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Control, flexibility and rhythms

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On the basis of four case studies, it is argued that high-strain jobs, as they are defined in the demand–control model, are not only found in Tayloristic and bureaucratic work settings, but also in postbureaucratic work. This argument suggests that the demand–control model seems relevant also in postbureaucratic settings. Thus there is a need for a conceptualization of postbureaucratic work that does not only define new types of work as being different from old types of work (bureaucratic versus postbureaucratic), but also makes it possible to differentiate between different kinds of modern work. To contribute to such a conceptualization, this paper suggests that the modern work environment is not only understood in relation to Taylorism and bureaucracy, but also that it is understood through its position in relation to three different extremes, or poles, called repetition, individual differentiation and collective rhythms.

Key terms demand–control in postbureaucracy; new work organization; work characteristics.

Work marked by Taylorism and bureaucracy, characterized by repetition, standardization, rules, hierarchies, and strict boundaries is the model of reference for most organizational and work science. In the last 20 years, so-called postbureaucratic work organization has been discussed in organizational and work science (1). Postbureaucratic work is not well defined, but the following three interconnected trends in work organization are related to postbureaucracy: (i) the disappearance of mass production and standardized work, (ii) a shift from technical, financial, or bureaucratic controls to cultural coordination, self-management, internalization, commitment, and self-discipline among employees, and (iii) the substitution of hierarchy by networks and boundaryless or decentralized units (2).

The world of work does not change rapidly. Some kinds of work have moved in the direction of postbureaucracy, while others have moved in the direction of traditional Taylorism or bureaucracy. However, in the "highly developed economies" the center of gravity of the world of work is moving away from the bureaucratic model towards a "postbureaucratic" kind of work (3–5).

The demand–control model was developed in an era when Taylorism and bureaucracy dominated organizational thinking and organizational development. Thus the move towards postbureaucratic work organization prompts the question of whether or not the demand–control model is still relevant, namely, does the concept of the work environment within the demand–control model apply to the new economy? Perhaps new models for analyzing the psychosocial work environment are more appropriate. The models might emphasize recognition, reward, self-efficacy and self-esteem, the quality of management, and other "soft" variables in the psychosocial work environment (6).

There are obviously other models and concepts that are relevant for understanding the modern psychosocial work environment. We argue, however, that the demand–control model is still relevant, even in postbureaucratic work. Empirical studies find that work demands, one parameter of the demand–control model, are increasing (7). However, in line with the demand–control model, increasing control at work could compensate for the increasing demands, and "active work" could be created (8, p 32).

This article is based on a study of four cases, each reflecting postbureaucratic trends. The two main research questions of the case studies are (i) is postbureaucratic work in better balance than average work, according to the demand–control-model and (ii) can the concept of "rhythm" usefully contribute to our understanding of balance and unbalance in work conditions in postbureaucratic work?

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Empirical findings

Methods

A Danish study entitled "A Better Psychosocial Work Environment—a Study of Workplace Interventions" [BEST (www.best-project.dk)] has collected data from 14 companies engaged in improvements of the psychosocial work environment. Here data from four knowledge-intense companies employing a total workforce of 4500 persons is presented. The companies participating in the BEST project committed themselves to involvement in improving the psychosocial work environment, based on the mapping of strengths and problems documented by the researchers. The companies were supposed to make an action plan for improving the psychosocial work environment. The researchers studied the process of change in the companies in the following three phases: (i) interpretation and understanding of the mapping results, (ii) prioritization between different issues raised in the mapping, and (iii) creation and implementation of a plan of action. After 2 years, the researchers undertook a final study to examine the effects of the changes.

To collect the survey data, the medium-length version of the Copenhagen psychosocial questionnaire (COPSOQ) was used (9). It is a questionnaire designed for the assessment and improvement of the psychosocial work environment. The response rate to the questionnaire was more than 80% in all four case companies. In the reports to the companies, data from the COPSOQ was presented in standardized scales with values between 0 and 100. This procedure made it easy to benchmark the results from a company or an organization against the national average. The COPSOQ medium-length version uses 26 scales. In this report, we have only used the following three: quantitative demands, influence at work, and role clarity.[3] Two of these dimensions are closely related to the demand–control model. Quantitative demands are similar to psychological demands in the demand–control model, and influence at work is similar to decision authority in the demand–control model. The dimension control is, in the demand–control model, composed of decision authority and skill discretion. In this report we have used the word "control" as a synonym for influence at work or decision authority. Role clarity is not a part of the demand–control model, but it has been included in this report. Our qualitative studies make it conceivable that low role clarity can lead to higher demands and lower control.

The qualitative data have been collected with different methods. First we had meetings with key persons in the companies. Afterwards we held a 1-day "chronicle workshop" (10) in each company, in which groups of 10–20 employees developed a common story about the past and future of the company. We carried out 55 in-depth interviews with people from the four companies. Some of the interviewees were interviewed twice. We presented and discussed the results of our mapping of the psychosocial work environment. We followed the process of change by participating in some of the meetings in the companies.

Presentation of the cases

The four cases were all heavily influenced by progressive efforts to enhance "new ways of working", value-based management, project and team organization, and other efforts to break down traditional bureaucracy at work. All of the case companies can be characterized as so-called first movers in the organizational renewal movement in private business.

In table 1, we briefly present the four cases. Later we draw on experiences and examples from the cases.

Demands, control, and role clarity in the four companies

The dimensions of "quantitative demands", "influence at work" and "role clarity" in the four case companies are shown in tables 2–4. When adjusted for differences in age and gender in the four companies, the mean scores and confidence limits changed by less than 1 point. The data in the tables are therefore the raw scores.

It is not surprising that the quantitative demands are high in the four companies (table 2). All of them do business in very competitive markets. The survey data show that the demand differed significantly from the national average. The quantitative demands were significantly higher than the national average in all of the companies.

Knowledge work in postbureaucratic settings is generally assumed to take place in a positive psychosocial

3 The scale of "quantitative demands" was comprised of the following four questions: Do you have to work very quickly? Is your workload unevenly distributed so that it piles up? How often do you not have time to complete all of your tasks? Do you have to do overtime? The scale for "influence at work" was also comprised of four questions, namely, Do you have a large degree of influence concerning your work? Do you have a say in choosing who you work with? Can you influence the amount of work assigned to you? Do you have any influence on what you do at work? The scale of "role clarity" comprised four questions: Do you know exactly how much say you have at work? Does your work have clear objectives? Do you know exactly which areas are your responsibility? Do you know exactly what is expected of you at work?

Table 1. Characteristics of the four case companies. (IT = information technology)

Company	Employees (N)	Characteristics
General bank	3500	A general bank offering a wide range of financial products. Well-known for its early introduction of value-based management. New bank products were continuously marketed by the headquarters, and there was an increasing focus on sales in the branch offices. *Work tasks:* Jobs were highly diverse, even though most of them were administrative. Approximately half of the employees worked in the branch offices, about 30% of whom were in back-office functions without direct customer contact. The other half had centralized functions involved in product development, analyses, IT development, human resources, and the like.
Savings bank	200	A locally based community bank. The products were similar to those of the general bank. The employees had extensive autonomy in their daily work. Management rejected the use of individual performance monitoring. The savings bank was known for its consistent use of self-management. It received the "greatest place to work award" in 2005 as the best workplace in Denmark and belonged to the top 10 in Europe. *Work tasks:* Almost half of the employees worked in the branch offices, where most of them had customer contact and administrative tasks. Almost half of the employees worked with administrative tasks in the headquarters. A small minority sold real estate.
IT company	750	Developed and ran large IT infrastructures. Most of the employees were professional IT specialists. Work was mostly organized into temporary project groups. *Work tasks:* About half of the employees were system developers. About 10% were running large mainframe-based IT systems. The rest worked as administrative staff, in sales, and in a call center.
Consulting house	100	Offered leadership counseling, training and networking for managers. Challenging, intensive and individualized work. *Work tasks:* About half of the employees belonged to the administrative staff of the company, and the other half worked as consultants outside the house.

work environment with a high degree of individual control. Therefore, it was surprising for us, and for the companies, that the survey data showed a moderate score on the dimension of control (table 3). In three of the four cases, control did not differ significantly from the national average even though the companies employed highly educated professionals, working in a company committed to self-management and flexibility. Only in the savings bank was the dimension control above the national average.

We expected role clarity to be high in work characterized by Taloyrism and bureaucracy and lower in the postbureaucratic kind of work. As a consequence, we expected role clarity to be under the national average in our cases. Our expectation was confirmed for three cases (table 4), but the fourth case, the saving bank, differed from the general picture, having a score that was significantly higher than the national average.

The incidence of symptoms related to cognitive stress [4] followed the role–clarity index. The consulting house had the highest scores on cognitive stress, significantly higher than the national average. The general bank and the IT (information technology) company had scores that were almost as high as those of the consulting house. The saving bank, however, scored significantly under the national average with respect to cognitive stress.

On the basis of our qualitative data, we give some possible explanations for each case and their scores on the three scales related to the character of the work.

Table 2. Scores on the scale for quantitative demands (0–100). (95% CI = 95% confidence interval, IT = information technology)

Company	Respondents (N)	Mean score	95% CI	P-value [a]
General bank	2835	55.0	54.4–55.5	<0.0001
Savings bank	126	53.9	51.4–56.3	<0.0001
IT company	636	52.7	51.6–53.8	<0.0001
Consulting house	80	59.4	56.3–62.4	<0.0001

[a] t-test (null hypothesis: mean = national average of 46.8).

Table 3. Scores on the scale for influence at work (0–100), representing control. (95% CI = 95% confidence interval, IT = information technology)

Company	Respondents (N)	Mean score	95% CI	P-value [a]
Bank	2831	54.4	53.7–55.0	0.0012
Savings Bank	126	61.2	58.1–64.2	0.0003
IT-company	636	52.0	50.6–53.4	<0.0001
Consulting house	80	60.7	56.8–64.6	0.0086

[a] t-test (null hypothesis: mean = national average of 55.4).

Table 4. Scores on the scale for role clarity (0–100). (95% CI = 95% confidence interval, IT = information technology)

Company	Respondents (N)	Mean score	95% CI	P-value [a]
Bank	2796	71.7	71.2–72.2	<0.0001
Savings bank	125	82.0	79.6–84.4	<0.0001
IT company	633	68.3	67.1–69.6	<0.0001
Consulting house	80	65.9	62.2–69.6	<0.0001

[a] t-test (null hypothesis: mean = national average of 75.7).

4 The scale for "cognitive stress" was comprised of a question with four parts, namely, "How often did you, in the last four weeks, have (a) trouble concentrating, (b) trouble making decisions, (c) trouble remembering, and (d) trouble thinking clearly?"

General bank

Reasons for high quantitative demands. The general bank had expanded in the last 15 years and was continuing to do so. New customers were chased. New products were introduced. The employees had been given more responsibility, and their performance was measured more precisely. All of these factors had led to increasing demands.

Reasons for control being average. The business development of the general bank can explain both an increase and a decrease in control. A main factor that is supposed to increase control is the long-standing promotion of value-based management. For almost 15 years, the bank had been strongly committed to value-based management and the consequent delegation of responsibility. In the daily running of the bank, the employees had experienced a gradual increase in their formal autonomy. The employees were authorized to make an increasing number of far-reaching decisions. Self-management was, however, followed by standardization of the financial products and the work procedures related to them. Campaigns, planned in the headquarters of the bank, turned out to be restrictive demands on individual employees. Customer relations were also a reason for the moderate level of control. Customers cannot be controlled.

Reasons for role clarity being less than average. There were many temporary projects, structures were constantly changing, and a flat hierarchy created relatively low role clarity, even in the general bank, where the daily treatment of other people's money needed a certain degree of bureaucracy and visible distribution of responsibility.

Savings bank

Reasons for high quantitative demands. The savings bank basically offered the same financial products as the general bank, and it had also expanded over the last decade. The quantitative demands were, however, a little lower than in the general bank. One reason could be that the savings bank consequently refused to monitor the performance of its employees.

Reasons for control being average. Control was at the national average in the savings bank, but was still low for a knowledge-intense company that had won an award for being the "greatest place to work". The reasons for the limited control were the same as those for the general bank.

Reasons for a high level of role clarity. The savings bank differed significantly with respect to role clarity. We asked top managers of the savings bank whether the difference was possibly due to the moderate size of the savings bank in that, since it had only 200 employees, it was possible for everyone to understand the whole organization and everyone's role in it. The explanation was, however, rejected by the managers and employees because the savings bank was divided into smaller units, just as the general bank was, and it is in this respect that role clarity is constructed. In discussions with the savings bank, we reached the following interpretation: the savings bank had been strongly committed to value-based management, in which values were managed rather than work. This situation created a high degree of cohesion and a high degree of autonomy in creating the work-related roles. The work-related roles, concerning competency, responsibility, objectives, and expectations, were developed from the inside in an organic process and were never added to the work group from the outside. The roles were stable and everyone was involved in changes in the roles.

Company specializing in information technology

Reasons for high quantitative demands. The quantitative demands in the IT company were above the national average, but the lowest among the four case companies. Project work with strict deadlines and sales to professional consumers contributed to increasing demands. Those who were running the IT systems did not experience the same quantitative demands.

Reasons for control being less than average. The scale of control differed considerably among the diverse professions in the IT company. However, even for the well-educated IT specialists, developing new IT systems, the score on the control scale was below the national average. One reason for the lack of control was the desire for standards and documentation, manifesting themselves in quality systems and security systems. These systems require very restrictive procedures, and they hinder the opportunities for employees in different functional positions to exchange information and to work together autonomously. Another factor that reduced the employees' control of their own work was the project management systems (eg, milestones and strict deadlines).

Reasons for a low level of role clarity. The organization was constantly changing—changes in which the employees did not have much say. Many of the employees were often moved to new tasks and new departments. The tasks were described, but, in reality, the work-related roles were still unclear, for example, "how did the developers communicate with the customers and those running the mainframe-based IT systems", "who was responsible for what in the project group", "when was what the worker was doing good enough". There was

limited time and few daily routines and spaces during which such questions could be clarified.

Consultant house

Reasons for high quantitative demands. Work in the consultant house was team based, but each consultant had to find his or her customers, and each consultant had his or her informal budget according to which the company should be invoiced. Each consultant had to make more offers than would be possible for him or her to fulfill, knowing that the fail ratio was high. For most of the consultants, the result was a high workload. Those who had little to do and a limited workload soon left the company. Long workhours, short deadlines, and high intensity were the reality for most of the consultants, as also for the administrative staff of the house.

Reasons for a moderate level of control. The consultants were not managed in their day-to-day work. They could organize their work as they wanted, and they could work where and when they wanted. The consultants valued the fact that they could work at home whenever they wanted. However, this was not the case in reality, because the consultants' calendars were always booked several months ahead. Demanding and unpredictable customers controlled the consultants.

Reasons for a low level of role clarity. The consultants were split between the teams and the organization, which wanted shared knowledge and the development of a business profile on one hand, and the demands for individual earning on the other.

Summary of the empirical findings

For more than a decade, all the four of the case companies had moved away from bureaucracy and controlled repetition towards flexibility, differentiation, individualization, value-based organization, project organization, and management by objectives. We expected the quantitative demands to be relatively high in this kind of an organization, and this expectation was confirmed by the study. However, the de-bureaucratization of work was not the only trend in the case companies. The de-bureaucratization was followed by new bureaucratic initiatives in that procedures were standardized and demands regarding registration were added, often supported by IT systems. New bureaucratic procedures were introduced by quality control and security systems. Individual performance was measured more strictly.

The four cases also show that both the new forms of bureaucracy and the new forms of flexibility placed restrictions on the employees' control over their own work. The new forms of bureaucracy reduced the employee's choice of methods, they created restrictions on how employees worked together, and they placed restrictions on the employees' innovative potential. However, the movement towards de-bureaucratization and individualization could also have reduced employee control. It could create uncertainty and unpredictability. It is unclear who was doing what and who was in charge of what. The different roles in the organization were unclear, and therefore it could be difficult for the employees to use the resources of the organization in their own work. De-bureaucratized work tends to imply role unclarity. One of the cases, the saving bank, showed however that it is not necessarily so. It is possible to unite de-bureaucratization and role clarity.

Discussion

Mari Kira (11, 12) has studied what seems to be modern de-bureaucratized organizations. She found that generally these organizations were not postbureaucratic as such; instead they were in a mixed position between bureaucracy and a boundaryless organization. These modern organizations had adopted unhealthy elements from both the brutal control and repetition of bureaucracy and from the fluid work in a boundaryless and flexible organization.

This finding leaves us with quite a dark picture of the current development of work. The bureaucratic type of work, with its strict repetition, is connected with well-known health problems. However, the individualized, flexible organization with few formal structures and a fluid division of work is also unhealthy. In this type of work the demands are high, control is moderate, and role clarity is low. In addition, the work organization in between the two poles is perhaps even unhealthier, because it adopts unhealthy elements from both poles.

Our case studies do, to certain degree, confirm the dark picture. However, we also observed things that did not confirm it. We found well-functioning teams that had created their own structures and procedures, in which demands were limited and control was high. We found employees who had created informal divisions of work in which the differentiation in competency and experience was used for common benefit. We found many structures and procedures that were less restrictive, formalized, and less controlled from above, as they typically are in a bureaucratic organization, but creating structures in worklife. The saving bank was, in this respect, the most-advanced company.

The triangle of modern work

To conceptualize postbureaucratic work, as it was presented in the beginning of the article, we suggest that

modern work organizations be described by three extreme positions—or poles. One pole is controlled *repetition*, known from Taylorism and bureaucracy. The second is *differentiation,* characterized by individualized boundarylessness and unpredictability. The third is *rhythm*, marked by predictable patterns (elements of repetition) AND individual opportunities for differentiation. The pole of rhythm is a synthesis of repetition and differentiation. All three poles influence modern work. The pole of rhythm is the one that is most related to health and the quality of worklife. However, each of the poles has its advantages and disadvantages.

Repetition. A brutal type of repetition is the type of work described by Braverman (13) in the early 1970s, that is, the type of work the "community" of researchers and consultancies engaged in work environment have considered their (our) common enemy. It is the type of work that, in the demand–control model, is referred to as high strain. There is strong evidence for high health risks in this type of work (14–16). It is also a problematic kind of work when viewed from a business point of view. Work efficiency is high, but the capacity for innovation and learning is low, and the capacity for adapting to a changing market is low (17).

However, restricted repetition can be a positive element in the work environment. Restrictive repetition of peripheral tasks can reduce complexity in what is called "active work" in the demand–control model. This prospect can be positive, because a high degree of complexity can lead to reduced control and unpredictable demands (18).

Differentiation. Differentiation is the pole promoted by neo-liberal organization thinkers like Ridderstrale & Nordstrom (19). Each employee is viewed as an individual owner of his or her knowledge and work capacity, and each employee is free to—and obliged to—develop his or her capacity. With differentiation individual freedom is high, but individual control can be low. This possibility was clear in the consultancy company. We saw, however, the same tendencies in the rest of the cases. In one of the local offices of the general bank, where we made interviews, the manager was convinced that his main duty was to "improve the market value of his employees". He regularly had individual talks with the employees, and all the time he "set the level a little higher than employees could do just now". For him differentiation and individualization were very important. He fought the conformity of the general bank. He appreciated what was different and wild. He was convinced that he did something good for the general bank and for the employees. The survey disclosed, however, a very strained work environment, in which symptoms of mental and psychological health problems were commonly reported. In a work environment in which everything was changed from outside all the time, demands were very high, and control was very low.

Rhythm. Rhythms are a synthesis of repetition and differentiation (20). Rhythms are combined by a repetitive structure in time and space AND individual opportunities to differentiate, to make improvisations, to make small adjustments in the rhythm, and, through that, provide individual input into the change of the common. Rhythms are not separated as in the brutal repetition of Taylorism, but instead are interconnected. Competences are developed in rhythmic relation to other competences. The division of work is strongly developed, but it is not restricted by standardization and formalities; instead, it is under constant organic development. An alert and learning relation between producers and customers or users is created. The rhythmic type of work is what Karasek (21) has called conducive work. It is however also what was suggested by leading intellectuals in the Scandinavian sociotechnical movement of the 1970s and 1980s. Emery & Thorsrud (22), who were prominent figures in the Scandinavian, and gradually worldwide, movement to transform and humanize Taylorist work systems, did not use the term "rhythm". However, they developed an alternative work system to the Taylorist one, which we will call a rhythmic work system. This alternative work system was, first of all, characterized by a high degree of autonomy for the workers. But it also had a rhythmic balance between performance and relaxation, meaningful patterns of tasks that give each and everyone a main task, and jobs with both difficult and easy tasks. The job tasks should contain a certain degree of consideration, skill, and knowledge. Gardell & Johansson (23) were in line with Emery & Thorsrud. However, more-recent work-reform movements have emphasized the importance of rhythms. Interest in learning and innovation has created a new understanding of the importance of rhythms. Wenger and his colleagues (24, 25) studied "communities of practice" in a perspective of learning and innovation. It is emphasized that rhythms are very important. Learning and innovation can only take place if there are formal and informal places and times for meeting, formal and informal conversation, differentiation, and routinized interactions between different roles and different kinds of knowledge. Rhythms cannot be installed from the outside. They must be developed from the inside, but supported from the outside.

Rhythms performed in a "community of practice" (a group of people having a common and integrated practice) create many advantages for the quality of worklife, for learning and for innovation. However, as Wenger et al (25) have pointed out, communities of practice have a tendency to be conservative. According to Wenger and his colleagues (25), it is necessary for organizations to

overcome that conservatism by cultivating communities of practice. In our case studies there are several examples. In the IT company, there was a constant flow of IT projects, and an effort was made to create clarity of the roles of each and everyone through dialog at the workplace. Efforts were made to hold regular meetings. Initiatives were taken to make it possible for employees to finish the project they were involved in before they started a new one. The savings bank had been very successful in creating rhythms in daily work. However, they wanted to strengthen their success through differentiation in competency.

Perspectives for change

The pole of repetition (Taylorism and bureaucracy) has always been considered the negative pole among professionals (researchers and practitioners) related to the work environment. To modify the negative aspect of brutal repetition, authorities, unions and (sometimes) managers and consultancies have imposed rules regulating workhours, quantitative demands, payment, boundaries between different skills and formal competencies, and the like. The message of the demand–control model, and the message from communities of work environment professionals is, however, that a better solution would be to move the world of work away from repetition. Every step away from the pole of repetition has been considered progress.

However, in the last 15 years, the world of work has gradually moved away from the pole of repetition, but with disappointing results. "Recent international statistics on stress, burnout and healthy work organization have indicated that many modern work organizations are consuming, rather than regenerating, their human resources. The brave new world of work envisaged to emerge from the ashes of Taylorism has not, in many cases, arrived and, where it has arrived, it has not been what it was expected to be [p 23]" (26). We have yet to develop an adequate understanding of good and bad in "postbureaucratic" work. If the alternative to the brutal repetition in the Tayloristic and bureaucratic kind of work is chaotic differentiation, it is questionable whether or not the move away from repetition is progressive. If differentiation is high, individual control tends to be low, and demands will often be high, because there are no rules or norms to restrict the demands. The result is high-strain jobs, according to the demand–control model. When a company situated near the pole of differentiation realizes the problems of stress among its employees, it tends to look for individually oriented solutions. The solution is to teach individual employees how to cope with the demands—learn to make priorities, and the like. Middle managers should improve their awareness of individual employees who show symptoms of stress, and they should be able to coach these employees to improve their ability to cope with day-to-day stress at work. Individualized work creates individualized solutions to problems related to the work environment. A better solution would probably be to move work away from differentiation—not in the direction of repetition, but in the direction of rhythms.

A development in that direction implies that both the differentiation of qualifications and close collaboration take place at the same time. Role clarity, developed from inside. Rhythms in time and space, in other words, rhythms for formal and informal meetings and for formal and informal communication. In the pole of rhythm, collectivity is valued, but not a collectivity based on restrictive rules, as in the pole of repetition, but, instead, based on collective norms developed in practice and maintained through reflective dialogues and practical experiences.

References

1. Alvesson M, Thompson P. Post-bureaucracy? In: Ackreyd S, Batt R, Thompson P, editors. The Oxford handbook of work and organization. Oxford (United Kingdom): Oxford University Press; 2005.
2. Thompson P. Disconnected capitalism: or why employers can't keep their side of the bargain. Work Employment Soc. 2003;17(6):359–78.
3. Totterdill P, Dhondt S, Milsome S. Partners at work? Brussels: Report from the HiRes Project; 2002.
4. Kompier MA. New systems of work organization and workers' health. Scand J Work Environ Health. 2006;32(6, special issue):421–30.
5. Burr H, Bjorner JB, Kristensen TS, Tüchsen F, Bach E. Trends in the Danish work environment and their associations with labour-force changes. Scand J Work Environ Health. 2003;29(4):270–9.
6. Siegrist J. Psychosocial work environment and health: new evidence. J Epidemiol Community Health. 2004;58:888.
7. European Foundation for the Improvement of Living and Working Conditions. Fourth European Working Conditions Survey. Dublin: European Foundation for the Improvement of Living and Working Conditions; 2007.
8. Karasek R, Theorell T. Healthy work: stress, productivity, and the reconstruction of working life. New York (NY): Basic Books; 1990.
9. Kristensen TS, Hannerz H, Høgh A, Borg V. The Copenhagen Psychosocial Questionnaire—a tool for the assessment and improvement of the psychosocial work environment. Scand J Work Environ Health. 2005;31(6):438–49.
10. Limborg HJ, Hvenegaard H. The Chronicle workshop—the use of the narratives of a group to tell the story of a work community and understand the basis of its culture. In: Rasmussen LB, editor. Methods in development of organisations. Frankfurt am Main: Peter Lang, Internationaler Verlag de Wissenshaften.
11. Kira M. From good work to sustainable development—human resources consumption and regeneration in the post-bureaucratic working life. Stockholm: Royal Institute of Technology;

2003.
12. Kira M. Moving from consuming to regenerative work. In: Docherty P, Forslin J, Shani AB, editors. Creating sustainable work systems: emerging perspectives and practice. London, New York (NY): Routledge; 2002.
13. Braverman, H. Labor and monopoly capital: the degradation of work in the twentieth century. New York (NY): Monthly Review Press; 1974.
14. Belkic K, Landsbergis P, Schnall P, Baker D, Theorell T, Siegrist J, et al. Psychosocial factors: review of the empirical data among men. In: Schnall P, Belkic K, Landsbergis P, Baker D, editors. The workplace and cardiovascular disease. Philadelphia (PA): Hanley and Belfus; 2000. p 24–46. Occupational medicine: state of the art reviews, vol 15, no 1.
15. Van der Doef M, Maes S. The job demand-control (-support) model and psychological well-being: a review of 20 years of empirical research. Work Stress. 1999;13:87–114.
16. Bongers P, Kremer A, Laak J. Are psychosocial factors risk factors for symptoms and signs of the shoulder, elbow, or hand/wrist?: a review of the epidemiological literature. Am J Ind Med; 2002; 41:315–42.
17. Sabel CF, Zeitlin J. Stories, strategies, structures: rethinking historical alternatives to mass production. In: Sabel CF, Zeitlin J, editors. World of possibilities: flexibility and mass production in western industrialization. Cambridge (UK): Cambridge University Press; 1997. Studies in modern capitalism.
18. Karasek R. The stress-disequilibrium theory: chronic disease development, low social control, and physiological de-regulation. Med Lav. 2006;97(2):258–71.
19. Ridderstrale J, Nordstrom KA. Funky business: talent makes capital dance. London: Prentice Hall/Financial Times; 2002.
20. Lefebvre H. Rhythm analyses: space, time and everyday life. London: Continuum; 2004.
21. Karasek R. An alternative economic vision for healthy work: conducive economy. Bull Sci Technol Soc. 2004;24(5):397–429.
22. Emery F, Thorsrud E. Democracy at work. Leiden (Netherlands): Martinus Nijhoff; 1976.
23. Gardell B, Johansson G. Working life: a social science contribution to work reform. New York (NY): John Wiley; 1981.
24. Wenger E. Communities of practice. Cambridge (United Kingdom): Cambridge University Press; 1998.
25. Wenger E, McDermott R, Snyder WM. Cultivating communities of practice: a guide to managing knowledge. Boston (MA): Harvard Business School Press; 2002.
26. Docherty P, Forslin J, Shani ABS, Kira M. Emerging work systems: from intensive to sustainable. In: Docherty P, Forslin J, Shani AB, editors. Creating sustainable work systems: emerging perspectives and practice. London, New York (NY): Routledge; 2002. p 1–11.