, we will draw from the more extensive organizational psychology literature.

The essence of the change is depicted as "people emerging from the box"--to reflect a paradigm that is changing away from portraying an organization as a set of boxes and lines, with jobs, job descriptions, boss-subordinate relations, and departmental allegiances determining how work is done. The chapter explores what happens to people and their relationships with one another when the organization is conceptualized differently, and the boxes are no longer important to how work is done or managed. Indeed, ultimately, the boxes may not even exist.

## Out of the Box: The Contours of the Change

Deriving organizational identity from the box occupied on the organizational chart has become part of the psyche of employees in most large organizations. Figure 1 illustrates this depiction of the organization. It is a standard, and not even a very interesting organization chart, but it conveys meaning and shapes relationships in a very powerful way, and has led to the establishment of practices consistent with this meaning. Some of the elements of an organization as conceptualized in Figure 1 are as follows:

1. *People occupy boxes.* Their role in the organization is described in job descriptions, and a value is placed on a job descriptions by some sort of job evaluation process, often a point factor system (Lawler,



1987). Job evaluation systems evaluate the market value of particular job skills and work to establish internal equity by grading jobs according to general attributes such as responsibility and judgment. Job descriptions attempt to capture the contribution that is expected from a box. The entire set of

tasks of the organization is, in a sense, broken down into boxes.

2. *The individual's relationship to the organization is mediated by the connection of her box to the box of her boss (the line).* The boss speaks for the organization in managing the performance of the individual. Performance management consists of assigning and directing work, formulating work goals, providing feedback and direction, attending to the developmental needs of the employee, evaluating the

work and assessing the performer, and determining rewards. The boss is the employee's most direct link to organizational information needed to perform the job, and provides the opportunities for visibility and development that can help the employee advance through the organization.

3. *The individual's relationship to others in the organization is also to a great extent mediated by the boss.* Managers manage people, but they often also manage the integration of the work of various people in the organization. People often work with others in the organization using procedures that have been formally specified. Face to face lateral relations have been primarily through the informal organization, with people's effectiveness often being enabled by their network of contacts, through which they can bypass the hierarchy and override procedures to deal with exceptions. Failures to establish effective working relations carry no particular penalty, since there is always a "them" to blame for breakdowns that result from inadequate integration of work. When a great deal of lateral interaction is required, it is sometimes handled by creating special boxes, or integrating roles, to handle the transactions.

4. *People are held accountable for their individual job performance, not for system performance or results.* Because work is parceled out into boxes, individuals can only be held accountable for their own piece of work. Thus, they are likely to work to cultivate an informal network to the extent it is required to achieve their own goals. The line of sight (Lawler, 1990) between an individual's job performance and organizational results often is quite distant. The fates of the people in the organization are only very distantly related to one another. People's personal fates are even at cross purpose to the extent that rewards are a fixed pie to be distributed based solely on individual performance based on comparisons between co-workers.

5. *Career advancement is in the vertical direction.* People advance as they become more proficient at their expertise, and are promoted through levels of responsibility (through the hierarchy) in their specialty domain. With the exception of technical ladders that exist primarily in the engineering and scientific world, very few advancement paths are based on increases in technical skills and knowledge. Unless the organization is growing rapidly enough to provide advancement for all, career advancement is generally obtained by competing with individuals of similar skills and jobs for management boxes that become open.

6. By clustering people into departments, the organization *minimizes the amount of diversity that has to be processed by the people who work together and managed by the managers of work units.*

Departments are frequently composed of people from the same discipline. Relationships between disciplines and function are often formalized. Increasingly in today's world, the people with whom an individual is co-located and has daily interaction are likely to be ethnically and culturally quite diverse, but in a box and line organization, they are not likely to possess a different discipline-based world view and language.

7. *A key role of the human resource practices in the organization is to promote equity of treatment and equal opportunity in the organization.* Because the performance management system focuses on individuals in a box whose relationship to the organization and fate in the organization is mediated by the line to the boss, the organization establishes practices that level the treatment of different employees who are managed by quite different bosses.

These elements of the traditional "box and line" organization give an overall impression of segmentation: between individuals, levels, functions, disciplines, and units in the organization. The notion is to self-contain and pre-describe as much as possible the task that an individual performs, to reduce the amount of time spent interacting and increase the amount of time spent doing "productive work". A sense of rigidity also is present. Such an organization is highly dependent on stability, so that its boxes and their job descriptions and evaluations continue to fit the tasks. Environmental changes that lead to reorganization can set off thousands of hours of reworking job descriptions and job evaluations in a large, complex organization. On the other hand, people in this organization know what is expected of them, and the organization knows what it is holding people accountable for, and has a well defined set of expectations upon which it theoretically can base personnel action.

This "box and line" organization is very hierarchical in orientation. It fits Lawler's depiction of the "low involvement" or traditional organization, in which the line worker performs the work of the organization, middle managers control that work, and the top management does the planning, designing, and leading of the organization (Lawler, 1986). In this kind of organization, little employee involvement in the success of the organization can be expected. Employees are often, at best, involved in the effectiveness of their own job performance. They are trained to do their own job, receiving information necessary to do that

job, and they are rewarded for individual performance. These approaches minimize the costs of human resource management, but they result in employees having little power to influence work processes or the context in which they do their work, because their work is, often artificially, segmented from an entire process and the set of co-workers whom their work affects. Employees may not even have a good idea how their work fits with the work of others in the organization.

Organizations have for a long time lived with this basic depiction of the enterprise even as they have experimented with ways to compensate for its inherent weaknesses. Job enrichment programs have been employed to offset the negative motivational impact of tightly constrained jobs. Survey feedback and participation groups have been established to provide opportunity for employees to influence the organization and for managers to become aware of the reality their employees experience. Managers have been trained to administer human resource systems and manage performance in an equitable and motivating way. Finally, human resource systems are designed and redesigned, as if some magical format will lead to equity and motivation in the organization (Mohrman, Resnick-West and Lawler, 1989; Teel, 1980). The "flavor of the month" has been an endless stream of programs designed to compensate for the pitfalls of this way of organizing.

Yet this "line and box" organization has some advantages. When executed well, it is a landscape where the rules of the game are clear, and people are able to calculate their own self-interest and to "know where they stand". It has a predictability and stability that allows people to plan their lives, and a clear psychological contract that enables people to gauge the amount of effort they have to put in to be perceived as doing a good job. It simplifies the organization for the individual, who knows that the boss has to be kept happy, and can deal with a predictable network of others.

Nevertheless, the pitfalls of the "line and box" organization--rigidity, segmentation, and failure to get people involved in the success of the enterprise--have been its Achilles' heel in today's rapidly changing environment that is demanding ever higher levels of performance and great flexibility from organizations. While it would be wrong to say that the day of boxes and lines are gone, it is safe to say that a different conceptualization of organization is slowly emerging: one that stresses the interconnections within the organization rather than its segments (e.g. Rummmler and Brache, 1990).

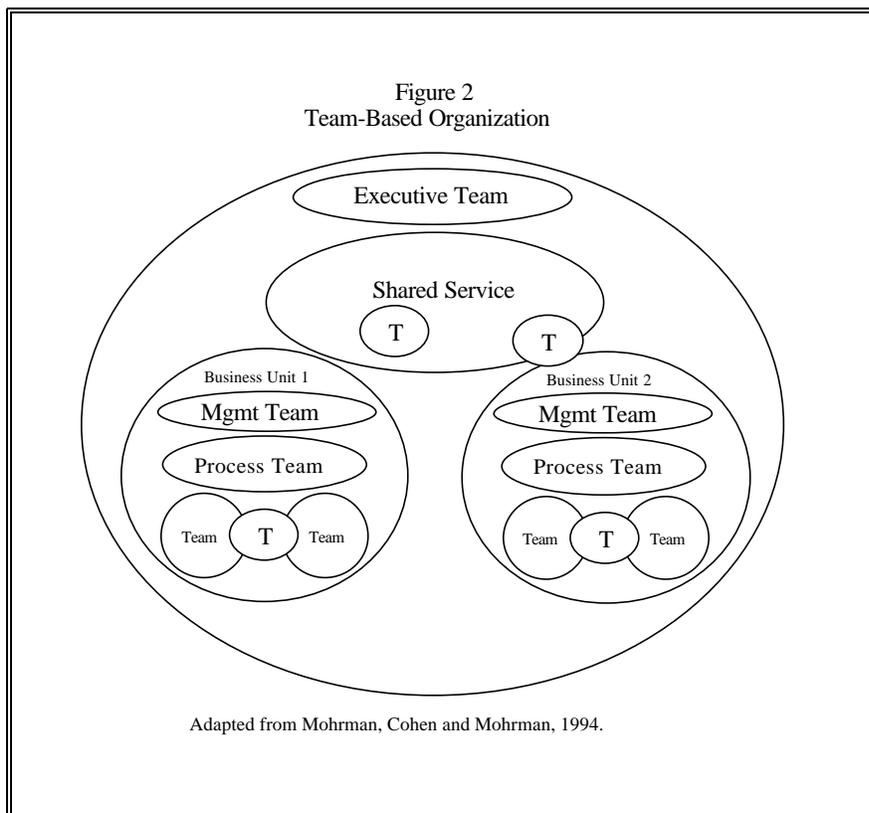
The hierarchical orientation with its reliance on hierarchical control and rules and procedures for integration can only handle so much job uncertainty before the organization has to set up mechanisms to link across the organization so that information can be shared and decisions can be made laterally (Galbraith, 1994). In today's rapidly changing environment with a market requirement in many organizations for quick response and rapid cycle time, the hierarchy is simply too slow. Organizations have introduced a complex assortment of teams: "empowered teams", cross-functional teams, work teams, quality improvement teams, task teams, and so forth. They have also introduced an assortment of other mechanisms that link various parts of the organization laterally in order to achieve focus on organizational issues such as products, customers, and geographies and to make trade-offs between them. The dynamic global organizations of today are too complex to rely on hierarchical resolution of multi-dimensional issues (Galbraith, 1994).

Although it would be tempting to say that this is a passing fad, the application of teams to deal with the shortcomings of the line and box model has a developmental history that is continuing to unfold. During the 1970's and early 1980's, most American organizations set up "quality circles" and other kinds of parallel structures in huge numbers (Ledford, Lawler and Mohrman, 1988). There was great disappointment with their results, largely because they were swimming upstream against a hierarchical logic that made it difficult for them to have meaningful impact in organizations (Lawler and Mohrman, 1985; 1987). Nevertheless, parallel structures did not go away. Organizations have adopted a more sophisticated approach to self-improvement, Total Quality Management (Deming, 1986; Juran, 1989), that relies on teams and cross-functional integration, but attempts to create a context in which these teams can be effective. This movement has called into question some basic human resource practices such as performance appraisal and pay for performance. It tries to refocus attention on the work processes rather than the performance of individuals.

Similarly, in the 1960's and '70's, a small number of manufacturing companies experimented with self-managing work teams (Lawler, 1987). By the late 80's and early '90's, this small number had grown extensively, and organizations in all sectors of the economy were adopting similar approaches (Cohen, in press). Recent data collected from the Fortune 1000 companies shows that the use of self-managing teams has risen from 28% of these companies in 1987 to 67% in 1993 (Lawler, Ledford and Mohrman,

forthcoming). Project teams have long been used in the Aerospace and Defense industries; they are now being used extensively in many industries, including almost all companies that have a new product development process. The latest iteration of this evolution is the emergence of cross-functional teams to manage organizational processes (Hammer and Champy, 1993).

As these approaches proliferate, organizations are beginning to take on a different shape. Figure 2 is a depiction of a "team organization" (Mohrman, Cohen and Mohrman, 1993). Instead of focusing on



boxes and lines and who reports to whom (the segments), it focuses on the connectedness of the organization. Increasingly, the performing units of the organization are becoming collectives of people rather than individuals (Mohrman, Mohrman and Cohen, 1990), and the organization is parceling work to teams, rather than to the individuals who compose the teams.

Boxes and lines may still exist

in this organization, but depicting them does not give much information about how the work is actually done. In our knowledge work team interviews, people talked about how operational direction was increasingly occurring through the team structure, even if reporting relationships had not changed.

Organizations whose operating design is composed of teams and teaming arrangements nested in bigger business units, as illustrated in figure 2, are changing the way employees think about themselves and their relationship to the organization. We are beginning to think of our organizational identity as being

determined at least in part by the teams of which we are members. Some of the emerging elements of this kind of organization are presented below (further discussion of these elements, discovered in our series of studies of knowledge work teams, is found in Mohrman, Cohen, and Mohrman, 1993).

1. *People belong to a team or teams, as part or all of their organizational role.* Their role in the team may be described by the competencies they bring to the team, and the manner in which the team chooses to apply its members to the set of tasks that have to be done. Individuals can play different roles in different teams.

2. *The financial value (wages) that is placed on employees is determined by competencies they have developed,* which are valued relative to the labor market but also in relation to their criticality to the company and its logic of operation. For example, cross-functional knowledge is more critical and provides more leverage in a team organization than in a box and line organization. Consequently, it is valued higher, as reflected in the salary structure.

3. *The individual's relationship to the organization is to a great extent mediated by the team.* The performance of the team is managed: the team has goals, gets feedback, gets appraised and gets rewarded. The team members play an active role in managing each other's performance. The team depends on higher level teams or managers to keep it informed. Each employee may continue to have a functional boss, but the role of this person has changed dramatically. The employee may continue to rely on the functional boss for functional information, to help make trade-offs between priorities, and for technical feedback and development.

4. *Individuals relate directly to others in the organization with whom they are interdependent.* This includes other team members, but extends beyond the team to others in the organization whose work must fit with the work of the team. Sometimes the work interdependencies cannot be contained within a team structure and individuals need to collaborate with others across organizational boundaries. They do not rely on managers to mediate these interactions. In some cases this means that an individual may be part of a team whose task is to integrate between teams. Failure to establish good working relations carries a big penalty, since the collective product is evaluated, not the piece parts that can be "pinned" on or controlled by a single individual.

5. *People are held accountable for collective results.* These results may be at the team or business unit level. It is assumed that "results" accrue from a complex set of transactions between people and teams as they integrate their work to produce a whole product or service or manage a whole process. Individuals also may be held accountable, but in the context of the units of which they are a part.

6. *Career growth and advancement occurs through the development of increased competency to contribute.* People who develop more competencies can play more roles in teams, and can participate in teams with a larger scope, such as business unit or cross-team teams. Cross-functional competencies play a vital role as teams now become the locus of resolution of cross-functional issues, and people who have a broader perspective can play valuable integrator roles. Skill-based pay systems (Jenkins, Ledford, Gupta and Doty, 1992) formalize the increased value attached to competency development and provide a basis for advancement through competency levels rather than hierarchical levels as people increase their scope of responsibility.

7. *People have to deal with a more diverse set of co-workers in getting the task done.* Teams bring together the contributors required to produce the whole product or service. That often includes multiple functions, and multiple disciplines, as well as ethnic and cultural diversity. Such diversity leads to greater intensity of interaction with people who have different world views, algorithms, and languages.

8. *A key role of human resource practices is the development and placement into teams of people with needed skill sets.* Equitable treatment and equal opportunity take on a new meaning, that is defined by accurate assessment of competencies that enable people to play particular roles in a dynamic configuration of teams rather than simply access to promotions. The relevant equal opportunity is to opportunities for the development and application of new competencies.

9. *Contributors who are responsible for integrating with a broad network of co-workers often rely on electronic communication and integration.* They often cannot be co-located with all of their co-performers, which means work is integrated through shared systems and data bases and electronic communication rather than face-to-face interaction.

This kind of organization is emerging to promote the flexibility and integration that were so difficult to achieve in the box and line organization, by establishing a way of operating that is less dependent on

hierarchy for coordination and daily direction. The transition is not easy. Clearly, moving to a team organization requires more than identifying teams and determining their missions. The next section gives a brief overview of the elements of effectiveness of a team organization, that will provide a backdrop for discussing in more detail how relations between people change in an organization of this kind.

### **Out of the Box: Factors Contributing to Effectiveness in the Team-Based Organization**

Years of research have confirmed the importance to teams of the internal dynamics of the team. The team-building literature has stressed clarity regarding the mission and goals of the team, the roles of the individuals who compose the team, the manner in which decisions are made, and the norms that are established (Dyer, 1987). This approach presupposes that the teams are appropriately configured and supported by their context, and that the challenge is to help them function effectively. The team effectiveness literature stresses the factors contributing to three aspects of team functioning: the effort of team members, the knowledge and skills possessed by team members, and the appropriateness of their performance strategies (Hackman, 1987). This framework takes us beyond the internal processes of the team in understanding team effectiveness, and delineates a number of approaches to improving the effectiveness of teams. They include: changing the design (composition, task design and norms) of the group; providing organizational contextual support through the reward, educational and information systems; and intervening in the group process of the team. This framework was examined in depth in a series of team studies conducted by Hackman and others (1990).

There is increasing recognition of the importance of the organizational context of teams (Guzzo and Shea, 1992). Our research on team-based organizations in the knowledge work components of companies reinforces this emphasis. We observed that some teams that appear to have textbook processes, leadership, and effective internal dynamics can fail to achieve their mission because of the organizational context in which they exist. For example, among the new product development teams that we studied were some that were well designed for concurrent engineering, but where the functional managers in the division could not agree to support design directions that came out of the team. Inconsistent direction from different managers was a frequent factor contributing to the derailment of teams. In part, the importance of the context results

from the high levels of interdependence in some knowledge work settings, which makes it impossible to create teams that can achieve their mission independently (Mohrman, in press). A product distribution team that we studied was poised to release and distribute a new product, but it treaded water (and the company lost potential market share) while an understaffed marketing support team awaited direction from a process improvement team regarding aspects of the uniform product documentation procedures for families of products. Figure 2 depicts some of the complexity of these settings by illustrating the requirement for teams that link teams, teams that link central services with the business units that are their clients, and teams that integrate processes that cut across multiple teams. Thus, individuals in team-based organizations exist in a constellation of teams, and the work of teams and the individuals who comprise them is influenced by the work of other teams.

Our studies have yielded a number of design features that impact the effectiveness of work in team-based organizations (Mohrman, Cohen and Mohrman, 1993). Some of these features have the ultimate effect of making it more likely that people in teams and across teams will integrate and coordinate with one another. They create a shared understanding in the organization of what the organization or business unit is trying to accomplish, and how it is going about it--both the means and the ends of the organization. Thus, the important design features in a team organization are those that "point people in the same direction".

These include:

1. Knowledge throughout the organization of the *strategy and goals* of the organization.
2. *Aligned and measurable goals* for the various performing units in the organization.
3. *Systematic decision processes* that are based on data from multiple stakeholders and consider multiple perspectives, and yield decisions that various parties have agreed to accept.
4. *Clarity of decision processes*, including where authority lies for which decisions, and what escalation paths exist if a team is unable to reach a decision.
5. *Computer connectedness among interdependent parts of the organization*, including shared data bases and common languages.

6. *Performance management practices that operate at the collective level*, by creating shared goals, providing teams and business units with performance information and feedback, and by evaluating and rewarding teams as performing units.

These features all have a similar unifying impact. They link people together by providing common direction, creating shared assumptions, linking people's self-interest, and providing connections. In other words, the entire organization must be designed with connectedness rather than segmentation in mind.

The second set of features that were found to promote effectiveness in a team-based organization are those that "empower" the performing units of the organization, by providing clear direction and building the capability of the unit to act. Here our research upheld the pieces of the high involvement model of Lawler (1986, 1992). Teams need to have the appropriate skills and knowledge, which is accomplished mainly through the staffing of the team but in part through development, especially in areas such as team functioning. They need to be well-informed, particularly about goals and performance. They need to have power to make certain decisions about how they go about their work and to influence other decisions that impact them but are made beyond the team. Finally, they must be rewarded for performance. An additional contributor to involvement and empowerment is that the team have adequate resources (human and other) that are dedicated to the team and that the team can count on.

In summary, the strength of a laterally oriented organization is that it can integrate across the multiple functions and perspectives in the organization. The design imperative is to point them all in the same direction so members are not working at cross purposes. Another strength of the laterally oriented organization is that decisions can get made closer to where the work is done. The design challenge is to clarify the decision authority and processes and to provide the direction and capability for performing units to be empowered to apply judgment and make trade-offs required for effective performance. One of the things they are being empowered to do is to go beyond their team, and to resolve issues with the others with whom they are interdependent, including internal and external customers.

This view of the organization has profound implications for the people in the organization, who may have been quite comfortable living in their boxes. First, in this organization, hierarchy does not go away,

but its role becomes to clarify ends and involve people in determining common means. Thus, people are much more responsible for contributing to the "how" of the organization, and they are held accountable for results. Second, rather than being autonomous, people are now part of a complex collective web. They can no longer rely on the organization (the "them") to manage the relations between the pieces of that web-- rather, they will be required to help resolve the lateral issues of the organization. Finally, individuals will be expected to contribute to the organization in many more ways, which requires a continual orientation to learning and expanding competencies. Advancement will depend on people being willing to expend energy learning.

The remainder of this chapter examines more closely what these changes mean for the relations between people in the organization.

### **People Who Have Been "Let Out of the Box"**

People who have been "let out of the box" find themselves in the dynamic lattice of relationships that is the lateral organization. These relationships cut across departments, functions, disciplines, and personal backgrounds. It is the ability to work laterally that is the key to personal success in organizations today. Developing this capacity requires a new mindset about who we are and what we do at work. We have the opportunity for personal growth, skill development, and connectedness to others, but also confront a lack of security, ambiguity, competing demands, and unrelenting work pressures: all this in an environment where job security is a phenomenon of past, more stable organizations.

In the old line and box organization, people could truly be "individual contributors". The lateral organization is a collective organization. Individuals' fates are based on their competencies and their ability to execute these in a collective setting. Whether an individual is a member of a permanent work team, belongs to multiple work teams, is a member of several temporary task forces, or just networks with others to get work done, results are achieved collectively. A person's success or failure depends upon collective success or failure. Her fate is inextricably (and very proximately) linked to co-workers.

This dependency on co-workers is uncomfortable for most of us. We have been socialized to value individual responsibility and individual achievement, and feel discomfort with the thought of relying on

others (Katzenbach *and* Smith, 1993). The rugged individualist is an American symbol, one that is still held in high regard in many U.S. corporations. The fear of dependency has deeper roots. Psychoanalytical theorists (Freud, 1922; Bion, 1961) and group theorists (Gibbard, Hartman and Mann, 1974; Slater, 1966; Smith and Berg, 1987) have clinically documented that people are intrinsically ambivalent about their membership in groups. Groups bring to the surface early feelings of engulfment and abandonment which people defend against by alternately moving away from and moving toward their group memberships. Although this perspective has not been empirically tested, these dynamics have been described by clinical researchers observing therapy groups and training laboratory groups (Benne, 1964; Bennis and Shepard, 1956; Gibbard et al.; Schermer, 1985; Smith and Berg, 1987). Katzenbach and Smith (1993) found that many team members reported that they experienced anxiety when joining and working in a team.

If the psychoanalytic perspective has accurately identified the unconscious feelings evoked by membership in groups, then it is not surprising that people would experience anxiety when joining and working in teams. It also means that understanding the human dynamics of work teams and developing supporting human resource systems is of paramount importance, since working in teams may not come naturally, comfortably or easily to people. This section begins a discussion of some of the key factors that underpin the ability of people to work collaboratively in the lateral organizations, and the skills development issues that are implied. It is not meant to be exhaustive. In fact, there are many unanswered questions about interpersonal dynamics when people are no longer in boxes.

The psychological contract has changed in today's organizations. Decreasing loyalty between organization and employee is one factor in this redefinition; greater emphasis on the lateral organization is another. Loyalty to employer required a willingness to put in long hours filling your box, to move between boxes at the will of the employer, and to accept the hierarchical decisions without question. In return, employees anticipated a career with the company. Even as the conditions that fostered this two-way loyalty have changed, the requirements for successful performance in an organization have escalated. Strong commitment to one's work and to co-workers are requisite for successful performance in the lateral organization. Organizational members can no longer rely on the hierarchy to mediate their work in the organization--teams and team members must rely on each other's initiative and responsibility to coordinate

and integrate their work. Establishing the needed levels of interpersonal and task commitment is the challenge of the lateral organization.

Three clusters of factors that underpin the ability of people to work collaboratively and laterally will be discussed. These deal with issues of competence (the task capabilities that people bring to the work); cognition (conceptual and learning dynamics); and caring and commitment (the affective relationship to task and people). We will briefly describe the import of these issues in a lateral organization, mention some of the streams of Organizational Psychology work that relate to these issues, and some of the questions that need to be examined.

### Competence

Competence is continual development of underlying skills and abilities. Clearly, in all organizational designs, people need to have technical competence. In the lateral organization, they need to have a body of knowledge that can be applied to a variety of projects, problems, and opportunities, conducted in a variety of kinds of teams and roles. In the lateral organization, technical knowledge is a basic requirement that gets an employee in the door. Breaking down the barriers between the segments of the organization does not reduce the need for state-of-the-art specialty knowledge. Organizations hire laser physicists, computer specialists, marketers, software engineers, and so on, and expect them to apply these skills to a variety of projects. The lateral organization relies no less than the traditional organization on professionals, specialists, and knowledge workers. These names connote an expectation of having and being able to apply a body of knowledge to the task at hand, and taking responsibility for continually updating those competencies.

Although technical competence is also critical for task effectiveness in the "line and box" organization, it takes on an additional importance in the lateral organization. In the lateral organization, co-workers are dependent upon the skills and abilities of one another that are needed to perform the collective task. Credibility is more likely to be determined by what you know, than by a formal position or title. One aspect of personal credibility is technical competence. In a study of product innovation, Bowman and Dougherty (1992) found that strategic problem-solving depended upon what they labeled as *entrepreneurial networking* based on personal ability, experience, and credibility of the innovators. These innovators used

their experience, contacts, and personal credibility to build commitment to product ideas and to obtain resources. Technical competence was a component of personal credibility and trustworthiness and enabled innovators to build supportive personal networks. Co-workers cannot count on an individual to help the collective achieve its goal if technical competence is lacking. In the hierarchical organization, lack of competence was an issue to be dealt with between the manager and the performer. In the lateral organization, the fates of team members depend on collective results, so failures of competence have direct relevance to co-workers.

In some settings that use self-managing teams, co-workers become integrally involved in developing and certifying each others' skills through cross-training schemes. Here, it is also the responsibility of the team to plan work in a manner that utilizes and keeps current each others' skills. So far, however, there is very little empirical work about how co-workers go about influencing each others' competence. It is clear, however, that in the lateral organization, a whole host of interpersonal issues will be introduced because employees are dealing directly with these issues.

In some settings, teams have the opportunity to select their members. This means that co-workers choose the people with whom they will be directly working. The mix of skills on a team will likely affect team performance as well as co-worker relations. Should teams be composed of members who are all highly technically competent or is a mix of skills superior? Not surprisingly, some research evidence suggests that technical competence of group members is positively related to group performance (Hill, 1982; Laughlin, 1980), particularly if members can be assigned to tasks that best utilize their technical skills (Voiers, 1956). The evidence is mixed, however, as to whether groups composed of members similarly high in technical competence perform better than groups that are heterogeneous in ability levels (Jackson, 1992). For example, Tziner and Eden (1985) found that a highly skilled military crew member contributed to performance more when the other members were similarly of high ability. In contrast, in laboratory studies of intellectual tasks, teams composed of members with mixed levels of ability performed better than groups made up of individuals with similarly high levels of ability (Laughlin, Branch and Johnson, 1969). Whether or not findings from a temporary group solving an intellectual problem in a laboratory setting can be generalized to more permanent groups in an organization is an open question. We are not aware of any

studies that look at the impact of skill mixture on relations among co-workers, and this is an area that warrants further research.

Lateral organizations expand the notion of job competency. Other skills related to the collective task are important, many of which are for responsibilities that have traditionally been the province of managers. A key skill for co-workers is to be able to plan and set goals together. The degree to which co-workers engaged in planning and goal-setting was related to team effectiveness in the knowledge work team study. Part of the planning process is determining the individual assignments and goals within the team. People now find themselves negotiating their tasks and goals with co-workers rather than managers. Again, most studies of goal-setting and planning have been conducted in a hierarchical setting; even studies of participative management have looked at how managers can enact these roles more participatively--not at how they can be conducted laterally. There is almost no information about how these occur when they are not hierarchically mediated.

Another key skill is knowing and using systematic decision-making processes, in which decisions are data-based, costs and benefits are considered, and trade-offs are rigorously made. Our knowledge work team study found systematic decision-making processes to be related to team and business unit effectiveness. These processes provide a shared understanding of how decisions are made and a structured approach to collecting and processing input from all relevant contributors. Thus, individuals will have to be willing to approach tasks using strategies and decision processes that enable the work of all contributors to be interpreted and used. At times this requires giving up favorite approaches, or a preference just to be given a task and to go off and get it done. The application of these shared processes may mean that the actual conduct of much more work will be truly collective. Research is needed on how people make the transition from viewing themselves as individual contributors to seeing themselves as part of a collective, and on the relationship issues that emerge when work is so closely intertwined.

### Cognition

Cognition is the process of knowing in the broadest sense (Guralnick, 1970). It includes observation, perception, memory, judgment, and learning. The lateral organization demands intelligence

that goes beyond knowledge of a specialty. In order to work with people across organizational interfaces and disciplines, individuals have to develop an understanding of ideas and frameworks different than their own. In a qualitative study of new product development efforts in five firms, Dougherty (1992) identified how organizational innovators were able to transcend their separate disciplinary "thought-worlds" by interacting extensively, learning about each others' perspectives, adopting a customer orientation and developing a new shared understanding of the product design. Specialty engineers who visit customers, for example, are better prepared to engage in problem solving regarding design trade-offs because they bring a broader perspective to the decisions.

To create value from the synthesis of disparate ideas, cognitive leaps are needed. Perhaps most critical is the ability to learn. Charles Handy (1989) in "The Age of Unreason" argues that discontinuous change calls for discontinuous thinking which necessitates learning. Learning involves grappling with questions and problems to be solved. New ideas, theories, frameworks are generated and tested, reflected upon, evaluated, and improved. Most people do not engage in this full cycle of learning and thus are limited in their capacity to add value. Yet, it is the community of learners that tap the potential of the lateral organization. The lateral organization requires people to be willing to be active members of the community of learners and to constantly expand their perspectives (Brown and Duguid, 1991). Ethnographic studies of service technicians (Orr, 1990) and insurance claims processors (Wenger, 1991) found that learning and innovation occurred from interacting with others in a "community of practice." Learning may result more from collective informal processes among co-workers than from training classes or review of company manuals (Brown and Duguid, 1991). Although research has been limited, these ethnographic studies are intriguing in their assertion that learning and innovation occurs in the process of doing one's work and talking about it with co-workers. Research is needed concerning how people working laterally can communicate across their perspectives and world views and learn from one another.

#### Caring and Commitment to Work and Co-workers

The lateral organization presents a more ambiguous and complex environment, where people depend on their co-workers, their fates are intertwined, and they conduct many transactions and establish direct

relationships laterally that were once mediated by management. People are collectively responsible for doing what's necessary for successful task performance. The psychological contract is no longer defined by the tasks of the box--it is more dynamic and interconnected. People rely on their co-workers to care about and be committed to each other and to their work.

People who are highly committed to work are personally identified with and engaged in what they do. Who they are as individuals is consistent with what they do in a work setting. Work must have personal meaning in order for commitment to be high. At the highest levels of commitment, people view what they are doing as moral and can express themselves in their work (Etzioni, 1961; Walton, 1980). Little distance exists between a personal sense of self and a work role (Kahn, 1990).

Psychological meaningfulness and a sense of responsibility for the outcomes of one's work have been found to predict internal work motivation (Fried and Ferris, 1987; Wall, Clegg and Jackson, 1978; Williams and Bunker, 1993). The concept of internal motivation comes from the job characteristics theory of Hackman and Oldham (1976). People with high internal work motivation feel good when they perform well, and care about the quality of the product of service they and their team provides. There is some data to suggest that people with internal work motivation perform better, are more willing to perform "extra-role" tasks (Williams and Bunker, 1993) and are more likely to innovate and solve problems (Amabile, 1988; Quinn, 1985). Being internally motivated may fuel a willingness to work through difficult lateral transactions in order to determine the best course of action.

In an ethnographic study of counselors at a summer camp and of an architectural firm, Kahn (1990) found that personal engagement was related to deriving a sense of meaning from work. Personal engagement and the sense of deriving meaning from work also depended upon interpersonal relationships with co-workers. Meaningful co-worker interactions fostered a sense of worth, self-appreciation, personal dignity, and mutuality. Meaningful interactions involved both personal and professional elements and a connection to peoples' emotional lives. The counselors and architects described their close relationships as involving relating to each other as people and not as occupants of organizational roles. In his study, commitment to work went "hand-in-hand" with commitment to co-workers.

From their interviews of members of high performing teams, Katzenbach and Smith (1993) found that the members of high-performing teams develop a commitment and dedication to each other as well as to the purpose of the team. They quote from members of several teams stating how much they genuinely enjoyed each other's company, had fun together, and supported and relied on one another. In our qualitative study of new product development at a high technology firm, many team members from the more successful teams reported that they had worked together on previous projects and knew each other well. They claimed that their familiarity with one another helped them to work together more effectively.

There has been a long history of research regarding group cohesiveness--the degree to which members of a group are attracted to other members and are motivated to stay in the group (Organ and Hammer, 1950). Cohesive groups are groups in which interpersonal attraction or the desire for mutual association is high." (Davis, 1969). Many but not all studies have found group cohesiveness to be positively related to performance outcomes (Evans and Dion, 1991; Keller, 1986) including job satisfaction and organizational productivity (Summers, Coffelt, and Horton, 1988). Some of the earliest studies found cohesiveness and performance to be related, but the direction of the relationship depended upon whether group norms supported high or low productivity (Seashore, 1954; Schachter, Ellerton, McBride, and Gregory, 1951). The relationship between cohesiveness and performance may be mediated by several contingencies (Guzzo and Shea, 1992).

Although there have been few empirical studies, some psychologists have argued that cohesive groups are more likely to be innovative, because they provide psychological safety for their members, which enable them to deal with uncertainty in a more creative and innovative way (Dailey, 1979; Nystrom, 1979, West and Farr, 1989). On the other hand, one factor that leads to group cohesiveness--homogeneity of membership--has been found to restrict creativity and innovation (Jackson, 1992). In a study of innovation in primary health care teams, West and Wallace (1991) found that team innovation was predicted by tolerance of diversity, team cohesiveness, and team commitment.

To fully engage with co-workers in a collective pursuit may require deeper relationships than those typically found in work settings. Caring about co-workers involves feelings of warmth, support, and concern for their welfare. Commitment to co-workers implies that the relationship taps both professional

and personal elements, and that an emotional bond exists. Frequently, people in teams share aspects of their personal lives with one another. They joke and have fun together, and genuinely enjoy each other's company. Connectedness to co-workers satisfies relatedness needs and creates personal meaning (Alderfer, 1972). Caring and commitment depends upon a foundation of knowing each other and appreciating differences.

Caring about co-workers may require a willingness to deal with difficult, emotional issues. Personal and professional differences will at times lead to disagreements that need to be openly discussed and resolved. Strong feelings may be expressed, including anger. If an emotional bond exists among co-workers, anger may be viewed as providing the emotional energy to confront differences. Dealing with the emotions that may arise in the process of doing collaborative work can strengthen co-worker relationships (Tsovolod, 1991). Research is needed that explores the "emotional work" that takes place in teams, and its impact on relationships and performance.

Caring and commitment of co-workers implies mutual respect and trust. When the chips are down, can an individual rely on co-workers? Will people do what they say? Will co-workers put the collective interest ahead of separate interests? Mutual respect is built from believing in each others' competence and sharing values. Mishra (1993) validated a conceptualization of mutual trust as consisting of competence, openness, caring, and reliability, and found that mutual trust within a top management team and between customers and suppliers was positively related to collaboration during a crisis situation. Trust develops through working together for mutual benefit (Tsovolod, 1992).

The depth of relationship being described goes beyond people's typically superficial involvements at work. It cannot be commanded. It is not effective for managers to exhort employees to care for and be committed to their peers. It cannot be a direct result of team-building or training. Although team-building can help co-workers to have an initial appreciation of each other or a better understanding of personal differences, team-building does not create this type of deep bond. Although training events can foster interpersonal sharing, they alone cannot create relatedness. This depth of relationship among co-workers emerges at least in part through a history of shared experiences in the pursuit of common goals. It takes

time to develop. Working effectively with co-workers requires moving beyond individualism and anxiety to partnership and mutual trust. Certain skills make it more likely that an individual can make this journey.

### Interpersonal Skills

Interpersonal skills are a necessity. An individual needs to be able to communicate with others, listen to others, influence others, and so forth. The importance of interpersonal skills has been recognized by many companies and taught in training classes. For example, Xerox Corporation has taught interactive skills in three separate company-wide programs over the last ten years (Kayser, 1984). Collaboration requires effective communication.

Negotiation and conflict-resolution skills are at the heart of what is required to work collaboratively. People may conflict about goals, methods, task assignments, evaluations, work loads, responsibilities, feedback and rewards. With cooperative goals, conflict can be productive and lead to innovation. People with conflict-resolution skills know how to deal openly with their frustrations and grievances, listen and understand others' feelings and complaints, work for solutions that are mutually advantageous and reach agreements that are implemented (Van Berklof and Tsovoid, 1981). In our study of knowledge work team effectiveness, conflict-resolution among co-workers was related to team improvements (Mohrman, Cohen and Mohrman, 1993).

Conflicts among co-workers are more likely to occur in the lateral organization, because people from different functions, disciplines, departments, and personal backgrounds view their worlds in dissimilar ways. Dougherty (1992) documents the different "thought-worlds" of research and development, sales, manufacturing, and marketing participants in new product development projects. They not only had different bodies of knowledge, they viewed uncertainty, critical issues, and the development process itself in qualitatively different ways. These differences may lead to conflict, but dealing with and resolving these conflicts can lead to innovation.

Innovation theorists (Kanter, 1985; Pinchot, 1985) have argued that resolving conflicts across functional and disciplinary boundaries enables innovation by permitting different perspectives to be combined in novel ways, and allowing multiple aspects of complex problems to be addressed

simultaneously. In our qualitative study of new product development, cyclical processes of divergence and convergence were found to be critical to perceived project effectiveness (in terms of costs, quality, customer satisfaction, speed, innovation, etc.). Early in a project phase, it was critical that divergent information from all relevant functions or disciplines be surfaced and evaluated. Then, it was important that participants converge on or reach a shared agreement as to the output and method for that phase (Cohen, Mohrman, Mohrman, and Feyerherm, 1992). Achieving convergence required a mechanism to resolve the conflicts that emerged when differences were surfaced.

In addition, changing demographic patterns has meant that people collaborate across age, race, ethnicity, nationality, and gender. People from different demographic groups are socialized to exhibit behaviors "appropriate" to their group identities, and to respond differentially to members of varying demographic groups (Maccoby *and* Jacklin, 1974; Jacklin, 1989). These differences in behaviors and responses to others may create conflict, or simply interpersonal distance that prevents people from collaboration. Being able to constructively discuss and resolve these issues may lead to improved effectiveness. Resolving the conflicts associated with differences in backgrounds becomes a strategic business imperative (Copeland, 1988; Deluca and McDowell, 1992; Jackson, May and Whitney, in press).

### The Challenge

Effective collaboration requires more than interpersonal and task-related skills. It implies a commitment to work and to co-workers--a willingness to exert effort to accomplish what the people in your work network need from you in order for the collective work to go forward. This typically takes time to develop. However, a scarce resource in the lateral organization is time. Many linkages among co-workers are temporary. Many teams are in existence for short periods of time. Many projects have life cycles of days or weeks. Co-workers in these efforts will not have the opportunity to develop this deeper understanding and commitment to one another, unless they have a previous experience of working together. What, if anything, can be done to substitute for depth of relationship with co-workers?

There may not be any substitute. However, people who have sufficient interpersonal skills, conflict-resolution skills, and task-related skills have a leg up when it comes to working effectively with co-workers.

In addition, the use of agreed-upon shared systematic decision-making processes can expedite task-focused interactions. These skills can help co-workers to focus on their task and begin a process of learning to relate to one another. Much more applied work needs to be done to develop and validate approaches to interpersonal skills attainment and to develop systematic processes and tools for conducting collaborative work.

What is being described involves responding to increased relationship and task demands. Success in the lateral organization depends upon deeper relationships with co-workers. In addition, success in the lateral organization depends upon a deeper relationship to work. In order to effectively coordinate and integrate with others, people must rely on each others' task competence, cognitive abilities, caring, and commitment about their work and each other. This is a tall order.

This attachment to work and to co-workers needs to occur without expectations of organizational loyalty and career security. In the downsized and flattened organizational environment, traditional career advancement and security cannot be promised. Although individuals may have the opportunity to learn new skills and to work in new areas, vertical movement is extremely limited. Whether competition among peers will diminish or increase is unknown. Fewer vertical opportunities may create more competition. However, greater lateral opportunities combined with mutual reliance and closeness among co-workers may reduce peer competition. The impact of the changing shape of the organization on collaborative behavior is an area that warrants research.

### **Out of the Box: The Special Case of Managers**

The relationships between employees and managers have dramatically changed in the lateral organization. In the old "box and line" organization, both managers and employees were in their "boxes" and there was a simple one-to-one relationship between them. In the lateral organization, people need to relate to a complex array of "bosses," including those to whom they report and those in quasi-managerial roles without hierarchical authority, such as team leaders and facilitators. The distinction between individual contributors and managers is no longer clear, and roles shift depending upon organizational needs.

The managerial function is performed both by individuals and by management teams, and employees depend upon the direction provided by teams. Managers work closely with other managers from different functions and disciplines. These changes are profound and dramatically affect the relationships between managers and employees and among managers.

Although there have been thousands of studies pertaining to management and leadership, and possibly hundreds of theories, few pertain to the dynamics found in the new organization. The lack of research is not surprising for two reasons. The changes that are occurring are relatively recent phenomena. Most leadership research is concerned with leadership effectiveness, and not with the impact of leadership on the relationships and dynamics among people. For example, recent work has emphasized that leaders and managers need to do more to build employee commitment and rely less on compliance and control (Bennis and Nanus, 1985; Kotter, 1990; Lawler, 1992; Walton, 1985). As an example of this stream of work, Bennis and Nanus (1985) describe how effective leaders manage people's attention through establishing a vision, creating meaning through communication, and developing trust. This work describes what leaders do, but does not deal with the impact of the change in leadership behaviors on the relationships between managers and employees.

Some research has focused on managerial behavior in high involvement organizations (Lawler, 1986; 1992; Walton, 1985). For example, Lawler (1992) argues that managers in high involvement organizations must deliver information, knowledge, power, and rewards to employees in their areas. He then describes the behaviors required, for example, providing information entails sharing performance results and future business plans, building direct communication links to customers and suppliers, and encouraging upward communication. Walton (1985) differentiates between a "control-oriented" paradigm and a "commitment-oriented" paradigm and argues that beliefs shape managerial actions. Thus, "commitment-oriented" managers will perform the behaviors required to engender employee commitment to organizational goals. Again, this work does not explore what the impact of these managerial beliefs and behaviors on the relationship and interpersonal dynamics between managers and employees or among managers. In addition, this perspective is predominantly based on observing and consulting to high-involvement

manufacturing plants, which typically do not have the multiple reporting relationships and shifting roles characteristic of knowledge work settings.

In the remainder of this section, we will describe the changing roles and relationships for managers in the lateral, team-based organization. First, we will focus on the vertical dimension, the relationships between managers and employees. Then, we will examine the horizontal dimension, the lateral roles and relations among managers. We will describe key aspects of changing managerial roles, identify major issues, and briefly summarize streams of leadership research that relate to these issues.

### Relations Between Managers and Employees

*Multiple reporting relationships.* In the team-based organization, people may report to more than one manager. For example, an individual on a project team may report to a project manager, but get technical supervision from a functional manager, or he may report to a functional manager, but get day-to-day direction from a project manager. An individual may report to both a functional and project manager as in a matrix organization. The dual reporting relationship found in the matrix organization is relatively simple, however, when compared to the potential complexities of reporting in the lateral organization. Reporting may be to a management team, in addition to or instead of reporting to an individual manager. Individuals may not be physically co-located with their managers. For example, a marketer on a cross-functional project team may report to a marketing functional manager about marketing concerns and report to a cross-functional business strategy team about a project whose members are in several locations. Teams may report to other teams, without individual reporting relationships being defined.

Having multiple reporting relationships and team-based hierarchies changes the relationship between individuals and the organization's authority structure. Employees, as individuals and in teams, need to be more self-managing, making decisions about how to do things as they go about their work. Reporting relationships are likely to be conflictual, with individuals needing to negotiate expectations and priorities with multiple managers, as individuals and as members of management teams. Managers will have subordinates taking direction from multiple sources, and will need to work laterally to negotiate priorities with their peers.

The key question raised is: What impact do multiple reporting relationships have on the dynamics between managers and employees?

*Quasi-managerial roles.* In the lateral organization, several quasi-managerial roles have been defined, in which individuals perform managerial functions but do not have hierarchical authority. These roles are typically established in organizations that have removed a level of management and have established self-managing teams, but still require individuals to perform team leadership and integrating functions. These roles are called by different names in different organizations, for example, team facilitators or team leaders. These terms may be used interchangeably or may reflect a different constellation of duties. For example, team facilitators may be responsible for leading meetings, making sure the discussions stay on track, and that task assignments are clearly made. They might not even be members of the team. Team leaders may be responsible for internal coordination of work, linkages to key stakeholders, and coaching and developing team members. In addition to their leadership functions, team leaders or facilitators who are team members typically have responsibilities as members of workteams to make technical contributions and do their part of the collective task. Teams may have one designated leadership role or multiple leadership roles shared among members of the team. Sometimes internal team leader roles are established to supplement external team leadership roles. Organizations frequently place individuals who were formerly first-level supervisors in team leader roles, and expect them to manage in new "empowering" ways. Individuals in these quasi-managerial roles need to influence team members to get things done without being able to rely on hierarchical authority. In some cases team leaders may lead teams that have individual members of higher rank than they are. Team members need to relate and accept direction from peers who lack the legitimacy that stems from organizational rank.

Other quasi-managerial roles include integrating roles across teams and components of a business unit. These integrating roles may be performed by individuals or teams. Integrators make decisions that establish the direction, context, and constraints for workteams. People who perform these integrating roles may not have hierarchical authority. They may be from the same level in the organizational hierarchy as the teams and people whose work they are charged with integrating. Quasi-managerial roles raise the issue of the legitimacy of authority that is not based on a line and box position.

There is some research relevant to this issue. Manz and Sims (1987) conducted a study of leadership of self-managing teams where there were dual leadership roles. In the manufacturing plant they studied, the external coordinator had reporting authority, but was expected to lead in an "empowering" way. The internal team leader was in a quasi-managerial role, and worked alongside other team members. From Manz and Sims' perspective, a leader's role is to facilitate the development of employee self-controls, so that employees can lead themselves. They identify six leadership behaviors that leaders can use to encourage team self-regulation, such as encouraging self-observation/evaluation so that the team can gather the information required to monitor and evaluate its performance. Interestingly, employees perceived the coordinators as encouraging more self-management than they perceived the team leaders as doing. Self-managing leadership behaviors were positively correlated with leadership effectiveness of the external leaders in a manufacturing plant (Manz & Sims, 1987), and with team effectiveness and quality of work life in a telephone company (Chang, Cohen, & Ledford, 1994). This perspective is useful for identifying the behavioral repertoire involved in encouraging self-management. It identifies what individuals in quasi-managerial roles need to do to influence performance when they cannot rely on hierarchical authority. It also suggests, however, that people who have the legitimacy that comes from hierarchical position will be more likely to provide coaching that encourages self-management, possibly an indication of the difficulty of enacting a quasi-managerial role. This perspective does not address the relationship between team leaders and employees nor deal with the issues involved when former supervisors are asked to be team leaders without hierarchical authority. These issues warrant future research.

*Multiple and dynamic roles.* Traditionally, when people were promoted to management, they no longer were responsible for making direct technical contributions to the business. They may have supervised technical or professional employees, and in the process of supervision, contributed ideas, but were not given technical or professional assignments. In the flattened, lateral organization, the distinction between the managerial role and professional role has begun to blur. Roles are fluid. A manager may be responsible for managing one project, and be a member of a team for another. Increasingly, managers will be expected to have technical or professional expertise, and technical and professional contributors will be given responsibility for budgets, people, or projects. As Handy (1989) states, everyone will have to be a

manager, and no one will be able to afford being only a manager, in the organization of the future. Although this overstates the present reality, many managers have assignments on teams as direct contributors.

Subordinates may need to relate to their manager as a peer on one project and as their boss on another. In some situations, subordinates may lead teams where their boss is a member. This means that individuals and managers need to negotiate multiple and changing role relationships with one another. A key question this raises is: What is the impact of changing and multiple roles on the relationship between managers and employees?

Research sheds some light on this question. Personal characteristics should be more important than position characteristics as a source of influence, if roles are multiple and changing. The research that addresses this issue delineates sources of power and relates them to influence attempts. For example, Bass (1960) differentiated between personal power stemming from the attributes of the person and position power stemming from the attributes of the position. This distinction was empirically supported in a study that found that personal power was more important than position power as a determinant of task commitment and ratings of managerial effectiveness (Yukl and Falbe, 1991). French & Raven's (1959) original taxonomy differentiated five sources of power: legitimate, reward, coercive, expert, and referent. Researchers have found support for two additional power sources, agent persuasiveness and control over information. People reported that they were more likely to do things requested by their manager if he had legitimate power, expert power, and was persuasive (Yukl and Falbe, 1991).

The implications of this stream of research are intriguing. The new organization, characterized by multiple reporting relationships, changing roles, and "quasi-managers" depends more on personal power than position power to get things done. Position is an unstable source of power in today's organizations. Thus, managers who demonstrate the characteristics that we have argued are needed by all employees-- competence, cognition, and caring and commitment--are more likely to be able to exert personal influence to get things done. In addition, interpersonal, communication, and conflict-resolution skills are important for persuasiveness. Yet, the picture is mixed. Subordinates still evaluated legitimate power, the power that comes from position and job responsibilities, as critical for influencing them. This suggests that people in "quasi-managerial" roles and in shifting relationships have an extra burden to carry. Unless the organization

defines "quasi-managerial" roles as legitimate positions, the people in these roles will lack a vital source of power.

### Relations Among Managers

*Management teams and lateral relationships.* Increasingly teams report to and/or receive direction from management teams in the lateral organization. Management teams are composed of managers with hierarchical authority that are responsible for the coordinated management of teams or other sub-units that are interdependent in the accomplishment of a collective output. The members of the management team are likely to come from the different functions that need to cooperate to produce a product or service. Managers work laterally with other managers from different functions or disciplines on management teams. They need to build effective working relationships with people with different experiences, values, and viewpoints than their own. Individual managers, who may be used to managing their piece of the organization independently, are now dependent upon one another for team success. This mutual dependency co-exists with diversity. What enables management teams to be effective? What impact does the co-existence of dependency and diversity have on the relationships and dynamics among managers? Even when formal management teams have not been established, managers still need to work directly with other managers with whom they are interdependent. The issue of what enables lateral relationships among managers to be effective is critical for success in the new organization.

The research on the nature of managerial work has noted the importance and frequency of lateral interactions (Kanter, 1983; Kotter, 1982; Mintzberg, 1973). The ability of managers to get things done depends on their involvement in informal networks that cut across organizational boundaries (Kanter, 1989). Researchers have identified communication, negotiation, and conflict-resolution skills as critical for lateral integration (Courtright, Fairhurst, and Rogers, 1989; Lax and Sebenius, 1986; Walton, 1989). For example, communication researchers have found that managers who develop effective lateral relations communicate in a way to minimize social distance and status differentials (Fairhurst and Chandler, 1989). Recent work identified five interrelated sets of managerial behavior as contributing to effective lateral integration: relationship-building, proactive agenda development, active listening and sharing of information, "win-win"

negotiation strategies, and directly addressing conflict (Steckler and Preston, 1993). The Yukl and Falbe (1991) study found, not surprisingly, that managers had less legitimate and coercive power over peers than over subordinates. Building effective lateral relations depends more on the personal skills and strategies that managers use than the positions they happen to occupy. Additional research is needed to explore the impact of these behavioral strategies on the dynamics and relationships among managerial peers.

Some research has focused on management teams. Managers need to work laterally with other managers from different functions or disciplines to be effective members of management teams. This requires a decision-making process that considers divergent functional perspectives and interests, but forges a consensus based on the needs of the broader business unit. Our knowledge work team study findings suggest that managers must be open to learning, have good problem-solving and conflict-resolution skills, and be willing to use a disciplined approach to decision-making in order to be effective members of management teams (Mohrman, Cohen, and Mohrman, 1993). Ancona and Nadler (1989) describe management team effectiveness as depending on three key processes: work management, relationship management, and boundary management processes. They argue that the criticality of each process depends upon environmental and structural contingencies. For example, if an organization has high internal coordination requirements and high environmental demands, the situation found in many knowledge work settings, attention to all three processes are critical. Members of these teams meet more frequently with one another and with outsiders than members of management teams confronting less complex environments. The members of these teams need sophisticated interpersonal, negotiation, and conflict-resolution skills, and the capacity to blend action and analysis (Bourgeois & Eisenhardt, 1989). One study found that management team performance over time varied as a function of members' openness to learning, and that capacity depended upon the amount of trust among members and with the top executive (Eisenstat and Cohen, 1990). Certainly, the skills and relationships demanded of managers in management teams go beyond what was required in the old "line and box" organization. In general, research on management teams is in its infancy. More work is needed to understand the internal dynamics of management teams and external relations with key stakeholders.

## **Out of the Box: New Accountability Systems, New Relationships**

In the lateral organization, individuals respond to co-worker processes as much or more than to their boss's direction. In our teams' study, individuals were just as likely to rely on their peers and their customers to know what they should be doing in their job and how well they have performed as they were on their managers. The performance management practices and accountability systems of the organization are changing to reflect this reality. This section deals briefly with the new systems that are emerging, and the roles and skills required to make them work. Its main focus, however, will be on the changes in the definition of equity and the assumptions that underlie satisfaction that are required for people to adjust to being held collectively accountable.

### Performance Management Systems

Organizations are beginning to implement performance management systems that reflect the new shape of the organization and its emphasis on integration of work, multi-directional influence, and flexible jobs that reflect competencies (Mohrman, Mohrman and Cohen, 1992; Mohrman, Mohrman and Lawler, 1992). These include new appraisal systems (peer appraisal; 360 degree systems that collect input from peers, managers, subordinates and customers; and team appraisals) and new reward systems (skill-based pay; team bonuses; gainsharing; and multi-level rewards based on individual, team and organizational level performance). These systems, at least in part, base appraisals on peer input. Pay is based on collective performance and/or on appraisals of individual performance that also are based on peer input. They relate both appraisals and rewards to business results to a greater extent than traditional systems. They establish new relationships between co-workers by putting them in a common fate pool and by making them legitimate stakeholders in the determination of the requirements for each others' work and the judgment of that work. They simultaneously create a close bond and a formal relationship.

Managers become the orchestrators of these new performance management systems and are coaches and facilitators in helping groups of contributors apply them, rather than being the solo givers and keepers of the assessments and rewards in the organization. Managers in the new organization are the source of one key kind of feedback and assessment input; i.e. the extent to which the results are meeting

the performance requirements of the organization. Managers are responsible for making sure that performance feedback is given, and that communication about how to improve performance takes place, even if they do not directly provide this feedback. Their key source of hierarchical power is in providing direction to the organization, and negotiating the performance "contracts" of organizational units (Mohrman, Cohen and Mohrman, 1993).

For some of the new approaches, including gainsharing (Graham-Moore and Ross, 1990) and skill-based pay (Gupta, Ledford, Jenkins and Doty, 1992), there has been considerable research and the mechanics and dynamics are beginning to be understood. For others, such as peer appraisal and 360 degree appraisal, there is a great deal of uncharted territory. There has been research showing that peers, subordinates and other managers have access to different knowledge concerning an individual's performance that might be useful input to the individual's review (e.g., reported in Murphy and Cleveland, 1991). The focus of much of this work has assumed the individual as the appraisee and the manager as the appraiser. There is very little systematic work on the team as the appraisee, and a collective, multi-directional process of appraisal.

In order for these new systems to work as intended, individuals and teams will have to develop new competencies for dealing with one another. All contributors will have to learn influence techniques that do not stem from formal position power. Giving and receiving feedback, conflict resolution, negotiation, and complex group problem solving techniques will be demanded. Orientation toward continual improvement and process improvement will have to become norms in the organization. Developing these norms will help individuals and teams to focus not only on current performance, but to evaluate how they can improve in the future.

Many individuals in a lateral, team-based organization are likely to be members of multiple teams, especially in a knowledge work setting where there is a complex network of interdependencies. In our study, the respondents were on an average of 6.8 teams. This means they continually have to evaluate their priorities, as they perform work simultaneously for several different projects and teams. Several different networks of people may be counting on them to do their part. Individuals will have to become skilled at juggling multiple priorities, and negotiating and problem-solving with the different groups of people with

whom they are interdependent. Management provides the framework for assessing priorities which derives from the strategy of the organization. It is also management's responsibility to ensure that the organization has a manageable structure of activities and teams, so that membership in multiple teams does not become an impediment to goal attainment. By overloading the organization and its individuals with activities, management builds unresolvable conflict into the teams. Team members will not be able to work out priority conflicts with one another, when there is no shared understanding of what is critical for business unit success.

Priority conflict is to some extent inevitable, however, and teams have to become good at surfacing it and working through it, and drawing it to the attention of management when they have insufficient dedicated resources to accomplish their goals. Teams will be more likely to raise these issues if they feel that management will address them, rather than feeling like the "messenger gets shot". Although much popular literature has talked about the need to turn the hierarchy upside down and define the role of management as serving the teams, little has been written about what this might actually look like.

### Accountability

A question that arises in organizations that are undergoing a transition to a lateral way of functioning concerns accountability in the organization. Managers question whom they can hold accountable for performance, by which they say they mean "Who can we pin it on (the rose or the blame)?" This question comes from the old set of assumptions --that a box is accountable for its own performance and for the performance of the boxes that report into it, and that the most effective accountability mechanisms are rewards or punishments for the occupant of the box. When people are let out of their boxes, managers wonder how blame or credit can be attributed, and what it means to hold collectives of people accountable.

In the lateral organization, the accountability system is the multiple level performance management system. This includes the manner in which goals are established and aligned, progress is tracked and fed back, results are measured and performance is assessed, and rewards for performance are given at the individual, group and/or organizational levels. To the extent that these aspects of the accountability system occur at the team level, individuals become part of collective negotiations, and experience collective

consequences. When the team performs well, positive outcomes accrue to the members. When it fails to achieve results, the team members are not rewarded, but the consequences may be more serious. An unsuccessful team may mean that key organizational results are not being achieved, and that may end up having a ripple effect through the organization. Consequently, the analog of replacing the person in the box is reconstituting the collectives of people who are working together to produce a product or service, so that the team's composition includes the requisite competencies and resources. This can be initiated internally by the team itself or externally by managers, whose responsibilities include ensuring that the performing units of the organization are designed for effective performance. Here again, teams will have to develop the skills to draw management's attention to support needed for effective team performance.

Thus, individuals will have a compelling reason to learn to work with one another effectively, since their ongoing role in the team depends on the team being able collectively to develop its capabilities and accomplish its goals. Job security, to the extent that it will exist at all, will depend on being able to be an integral part of effective performing units. Management holds the organization accountable by managing the business performance of the organization and its units and the consequences that accrue. Consequently, effective task relations with co-workers take on a new urgency.

### Satisfaction and Equity

Being "let out of the box" places new demands but offers new satisfactions to individuals. It is a difficult transition. No longer can satisfaction be based primarily on job title, organizational position, or one's individual relationship with one's boss. Satisfaction needs to be derived from an intense connection to work and to co-workers. Are people ready to make this transition? Data from our knowledge work team study suggest that the transition is rough. Most of the companies we studied were in the middle of changing how the organization operated. In these settings, individual satisfaction was associated with people feeling that the focus was on the individual (e.g. individual goals, individual performance management by managers, and individual pay for performance), combined with direct attention from managers (e.g., supervisors encouraging participation, managers providing performance feedback, etc.). Although high performance

was associated with lateral co-worker processes and not with manager processes, satisfaction was more strongly linked to managers' processes (Mohrman, Cohen, and Mohrman, 1993).

Individuals have an intensely personal perspective on the organization, and in the past their fate in it has been mediated by their managers. Whether the manager was viewed as benevolent or not, at least the rules of the past were clear: the manager had the formal authority to direct one's work, give feedback, and assess and reward. Individuals trusted that if they met the expectations of their manager, they had a good chance of getting ahead. The boss's assessment and rewards were symbols of how one was perceived in the organization. In several studies of performance management systems (Mohrman, Mohrman and Worley, 1990), individuals expressed a great deal of concern with receiving a fair performance appraisal, because they wanted to get feedback that let them "know where they stood" in the organization.

In the lateral organization, direction, feedback, assessments and sometimes even rewards are conveyed by co-workers. The traditional rules of the game have become muddled. The organizational legitimacy to define required performance from employees is more diffused. Messages to employees about where they stand in the organization come from many sources. Co-workers, who used to be common "victims" of an impersonal bureaucracy, now have a stake in one another's performance, and an active role in influencing it. Furthermore, co-workers to a great extent sink or swim together, depending on the results of their collective efforts.

We encountered several settings where employees had come to terms with this fundamental change, and had come to expect and appreciate the increase in co-worker influence over performance (Mohrman and Mohrman, 1993). In these settings, employees had started out quite negative about the team orientation to performance management, and had come to be its advocates. In one setting, research chemists were at first strongly adverse to the notion of team appraisals and rewards and insistent on individual differentiation. After two performance cycles, they were strongly advocating that management view the team as a performing unit, and not try to differentiate between the contributions of different members. In another case, scientists and computer scientists on a new product development team at first wanted to give a higher percentage of the team bonus to members who performed the core technical skills and to give a smaller percentage to "support" personnel, among whom they included the marketers, manufacturing engineers,

quality specialists and clerical members. Again, the attitude of the scientists changed as they worked collaboratively together. By the end of the performance cycle they were in agreement with a team decision to award everyone the same percentage of salary. They had become much more aware of one another's contributions, and sensitive to the efforts of all contributors to better integrate their work.

Part of the reason this transition is so difficult is the individualistic culture that has been predominant in our society. Another reason, however, is that attributions of equity are essentially subjective feelings that have been shaped by experience, primarily in an environment that stresses individual performance and reward. The structures and systems of the organization have been designed in part with the goal of segmenting individual jobs, and holding individuals accountable. Equity is treatment that is viewed as commensurate with one's individual talents and performance, both in an absolute sense (personal equity) and vis-a-vis the others in the organization (internal equity) and in other organizations (external equity) (Lawler, 1981). One compares one's own performance and capabilities with others, and determines equity based on relative rewards.

This attribution of equity is a socially constructed meaning. The new definition of equity that may evolve in a laterally oriented organization will be based on an understanding that the success of the organization depends on the performance of teams and networks of contributors who are collectively responsible for doing what is necessary to achieve results, and a view that equitable assessment of performance and determination of rewards occurs at least in part at the collective level, with a focus on results. This does not necessarily imply that there will not be an individual assessment or reward, but it does imply that the assessment of the individual's contribution must be within the context of contribution to the collective units of which the individual is a member, and with input from the interdependent contributors. That this evolution of the definition of equity is occurring is evidenced by the change over time in results of studies of the impact of performance management. In organizations where work is interdependent but individuals exist in boxes, only individually oriented rewards and appraisal related to a feeling of equity (Mohrman, Mohrman, and Worley, 1990). Studies in team-based organizations using similar operationalizations found that both individual and team performance management practices

contribute to a sense of equity. People's feelings of equity appear to be influenced by the way in which work is designed (Mohrman, Cohen, and Mohrman, 1993).

For the new ways of managing to become comfortable to people, they will have to develop a different way of thinking about equity in the organization. For this to happen, the organization will have to put systems in place to shape and support this new social definition. Given the gap between the traditional and emerging definitions of equity, it is not surprising early in the transition to team organizations to hear managers express fear of losing excellence if individuals are not rewarded based on their individual performance, and to hear employees express concern about being "dragged down by poor performers". The organizational members have not yet internalized new assumptions: i.e., that excellent individual performance only helps the organization if it is integrated into the overall collective performance of the organization in such a way that it impacts results; and that it is the responsibility of the collective of individuals including the excellent performers, to ensure that the work of all contributors is integrated, and that poor performance is addressed. Although there is some research evidence, offered above, that these new organizational understandings do begin to develop in team organizations, work in this area is rudimentary. Much more research will be required to investigate the complex relationship between individual and collective motivation and performance.

### **Out of the Box: New Information and Communication Systems and the Relationships that Result**

In the new organization, people are generally networked together electronically. They can have access to shared data bases, applications, and each other (Sproull and Kiesler, 1991). People can communicate with one another and work together without having to be physically co-located. Team members in different locations, on different schedules, and working in different organizations may rarely meet, but still access the same customer data sets, use network software to do financial analyses, and share results on their electronic mail network. The lateral organization depends upon new information systems to connect people and to analyze and distribute information. Achieving high performance requires increased and more effective use of teams and information systems, and each is necessary to harness the potential of

the other (Mankin, Cohen and Bikson, forthcoming). New computer technology provides the infrastructure for collaboration and changes how co-workers work and relate to one another.

One impact of new information systems on people is a broadening of perspective. When data bases are shared and systems are networked together, people can obtain information from different departments and different levels. People can participate in electronic networks of those with similar interests, but potentially very different backgrounds. Relationships may develop that can be harnessed for goal-directed activities. Communication can occur simultaneously throughout a network. People can use this medium to send the same message to hundreds of people as simply as sending it to one person. This means that individuals are exposed to more and a broader range of information. The information they receive is no longer limited to where their box falls on the organization chart. This may facilitate the development of a cosmopolitan rather than local perspective. People may develop an increased understanding of the "big picture" and how their activities relate to the big picture. Some people may be far more likely than others to obtain information using an electronic network, potentially creating "information haves" and "information have nots." Research is needed to explore whether and how participation in electronic networks results in a broadening of perspective, and what the impact is of differential participation.

The use of computers may result in skill enhancement. People may have access to application programs that extend their analytical capabilities (Cohen, 1993). Various applications, such as forecasting programs, simulations, expert systems, and financial analysis systems, help people make more disciplined and sophisticated decisions. Team members who agree to use a particular application program, may be selecting a systematic decision-making process that will drive improved performance.

Increasingly, software is being developed to expedite and facilitate collaborative work. Analysts describe these groupware products in terms of the environments for group activity (Johansen, 1988). First, some products are designed to augment face-to-face meetings (same time and same place). These include networked meeting rooms in which everyone can type into a separate terminal and the leader can display selected remarks or use a voting program to aggregate individual votes. Second, products such as video-conferencing are designed for connecting people at the same time who are in different locations. Third, group record keeping systems allow people to make inputs in the same place at different times. This would

include data base systems that are kept across shifts. Finally, the last category is technology intended to support dispersed people doing collaborative work (different places, different times). This is the most important and flexible. Various electronic databases, writing and editing programs, and group calendars are examples.

The early groupware programs were highly structured, and forced contributors to use specific interaction and decision processes rather than giving them the flexibility to create processes that might be appropriate for their needs. They did not reflect how groups actually work (Mankin, Cohen and Bikson, forthcoming). The flexibility of more recent programs makes them more appealing. For example, groupware can be used for new product development projects, including providing on-line mechanisms for sharing status reports, notes from individual contributors, and providing access to shared data bases. The use of groupware programs changes interactions among co-workers. Because groupware is relatively new and continuing to develop, little systematic research has been done on its impact on co-worker relations.

Some research has suggested that computer-mediated communication reduces status differences (Sproull and Kiesler, 1991). People pay less attention to organizational rank, demographic features, and appearance when they receive electronic mail or share information using groupware programs. For example, a study of groups of executives found that when they met in-person, the men were five times more likely than the women to initiate the first proposal for a decision. When their meeting was via computer, the women initiated the first proposal as much as the men did (McGuire, Kiesler, and Siegel, 1987). Zuboff (1988) describes how bringing people together from different functional areas and diverse personal backgrounds for computer conferences eliminated personal advantages and disadvantages based on appearance. As an employee stated: "If you are a hunchback, a paraplegic, a woman, a black, fat, old, have two hundred warts on your face, or never take a bath, you still have the same chance. It strips away the halo effects from age, sex or appearance." (Zuboff, 1988, page 371). People pay more attention to the substantive value of a contribution, when they are not distracted by status or appearance. Computer mediated communication helps decision-making to be based on task expertise (Bikson and Eveland, 1990). People may build reputations based on the quality of their contributions and their helpfulness to others.

Thus, computer-mediated communication calls for high levels of competence. As previously discussed, collaborative work with or without computers demands technical competence. Co-workers will listen and be persuaded by others only if they have something to offer. When they are communicating through electronic mail, they will pay even less attention to organizational position or rank. Thus, managers will not have a "leg up." Their influence will depend upon the relative worthiness of their contributions. Similarly, people will pay less attention to demographic differences. Ideas will not be colored by a person's race or gender. Decision-making among co-workers becomes more of a meritocracy when mediated by the electronic network.

Computer networking also changes the relationship of peripheral employees to more central employees. In electronic bulletin boards, anyone who chooses to participate can become a key player. Peripheral people who communicate electronically can become more integrated in an organization. In a field experiment (Bikson and Eveland, 1990), retirees in a group that used electronic mail were more central to planning a company's retirement policy than retirees in a comparison group that did not use electronic mail. Huff, Sproull, and Kiesler (1989) found that city employees who used electronic mail were more committed to their employer than the employees that did not. This was particularly true for employees on the second shift who were more peripheral to decision-making in the organization. Computers connect people to each other and the organization.

Thus, network technology expedites connectedness and commitment among co-workers. It also can facilitate empowerment. Information that was available only to executives in the old organization may be distributed broadly. People may access data sets about customers, markets, financial projections, and so on, that enable decision-making to be distributed throughout the network. Information technology helps individuals and teams to effectively collaborate and make decisions at the point of action.

Of course, there are downsides. Just about anyone who is connected to others through electronic mail, voice mail, and fax machines, complains about the number of messages to read, hear, and form a response. If information is disseminated widely without thinking through its utility, time will be wasted in reading and responding to it. Five minutes of 300 people's time can be quite costly to an organization. People also tend to be less polite when electronically communicating with others. Messages can be quite

blunt, aggressive, and undermine collaboration (Sproull and Kiesler, 1991). Information and people overload can strain the capacity of people to get work done, and new barriers can develop between "information haves" and "information have nots" that undermine collaboration among people who need to work together. Finally, computer technology can be used to disempower and deskill. Computers can extend the capability of managers to monitor individual activities and can reduce individual or workgroup discretion (Zuboff, 1988).

Despite these potential downsides, the major impact of computer technology has been to enhance connectedness, collaboration, empowerment, and integration in the lateral organization. Our knowledge work team study found that the adequacy of computer systems and their ability to connect people influenced team effectiveness. It helped people to effectively coordinate across functional, hierarchical and discipline-based organizational boundaries. Information technology can be a powerful tool for collaboration.

### **New Frontiers for Organizational Research**

Organizations are moving toward this new reality -- in fits and starts to be sure, but they are beginning to let people out of the box. Practice is far outstripping the ability of theory and research to provide solid underpinnings for sound practices. Organizations are providing potentially rich laboratories to develop and test badly needed theories and applications. What happens when the focus in the organization moves away from lines and boxes to connections? This section enumerates just a few of the theoretical and practical areas in which research is needed.

Until recently most research about the effectiveness of human resources systems has been conducted in and/or to support the line and box organization. Predominant topics have included job design, the dyadic boss-subordinate relationships, the impact of various pay schemes on individual performance, validation of selection and placement techniques for jobs (boxes), and individual appraisal systems. Furthermore, the exploration of theoretical issues such as motivation theory has been predominantly in settings where individual performance is the focus and hierarchical logic the context. Even team research, though clearly in the arena of lateral organization, has often examined the effectiveness and building of teams within line and box organizations.

There are some pockets of research that have focused explicitly on theory and practice to support the lateral organization. For example, research on the effectiveness of skill-based pay and gainsharing have yielded learnings about the effectiveness of these approaches and the conditions that impact their success. Leading effective teams has lately received much attention and has been the subject of some research. Research on teams, including self-managing teams, cross-functional project teams, and process management teams, has increased and is more frequently occurring in settings where organizations are purposefully transitioning to a more lateral logic. Furthermore, organizational research is beginning to come to grips with the levels of analysis issue, providing a methodological underpinning for examining collective phenomena and the relationship between individual, group, and organization level phenomena (Rousseau, 1985).

There remains a lot to be learned if organization psychology and personnel research are to provide solid knowledge to understand and guide the connected organization. A few of the theoretical issues and human resource systems issues are briefly described below.

### Theoretical Issues

The theoretical issues that arise in the lateral organization include peer and managerial relationships and roles, the development of new kinds of cognitive learnings to underpin collaborative work, and the effective application of information technology to facilitate and mediate collaborative work.

Team-based organizations place far greater demands on relationships at work than the "line and box" organization. With co-worker interactions no longer mediated by management and demands for collective accountability being high, attachment to co-workers and the exchange of emotion intensify. Will co-workers be able and willing to do the affective work to effectively collaborate with their peers? With their managers? Will closer attachments to co-workers help or get in the way of achieving performance results? Due to the amount of work interdependence, people manage multiple relationships and are on multiple teams in the lateral organization. Can people effectively deal with multiple affective relationships at work? What about burnout? Can organizations help people deal with the affective dimensions of work? Should they? We are at the very beginning of understanding how relationships are changing and their impact on people and work.

Leadership and management issues pose particularly large challenges in the lateral organization. A promising stream of research is the work on power and influence. Subordinates and peers are more influenced by a manager's personal power than position power. This work should be extended to look at the impact of changing and multiple roles, for example, do sources of power shift when managers take on professional roles and vice versa? When a first-level supervisor is placed in a team leader role, has her source of power changed? What replaces position in an organizational hierarchy as a source of legitimacy? What behaviors will enable managers and subordinates to develop effective collaborative relations when they are working together as peers on projects? How do the relations between manager and subordinate change over time, when they have multiple role relationships? What behaviors will enable managers to develop effective lateral relations on management teams, and more generally across organizational boundaries? What is the impact of functional diversity on the dynamics in management teams? This list of questions could go on, because much remains to be learned. The changing roles of managers in the lateral, team-based organization is an area that is ripe for organizational research.

Information technology has dramatically changed the way people communicate and connect with one another, eliminating barriers to information exchange based on geography, structure, hierarchy, and organization. Social relations change, power becomes more diffuse, and status differences diminish on the electronic network. We do not fully understand the organizational costs and benefits of electronic networking, and organizations do not know how to design information systems that optimize the benefits and minimize the costs. We do not yet know how to set up the working arrangements that fully take advantage of the capabilities offered by groupware and electronic networking. We also are just beginning to understand how relationships change when they are mediated electronically, and what can be done to build effective communities along the information highway.

The lateral organization poses learning and development challenges unparalleled in the "line and box" organization. As collectives of individuals are increasingly relied on to process complex, multi-dimensional information and make complex trade-offs, a premium will be placed on ability to handle ambiguity and complexity. Can these cognitive capabilities be developed? In individuals? In teams? Teams may need instrumented approaches such as are provided by simulations and other forms of artificial

intelligence to assist in collective, cross-discipline decision making (e.g., Boland and Tenkasi, 1993).

Organizations may require career paths that systematically expand cognition. How do these approaches affect the willingness of team members to collaborate?

Team-based organizations require the development of team skills but also of teams. The challenge will be to develop team capabilities that transcend particular teams such as by training people in shared, systematic team processes that enable people to be "anchored" as they go between teams. An issue to be examined is whether team commitment and trust is team specific or whether it can be developed as an organizational characteristic that transcends teams.

### Human Resource Systems

There are a number of areas where human resource practices need to be informed by more robust theory. A few will be highlighted here. The first concerns motivation and compensation theory. One key question concerns levels of analysis: we need to know more about what motivates *collective* performance. The more we link fates together, the more important this question becomes. For example, we need to understand whether rewards applied at different levels of analyses (individual, team, and business) stimulate different kinds of performance. If rewards are applied at multiple levels of analysis, are they complementary or do they work at cross purposes? When the business performance is the result of collective performance, what role do individual awards play in promoting collective performance? Do team rewards stifle individual excellence? Do individual rewards undermine the trust and collaboration required for lateral interaction?

Another key compensation issue pertains to putting pay at risk based on collective performance, such as in gainsharing or other incentives that may reduce base pay with upside potential. Under what conditions do such at-risk pay schemes motivate performance? Are there individual differences? Do they work in times of business success as well as business difficulty? What are the personal and interpersonal impacts of the uncertainty that results when a significant amount of pay is at risk? What impact does all of this have on the willingness and ability of people to collaborate?

Peer and multiple stakeholder review processes are another fruitful area for generation of theory. How do individuals and teams process conflicting feedback and make sense of conflicting expectations from different stakeholders? What is the impact of peer review on team performance and on the trust and commitment between team members? What dynamic is established when team members negotiate their goals with members rather than managers? Under what conditions are these goals viewed as legitimate? Do teams avoid "stretch goals"?

A number of human resource systems need to be developed to support lateral functioning. For example, organizations must find a classification system to replace job grading systems that conformed to the hierarchy. Skill-based pay systems offer a glimpse into the principles of such a system, but the application of these principles organization-wide remains a challenge. Systems for forecasting skill needs and inventorying current skills and skill development needs for a laterally-oriented organization remain rudimentary. This system will determine opportunity, and whether people feel in competition with each other for scarce developmental/advancement opportunities. Ultimately, these issues will in part define the sense of equity and opportunity in the organization.

Perhaps the biggest challenge is to develop a selection system for composing teams rather than filling jobs. Increasingly, individuals will find that their future in the organization depends on the value they can deliver to a network of co-workers. The workability of this kind of a system depends on the human resource allocation system that guides the selection and placement of people into performing units and their advancement through various competency levels. What issues of team composition affect the ability of the team to collaborate? What kind of job experiences build the capability of people to collaborate cross-functionally, and how extensive should the development of cross-functional backgrounds be? What issues of selection and evaluation validity exist in the new organization, and what safeguards for equality of opportunity are required? What difference does it make if team members select team members? Many of these issues have not yet been conceptualized in a systematic fashion.

## **Conclusion**

Organizations that are built to stress connections between people rather than segments between them yield new ways of operating and new relations between the people who comprise them. People come out of the boxes and are much less influenced by the lines that have been the core structural concepts of traditional hierarchical organizations.

Connections between co-workers increase radically, through the use of teams, collective accountability mechanisms, and information systems that tie people of all levels and locations together. In the new organization, people are forced to count on each other, highlighting the importance of competence, cognition, caring and commitment for effective performance. Managers become co-workers, and co-workers become managers. Management as well as the core transformation processes of the organization become collective processes.

New ways of understanding the organization, new definitions of careers, equitable treatment, and work are emerging to support the new architecture of the organization. Change is the order of the day. Organizational members constitute a learning community, where they puzzle through their new landscape, designing it as they go, and collaborating in dealing with the task and social aspects of the changes they are experiencing.

The new organization is one where people sink or swim together. It is a frontier, but not one of rugged individualism. Rather, it requires community and collective risk-taking. Co-workers with a direct line of sight to organizational performance and possibly to its survival will relate differently, using different skills and tools, to one another.

There are many areas in which theory lags practice, and where theoretical development is required to underpin new organizational systems. The challenges facing organizational psychology are daunting and exhilarating. Methodological advances and an understanding of the new organizational landscape will help in the investigation of what happens where people get out of their boxes.

## References

- Alderfer, C. P. *Human Needs in Organizational Settings*. New York: Free Press of Glencoe, 1972.
- Amabile, T. M. "A Model of Creativity and Innovation in Organizations." In B.M. Staw and L.L. Cummings, (Eds.), *Research in Organizational Behavior, 10*. Greenwich, CT: JAI Press. 1988, 123-167.
- Ancona, D.G. and Nadler, D.A. "Top Hats and Executive Tales: Designing the Senior Team." *Sloan Management Review*, 1989, 31(1), 19-28.
- Bass, B.M. *Leadership, Psychology, and Organizational Behavior*. New York: Harper, 1960.
- Benne, K. D. "From Polarization to Paradox.," In L.P. Bradford, J.R. Gibb, and K.D. Benne (Eds.), *T-Group Theory and Laboratory Method*. New York: Wiley, 1964.
- Bennis, W. & Nanus, B. *Leaders: The Strategies for Taking Charge*. New York: Harper & Row, 1985.
- Bennis, W. G., and Shepard, H. A. "A Theory of Group Development." *Human Relations*, 1956, 9, 415-437.
- Bikson, T. and Eveland, J. D. "The Interplay of Work Group Structures and Computer Support." In (eds.), Jolene Galegher, Robert E. Kraut, and Carmen Egido, *Intellectual Teamwork: Social and Technological Foundations of Cooperative Work*. Hillsdale, New Jersey: Lawrence Erlbaum Associates, 1990, 245-290.
- Bion, W. R. *Experiences in Groups*. New York: Basic Books, 1961.
- Boland, R. and Tenkasi, R. "Perspective Making and Perspective Taking in Communities of Knowing". Working Paper, Center for Effective Organizations, University of Southern California. Los Angeles, Ca. 1993.
- Bourgeois, L.J. and Eisenhardt, K.M. "Strategic Decision Processes in High Velocity Environments: Four Cases in the Microcomputer Industry." *Management Science*, 1988, 34, 816-835.
- Bowman, E. H. and Dougherty, D. "Organizational Restructuring and Product Innovation: A Positive or Negative Effect?" (Working Paper 92-20 of the Reginald H. Jones Center for Management Policy Strategy and Organization, Wharton), Philadelphia, PA: University of Pennsylvania, 1992.

- Brown, J. S. and Duguid, P. "Organizational Learning and Communities-of-Practice: Toward a Unified View of Working, Learning, and Innovation." *Organizational Science*, 1991, 2,(1), 40-57.
- Chang, L., Cohen, S.G., & Ledford, G.E., Jr. "A Hierarchical Construct of Self-Management Leadership and its Relationship to Quality of Work Life and Perceived Work Group Effectiveness." (Technical Report 94-6 (249) of the Center for Effective Organizations), Los Angeles, CA: University of Southern California.
- Cohen, S.G. "New Approaches to Teams and Teamwork." In (eds.) Jay R. Galbraith, Edward E. Lawler III & Associates, *Organizing for the Future: The New Logic for Managing Complex Organizations*. San Francisco: Jossey-Bass, 1993, 194-226.
- Cohen, S. G. "Designing Effective Self-Managing Work Teams." Chapter in *Advances in Interdisciplinary Studies of Work Teams, Vol. 1 Series on Self-Managed Work Teams*. Greenwich, CT: JAI Press (in press).
- Cohen, S. G., and Ledford, G.E., Jr., "The Effectiveness of Self-Managing Teams: A Quasi-Experiment." *Human Relations*, 1994, 47:1, pp.13-43.
- Cohen, S. G., Mohrman, S.A., Mohrman, A.M., and Feyerherm, A. "Integration in New Product Development: Managing the Convergence/Divergence Cycle." Paper presented at the Western Academy of Management Conference in Leuven, Belgium, June 1992.
- Copeland, L. "Valuing Diversity, Part 1: Making the Most of Cultural Differences in the Workplace." *Personnel*, 1988, 65, 52-60.
- Courtright, J.A., Fairhurst, G.T., and Rogers, L.E. "Interaction Patterns in Organic and Mechanistic Systems." *Academy of Management Journal*, 1989, 32, 773-802.
- Dailey, R. C. "Group, Task and Personality Correlates of Boundary-Spanning Activities." *Human Relations*, 1979, 32, 273-285.
- Davis, J. *Group Performance*. Cambridge: Cambridge University Press, 1969.
- DeLuca, J. M., and McDowell, R. N. "Managing Diversity: A Strategic 'Grass-Roots' Approach." In (eds.), S.E. Jackson & Associates, *Diversity in the Workplace: Human Resources Initiatives*. New York: Guilford, 1992, 227-247.
- Deming, W. E. *Out of Crisis*. Cambridge, Mass: MIT Press, 1986.

- Dougherty, D. "Interpretive Barriers to Successful Product Innovation in Large Firms." *Organization Science*, 1992, 3 (2), 179-202.
- Dyer, William G. *Team Building: Issues and Alternatives (2nd edition)*. Reading, Mass: Addison-Wesley, 1987.
- Eisenstat, R.A. and Cohen, S.G. "Summary: Top Management Groups." In (ed.), J.R. Hackman, *Groups that work (and those that don't): Creating Conditions for Effective Teamwork*. San Francisco: Jossey Bass, 1990, 78-86.
- Etzioni, A. A. *A Comparative Analysis of Complex Organizations*. New York: Free Press, 1961.
- Evans, C. R. and Dion, K.L. "Group Cohesion and Performance: A Meta-Analysis." *Small Group Research*, 1991, 22, 175-186.
- Fairhurst, G.T. and Chandler, T.A. "Social Structure in Leader-Member Interaction." *Communication Monographs*, 1989, 56(3), 215-239.
- French, J.R. & Raven, B. "The Bases of Social Power." In D. Cartwright & A. Zander, (eds.), *Group Dynamics*. New York: Harper & Row, 150-167.
- Freud, S. *Group Psychology and the Analysis of the Ego*. London: International Psychoanalytical Press, 1922.
- Fried, Y. and Ferris, G.R. "The Dimensionality of Job Characteristics: Some Neglected Issues." *Journal of Applied Psychology*, 1986, 71, 419-426.
- Galbraith, J. R. and Lawler, E. E. (eds.) *Organizing for the Future: The New Logic For Managing Complex Organizations*. San Francisco: Jossey-Bass, 1993.
- Galbraith, J. R. *Competing with Flexible Lateral Organizations (2nd edition)*. Reading, Mass: Addison-Wesley, 1994.
- Gibbard, G. S. "Individuation, Fusion and Role Specialization." In (eds.), Graham S. Gibbard, John J. Hartman, and Richard D. Mann, *Analysis of Groups: Contributions to Theory, Research, and Practice*. San Francisco: Jossey-Bass, 1978.
- Graham-Moore, B. and Ross, T. L., *Gainsharing: Plans for Improving Performance*. Washington, D.C.: BNA.

- Guralnick, David (ed.). *Webster's New World Dictionary of the American Language, Second College Edition*. New York: The World Publishing Company, 1970.
- Gupta, N., Ledford, G. E., Jenkins, G. D., Jr., and Doty, D. H., "Survey-Based Prescriptions for Skill-Based Pay." *ACA Journal*, 1:1, 1992, pp. 50-61.
- Guzzo, R. A., and Shea, G. P. "Group Performance and Intergroup Relations in Organizations." In (eds.), M.D. Dunnette and L.M. Hough, *Handbook of Industrial and Organizational Psychology*, Second edition, 1992, 3, 269-313.
- Hackman, J. R. "The Design of Work Teams." In J.W. Lorsh (Ed.), *Handbook of Organizational Behavior*, Englewood Cliffs, New Jersey: Prentice Hall, 1987, 315-342.
- Hackman, J. R. *Groups that Work (and Those That Don't) Creating Conditions for Effective Teamwork*. San Francisco: Jossey-Bass, 1990.
- Hackman, J. R. and Oldham, G. R. "Motivation through the Design of Work: Test of a Theory." *Organizational Behavior and Human Performance*, 1976, 16, 250-279.
- Handy, C. *The Age of Unreason*. Boston, Mass.: Harvard Business School Press, 1990.
- Hammer, M. and Champy, J. *Reengineering the Corporation*. New York: Harper, 1993.
- Hill, M. "Groups versus Individual Performance. Are N + 1 Heads Better than One?" *Psychological Bulletin*, 1982, 91, 517-539.
- Huff, C., Sproull, L., and Kiesler, S. "Computer Communication and Organizational Commitment: Tracing the Relationship in a City Government." *Journal of Applied Social Psychology*, 1989, 19, 1371-1391.
- Jacklin, C. N. "Female and Male: Issues of Gender." *American Psychologist*. 1989, 44, 127-133.
- Jackson, S. E., May, K. E., and Whitney, K. "Understanding the Dynamics of Diversity in Decision Making Teams." In (eds.), Guzzo, R.A., and Salas, E. *Team Decision Making Effectiveness in Organizations*. San Francisco: Jossey-Bass, Forthcoming.
- Jackson, S. E. "Team Composition in Organizational Settings: Issues in Managing An Increasingly Diverse Work Force." In S. Worchel, W. Wood, and J.A. Simpson, (Eds.), *Group Process and Productivity*. Newbury Park, CA: Sage Publications, 1992, 138-174.

- Jenkins, G. D., Jr., Ledford, G. E., Jr., Gupta, N., and Doty, D. H. *Skill-Based Pay Practices, Payoffs, Pitfalls, and Prospects*. Scottsdale, AZ: American Compensation Association, 1992.
- Johansen, R. *Groupware: Computer Support for Business Teams*. New York: The Free Press, 1988.
- Juran, J. M. *Juran on Leadership for Quality*. New York: Free Press, 1989.
- Kahn, W. A. "Psychological Conditions of Personal Engagement and Disengagement at Work." *Academy of Management Journal*, 1990, 33(4), 692-724.
- Kanter, R.M. *Change Masters: Innovation for Productivity in the American Workplace*. New York: Simon and Schuster, 1985.
- Kanter, R.M. "The New Managerial Work." *Harvard Business Review*, November-December, 1989, 67(6), 85-92.
- Katzenbach, J. R. and Smith, D. K. "The Wisdom of Teams: Creating the High-Performance Organization." Boston, Mass.: Harvard Business School Press, 1993.
- Kayser, T. A. *Mining Group Gold: A Guide Providing Facilitation Techniques, Tips, Checklists and Guidesheets*. Internal Document, Xerox Corporation, 1984.
- Kotter, J.P. *The General Managers*. New York: Free Press, 1982.
- Laughlin, P. R. "Social Combination Processes of Cooperative Problem-Solving Groups on Verbal Intellectual Tasks." In M. Fishbein (Ed.), *Progress in Social Psychology, 1*, Hillsdale, New Jersey: Lawrence Erlbaum Press, 1980, 210-231.
- Laughlin, P. R., Branch, L. G., and Johnson, H. H. "Individual versus Triadic Performance on a Unidimensional Complementary Task as a Function of Initial Ability Level." *Journal of Personality and Social Psychology*, 1969, 12, 144-150.
- Lawler, E. E. *Pay and Organization Development*. Reading, Mass: Addison-Wesley, 1981.
- Lawler, E. E. and Mohrman, S. A. "Quality Circles After the Fad." *Harvard Business Review*, 1985, 63(1), 64-76.
- Lawler, E. E. *High-Involvement Management*. San Francisco: Jossey-Bass, 1986.

- Lawler, E. E. and Mohrman, S. A. "Quality Circles: After the Honeymoon." *Organizational Dynamics*, 1987, 15(4), 42-55.
- Lawler, E. E. "The New Plant Revolution." *Organizational Dynamics*, 1987, 6 (3), 2-12.
- Lawler, E. E. "What's Wrong With Pointer-Factor Job Evaluation." *Personnel*, January, 1987, 38-44.
- Lawler, E. E. *Strategic Pay*. San Francisco: Jossey-Bass, 1990.
- Lawler, E. E. *The Ultimate Advantage: Creating the High-Involvement Organization*. San Francisco: Jossey-Bass, 1992.
- Lax, D.A. and Sibenius, J.K. *The Manager as Negotiator: Bargaining for Cooperation and Competitive Gain*. New York: The Free Press, 1986.
- Ledford, G. E., Lawler, E. E. and Mohrman, S. A. "The Quality Circle and Its Variations." Chapter in J. P. Campbell, R. J. Campbell, and Associates (eds.), *Productivity in Organizations: New Perspectives from Industrial and Organizational Psychology*. San Francisco: Jossey-Bass, 1988.
- Maccoby, E.E. and Jacklin, C.N. *The Psychology of Sex Differences*. Stanford: Stanford University Press, 1974.
- Mankin, D., Cohen, S. G., and Bikson, T. K. *Teams and New Technology: Developing Information Systems for Collaborative Work*. Cambridge, Mass., Harvard Business School Press, Forthcoming.
- Manz, C.C. and Sims, H.P. "Leading Workers to Lead Themselves: The External Leadership of Self-Managing Work Teams." *Administrative Science Quarterly*, 1987, 32, 106-128.
- McGuire, T., Kiesler, S., and Siegel, J. "Group and Computer-Mediated Discussion Effects in Risk Decision Making." *Journal of Personality and Social Psychology*, 1987, 52 (5), 917-930.
- Miles R. H. , & Associates, *The Organizational Life Cycle: Issues in the Creation, Transformation, and Decline of Organizations*. San Francisco: Jossey-Bass, 1980, 208-290.
- Mintzberg, H. *The Nature of Managerial Work*. New York: Harper and Row, 1973.
- Mishra, A. K. "Breaking Down Organizational Boundaries During Crisis: The Role of Mutual Trust." Paper presented at the Annual Academy of Management Meeting, Atlanta, Georgia, August 1993.

- Mohrman, A. M., Resnick-West, S. M., and Lawler, E. E. *Designing Performance Appraisal Systems: Aligning Appraisals and Organizational Realities*. San Francisco: Jossey-Bass, 1989.
- Mohrman, A. M., Mohrman, S. A. and Worley, C. G. "High Technology Performance Management." Chapter in M. A. Von Glinow and S. A. Mohrman (eds.), *Managing Complexity in High Technology Organizations*. New York: Oxford University Press, 1990.
- Mohrman, A. M. and Mohrman, S. A. "Lateral Performance Management Practices in Team Based Organizations. Learnings from Two Cases." Working Paper. Center for Effective Organizations, 1993, presented at the Annual Meetings of the Academy of Management, August 1991.
- Mohrman, A. M., Mohrman, S. A. and Lawler, E. E., "The Performance Management of Teams." In (ed.) W. Bruns, *Performance Measurement, Evaluation and Incentives*. Boston, Mass: Harvard Business School Press, 1992.
- Mohrman, S. A. and Cummings, T. G. *Self-Designing Organizations: Learning How to Create High Performance*. Reading, Mass: Addison-Wesley, 1989.
- Mohrman, S. A., Cohen, S. G. and Mohrman, A. M. *Designing Team-Based Organizations for Knowledge Work*. Technical Report. Center for Effective Organizations, University of Southern California, 1994.
- Mohrman, S. A. "Integrating Roles and Structure in the Lateral Organization," in Galbraith, J. and Lawler, E. E. and Associates, *Organizing for the Future: The New Logic for Managing Complex Organizations*. San Francisco: Jossey-Bass, 1993, pp. 109-141.
- Mohrman, S. A. "Designing Work Teams." Chapter in H. Richer and C. Fay (eds.), *Enhancing Workplace Effectiveness*. San Francisco: Jossey Bass (forthcoming).
- Mohrman, S. A., Mohrman, A. M. and Cohen, S. G., "Human Resources Strategies for Lateral Integration in High Technology Settings." In (eds.), Luis R. Gomez and Michael W. Lawless, *Advances in Global High Technology Management: Human Resource Strategy in High Technology*. Greenwich, Conn.: JAI Press, 1992, 1. 31-57.
- Murphy, K. R. and Cleveland, J. *Performance Appraisal: An Organizational Perspective*. Boston: Allyn and Bacon, 1991.
- Nadler, D., Gerstein, M. S. and Shaw, R. B. *Organizational Architecture: Designs for Changing Organizations*. San Francisco: Jossey-Bass, 1992.

- Nystrom, H. *Creativity and Innovation*. London: John Wiley, 1979.
- Organ, D. and Hammer, W.C. *Organizational Behavior*. Plano, TX: Business Publications, 1950.
- Orr, J. "Sharing Knowledge, Celebrating Identity: War Stories and Community Memory in a Service Culture, in D.S. Middleton and D. Edwards (Eds.), *Collective Remembering: Memory in Society*. Beverly Hills, Ca: Sage Publications, 1990.
- Pinchot, G. III. *Entrapreneuring*. New York: Harper & Row.
- Quinn, J. B. "Managing Innovation: Controlled Chaos." *Harvard Business Review*, May-June, 1985, 73-84.
- Rousseau, D. M. "Issues of Level in Organizational Research: Multi-level and Cross-level Perspectives." *Research in Organizational Behavior*, Vol. 7, Greenwich, CT: JAI Press, 1985, pp. 1-37.
- Rummler, G. A. and Brache, A. P. *Improving Performance: How to Manage the White Space on the Organization Chart*. San Francisco: Jossey-Bass, 1990.
- Schachter, S., Ellerton, N., McBride, D., and Gregory, D. "An Experimental Study of Cohesiveness and Productivity." *Human Relations*, 1951, 4, 229-238.
- Schermer, V. L. "Beyond Bion: The Basic Assumption States Revisited." In M. Pines (Ed.), *Bion and Group Psychotherapy*. Boston: Routledge & Kegan Paul, 1985.
- Seashore, S. E. *Group Cohesiveness in the Industrial Work Group*. Ann Arbor, MI: University of Michigan Press, 1954.
- Slater, P. E. *Microcosms*. New York: Wiley, 1966.
- Smith, K. E., and Berg, D. N. *Paradoxes of Group Life*. San Francisco: Jossey-Bass, 1987.
- Sproull, L. and Kiesler, S. *Connections: New Ways of Working in the Networked Organization*. Cambridge, Mass.: MIT Press, 1991.
- Steckler, N. and Preston, D. "Middle Managers and Lateral Integration in the Boundaryless Organization." Paper presented at the Annual Academy of Management Meeting, Atlanta, Georgia, 1993.

- Summers, I., Coffelt, T., and Horton, R.E. "Work-Group Cohesion." *Psychological Reports*, 1988, 63, 627-636.
- Teel, K. S. "Performance Appraisal: Current Trends, Persistent Progress." *Personnel Journal*. 59:4, 1980, pp. 296-316.
- Tsovoid, D. *The Conflict-Positive Organization: Stimulate Diversity and Create Unity*. Reading, Mass: Addison Wesley Publishing Company.
- Tsovoid, D. *Team Organization: An Enduring Competitive Advantage*. Chichester, John Wiley & Sons, 1992.
- Tziner, A., and Eden, D. "Effects of Crew Composition on Crew Performance: Does the Whole Equal the Sum of its Parts?" *Journal of Applied Psychology*, 1985, 70, 85-93.
- Van Berklom, M. and Tsovoid, D. "The Effects of Social Context on Engaging in Controversy." *Journal of Psychology*, 1981, 107, 141-145.
- Voiers, W. D. "Bombing Accuracy as a Function of the Ground-School Proficiency Structure of the B-29 Bomb Team." (Research Report AFDTRC-TN-56-4) Lackland Air Force Base, TX: Air Force Personnel and Training Research Center, 1956.
- Wall, T. D., Clegg, C. W., and Jackson, P. R. "An Evaluation of the Job Characteristics Model." *Journal of Occupational Psychology*, 1978, 51, 183-196.
- Walton, R. E. "Establishing and Maintaining High Commitment Work Systems." In J. R. Kimberly, R.H. Miles & Associates (Eds.), *The Organizational Life Cycle: Issues in the Creation, Transformation, and Decline of Organizations*. San Francisco: Jossey-Bass, 1980, 208-290.
- Walton, R.E. "From Control to Commitment in the Workplace." *Harvard Business Review*, March-April, 1985, 63(2), 77-84.
- Wenger, E. "Communities of Practice: Where Learning Happens." *Benchmark*, Fall 1991, 82-84.
- West, M. A. and Farr, J. L. "Innovation at Work, Psychological Perspectives." *Social Behavior*, 1989, 4, 15-30.
- West, M. A. and Wallace, M. "Innovation in Health Care Teams." *European Journal of Social Psychology*, 1991, 21, 303-315.

Williams, E. S. and Bunker, D. R. "Sorting Outcomes: A Revision of the JCM." In *The Job Characteristics Model: Recent Work and New Directions*. Symposium conducted at the August 1993 meetings of the Academy of Management, Atlanta, Georgia.

Yukl, G., & Falbe, C.M. "Importance of Different Power Sources in Downward and Lateral Relations." *Journal of Applied Psychology*, 1991, 76(3), 416-423.

Zuboff, S. *In the Age of the Smart Machine*. New York: Basic Books, 1988.