[Review of the book *The Shopfloor Politics of New Technology*]

Pamela S. Tolbert  
*Cornell University, pst3@cornell.edu*
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**Abstract**

[Excerpt] The results of the study provide support for Wilkinson's primary contention that neither the adoption of particular technologies nor the organization of work based upon those technologies is objectively determined. Instead, both are the result of informal political negotiations between management and workers. Much of the previous work on the impact of technology on organizations has assumed, at least implicitly, that the adoption of technical innovations is determined by the pressures of competitive survival, and that the requirements of particular technologies largely dictate the form of work arrangements. Wilkinson is critical of such assumptions, and his research clearly supports these criticisms. It also addresses the problems of radical analyses of the Taylorization of work in capitalist societies, in which the role of workers as active negotiators in the determination of work relations is downplayed.

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**Comments**

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The Shopfloor Politics of New Technology.

The aim of Wilkinson's book, as stated in the preface, is to "uncover the ways in which the values and interests of managers, engineers and workers profoundly influence the choice and use of technology, and thus the work organization which emerges." The focus of the study is upon the adoption and implementation of computer-controlled equipment in manufacturing firms in Great Britain. Given the rapid spread of computer-based technology in the last decade, this work represents an analysis of an important social change at the workplace. The spread of computer technology offers the potential for a major reorganization of work processes, as Wilkinson points out.

The author explores the effects of the new technology in four case studies of small-batch manufacturing plants in the West Midlands. These plants were selected from an initial set of 12 firms that had applied electronic control systems to manufacturing processes. The issues of why these particular firms were chosen for intensive study and whether they differed in any systematic way from other adopters of the technology are not addressed in any detail. The four firms of the study are two small organizations (each with approximately 50 employees), a metal plating company and an optical lens production company, and two medium-sized organizations (employing between 350 and 450 workers), a rubber molding plant and a machine tool manufacturer. All but the metal plating firm are subsidiaries of larger corporations. Information was collected from these firms primarily through a combination of open-ended interviews with managers and workers regarding their attitudes toward the technological changes, and observation of the employees at work.

The results of the study provide support for Wilkinson's primary contention that neither the adoption of particular technologies nor the organization of work based upon those technologies is objectively determined. Instead, both are the result of informal political negotiations between management and workers. Much of the previous work on the impact of technology on organizations has assumed, at least implicitly, that the adoption of technical innovations is determined by the pressures of competitive survival, and that the requirements of particular technologies largely dictate the form of work arrangements. Wilkinson is critical of such assumptions, and his research clearly supports these criticisms. It also addresses the problems of radical analyses of the Taylorization of work in capitalist societies, in which the role of workers as active negotiators in the determination of work relations is downplayed.

Wilkinson's findings suggest a general model of technological change in which patterns of work organization accompanying the use of a new technology are determined both by managerial intentions and workers' efforts to control their work. Consistent with earlier case studies of organizational change, this work indicates that workers' success is frequently a function of unanticipated problems of technological changes, which inadvertently increase their power. The extent to which managers can succeed in taking control of work processes away from workers is strongly affected by pre-existing work arrangements. These arrangements, in turn, are the result of prior negotiating processes between management and workers and, presumably, represent shared understandings of worker-management relations.

That the adoption of a particular technology and the way in which it is used are not objectively determined, but are instead a matter of social definition, is an important caveat for those interested in studying the impact of changing technology. Wilkinson does not fully exploit the opportunities presented by a comparison of cases, however. This is unfortunate, since the potential for comparative analysis is a clear advantage of this study over other case studies of single organizations. Thus, a central limitation of his analysis is the failure even to tentatively specify any of the patterns that underlie such a process of social definition. The author does not, for example, venture any specific hypotheses about factors that enable workers to play a larger role in determining the procedures of work to accompany a new technology. A careful reading of the four cases does suggest some of these factors affecting worker intervention, including the extent to which the workers involved in the change are skilled craftsmen or largely unskilled and the degree to which responsibility for implementation is assigned to middle or to senior managers. Unfortunately, by not drawing out such implications, Wilkinson makes the research less valuable than it could be.
Organization


A small but growing movement of North American scholars and activists is attempting both to study and to change the workplace. What started this movement? That is the question raised in Workplace Democracy.

Observers of the North American workplace agree that it is confronting a crisis; in fact, unemployment, economic downturn, and readjustment of the labor force to a lesser standard of living are issues deserving more than a little concern. The analyst's problem is to identify the cause of the crisis in order to recommend a solution. Among the many possible causes of the current crisis, Nightingale focuses on the fact that ideology and practice in the bureaucratically organized workplace contradict ideology and practice in the larger democratic and pluralistic society. The author argues that North American society is based on an ideology of democratic pluralism, and suggests that the principles of this ideology are realized in practice. The structure of the workplace, itself, however, is authoritarian, hierarchical, and centralized. Nightingale argues that we value both bureaucratic organization and democratic principles but that we cannot live successfully with such severe contradictions.

I have no quarrel with Nightingale's characterization of the vast majority of workplaces in the United States and Canada. I differ with him in his characterization of the surrounding society as the manifest realization of the principles of democratic pluralism. A short review is not the place to rehearse old arguments or even to marshal new evidence, but I believe that on balance, the evidence developed during the years of debates between the "elitists" and "pluralists" attests to a society that generally may be characterized as hierarchical, power centered, and authoritarian.

Nightingale's attempts to justify his position lead to the book's central shortcoming: its consistent theoretical confusion. Contradiction is piled on top of contradiction, and even after two or three readings, much of the material does not seem to make sense. This is not a writing problem. The book is clearly written. For example, arguing that one of the significant facts about our society is its democratic freedoms, Nightingale asserts "the work organization cannot stand outside the realm of values, principles, and practices followed in other areas of society" (p. 9). Following in the very next paragraph, however, Nightingale claims:

the economic enterprise, the government agency, the trade union, the political party, the church are all essentially undemocratic in their decision making practices. Few organizations in our society make any pretense of being democratic, and those which do — universities, trade unions, political parties — are in practice rarely democratic.

So the society is democratic but really it is not. Further, Nightingale points out that a pluralist view of organizations is "not generally advocated by proponents of workplace democracy" (p. 10). But he never asks why proponents of workplace democracy reject the pluralist view. Could it be that such a view does not describe reality, or, alternatively, could it be that when such organizational models are attempted, they fail?

Only some 41 pages of the 194 in the main body of this book are devoted to reporting the study of a sample of workplaces. This is unfortunate, since the work might have been much more valuable to the field had Nightingale spent more time developing and analyzing what, I am sure, must be a very rich data set. The data collection methods reported in Appendix II are exemplary.

Nightingale finds 29 differences between democratic and hierarchical organizations, but this is what we would expect with or without his elaborate theoretical discourse. Nightingale himself vaguely glimpses his tautological folly when he concludes, "The ten democratic workplaces in this sample possess the properties of the 'democratic' model of organization, and their matched counterparts are significantly closer to the 'hierarchical' model" (p. 118). The firms involved in the study were selected initially for their democratic or hierarchical properties. The fact that they are different comes as no surprise.

Despite this limitation, The Shopfloor Politics of New Technology offers an important insight for research on technological change: the adoption and use of technical innovation cannot be understood apart from the attitudes and interests of those affected by the change. The cases are interesting and the book is well written. It serves a useful function in sensitizing researchers and policymakers to a number of subtle issues raised by technological change at the workplace.

Pamela S. Tolbert
Assistant Professor
New York State School of
Industrial and Labor Relations
Cornell University