The Reorganization of Work

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Abstract

In recent decades, the bureaucratic organization of work in stable hierarchies of "jobs" and "offices" has come under increasing fire, seen as unresponsive and resistant to innovation. Practice has turned to two major alternatives: freeing individual "stars" to take independent initiative and building cooperative teamwork. Academic research has lagged far behind practice, often stuck in narrow positivist frames that miss the systemic and evolving nature of these organizational shifts. The emerging paradigm is not yet clear, but it certainly involves major modifications of the Weberian principles of bureaucratic efficiency.

INTRODUCTION

The principles of work organization are undergoing major upheaval, especially in knowledge-focused enterprises struggling to manage fluidity, multiple projects and accountabilities, and "on-demand" networks of relations. Academic research lags behind this practice: The understanding of adaptive teams is growing but still weak, and most studies still focus on individual jobs or on small, stable teams within clear hierarchies.

The last transformation of this magnitude occurred roughly a century ago. The focus then was on the emergence of the bureaucratic mode of production suited to strategies of scale and scope. The rise of large corporations caused a transformation of work from traditional structures of small status-based hierarchies or autonomous crafts to the extensive "chains of command" familiar throughout the twentieth century. However, this latter model has been subject to increasing attack for rigidity and lack of responsiveness to customers.

The current period is putting in question, theoretically and practically, almost every aspect of the bureaucratic paradigm. Understanding this shift requires a move beyond the piecemeal, positivist, low-to-middle-range research that has been in fashion for some decades, and a return to some of the approaches of general systems theory that strive for an integrated view of values, structures, and motivations.

CLASSIC FOUNDATIONAL RESEARCH

Any review of foundational research on work organization must start with Max Weber's seminal discussion of bureaucracy (1924, pp. 650–678). For Weber, the core work structure was the *office:* a formally-defined, delimited, rationally justified set of duties independent of any particular person. Nowadays, we generally call it a "job." The nature of each office was determined by the requirements of the organization, so that persons were essentially defined as functions in a "mechanical" system (Burns & Stalker, 1961). Frederick Taylor's "scientific management" (1911) took the concept to a further extreme for shop-floor workers, seeking to control every motion through rational analysis and incentives.

Bureaucracy and scientific management never operated in pure form: Any organization designed like a machine would quickly break down in the face of everyday complexity. Many critical studies, such as Gouldner (1964) and Crozier (1964), explored the unintended rigidities and conflicts caused by efforts to run organizations purely on the basis of formal rules.

In practice, few organizations were so limited; in the real world, there was always a great deal of problem-solving and mutual adjustment. By the 1930s, the "Hawthorne studies" showed the importance of teamwork even for routine tasks (Roethlisberger, Dickson, Wright, Pforzheimer, & Western Electric Company, 1939), and Chester Barnard's landmark *Functions of the Executive* (1938) highlighted the importance of informal organization, with a strong emphasis on loyalty. Elton Mayo codified these insights into the practice of the emerging function of "Human Relations" management. The successful corporations of the 1950s and 1960s were not simple Weberian hierarchies, but hybrids of formal rationality and informal "family" culture. The formal organization of work, however, remained tied to a paradigm of individual accountability for performance of stable job duties.

In the 1950s, there developed the first significant break in this paradigm. The theorists grouped in the Tavistock Institute began to articulate notions of *formalized teamwork* in which jobs, with clear accountabilities and spheres of autonomy, gave way to groups with shared responsibility and flexible structure. In these "sociotechnical" environments, workers were expected to gain the skills for multiple tasks, to fill in for each other as needed, and even to make significant decisions together about methods of work (Trist & Murray, 1993). In the following decades, there was growing experimentation with such work reforms in order both to reduce job alienation and to increase flexibility and productivity through improved problem-solving.

THE LEADING EDGE(S)

The critique of the bureaucratic model, and its central concept of stable offices or jobs, has led to two major avenues of practice and research. One, which might be called the *star paradigm*, focuses on motivating individuals to take initiative and risk. The contrasting approach explores coordinated teamwork—the combination of diverse capabilities in pursuit of a shared purpose.

DECENTRALIZATION AND THE EMERGENCE OF STARS

The period of heightened international competition starting in the 1980s generated a wave of decentralizing efforts, including reducing organizational layers and increasing divisional autonomy. This is not new: Alfred Sloan restructured General Motors into decentralized units in the 1920s, and there have been frequent decentralizing periods in order to bureaucratic inertia. However, decentralization creates its own problems: lack of coordination, duplication of effort, and customer confusion. Thus, the history of large corporations has often seen an oscillation: periods decentralization to spur innovation, followed by centralization to increase efficiency. Recent decades have been no exception to this pattern.

The "star" conception, however, takes decentralization beyond prior limits. Its premise is that organizations are just gatherings of talented people, and the main problem is to get out of their way by minimizing rules and supervision. Instead of hierarchy, these organizations have sought to solve the problem of coordination through "agency theory," which recommends monetary rewards for performance that meets the goals of the "principals"—that is, shareholders (Jensen, 1994).

Evidence on the effectiveness of star models is weak. Although heavy use of incentives may improve *individual* performance, it may hamper *organizational* performance by encouraging manipulation and competition, undercutting the mutual adjustment needed for complex tasks. Both quantitative and qualitative research have shown that stars are highly dependent on their environment and that they can undermine attention to systemic issues (Beer *et al.*, 2004; Groysberg, 2010; Pfeffer, 2001).

TEAM APPROACHES

The growing emphasis on teams has gone through a number of phases and forms, and remains less clear in its outlines than the talent/agency model.

Stable Teams. The oldest efforts build small teams—usually 6–10 people—from existing units of the hierarchy: a single function, a single supervisor. The model accelerated in the 1970s under such rubrics are "quality of work life," "autonomous teams," and "high-performance work systems" (Appelbaum & Berg, 2000). They are most often found at shop-floor levels, including wide use in assembly-line work in the automobile industry. The team members may simply meet periodically to make recommendations for improvement in work processes and environment, but increasingly they have gained some new powers of direct decision over scheduling, work organization, and even hiring and discipline. This sharply changes the daily experience of work: Team members must learn to analyze problems, structure decision-making processes, and deal with conflict among peers.

Research evidence indicates that these teams work well in direct comparisons with comparable groups managed through bureaucratic methods, primarily because of lower turnover and absenteeism, and sometimes innovative redesign. However, they also have significant long-term weaknesses, due primarily to the strong emphasis on internal cohesion and stability. They are often resistant to changes coming from outside and may communicate poorly beyond their boundaries. The literature also emphasizes the need for employment stability to maintain commitment. These tendencies may make them slow to adapt to shifts in markets or production. As a result, even successful ones often fail to survive: Some of the most touted exemplars of the last few decades, such as Saturn's Spring Hill plant (Rubinstein & Kochan, 2001) and NUMMI in the automotive industry (Adler, Goldoftas, & Levine, 1997), are no longer operating.

Stable teams, in short, increase flexibility and innovation within the boundaries of the group, but they do not reliably extend those gains to a larger system.

Project Teams (Task Forces). In recent decades, organizational innovation has centered on a different kind of team: ones that come together from different functions and levels for particular projects (Donnellon, 1993; Gulati, 2010). An important early focus of cross-functional teams, in the 1980s, was automobile design: rather than going through the cumbersome process of throwing plans back and forth "over the wall" between functions, a new process pioneered in Japan brought together designers and engineers and marketers into a single process. This greatly speeded new product development and improved end quality. Since then, driven by the growing importance of knowledge in business competition (Nonaka, Toyama, & Nagata, 2000), project teams have spread widely throughout management

ranks; in some instances, such as certain "total quality management" processes or Toyota's product launch reviews, it has even included shop-floor workers.

Project teams are generally more flexible than stable work teams, with greater ability to adapt to change and less need for stable relations. However, they create even greater strains on the regular bureaucratic organization. Where stable teams remain encapsulated within existing bureaucratic units, project teams cross boundaries by design. Thus, they create conflicts of accountability and upset the traditional career ladders. Members are often concerned about who will evaluate them and how their work will be viewed in the long run. The internal management of project teams is also difficult because they combine very different areas of knowledge, often leading to misunderstanding and mistrust. For all these reasons, failure is common.

Project teams need explicit process management because they need full involvement of participants. There has been great innovation in recent decades in methods of group decision-making, assignment of responsibilities, and peer accountability. (Bryk, Gomez, & Grunow, 2011; Colfer & Baldwin, 2010).

POSTBUREAUCRATIC ORGANIZATION

Some studies have sought to analyze this interconnected set of changes as a system. They remain largely disparate and disorganized, as reflected in the plurality of terms used—including "adhocratic" (Mintzberg, 1998), "networked" (Powell, 1990), "collaborative" (Heckscher, 2007), and "matrix" (Galbraith, 2008) organization. All these organizational forms make use of flexible project teams as described earlier. In organizations approaching adhocracy, such teams form and recombine frequently and with few formal restrictions. In a decentralized or modular organization, such teams may serve as links between the autonomous parts.

The most complex forms of collaborative organization, in companies such as IBM out Procter & Gamble, combine a skeleton of stable functions with an overlay of strongly structured project teams with formal procedures and objectives These organizations combine centralization and decentralization through elaborate "process management": that is, people can form cross-functional teams fairly freely, but they must justify and document what they are doing so can they coordinate effectively with other groups. A large set of practices—from techniques of team problem-solving to the drawing of complex process maps—has developed to help organize fluid projects. Where these methods are widely understood, organizations have improved their ability to mobilize initiatives across functions. They are more widely used at higher levels, but in some instances, even shop-floor workers

are drawn into project teams for quality improvement or implementation of new technology.

These developments present challenges to virtually all aspects of systems and enterprises. For example, while bureaucratic organizations reserved strategy for the top team, and expected everyone else just to focus on particular pieces, the need for autonomy and teamwork has led most companies to push strategic understanding to all employees so that they do not have to wait for instructions form superiors. The promotion system, which used to center on moving upward in a hierarchy, has become much more complex and uncertain. There is strong evidence that internal job ladders have weakened, especially for males, but no effective models of alternative career structures. Compensation can no longer be linked simply to hierarchical level; nominal subordinates may make more than their bosses. Leaders cannot be expected to have all the knowledge of their subordinates. The reorganization of work, in short, is just part of a reorganization of the *system* of work.

CHALLENGES FOR FUTURE RESEARCH

Many aspects of these changes in work have not yet been dealt with effectively in research. The trend of management research for several decades, along with many other social sciences, has been toward positivism, characterized by a focus on statistical analysis of quantifiable data, an inductive approach to theory, and an assumption of motivations based on rational individualism. Major journals have relegated other kinds of research, especially qualitative and "meaning"-focused approaches relying on interviews or general systems analysis, to secondary status.

In periods and fields of fundamental change, however, positivist methods may be less appropriate. First, it is almost impossible to gather rigorous data on large social system shifts involving many companies: The relatively few studies attempting this use surveys with low response rates, questionable comparability, and unknown reliability of respondents. Variance of terminology and policies among companies makes it difficult to formulate questions that give consistent results over a wide scope. Second, positivist research is almost never practical over significant time periods: Even the few surveys that have been repeated over several decades find that they need continuously to revise their items as new issues come to the fore. In effect, the very process of change undermines rigorous quantitative comparison across periods. For these reasons, there is value in the work of theorists with a broad historical view, such as Max Weber, Alfred Chandler (1977) and Peter Drucker (1946), relying on qualitative reflection (Adler, 2009).

Important areas for future research include the following:

Structure: Network studies have greatly helped in studying nonhierarchical patterns of communication: There has been progress, for instance, in identifying strengths and weaknesses of core-periphery and modular network structures, and in showing the importance of organizational "bridgers." However, there is so far no convergence on "ideal type" alternatives to the familiar pyramid of authority.

Culture: There is much qualitative evidence that the evolution of work involves a shift in values and meanings. Research on bureaucracy produced broadly accepted definitions of culture such as Weber's original focus on rational legitimation, Barnard's exploration of loyalty in the informal organization, and Merton's definition of an "sentiments" of "devotion to one's duties, a keen sense of the limitations of one's authority and competence, and methodical performance of routine activities." Most managers now would say those are insufficient: There is a need for initiative, innovation, and going beyond the limits of job descriptions. However, these orientations have not yet been adequately defined in the research literature.

In addition to these broad themes, many particular areas of organization and human resources research have paid insufficient attention to their relations to the broader changes under way. For example, both growing autonomy and teamwork challenge the traditional form of performance assessment by a single boss. The "star"-focused literature has increasingly recommended assessments based on objective outcome measures, but the evidence on whether this actually improves system performance remains weak. In ore team-focused situations, there has been growing use of multisource or "360-degree" assessment, but research in this area lags particularly far behind the practice.

Finally, emerging corporate work practices have generated a set of *societal* problems. As bureaucratic systems focused on internal development, companies were willing to provide many benefits in order to maintain stability and loyalty and had strong training arms to develop the capabilities they needed. With more fluidity, companies have less interest in such investments. It seems likely that training budgets are in decline and that more employees are turning to professional associations and adult education, but the extent and effectiveness of these trends are not well understood.

Large sectors of the economy still involve relatively routine tasks and have not been much affected by the trends reviewed previously. However, there is also evidence that automation of such jobs is accelerating and that the move to knowledge value will continue to spread (Acemoglu & Autor, 2010; Autor, Levy, & Murnane, 2003).

CONCLUSION

The changes and experiments under way in workplaces across almost all industries are highly dynamic, bordering on chaotic. The consistent driver is an attempt to overcome the limitations of bureaucratic organization: restriction of communication channels, inward focus, rigidity of rules, lack of cross-unit cooperation, and other well-documented weaknesses.

The two broad directions sketched previously—of individual agency and cooperative teamwork—are not entirely incompatible in practice: most "postbureaucratic" organizations involve a combination of both. However, they do create tensions. Where cross-boundary teams are common, it becomes very difficult to establish clear spheres of autonomy for stars and to measure their performance. Some research also indicates that high levels of inequality may undermine commitment and cooperation (Wilkinson & Pickett, 2009).

Both routes, however, lead to work organization very different, at both the shopfloor and managerial levels, from the tightly controlled, bounded model of the 1940s and 1950s. The dominant criticism of work in that era was that it was boring, overemphasizing conformity and obedience. The dominant concern today is that it may be too uncertain and unstable, giving employees too little guidance and support. There are clearly positive potentials in the increasing emphasis on initiative and independence, but too little understanding of how it may create a system that meets long-term needs.

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