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How are Good and Bad Jobs Created?

Case Studies of Employee, Managerial and Organisational Factors and Processes

Växjö
universitet

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Författarna till bidragen finns i första hand bland forskare från de samhälls- och beteendevetenskapliga samt humanistiska ämnesområdena, men även bland andra forskare som är engagerade i utvecklingsstödjande forskning. Skrifterna vänder sig både till forskare och andra som är intresserade av att fördjupa sin förståelse kring arbetslivsfrågor.

Manuskripten lämnas till redaktionssekreteraren som ombesörjer att ett traditionellt "refereeförfarande" genomförs.

Arbetsliv i omvandling ges ut med stöd av Forskningsrådet för arbetsliv och socialvetenskap (FAS).

Preface

The results presented in this report derive from a larger project: "The shaping of work assignments and identity in a changeable working life" performed at the Department of Occupational and Environmental Health, Stockholm Centre for Public Health with research grants from The Swedish Council for Working Life and Social Research (Grant nr 2001-0307). Annika Härenstam led the project.

The aim was to study how work assignment and identity are affected by changes in working life, and to identify factors at both the individual and organisational level, which have negative or positive effects. The project, which was a follow-up to the MOA Project[1], was divided into two problem sets. One deals with theories concerning the individualisation of working life, while the other takes an action theory-based approach. Both parts are presented in two theses defended at Karolinska Institutet 2007: "Kampen om människovärdet" by Per Wiklund and "Externally assessed psychosocial work characteristics - A methodological approach to explore how work characteristics are created, related to self-reports and to mental illness" by Kerstin Waldenström.

The conclusion of the overall project is that changes have far-reaching consequences in terms of how working conditions change and how individual identities are shaped. The relationships between the organisation, the employees and actors within and outside of the organisation are dissolved. The interactions between actors play a decisive role. Offensive strategies with a view to affecting circumstances have a favourable effect on creating good working conditions within organisations. The study points to a management strategy, which could work well in modern working life.

The present report presents the results from the second part which deals with questions about how working conditions change and has an action theory based approach. The main work with data collection, analysis and writing was performed by Kerstin Waldenström as part of her doctoral thesis.

Other publications from the project:

Härenstam A, Rydbeck A, Karlkvist M, Waldenström K, Wiklund P, and the MOA Research Group. *The significance of organisation for healthy work. Methods, study design, analyzing strategies, and empirical results from the MOA-study.* Arbete och Hälsa, 2004:13;1-89.

Wiklund P (2007) *Kampen om människovärdet. Om identitet i ett föränderligt arbetsliv* (Thesis) Stockholm, Karolinska Institutet.

Björklöf A, Härenstam A, Parikas D (2006). *Chef idag.* Stockholm, Arbetslivsinstitutet

Waldenström K (2007) *Externally assessed psychosocial work characteristics - A methodological approach to explore how work characteristics are created, related to self-reports and to mental illness* (Thesis) Stockholm, Karolinska Institutet.

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[1] MOA is an acronym in Swedish for 'Modern work and living conditions for women and men'. The MOA Study was a multidisciplinary study aimed at developing methods for epidemiological studies.

Content

Introduction

During the past decades comprehensive occupational health research based on different theories has identified aspects of psychosocial working conditions that impact employee health and well-being, (for an overview see Kompier 2003). Through this research we have gained knowledge of what characterizes good and bad working conditions, but how those conditions are created has been less studied. Furthermore, studies exploring variations in psychosocial working conditions between work places and studies of processes that explain such differences are rare.

There seems to be agreement that conditions at work have changed substantially in recent decades. In a study of organisational changes and management technologies it was shown that these changes act as distributors of risks between segments of the labour market and between different groups of the labour force in Sweden (Härenstam 2005). Competition and economic restrictions have put pressure on organisations in both the private and public sector to cut costs and streamline operations. Flexibility is one of the dominant trends in new organisational strategies aimed at managing unstable conditions in the operative environment. Also, work seems to become increasingly regulated in some sectors of working life (Giertz 2000) and less micromanaged in others (Sandberg & Targama 1998). The result of the latter is that the employees' understanding of the job – the work assignment – is becoming more significant to what the work will entail. As a consequence, the content of the job assignment and the conditions for job performance are not predetermined only by organisational goals and resources, the formal structure of the organisation or the occupational skills of the employee. They are shaped in a complex process of interactions between management, colleagues, the employee and the type of tasks.

Work practices and the organisation of work are greatly interdependent. Thus, when the organisation of work in society changes, our understanding of how work practices and working conditions affect health must be re-examined. We cannot take the validity of theories founded on old empirical studies of organisation of work and work practices for granted. However, organisation research and work and health research have been detached since the late 1960s (Barley & Kunda 2001). Our main understanding of how work is organised (such as studies of bureaucracies) and of how work affects workers (health, motivation etc.) is based on field studies of work practices and organisations performed in the first half of the twentieth century. During this period of transformation into a society of industrialisation, organisation theory was tightly linked to the study of work

practices (scientific management studies, human relations movement, job design theories, and motivation theories[2]), and field studies were the main approach. In the 1970s, organisational researchers became more interested in how organisations adapt to their environment, particularly in terms of markets and new technologies (e.g. Systems Theory). Furthermore, as research tended to use more general and abstract concepts and explanations, the gap between work practices and theory increased.

In an overview, Barley & Kunda (2001) advocate bringing work back into organisation research. The same argument is valid from the opposite starting point; knowledge about organisations needs to be integrated again into work and health research in order to increase our understanding of how work affects people in contemporary working life. As the organisation of work and daily work practices are interrelated, interactions between managers and workers need to be studied simultaneously. In fact, it has been suggested that new organisational forms are an effect of new technology, organisational routines, and work practices (Barley & Kunda 2001). Becker and colleagues (2005) argue for studying organisational routines as the most important unit of analysis on a micro level in order to understand organisational change.

This approach to work and health studies might be labelled *organisation-oriented work and health research* (Härenstam et al. 2005). The theoretical perspective and choice of research design is in line with what has been called "the new structuralism in organisational theory" (Lounsbury & Ventresca 2003). In this tradition, organisations are regarded as an important means of social stratification, and the focus is on general patterns and systematic conditions. On the other hand, in order to link organisational behaviour to individual behaviour both people and organisations must be seen as actors. The choice of action, for the organisation or for the individual, may be restricted or structured in different ways, but we generally assume that actions are based on choice between alternatives. Our point of departure also means that we need an external perspective in order to explore and compare what actually happens instead of actors' opinions. The data collection and the analysis in the study are guided by an action theory perspective, which involves studying how hindrances and possibilities in the organisation interplay with what the employees and their managers perceive is possible (Frese & Zapf, 1994; Leitner et al.,1987).

According to the theory all actions are goal oriented and situation dependent but are also affected by the individual's experience and intentions. Human action is rational and deliberate, based on goals and evaluations of the consequences of the action (Frese & Zapf, 1994; Leitner et al.,1987). If we are to understand actions at work, we should thus study the employee, the organisation, and the existing objectives and actions. It is meaningful to differentiate between an assigned task and how it is understood and performed by the employee. An action is an interactive process between the individual's anticipation about the outcome of an

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[2] For a review, see Barley & Kunda 2001.

action in the specific situation and the results of this action. People develop goals when they create tasks and when they perform tasks formulated by others (Frese & Zapf 1994; Hacker, 1982; Hackman 1970). The assigned task is thus the starting point for work actions and the task is the interface between the employee and the organisation. According to action theory human actions are rational and deliberate, based on goals and evaluations of the consequences of the action (Leitner, Volpert et al. 1987; Frese and Zapf 1994).

The action theoretical approach is a theoretical perspective which includes several theoretical traditions. This research approach studies the way people act according to their beliefs in order to achieve the best overall outcome and is used in several disciplines (Edling and Stern 2003). This study is a part of the sociological or social psychological tradition where obstacles to action and room for action are studied (Aronsson and Berglind 1990). In this field the differentiation between subjective and objective room for action is of interest.

The present study is an example of explorative empirical case studies based on thorough investigations of daily actions and work practices of workers and managers over time in order to identify strategies that shape working conditions in contemporary working life.

Aim and research question

The aim of the study was to identify conditions, work practices, strategies and processes at the workplace that create good and bad jobs with respect to externally assessed psychosocial working conditions. The research question was: What organisational and employee conditions and what employee and managerial strategies are significant when good and bad jobs are created with regard to cognitive requirements, influence, time pressure, required conformance to schedules, and hindrances?

The conceptual model

In order to analyse and describe the complex pattern of processes at the workplace that creates good and bad jobs, a conceptual model of how the employee's working conditions are created was developed by the researchers of this study (Figure 1).

Figure 1. Model of how the individual's working conditions are created including the guiding concepts for the study.
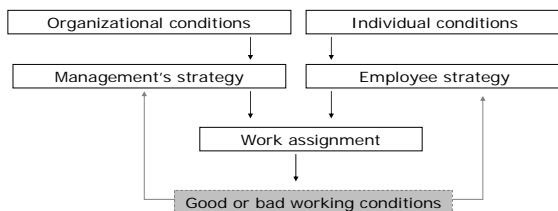
According to the action theory approach (described in the method section), action strategies are separated from employee and organisational conditions in order to reveal how employee and managerial scope for action is used. The assumption of the model is that the employees as well as the managers act according to their goals and interact with their environment. These actions can be analyzed separately from the actual conditions of the organisation. As employee and organisational perspectives interact, the analysis aims to link the two. The model makes it possible to identify employee and managerial actions or practices within the frame of given resources (here, the organisational conditions) that contribute to good and bad jobs. The model is further described in the Method section.

Method

The present study is a follow-up of a larger study, the MOA-study (Härenstam et al. 2004). A strategic sample of 18 employees and their managers at 13 different workplaces from the original 72 organisations in the first data collection were chosen for a follow-up study. Very small organisations were excluded and also those that no longer existed or those where the employees from the first data collection have left the organisation. Typical employees at each organisation were chosen for the first data collection and the same individuals from the sample of organisations for the follow-up participated in the second data collection. The same managers (or managers in the corresponding position as at the first data collection) were also interviewed again 6-7 years later. Job analyses of the employees working conditions were made on both occasions. Interviews with eighteen employees and their organisation representatives on two occasions with about six years in between (that is 18 cases) form the basis for the selection of the nine cases in the two categories compared. Data from both occasions are analysed in the present paper. Out of these 18 employees, 9 were chosen that had clearly deteriorated and adverse psychosocial working conditions or improved and good conditions according to the second job analysis in comparison to the first one. The selection was made to enhance comparison of two categories of cases with clearly different work situations in order to identify differentiating patterns. The nine excluded cases showed less clear changes in working conditions over time. The nine selected employees worked in nine different organisations. The sample includes both public and private organisations within different types of operations (such as prosecutor district, hospital clinic, elderly care home, child care, transportation, retail trade, manufacturing industries, public administration and computer companies). The procedure is presented in detail below.

The hallmark of the study is that the factors studied are based on the researcher's assessment of the working conditions. The factors that create good and bad jobs are based on the employees and managements' actual descriptions. The interviewer sought concrete descriptions and evidence for arguments and disregarded ambitions and value judgments as far as possible. As an example; an employee's feeling of having to much to do at work can be an effect of unclear work goals rather than time pressure.

Theoretical perspective

The theoretical perspective of the study means that we are interested in structures, actors and actions at a broad variety of workplaces, typical for contempo-

rary working life. The study is explorative as we do not take traditional theories on the organisation of work for granted. Our point of departure also means that we need an external perspective in order to explore and compare what actually happens instead of actors' opinions. Another starting point is that we need to collect data from different levels of an organisation as both managers' and workers' actions are central to the understanding of how work practices are shaped.

The data collection and the analysis in the study are guided by an action theory perspective, which involves studying how hindrances and possibilities in the organisation interplay with what the individual perceives is possible both among employees and their managers. Organisational goals and resources do not solely predetermine the work content. The work content is shaped in a complex process of interactions between the employees' own experience of the job, personal competence and by how they relate to their work as well as by colleagues, organisational factors and leadership.

Data collection

Data were collected on two occasions, five to seven years apart, in 1996–1997 (T1) and in 2002–2003 (T2). The data cover employee and organisational levels. Each case consists of interviews with one manager (T1 and T2), one employee (T1 and T2) and observations at the workplace at T1.

Managerial level (at T1 and T2)

The informants at the organisational level were first line manager, middle manager, or human resources manager. At T2 the informants were either the same people included in the initial study or new people in the same position. At both T1 and T2 the interview with managerial representatives dealt with the following categories: the workplace and its context; formal structure of the workplace; production process/work organisation; size and composition of the workforce; management control systems; and changes in all of the preceding aspects. At T2 the informants were also asked if there was an imbalance between the organisation's objectives and resources and how this affected working conditions for employees. As the individual interviews with employees had already been held at T2, specific questions could be asked about areas considered relevant to the employee's working conditions. The external perspective was applied by a method of questioning that sought concrete descriptions and evidence for arguments. The interviews were semi-structured, lasted for one to two hours, and were recorded and transcribed.

Employee level at T1 - The ARIA analysis of work

In order to determine whether the job should be considered good or bad, a work content analysis of each of the employee's individual working conditions was performed by means of observations and interviews following a protocol at the time of the initial study (T1). The employee's working conditions were assessed by means of a work content analysis, named ARIA and described below. The theoretical background and development are further described in Appendix[3]. With predetermined criteria for various dimensions and with a common frame of reference for all employees, the hindrances and prerequisites to performing tasks were studied. The method aimed to describe each employee's work with the least possible consideration of emotional appraisals of the situation and is based on the action regulation theory (Waldenström et al., 2003).

In order to define the tasks included in the job, each employee's work assignment was broken down into tasks and the relative proportion of time spent on each task was defined. The components of each task were classified according to their *qualification requirements* into three action categories: creativity or solving new problems, active use of occupational skills, and routine work or low cognitive requirements. According to the action regulation theory, all levels should be present in the work engagement. Two types of imbalance were defined: high imbalance was present when the tasks included problem solving but very little or no routine work that provided opportunity for mental recovery. The other type of imbalance was excessively low cognitive requirements, defined as no creative tasks and more than half of working hours spent on routine work.

Several aspects of the *possibility of influencing one's working conditions* (e.g. what, how, where, and when to perform specific tasks) were considered during data collection. To achieve a variable that would enable a comparison between different types of occupation, the possibility of exerting influence was categorized into four levels. Each level included the ability to make decisions concerning the form and content of work, i.e. the ability to determine which tasks to include in a work assignment and to exert influence on how and when tasks are performed. The first and second levels indicated negative working conditions with respect to possibilities for influencing the latter.

The quantitative demands at work were described by *time pressure*. Time pressure was present if not enough time was provided to perform the tasks. When assessing the qualitative demands at work, *hindrances*, the observers followed a checklist covering several aspects of rules and decided whether any of those aspects were present. The studied aspects were vague goals or tasks; insufficient resources in terms of equipment, premises, and personnel; lack of support from supervisors or co-workers necessary for job performance; and tasks that were not adapted either to the employee's skills or to hindrances outside the work organi-

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[3] A manual is available in Swedish (Waldenström, 2006) and also described in a thesis (Waldenström, 2007).

sation. The criteria for assessing hindrances as well as time pressure were obviously impaired quality, considerable delay resulting in overtime, work without breaks, and work performed with an apparent risk of accident or illness.

Further details of ARIA are described in Appendix.

The employee level at follow up (T2)

At T2, the interview with the same employee at T1 was divided in two parts. First, questions were asked regarding how the employee understood objectives and the scope of action of their work. The aim was to clarify how tasks were formulated by the employee and how compatible they were to the employer's objectives. Interviews with employees in the follow-up phase began with the following open questions: What is your job at this workplace? How did you end up doing what you do? What are your thoughts on why and how tasks should be performed, and how do your thoughts relate to other people's (employer, immediate boss, colleagues, third parties) views on the matter? Do you have tasks that should not be part of your job, or which should be but aren't? Are there formal objectives that differ from those which govern what you do in everyday practice? In the second part of the interview employees were interviewed about the dimensions of the work content, according to ARIA, described above. This information, combined with the information at T1, constituted the basis for selecting two categories of cases with very different situations: one with good jobs and one with bad jobs.

Sample

Initially a sample of 18 study employees who, during a period of six years, worked in the same organisation but not necessarily with the same tasks was selected from the MOA study group (Härenstam et al. 2003). The sample was designed to reflect various general work activities, according to the Things, Data, People taxonomy (Kohn & Schooler, 1983), qualification levels, and types of organisations and activities (Giertz 2000; Härenstam 2005). This sample was made up of men and women in various life phases.

Each employee and his/her organisation, (represented by a manager in addition to documents and other information on organisational conditions), were considered a case. Comparison of two categories of cases with clearly different work situations enhanced opportunities to see differentiating patterns of factors that were involved in creating good and bad jobs. Therefore, a sample with nine cases comprising nine informants at managerial level and nine employees in nine workplaces was selected. The detailed basis for the selection of nine cases out of the original eighteen is available from the authors. The employee's current job was assessed as bad if at least two of the following criteria were met: imbalance in cognitive requirements, little/no influence, some/obvious hindrances, high

time pressure, or high required conformance to schedules. The decision of using two criteria was based on empirical rather than theoretical arguments. The categorization of the current job was combined with the direction of the change between T1 and T2 in these dimensions. The change was determined to be negative if at least one of the dimensions had become worse (and none had improved) and positive if at least one of the dimensions had improved (and none had become worse). Change in working conditions was not the study object, but it was used to create two clearly different categories of cases for analysis.

In the cases with bad jobs the employees had deteriorated working conditions based on ARIA dimensions compared to the initial study (T1), as well as bad working conditions at follow-up (T2). In the cases with good jobs the employees had improved their working conditions since the initial study, and they had good working conditions at follow-up.

The classification of "good job cases" and "bad job cases," is of course a simplification of both the results and reality. The cases should more precisely be described as having sustainable versus unsustainable working conditions from a health perspective.

Below is a brief description of the tasks of the nine employees in each case. The employees in bad job cases (case number 1-5) had the following tasks:
1. The hospital counsellor's tasks were working with patients (including dealing with families and providing some care in patients' homes), conferences, documentation, and administration.

2. The middle manager of the municipal home for the elderly had tasks pertaining to human resources (supervision, recruiting, long-term staffing, pay negotiations), the building (responsibility for maintenance, renovations, leases, housekeeping), and the budget (which includes personnel, the building, and healthcare costs with constant demands for cost savings).

3. The supermarket employee's tasks were store and warehouse work, working at the checkout, and ordering of merchandise (the latter had been reduced).

4. The assembler's tasks involved assembly, planning, and coordination of the work.

5. The prosecutor led the preliminary investigation and investigated cases in order to decide whether to indict, argued cases before the court, and was on call outside office hours.

The employees in good job cases (case number 15-18) had the following tasks:

15. The field service technician performed services at the customer's premises, drove between customers, and wrote reports on assignments, overhead costs, and spare parts.

16. The prosecutor led the preliminary investigation and investigated cases in order to decide whether to indict, argued cases before the court, and was on call outside office hours.

17. The computer consultant's tasks were primarily to further develop existing software and maintain customer systems.

18. The production/systems technician administered and developed computer systems in the production department and was the project manager when new computer systems were sourced.

It should be noted that the cases omitted (6–14) were those excluded from the in-depth analysis because they did not have either clear "bad" or "good" jobs.
In the result section quotations are used and each quotation is followed by a reference to the informant as follows: "(Employee case 1)" refers to employee 1 and "(Manager case 1)" is the organisation's representative at employee 1's workplace.

Analysis

Analytical perspective
The method chosen for data analysis is of a descriptive and explorative nature. It deals with conditions, courses of events, and actions in a certain situation in the eyes of an outside observer. The information about actions was taken from various sources (employee and management interviews at T1 and T2) and was the basis for the assessment. However, the researchers made the classification.

Analytical method and concepts
The method of parallel case studies was inspired by the pragmatic case study method (Fishman, 1999). The researcher begins with an explicit theoretical model ("guiding concept"), which acts as a map rather than a theory to be tested. In this study, the theoretical model corresponds to the conceptual model presented in figure 1 under "Aim and research question". A pragmatic case study uses process indicators as a method to understand how the theoretical model works. Process indicators correspond to factors that may explain how good and bad jobs are created. The process indicators (described in table 1-5, after "References") constituted preformulated areas for the interview, but they were also factors that came up during the course of the semi-structured interviews. In order to study patterns in the cases, analytical matrixes were designed (Table 1-5). The concepts in the model are defined as following:

Employee working conditions according to the ARIA work content analysis is the outcome that we are studying. The arrows in Figure 1 show that working conditions can inversely influence both employee and organisational actions and strategy, for example in terms of which tasks will be allotted to the work assignment.

1. *The work assignment* may be equated with the position and is the employee's formal position in the organisation, encompassing the orientation of the work, the level of required qualifications, tasks, supervisory responsibility, employment conditions and gender segregation in the occupation (Table 1).

2. *Employee action strategies* are actions taken in everyday work practices comprising the ways in which employees deal with their situation: open for new job tasks, assumption of responsibility, loyalty. Employees may use their options for action collectively to create collective strategies, i.e. whether and how employees manage the situation together (Table 2). Strategies were defined by the actions performed.

3. *Employee conditions* are individual prerequisites that may affect how the individual deals with the work assignment: length of employment, personal level of education, sex, age and family situation (Table 3).

4. *The management's action strategy* refers to the actions taken and practices used by the manager at the workplace, i.e. the way management deals with the organisational prerequisites. Accordingly, we have not studied managerial rhetoric, but rather the action strategies in terms of performed actions at the workplace level (the organisational scope for action) that may have consequences for the employee's work assignment. This has to do with task allocation, accountability, governance, and human resource management (Table 4).

5. *Organisational conditions* comprise the actual structure: ownership, management, business direction, size, workforce composition (gender distribution, skills, etc.), business objectives, resources, cost-saving imperatives, efficiency measures, performance measurement, and the organisation of work (Table 5).

The contents of each matrix (Tables 1–5) are based on information provided by employees and organisation representatives at T1 and T2. On the basis of that information, the researcher made the external classification in the tables. This classification was authenticated by the co-researcher based on a summary of the interview material.

Results

The results are not solely based on counting the crosses in each of the 1-5. These tables serve rather as a support for the qualitative analysis. The analysis aims to describe the process, i.e. the combination of conditions and strategies. The results are based on a qualitative analysis of the underlying information for each cross in the tables, i.e. the data from interviews with the employees and their managers were evidently different from each other. This means that we have found clear differences in their descriptions of conditions and actions.

In each conceptual group in the model (Table 1-5) at least some of the conditions and strategies differed. However, among employee and managerial strategies most indicators differed between the good and the bad job cases. The main factors that differed between good and bad jobs are summarized below in Table 6.

Table 6. *Factors that create bad and good jobs respectively*

Factors that create *bad* jobs	Factors that create *good* jobs
• *Formal goals concern quantity;* budget is put ahead of quality: 'Finances in balance…'	• Financial *and quality goals* for the business
• *Decentralised problem solving,* i.e. how to maintain quality with reduced resources	• *Performance measurements* as feedback
	• *Formal management structure*
• *Semiformal management structure*; supervision was delegated to 'coordinators' with low authority	• Manager creates viable *structural solutions of concrete problems* in the work tasks
• *Short-term passive strategy for problem solving;* 'ad-hoc-solutions' instead of strategic solutions	• *Management has a strategy* how to deal with *actors outside* the organisation
• *Vague collective responsibility;* 'everyone's' will easily become no one's responsibility	• Individualized allocation of work – a clear division of responsibility, who is in charge of what
• Employee's strategy characterized by *personal responsibility*	• *The team* takes common responsibility of delimiting and performing the work

The results are presented in three sections: First, the conditions and strategies identified in the interview material in both good and bad job cases are described. Secondly, conditions and strategies creating bad jobs and thirdly, conditions and

strategies creating good jobs are presented. In all three sections the results are made up of the conditions and strategies in Tables 1–5, which are based on information from various sources. Some quotations are used to exemplify these characteristics.

Conditions and strategies in both good and bad job cases

Some of the conditions and strategies were identified in both good and bad job cases.

The work assignment: In both the good and the bad job cases there were employees who had been given new tasks, who had supervisory responsibility and whose employment was insecure. Jobs with different general working activities (working with people, things or symbols) and qualification requirements were also found among both bad and good cases (Table 1).

Employee strategies: Both good and bad cases included employees who had a clearly active strategy for acquiring new tasks, that is, they actively sought new fields of work, partly to develop and gain more influence but also to strengthen their insecure positions by taking on new tasks (Table 2).

Employee conditions: There were no distinct differences between the good and bad cases with regard to individual conditions such as age, family situation, level of education, or length of employment (Table 3).

Management's strategy: The management's strategy refers to the ways in which management deals with organisational prerequisites and conditions for the employees (Table 4). In both good and bad cases the supervisor with formal authority was physically present in the daily work. This implies that what matters is not where the supervisor is but what he or she does as described below. There are strategies related to employee loyalty and to overtime in both good and bad cases, but their purposes differ somewhat and are described below.

Organisational conditions: Both public and private sector and various business directions were represented in both the good and bad jobs cases. Most workplaces were clearly part of a larger organisation whose decisions affected operations. The size of the workplace did not differ either between the good and bad cases, or the employee/manager ratio. Among both good and bad job cases, the organisation had a cost-saving imperative, and it was mainly quantitative objectives that governed activities primarily with respect to time. There were quantifiable objectives for the main activity among both good and bad cases. Examples included lead time: from order to shipment; time of flow: from registration to finished processing; and action time: from fault report to the time the fault is repaired. Quantifiable objectives were measured in both good and bad job cases.

This was an organisational prerequisite, as it was demanded by a higher level in the organisation, but could also be used by management as an action strategy for governing the organisation and yielding additional resources. According to researchers' assessments, virtually every case had increased or streamlined production during the study period, in part due to greater external demands. Also, all employees worked in organisations that had gone through organisational change, which accordingly was not an aspect that differentiated the good job cases from the bad job cases (Table 5).

However, the analysis showed that there were different combinations of conditions and strategies that created bad and good working conditions.

Conditions and strategies that created bad jobs

The cases with worsened and bad working conditions comprised women exclusively (Table 3). The occupational orientation was mainly toward "working with people" and the qualification requirements were high (Table 1). There was a lack of quantitative and qualitative personal resources on the organisational level in the bad job cases. Either there were too few positions at the workplaces among the bad job cases to manage the tasks or there were not enough permanent employees to fill the positions. It was also among these cases that skills enhancement was reduced, either in the form of training being curtailed for financial reasons even though skills enhancement was regarded by the management as an obvious solution to many problems or that competent employees were scarce because recruited personnel were without training (Table 5). In the bad job cases (but also in one of the good job cases) there were examples of strategies based on managing peak workloads with overtime or by bringing in temporary personnel instead of keeping staff levels able to manage fluctuations in work pressure. In one of the bad job cases (employee 4) it was considered an important component in the deterioration of working conditions: When temporary personnel are hired, time (and energy) has to be spent to train the new employees with the work, and working overtime was from the employees perspective seen as a simpler solution; a better action alternative (Table 4).

Job expansion, decentralization of tasks and supervision, i.e. both horizontal and vertical integration, were found primarily in the bad job cases in the two flow-organised workplaces, retail and production, but also in healthcare and public services organisations (Table 4). The work was to be done precisely where and when it was needed. Job expansion was in most cases aimed at making the organisation less dependent on single employees by making sure everyone was able to perform all job tasks. The strategy involving vertical integration, decentralization of tasks that used to be performed centrally and that have been pushed down in the organisation, was in several cases an aspect of decentralizing problem solving and creating loyalty to the employer.

The management structure is described according to three types: formal, semi-formal, and informal. Semi-formal management – a hybrid between formal and informal leadership – was found in the bad job cases. In the semi-formal structure, supervision was delegated to "coordinators"; people who, in addition to managing the daily allocation of work, were also expected to take over other managerial tasks, such as performance reviews. In several cases there was a desire to relieve middle managers of some tasks, e.g. holding performance reviews. According to upper management, the resources in the organisation were adjusted to the planned decentralization of job tasks. However, there had been no negotiations about new delegation procedures, and the middle manager still had the task. Organisational resources were consequently structured "as if", as the real decisions could not be made at the semi-formal level.

> "This thing with performance reviews...we have too many of them...there has been some discussion that this task should be decentralized to nurses in charge, at each floor, but no real decision has been made." (Employee case 2)

When resources were curtailed, responsibility had been pushed downwards in the organisation and piled up on the desks of "coordinators" who had no formal managerial responsibility.
Parallel with the decentralisation of responsibility, the work was more centrally governed and very little was left for the employee to influence in his or her work. The supermarket case was also an example of this, i.e. the product selection and appearance are now decided centrally.

Several of the organisations were resource controlled rather than managed by objectives, and the means had become the end of the organisation when keeping to the budget was put ahead of quality. The formally expressed objectives concerned quantity or efficiency. Quality objectives were formally not explicit, but tacitly understood objectives and it became the employees' responsibility to ensure that they were met: However, the attainment of objectives was not measured. This resulted in a lack of correspondence between the objectives set by the employee and the organisation respectively.
As described above, both responsibility for supervision and problem solving were decentralized. This was combined with the employees' strategy characterized by personal responsibility. The formally expressed objectives concerned quantity, while it was the employees' implicit responsibility to ensure that quality was maintained, something that was not measured or given credence by management.

> "We do what we can afford to do...The primary objective is a balanced budget; everything else is secondary. Financial targets are much more significant than they used to be /.../ For me as a manager, the most important thing these days is staying on budget and not the quality of care…" (Manager case 1)

Stakeholders were imposing greater demands, and the objectives were adapted more to the customer's wishes than to the organisation's resources.

> "…we have a 20-day lead time from when the customer order arrives until it is shipped. And then the customer says 'Delivery time is too long.' Okay, fine. We then ask the customer what would be acceptable and he says 'Well, 15 days should be acceptable.' Okay, we move the bar down to 15 days and start measuring … Our standards for reliable deliveries are very high at this company." (Manager case 4)

The fact that the corporate governance was resource controlled was probably a strong factor contributing to the lack of correspondence between the employee's objectives and the organisation's objectives. In both good and bad cases the employees expressed a clear work assignment, but employee and organisational objectives were less well matched in the bad job cases than in the good job cases. There was a gap between the employee's and the manager's views on what should be part of the job. The employees in the bad job cases had objectives for their work that did not always coincide with available resources or management's objectives. The healthcare worker formulated the work assignment and discovered the "gap":

> "I am supposed to solve the patient's problems and if there is no one else who can do it, fine, I do it myself. I don't think about whether it's my job or not. A lot of times, there has to be another care provider that can do the job before we can hand over the patient. Sometimes there isn't one." (Employee case 1)

However, managers also recognized the "gap" caused by frequent misunderstanding of the commitment by employees:

> "Employees farthest out in the organisation want to give individual patients more than what is included in the contract. They see a human need that no contract has been issued to meet." (Manager case 2)

In the public healthcare system, the organisation was able, through its managers, to formulate the work assignment as follows:

> "The contract between the procuring unit and the producer (the healthcare provider) governs our activities. Our mission is not to take care of every problem we see in the population – it is to deliver what was ordered. We are just supposed to ignore all the other things we think are horrible, that is not our role…" (Manager case 1)

The gap between what should be done and what the employee will do described above were examples of actions which are rational from the employees' perspective but irrational from the management's perspective. Employees in the bad job cases had an explicit commitment to the work and expressed a sense of personal

responsibility. They took greater responsibility than was expected of them, which could be due to a strong sense of loyalty to subordinates or third parties. The action alternatives outlined by management did not appear realistic from the employees' perspective because the consequences were not acceptable according to their own objectives. Resources were adequate in theory but not in practice. The examples illustrate situations in which employees took responsibility for other people's jobs so that "things will work" and would be compatible with how they had formulated their own assignment and objectives.

> "…it has to be done somehow. It doesn't matter, there are no resources available, no reserves to call in; we just have to do it." (Employee case 5)

> "Well, I'm the one who has to set limits anyway, although that is kind of hard for me. The bosses want several tasks to be delegated. But to be a good manager, you have to have direct contact with everyday issues, not just rely on second-hand information from workplace meetings or performance reviews." (Employee case 2)

There was a general idea as to how equilibrium between objectives and resources could be achieved, but when management's vision was not concretized in dialogue with the employee, it was left to the employee to bring about that equilibrium. In order to adjust the work to the available resources, management wanted employees to work less carefully.

As a consequence of the high-pressure situation, the strategy of managers in the bad job cases was in several cases to be operative, to "roll up their sleeves and jump in." Unfortunately, this may serve to preserve the situation, as no one is working strategically to change conditions.

Collective responsibility was an obstacle when the responsibility was vague: everyone was responsible for everything. The employee's need to have (and feel) responsibility for a specific, controllable job area conflicted with management's efforts toward making employees interchangeable – if one person cannot do something, somebody else can. Such vague responsibility is not sustainable in combination with the employee strategies characterized by a personal responsibility. There was an explicit commitment to the job in the bad job cases, as well as a perception that responsibility is personal and that people assumed more responsibility than management wanted them to. This resulted in that they did too much according to management. From the organisation representative's perspective, several of the employees in the bad job cases also assumed greater responsibility than were expected of them. One reason for doing too much seems to be connected to loyalty to a subordinate/third party; for that reason, neglect was not a genuine action alternative for the employee.

Conditions and strategies that created good jobs

In the good job cases three out of four of the employees were men (Table 3) and were employed in either a male-dominated or a gender mixed organisation (Table 5). All employees in the good job cases worked in organisations in which there was a formal management structure and set objectives were met (Table 5). The organisation's objectives were mainly quantitative, but in contrast to the bad job cases, the quality aspects of the work were considered (Table 4). In two partially project-based organisations included in the study, the project approach entailed regular checks that objectives and resources were in balance and that the objective corresponded with the resources. The status check thus seems to be a good prerequisite for balance between objectives and resources (Table 4).

In the good job cases there was no gap between the employee and the organisational objectives. This was a result of both a strategy inside the organisation and a strategy that aimed to make the inter-organisational relationship clear. This relationship was with other actors who could be the client company or organisations that worked with the same customer, case or client, in parallel with or according to a chain production process with the organisation studied. The management strategy determined how inter-organisational relations were dealt with, which affected the work assignment of the employees while employees in bad jobs took it upon themselves to solve problems. Thus, one clear difference between good and bad job cases was the strategy applied toward actors outside the organisation. Where the jobs were good, the strategy was active, that is, actions were performed in order to influence outside actors whose behaviour, expectations, or prerequisites affected employee working conditions. The strategy was found both at the managerial and employee levels in these cases. The active strategy in the good job cases made clear who should do what by routines and an ongoing dialogue that gave feasible solutions to specific problems, as the following from a prosecutor case shows.

> "The main strategy has been to improve methods, both internally and externally. That has generated more cases and they are better prepared, that is, the quality is better, which increases our efficiency. In turn, that had an impact on our statistics, enabling us to reinforce our resources and hire more people. One way we improved our methods was to draft an action plan for how we should work with other actors. We work at the management level with improvement of the daily routines used by other actors. When we reinforced our resources, staff members got a little breathing room and were able to review their methods through various meetings. If you are constantly working at top speed, you are not receptive to changes in working procedures. Instead, you work on instinct just to get through the day". (Manager case 16)

At the service technician's workplace (case 15), there was an active strategy and continual dialogue aimed at dealing with the organisation's view that the em-

ployees were doing too much. However, the active strategy was predicated on the existence of clear agreement on what was included in the work assignment and what the customers could expect. Loyalty to the employer (Table 4) was intended to limit the work in relation to customers. In this case, overtime was used for peak periods but, in contrast to the bad job cases, this overtime was determined in advance for a specific task, and therefore also had a planned end (Table 4). Another significant difference compared to bad job cases was that supervisors provided feedback on intended and conducted work (Table 4).

It is also in the good cases that employees describe feedback from management. Representatives of the organisation in the good job cases more often had an explicit focus on the employee, that is, there was an explicit strategy that employees should be developed and enjoy their jobs. This usually coincided with individualized allocation of work (this is also found in the material from case 4). Individualized allocation of work was common in the good job cases, meaning that tasks were allocated according to individual talents. The good job cases were also characterized by deliberate allocation of work based on the amount of work assigned to each employee and a dialogue about how tasks were prioritized. In concrete terms, this meant that the supervisor did not allocate work until the employee was able to do the job. In two cases, the employees had new supervisors since the initial study and they described the difference; their former bosses had assigned the jobs to the employees regardless of their workloads.

> "…we want to distribute the workload. In the first place, all cases that come in are not 'mine', they are ours and we will get them done /…/ We had a situation before where we said 'Now we will have to set cases aside.' I took the responsibility then for deciding that something would have to be put on the back burner. /…/Sometimes I just picked up the files and put them in my office /…/ The management has instituted regular Monday meetings to review the week ahead and the week after that, so that we would be a week ahead. /…/ When we are involved in big cases, two prosecutors, one older and one younger, are supposed to work together; that means you get support and the younger prosecutors gain experience. There is a lot to be gained by working in pairs; we have to break with tradition." (Manager case 16)

> "When things were at their worst, they just poured the jobs over us in a huge pile. Because then they were wiped off their computer screens. The supervisor thought he had done his part and said 'I assigned that to you' even though it was a long way to the customer, the agreed time had expired, and co-workers in the next district didn't have anything to do. It's not like that anymore." (Employee case 15)

Even if the organisation was governed by resources also in the good job cases, the managers actively discussed and thereby took into account the underlying objective in terms of quality of work. It was not only up to the individual employees as in bad job cases.

"Of course it is important to be efficient and not to do anything unnecessary. But even more important is to maintain a high quality. We work with people… We have been talking about this quite a lot, because it is important that we safeguard people's security and rights..." (Manager case 16)

Performance measurements were used, not only collected, at the workplace to obtain feedback on performed actions and as an instrument to argue for and add resources if necessary.

"We've been understaffed and I've proved that with these statistics." (Manager case 16)

"…we got a lot more financial statistics and key figures and all of that, so you see for yourself. /…/ now you can at least see how much money you are spending. When you do, you can do something about it and if you do something about it you see the difference." (Employee case 15)

Priorities were established in a dialogue between employee and manager. Thereby, an active management strategy led to the solutions being long-term and strategic, both inside and outside the organisation.

"The formal objectives are based on information from the higher level management. But our group has included (and thereby formalized) our own informal objectives. When this action plan is passed there is something real to work towards. Then we can check if we fulfilled it." (Employee case 18)

When it came to individual strategies, the employees in the good job cases had deliberately drawn a boundary between work and home life and made use of collective strategies. This meant that the employees had a joint action strategy. Collective strategies were either an effect of an active management strategy or compensation for lack of leadership. When the management was not the active party vis-à-vis the client company, the group took on the job of formulating the assignment in dialogue with the customers. This resulted in realistic schedules that ultimately led to a positive response, as they completed the assignment by the agreed deadline.

"After all, we can get requests for forty things to be done in two months. And in that case, we have to set priorities. /../. We have to sit down with our project manager and say that this job alone is going to take two months. We discuss the situation with the client, and they might then say okay, in that case, we'll only take this one. /…/ We also have a mutual understanding that we won't take on too much." (Employee case 17)

Collective strategies have not only an outward function (toward the customer) but also an inward function. Strategies based on a collective identity, on the no-

tion that "we are going to get the work done together", were supportive for the single worker.

> "You're always alone, but when things get tough, you're never alone." (Employee case 16)

Discussion

The aim of the study was to identify conditions and strategies at the workplace that create good and bad jobs with respect to externally assessed psychosocial working conditions. Nine cases at nine different workplaces including employees and their organisations studied on two occasions over a period of six years were chosen. Employee, managerial and organisational factors were compared in order to explain why some jobs turned out to be good and others to be bad. All information was collected by interviews and observations and disregarded value judgments of the informants. This was accomplished by means of an interview technique that included follow-up questions aimed at concretization and exemplification of the areas covered.

The results show that employee and managerial strategies as well as organisational factors are important in the process of creating working conditions. Two organisational conditions commonly referred to as important to working conditions; organisational changes and increased or streamlined production did not differentiate the good job cases from the bad job cases during the study period. Many of the conditions and strategies that differentiated between the good and bad job cases concerned strategies used by managers and employees. This observation indicates that there was scope for manoeuvre in the organisation. According to our analysis, the creation of good jobs is a matter of how given conditions and prerequisites are used. Managers' strategies downwards in the organisation with their subordinates, outwards in inter-organisational relations and upwards in the organisation seem important and are discussed.

Management strategies in the bad job cases reflect the prevailing management ideal, i.e. management only by objectives and not through regulation (Holmberg & Strannegård 2005; Maravelias 2002). However, the results show that the employees do not assimilate management's objectives – they set their own if the organisational objectives were vague or inadequate with the norms, including professional norms, that govern the employee's work (Freidson 2001). The employees in the bad job cases did not seem to perceive any action alternatives. It could be a matter of following one's own moral guidelines and choosing to violate formal principles (Kälvemark et al. 2004).

What people do at work is of course highly dependent on the goals they aim to achieve. In bad jobs the formal goals were not applicable in everyday practice and the employees were left with the decision about what to do, how to make priorities with reduced resources. As in a study of flexible work the actual room for action, the decision authority, did not supply the employees with clearly defined conditions and boundaries (Hansson 2004). In our study this type of

boundary-less work was valid also in more traditional jobs. In the bad job cases we found a lack of consistence between formal goals in the organisation and operational goals in everyday practice that needs to be clarified in order to be able to create good job conditions. Discrepancy in goals can have several reasons; the members of the organisation do not agree on the formal goals; formal goals are perceived as unrealistic due to available resources or to other external circumstances (Abrahamsson and Aarum Andersen 2002). In good jobs the managers and the employees had an ongoing discussion of what the formal goals meant in everyday practice. As work always contains contradictions, decisions need to be taken and the presence of instrumental support from managers or colleagues to clearly define operative goals seems to be important in creating good jobs.

As the bad job cases were mainly females in female dominated organisations one may have a gender perspective on the results. It has been proposed that in occupations dominated by women a "responsible rationality" generally guides the work activities, while the organisation and allocation of resources are guided by a "technical limited rationality" (Ve 1994). This means that employees can stretch their scope of action until it is larger than the one provided by the organisation so that it will be consistent with what the employees see as their job. According to an action theoretical approach human beings are rational and make choices based on objectives and consequences they judge likely to follow upon the various action alternatives. Lipsky formulated this in his work on street-level bureaucracy: "To understand how and why these organisations often perform contrary to their own rules and goals, we need to know how the rules are experienced by workers in the organisation and to what other pressure they are subject." (Lipsky 1980).

In order to create good jobs, the management needs to understand what governs the employee's actions i.e. the rational reasons for the work performed: Which of the action alternatives outlined by management (or politicians) are genuine alternatives? What does it mean in practice to set aside certain tasks, and what are the consequences for third parties or for the employee's own area of responsibility? Employees need management strategies that support prioritization of work by means of a dialogue about what should and should not be done when resources are inadequate.
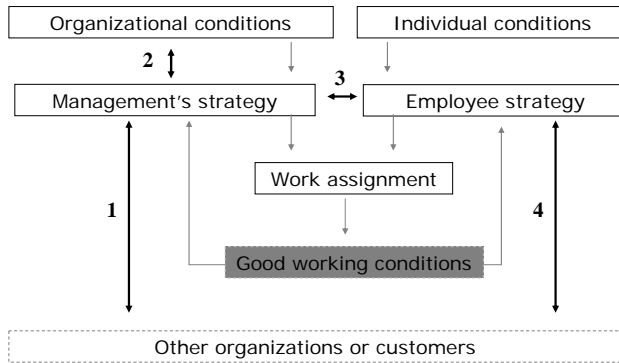
Along with management strategies toward the employees, strategies aimed at improving inter-organisational clarity seem necessary as modern business, and therefore working life often incorporates inter-organisational relations (Marchington et al. 2005). An important theme that the good and bad cases handled in different ways concerned inter-organisational relationships. The results show that inter-organisational problems became the problem of the individual employee if the organisation did not have a clear and concrete description of the work assignment for its own employees and maintained boundaries toward external stakeholders. At the employee level, this may involve having an action plan for how employees should limit their work assignments in a sustainable

way; at the managerial level it may involve the rules and procedures of the external actor that affect the job performance within the organisation.

In the good job cases active managerial strategies were also directed upwards. The organisation as envisioned by modern organisational theorists is a lean, managerially diluted, and dispersed network of members (Kunda & Ailon-Souday, 2005). This description could be applied to both good and bad job cases. But in good job cases, the managers fill the gap between senior managers and employees and thereby actively counteract the bad effects of this indistinct organisation. The management's good action strategies at the intermediate level should be sanctioned and supported by top management in the organisation. Organisational conditions, according to Figure 1, can be regarded as consequences of management strategies at higher levels in the organisation and prerequisites for leadership at lower levels in the organisation.

In order to visualize areas important in creating good jobs according to the results, the model designed for the interviews and analysis is supplemented with four links (labelled with bi-directional arrows 1-4) (Figure 2). These links show that the organisation should be regarded as an open system: The management's action strategy should incorporate stakeholder factors (1), which may be both other organisations and customers. The active management strategy should clarify common routines and through continual dialogue with the client or the other organisation that provides feasible solutions to specific problems. Management enhanced employee working conditions by having an active strategy upward in the organisation (2) and thereby influencing intra-organisational conditions. Performance measurements were not only collected at the workplace, they were used to obtain feedback on performed actions and as a basis to argue for increased resources in dialogue with higher management levels in the organisation. In the other direction, higher management levels should conduct a downward dialogue with middle management on the consequences of organisational prerequisites and changes of the same. A third link is that between employees and their first line manager (3), where there should be dialogue about objectives and priorities. There was no gap between the employee and the organisational objectives in the good job cases. Even if the organisation was governed by resources also in the good job cases, the managers emphasized the underlying objective in terms of quality of work; it was not left to the employees to maintain this as it was in bad job cases. Additionally, management ensured that allocation of work was individualized, with respect to both what and how much would be performed. The fourth link (4) may be part of that dialogue. In this way, the employees are strengthened in their approach to stakeholders. Thereby, the management strategy is active and strategic both inside and outside the organisation. When it came to individual strategies, the employees in good jobs made use of collective strategies. Shaping good jobs seems to need an organisation and management that do not place the responsibilities on the sole employee and thereby undermine collective actions at the workplace (Garsten & Jacobsson, 2004).

Figure 2. Model of how good jobs are created according to the results. The double arrows have been added to the original model (Fig. 1).

| Organizational conditions | Individual conditions |

2 ↕   3 ↔

| Management's strategy | Employee strategy |

1 | Work assignment | 4

| Good working conditions |

| Other organizations or customers |

Methodological considerations

The in-depth analyses and results are based on a small sample, and the generalis-ability of the results is therefore limited. However, the nine good and bad cases are based on interviews with eighteen people on two occasions, i.e. 36 interviews and visits to workplaces. The sample of organisations in this follow-up study is drawn from a strategic sample of 72 organisations selected to cover a broad range of organisations in Sweden. The results apply to the cases studied, but as they cover a variety of organisations, ownership structures, and occupations, it is not unreasonable to presume that the results may be used as a basis for discus-sions on interventions at many other workplaces.

The information about the working conditions was not based on self-reports. In-stead, work practices that actually took place were explored.
If researchers and occupational health practitioners want detailed analyses of po-tential causes of stress factors for intervention purposes, observational interviews with an external perspective provide a basis for job redesign strategies to create sustainable jobs (Landsbergis, Theorell et al. 2000). The action theory perspec-tive used in this study involves analysing how hindrances and possibilities in the organisation interplay with what the individual perceives is possible both among employees and their managers (Leitner, Volpert et al. 1987; Aronsson & Ber-glind 1990; Frese & Zapf 1994). This perspective will increase the possibility to gain knowledge about what people in the organisation, employees and managers, actually do, not what they say they want to do and is therefore a valuable tool for evaluation of organisational changes. The exposure assessments with an ARIA analysis are based on action regulation theory. Such analysis will identify work-

ing conditions that hinder the achievement of results or require an increased expenditure of energy, which increases the stress for the worker, and are considered as regulation hindrances.

An interesting experience from this study was that the goals guiding the employees work in the bad job cases were not unclear to the employees, which we expected. Instead, they set their own goals, independent of or because of the goals set by the organisation. This causes a mismatch between actual goals for the work carried out in the organisation and the resources adjusted to the organisation's goal set by the managerial level. This lack of concordance between different goals is possible to reveal only if data are collected from both the employer and employees.

The chosen case study method for analysis dichotomized the conditions studied in order to simplify and clarify the patterns that differentiated the good and the bad cases. This analytical strategy suits the external perspective, where it is the researcher who assesses whether the process indicators can be empirically proved in the collective information derived from the entire interview material. The theoretical model (Figure 1) worked well as a guiding concept. However, the theoretical model had to be supplemented with more loops in order to reflect the process of creating good jobs (Figure 2).
When selecting employees for the in-depth analysis, we choose to use change in working conditions as the criterion, that is, to study people whose working conditions had changed in order to reveal the mechanisms that lead to the creation of working conditions and not only the mechanisms that maintain them, which would have been the case if we had included employees whose good or bad working conditions had not changed during the study period.

Bad jobs were found in female-dominated organisations and in occupations predominantly staffed by women, and the employees studied were women. This has not been highlighted in the paper for a specific reason: gender segregation is not easily changed. Other structural factors and the strategies used by these women and their managers are probably easier to change in a short term perspective. If successful, the gender segregation may probably be less if the conditions are improved. Thus, the choice not to highlight the gender perspective was made for pedagogic reasons, rather than for scientific reasons.

Conclusions and practical implications

Organisational and employee conditions were obviously significant in creating good or bad jobs, but employees and management strategies and actions were decisive for how working conditions were created. In the good job cases, managers had an active strategy with their subordinates, upwards in the organisation and outwards in inter-organisational relations. An important characteristic among employees in good job cases was the use of collective strategies. The manage-

ment and employee scope of action can be used to change working conditions for the better.

According to the results, some suggestions for further research and practice can be made. The results highlight the possible importance of building structures of formalized authority, increasing communication of goals and hindrances in order to improve working conditions for the employees. Middle managers are important in the initiating phase but higher management levels need to support the change process. Factors that enhance the middle managers' ability to improve conditions should be further explored. Suggestions for future research are also to replicate the results of conditions and strategies in their relation to work characteristics and health in a quantitative study.

The methodology may be useful for human resources departments and occupational health services, who are interested in identifying structures and strategies that should be focused on in order to create sustainable working conditions in the organisation and not merely focus on the individual workers' stress management. The results will hopefully encourage employees and managers to use their authority and create structural solutions of daily problems. If structural solutions are impossible, they should use their authority to redirect the responsibility and problem-solving upwards in the organisations to those who have the authority. Ask who in the organisations owns the problem? Who could do something to create a solution?

Summary

What people do at work depends on what is possible in order to gain the best outcome with the given prerequisites. If we can identify the perceived goals, action strategies among employees and managers, and describe the given conditions in the organisation we will be able to identify why people are doing what they are doing at work and better understand why jobs become good or bad. It is preferable to use an external perspective for assessing the conditions and strategies because this information is probably valid for several employees at the workplace, regardless of their opinions of their jobs.

The aim was to identify conditions, strategies and work practices at the workplaces that contributed to create good and bad psychosocial working conditions. Employees and their organisations were studied over a period of six years and nine cases from different workplaces with evident good and bad working conditions were chosen for a deeper analysis. The results show that there were clear differences in managerial and employee strategies and work practices between the good and bad job cases. In the good job cases, managers had an active strategy with their subordinates, upwards in the organisation and outwards in inter-organisational relations. An important characteristic among employees in good job cases was the use of collective strategies and work practices.

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Appendix

Waldenström K (2007) *Externally assessed psychosocial work characteristics - A methodological approach to explore how work characteristics are created, related to self-reports and to mental illness* (Thesis) Stockholm, Karolinska Institutet

More objective measures - external assessments

Objective measures are only able to identify potential stressors, because they need to be perceived and appraised as stressful in order to become a stressor. Empirically, it is not easy to differentiate the aspects of the stress process; the objective stressor, the stress perception and the appraisal. However, as Frese & Zapf state, it is useful to conceptually keep the different parts of the process clear, even if the empirical work is much messier (Frese & Zapf 1988). They have formulated the importance of more objective measures in psychosocial research:

> *'Theory and research is driven by what we want to explain and what we want to do practically. Thus, if one's primary concern is to change people's conception about stress, it is legitimate to rely only on perceptions of stressors. However, if we want stress research to contribute to job design we need an answer on how we can develop work in such a way that there is no long-term psychological damage'* (Frese & Zapf 1988).

In this study more objective measures do not mean a description of the truth. A theory-guided non-emotional description has been used that is independent of the specific individuals' social or cultural frame of reference. We preferred to label our methodological approach external, i.e. the work characteristics as seen from an external point of view.

Frese & Zapf described different conceptualizations of the term objective and subjective used in the literature (1988). They concluded that in the tradition of action regulation theory the concept objective is referred to as not being related to one specific individual's perception whereas subjective is tied to one individual's cognitive and emotional processing (e.g. perceptions and appraisals). Thus, to be unfairly rebuked by a supervisor is a non-material yet objective event. The

conceptual trick of discriminating between subjective and more objective is to think of an average person's cognitive and emotional processing. What would an average person's reaction to this be? The average person's stressor is not related to the concrete individual's cognitive and emotional processing (Frese& Zapf 1988).

There are several ways to measure more objective conditions. Each measure is influenced both by method variance and by true variance. Therefore, no method can a priori be assumed superior (Semmer & Zapf 1989). One method is to assign to all workers with the same job title the average value of the self-reported levels of the particular stressor. However, individualized work design sets limits to the method of group data used as there might be fewer and fewer cases where people are performing the same tasks. By using crude titles, actual differences between individuals within a group are ignored and the real associations between job characteristics and health endpoints will be underestimated (Kasl 1987; Frese & Zapf 1988; Kristensen 1996; Kasl 1998; Kasl & Jones 2003). Most occupational titles cover a broad range of specific jobs with different psychosocial working conditions. Furthermore, because occupational titles explain a fair amount of variance in some dimensions (decision latitude) and less in others (psychological demands and supervisor support) this strategy seems appropriate for some dimensions and not for others (Karasek & Theorell 1990; Bultmann, Kant et al. 2001; Ostry, Marion et al. 2001).

Another measure of more objective conditions is external assessments of job characteristics and includes several methods: One is assessments of individual jobs by supervisors or worksite observations conducted by trained observers where actual job behaviours and workings are measured in real time. If these assessments of different experts do not refer to the same concept about stress factors but instead apply to their individual concepts, the same measurement problem that affects self-reports is transferred from the worker to the expert (Landsbergis, Theorell et al. 2000).

To overcome these limitations another type of external assessment can be used; theory-guided observational interviewing. This is performed at the worksite by an analyst who is trained in the application of the theoretical framework. Theory-guided observational interviewing at the worksite, by trained analysts, is better able to abstract from feelings and appraisals related to the workplace than self-reported questionnaires completed by incumbents engaged in a work situation every day (Greiner, Krause et al. 2004). In theory-guided interviews, analysts are not restricted to obtaining the necessary information by worksite observations only, but can also use self-reports and archival data. The analyst serves as a translator from observations and self-reports to theory and definitions. Only a few theory-guided observational instruments have been developed and validated in epidemiological studies with explicit health outcomes.

Probably the most used theory-guided observational instruments are the VERA and RHIA measures which have been developed in Germany and are based on action regulation theory (Hacker 1982; Volpert 1982). Other comparable meas-

ures are ISTA (Semmer, Zapf et al. 1995) TDS (Rau 2004), and WEBA (Schouteten & Benders 2004).

Studies using theory-guided observational instruments have found associations with several outcomes. Externally assessed stressors were associated with work accidents (Laflamme& Friedrich 1993; Greiner, Krause et al. 1998), patient safety (Elfering, Semmer et al. 2006), several health indicators (Leitner& Resch 2005), musculoskeletal disorders and pain (Vingård, Alfredsson et al. 2000; Greiner and Krause 2006), psychosomatic complaints (Greiner, Ragland et al. 1997), well-being (Grebner, Semmer et al. 2005), sickness absence (Greiner, Krause et al. 1998), hypertension (Greiner, Krause et al. 2004; Rau 2004), and coronary heart disease (Bosma, Marmot et al. 1997).

VERA, RHIA and action regulation theory

The history behind the method used in this study begins in 1990 when our research unit was preparing a study on causes of musculoskeletal pain, the MUSIC/Norrtälje-study. Methods for more objective measures of the psychosocial exposures at work were needed and VERA (Volpert, Oesterreich et al. 1983) and RHIA (Leitner, Volpert et al. 1987) were such methods. VERA identifies person-independent task related cognitive requirements conducive to personal development. RHIA measures strain-inducing task requirements which include work barriers, time pressure, time binding, and monotonous work conditions. VERA and RHIA were designed to assess work characteristics in industrial work and the handbooks and manuals for industrial work had been translated into Swedish by Friedrich and colleagues (Friedrich & Larsson 1990; Friedrich, Larsson et al. 1991)

VERA and RHIA are based on action regulation theory. This theory addresses how humans, by concrete actions, interact with the world around and change it according to their goals. Working conditions, which hinder the achievement of results or require an increased expenditure of energy thus increasing the stress for the worker, are considered as regulation hindrances. In 1970 both Hacker ('Allgemeine Arbeits- und Ingenieurpsychologie') and Volpert ('Sensumotorishe Lernen') published the theoretical foundations for action regulation. Later, for example, Frese & Zapf described the theoretical foundations in English (Frese & Zapf 1994).

The theory of action regulation attempts to describe the mental structures of human actions, i.e., goal setting, generation of action plans, performance and evaluation of goal attainment in order to set new goals. Action regulation is a description of actions built into chains, where each action is considered as a part of a comprehensive endeavour to attain a certain goal in hierarchical structures. (Greiner & Leitner 1989). The theory proposes that stress or limitation of human development at work is due to 'partialization of action' i.e. tasks that do not require all steps in the action process and are described as incomplete tasks (Volpert, Oesterreich et al. 1983). Incomplete tasks lack the possibility to de-

velop appropriate methods, try them out and change them. Division of labour generates work tasks that in themselves are worthless.

The action regulation theory also maintains that human actions are regulated at different levels depending on what types of mental resources are required. According to action regulation theory, the type of action regulation used in the work is correlated not just to the work tasks, but also to the knowledge, experience, and intentions of the working person. This means that the same work task can mean different cognitive requirements for different people.

ARIA

As our aim was to assess work characteristics in a population-based study, the VERA and the RHIA instruments were adapted to be applicable to all types of occupation. Accordingly, our instrument was slightly simplified in order to be suitable for interviews. The initial version of our instrument, which is a modified version of VERA and RHIA, was used for interviews in the MUSIC-Norrtälje study (Waldenström, Josephson et al. 1998; Vingård, Alfredsson et al. 2000; Wigaeus Tornqvist, Kilbom et al. 2001; Waldenström, Theorell et al. 2002). ARIA was revised and further developed in the MOA study where we had the opportunity to make observations of the work activities at the workplace. According to the experience of a third study, the MOA-follow-up the instrument was revised to include a more thoroughly examination of work goals. Some years ago our method was given the name ARIA, which is an acronym derived from the Swedish expression for work content analysis.

Besides the simplification and the adaptation to all types of occupation there is a difference between VERA/RHIA and ARIA. The ARIA instrument is not person independent as are VERA/RHIA, but is independent of both emotion and individual frames of reference regarding work characteristics. In ARIA each individual is studied, not only the work tasks per se. The assessments are related to personal knowledge and experience. The differences between ARIA and VERA and RHIA are further described in Waldenström (2007).

Assessing the work characteristics of an employee raises the question of what is to be assessed, i.e. what is expected to be included in the work assignment of each employee? Work seems to become increasingly regulated in some sectors of working life (Giertz 2000) and less regulated in others (Sandberg & Targama 1998). The result of the latter is that the employees' understanding of the job – the work assignment –becomes more significant with regard to what the work will entail. As a consequence, organisational goals and resources do not solely predetermine the work content. The work content is shaped in a complex process of interactions between the employees' own experience of the job, personal competence and by how they relate to their work as well as by colleagues, organisational factors and leadership.

If we are to understand actions at work, we should thus study the employee, the organisation, and the existing objectives and actions. It is meaningful to differentiate between an assigned task and how it is understood and performed by the employee. An action is an interactive process between the individual's anticipation about the outcome of an action in the specific situation and the results of this action. People develop goals when they create tasks and when they perform tasks formulated by others (Hackman 1970; Hacker 1982; Frese and Zapf 1994). The assigned task is thus the starting point for work actions and the task is the interface between the employee and the organisation. According to action theory human actions are rational and deliberate, based on goals and evaluations of the consequences of the action (Leitner, Volpert et al. 1987; Frese and Zapf 1994).

The action theoretical approach is a theoretical perspective which includes several theoretical traditions. This research approach studies the way people act according to their beliefs in order to achieve the best overall outcome and is used in several disciplines (Edling & Stern 2003). Our study is a part of the sociological or social psychological tradition where obstacles to action and room for action are studied. In this field the differentiation between subjective and objective room for action is of interest (Aronsson & Berglind 1990). A study guided by an action theory perspective, involves analysing how hindrances and possibilities in the organisation interplay with what the individual perceives is possible both among employees and their managers.

ARIA compared to VERA and RHIA

ARIA is as described above based on the VERA (Volpert, Oesterreich et al. 1983) and the RHIA (Leitner, Volpert et al. 1987) instruments. In comparison to these protocols ARIA was modified to be applicable to all kinds of occupation and slightly simplified. ARIA should cover our need to be able to assess all types of occupations, while VERA and RHIA initially aimed to assess only industrial work. Accordingly, the dimensions have been somewhat changed.

The VERA instrument includes 10 levels of cognitive requirement which cover the cognitive requirements and the degrees of freedom for own planning of work tasks. VERA is quite finely calibrated at lower levels, which suited assessments of industrial work in 1970-80 but it did not suit a broad range of occupations in the late 1990's which were the target group for our analysis. Therefore, we returned to the action regulation theory of three main levels originally described by Hacker (Volpert, Oesterreich et al. 1983; Frese & Zapf 1994).

Degree of freedom in planning work tasks is included in the ten levels of cognitive requirement in the VERA instrument. We decided to separate the assessment of complexity of the tasks from the possibility to influence how to perform the work. This was done because even if a task is very complex, there might still be some scope for deciding how to perform the task or which tasks that have to be performed. Frese and Zapf, referring to Semmer, pointed out that jobs with high complexity and low control are particularly stressful, mainly because they lead to

overload and responsibility (Frese & Zapf 1994) (Semmer 1984). Theoretically, control can be considered as the number of decision possibilities, complexity representing the number of decision necessities. ARIA aims to assess the situation specific possibility to influence one's own conditions at work. Specific questions covering this aspect were developed. The aspects to assess cover control in and over the work, from a daily to a more long-term perspective, individually or collectively, are built on the concepts described by Aronsson (Aronsson 1989). After data collection in the MOA study the assessments of these aspects were transformed to a four-graded scale. This made it possible to compare them to the control dimension in the self-reported JDC model. We constructed a specific dimension to cover influence. The levels are quite comparable to other scales, such as the Procedural Degrees of Freedom Scale, TDS (Rau 2004).

RHIA differentiates between regulation obstacles, regulation uncertainty and overtaxing regulations (Greiner & Leitner 1989). These aspects are covered by ARIA but are somewhat restructured. Regulation obstacles such as interruptions or organisational constraints make action regulation more difficult – if not impossible. In ARIA these obstacles are assessed in the hindrances dimension, mainly in terms of lack of resources. Regulation uncertainty refers to uncertainties about how to reach the goal and include stressors such as lack of appropriate feedback, role conflicts and role ambiguity. In ARIA these aspects are assessed in the hindrances dimension, either in terms of lack of support from colleagues or superiors or in terms of unclear goals and work tasks. In the case of overtaxing regulation the speed and intensity of the regulation is the major problem. Typical examples are time pressure and requirement to concentrate - monotony. In ARIA, time pressure is assessed as well as required conformance to schedule, sometimes called time binding. Monotony is not a single aspect in ARIA but is covered by the dimension of cognitive requirements.
Hindrances such as physical environmental factors are not assessed in ARIA because it aims to focus on psychosocial aspects.

Beside some differences in the dimensions studied, another important difference is that VERA and RHIA assess work tasks that imply that the worker is fully trained for the tasks. This is due to the fact that the assessment of the work tasks studied is independent of who is conducting them. Our aim was to assess not just the work tasks per se but the work characteristics given the specific individual with his or her specific knowledge and experience. This takes into account that the same work task can imply different cognitive requirements for different people. We aimed to study the specific worker in his or her position. This is because our purpose was to assess the actual work-worker relationship and its possible health related consequences. If only the work tasks per se is studied, one can not draw conclusions to what extent the work tasks are adjusted to the single employee.

ARIA Procedure

In this study the data collection was a combination of observations at the workplaces and interviews both with the employee and with the employer. The observers had the unique opportunity to become familiar with the organisation by means of interviews with representatives of the work organisations. Each studied person was usually observed at the workplace for one day of work by one of four trained observers who conducted the job analyses. The duration of this observation depended on the variety and complexity of the work tasks involved. At several workplaces more than one person was studied. Thus, the observers visited most workplaces for more than one day. Accordingly the observers had information concerning the basic conditions of the observed job from supervisors and colleagues, as well as from the jobholders themselves. Interviews with the employees were conducted to gain information about work tasks and conditions that were not observable, to exclude assessing behaviour rather than conditions (Greiner, Krause et al. 2004; Leitner & Resch 2005) and to assess conditions that did not arise on the observation day. The observers were trained to ask the subject to be concrete and provide examples of situations related to the work characteristic that was to be assessed. The observers had frequent meetings to discuss experiences, difficulties estimating, and individual scores. This strategy was designed to minimize the differences in assessment criteria when applied to different types of occupations.

Studied dimensions

In order to define what work tasks were included in the work assignment, each subject's work assignment was divided into different tasks and the relative proportion of time spent on each task was defined.

The components of each work task were classified according to their cognitive requirements into three categories: creativity or solving new problems, active use of occupational skills, and routine work or low cognitive requirements. At the routine level, actions are regulated more or less unconsciously and automatically; at the active knowledge level, actions are regulated consciously through established rules and knowledge; and at the creativity level the characteristic process is problem solving or planning new processes. According to action regulation theory all levels should be present in order to promote learning and development. The participants were asked to describe what skills were needed to execute the task, i.e., 'When was problem solving and planning needed?' With this information it was possible to calculate the percentage of working time spent at each mental regulation level.

Several aspects of the possibility of influencing one's work characteristics were considered during data collection (e.g. what, how, where, and when to conduct specific work tasks). To achieve a variable that would be comparable from one type of occupation to another, the possibility of exerting influence was categorized into four levels (none, low, some, high). The lowest level did not allow the

subject to choose between work tasks or how, where, and when they should be executed; schedule, breaks, and pace were set and the work was fixed not only in time but also place.

The second level was much like the first, but the subject had the opportunity to exchange some work tasks with workmates or to change the order of some work tasks. The third level meant the authority to choose between work tasks and to make decisions as to how and when the work tasks should be done (at least during part of the day). At the highest level of influence regarding what to do, i.e., which work tasks would be included in the work assignment; the subject had long-term, but not always short-term control.

The quantitative demands in work were described by time pressure. If the work tasks could not be unattended for more or even fewer than agreed pauses, and this was not compensated with less hectic periods, the work was considered to entail high time pressure.

Qualitative demands were described by the hindrances dimension. When assessing hindrances, the observers followed a checklist covering several aspects of rules and resources and decided whether some of these aspects were present. The studied aspects were: unclear goals or work tasks; insufficient resources in terms of equipment, housing, and personnel; lack of support from supervisors or workmates necessary for job performance; work tasks unadjusted either to the subject's competence or to hindrances outside the work organisation. The criteria for assessing hindrances were obvious loss of quality, considerable delay resulting in overtime work, work without breaks, and work executed with an apparent risk of accident or illness. It is necessary to have criteria that cover different ways to cope with hindrances, other than simply adding overtime. In some jobs it is impossible to extend work through overtime; instead you may intensify or lower the quality of work. The hindrances were considered to be severe if these criteria affected the performance of the work tasks for more than half of the workday, or work cycle. Disturbances, strain, or sources of irritation that not fulfil the criteria were not considered to be hindrances.

Subjects were asked to describe consequences of different action alternatives, e.g., 'What happens if you don't finish before you go home?' Accordingly, as in the studies by Leitner & Resh (Greiner, Krause et al. 2004; Leitner & Resch 2005), the observers had to look and ask for concrete realizations at the workplace for each of the theoretically-defined categories of hindrances to task performance. Furthermore, the observers had to verify that the hindrance was not a part of the task, verifying that there were no other ways of dealing with the problem (e.g., lowering the quality to still acceptable levels). The criteria for each category of the studied variables guided the final assessment.

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Tables

Table 1. Explanatory variables (process indicators) concerning the work assignment based on the situation at T2.

Work Assignment (position)	Bad job cases					Good job cases			
	1	2	3	4	5	15	16	17	18
Occupational orientation, people	X	X	X		X		X		
Occupational orientation, things				X		X			
Occupational orientation, data								X	X
Female-dominated occupation	X	X	X						
Male-dominated occupation						X			X
Gender-mixed occupation				X	X		X	X	
Low occupational qualifications requirements		X							
Medium occupational qualifications requirements				X		X			
High occupational qualifications requirements	X	X			X		X	X	X
New tasks	X	X		X		X		X	X
Increased area of responsibility		X		X					X
Supervisory responsibility		X		X					X
Job insecurity	X	X						X	
Reduced job security	X							X	

Table 2. Explanatory variables concerning employee strategies.

Employee strategies and practices	Bad job cases					Good job cases			
	1	2	3	4	5	15	16	17	18
Explicitly committed	X		X	X					X
Feels "personal responsibility for job performance"		X	X	X	X				
Assumes greater responsibility than expected	X	X	X	X					
Employees "do too much" according management	X	X	X			X			
Strong loyalty to subordinate/third party	X	X	X						
Active (toward new tasks)	X							X	X
Established boundaries between work & private life	X				X	X	X	X	X
The group formulates the work assignment							X	X	X
Collective/group identity						X	X	X	

Table 3. Explanatory variables concerning employee conditions.

Employee Conditions	Bad job cases					Good job cases			
	1	2	3	4	5	15	16	17	18
Woman	X	X	X	X	X				X
Man						X	X	X	
Short length of employment (at initial study)	X				X				X
Long length of employment (at initial study)		X	X	X		X	X	X	
Children living at home				X		X		X	
Individual's level of secondary education <2.5 years				X					
Individual's level of secondary education 3-5 years			X			X		X	
Individual's level of secondary education >5 years	X	X			X		X		X
Age (at initial study) -30									X
Age (at initial study) 31-49	X		X	X	X	X			
Age (at initial study) 50-		X					X	X	

Table 4. Explanatory variables concerning the management's strategy.

Management's strategies and practices	Bad job cases					Good job cases			
	1	2	3	4	5	15	16	17	18
Job expansion (horizontal integration)	X	X	X	X		X			
Decentralization (vertical integration)		X	X	X					
Decentralization of problem solving		X		X	X				
Individualized allocation of work				X			X	X	X
Explicit focus on employees, HRM				X		X	X		X
Deliberate allocation of work /dialogue on priority						X	X		X
Follow-up instrument of control/priority/resources				X		X	X		X
Physically present supervisor	X		X	X	X	X	X		X
Employee loyalty		X				X			
Feedback from management				X		X	X		X
Overtime or temporary personnel during peak periods				X	X	X			
Vague collective responsibility			X	X					
Collective responsibility as support						X	X	X	
Work should be done less carefully	X	X	X		X				
Development must be given time				(x)			X		X
Passive strategy vis-à-vis other actors	X	X	X	X	X			X	
Active strategy vis-à-vis other actors						X	X		X
Manager works operatively			X		X				
Objectives adapted to resources in practice						X	X	X	X

Table 5. Explanatory variables concerning organisational conditions.

Organisational Conditions	Bad job cases					Good job cases			
	1	**2**	**3**	**4**	**5**	**15**	**16**	**17**	**18**
Business direction*	PSP	PSP	LSP	LGP	PSP	T&K	PSP	T&K	LGP
Public/private sector	X	X			X		X		
Private sector			X	X		X		X	X
Large workplace	X	x							X
Medium-sized workplace			X	X		X	X	X	
Small workplace					X				
Part of a larger organisation that makes the decisions	X	X	X		X	X	X	X	X
Female-dominated organisation (>70)	X	X	X						
Male-dominated organisation (>70)				X		X		X	
Gender-mixed organisation					X		X		X
Low employee/manager ratio (≤10)	X		X		X				X
Medium employee/manager ratio (11-49)							X	X	
High employee/manager ratio (≥50)		X		X		X			
Formal management structure			X		X	X	X	X	X
Semi-formal management structure	X	X		X					
Cost-saving imperatives	X	X			X	X		X	
Increased efficiency	X	X	X	X	X		X	X	X
Mainly quantity-based objectives	X	X	X	X	X	X	X	X	X
Performance measurement	X			X	X	X	X		
Resource-controlled activities	X	X			X		(x)		
Objectives not attained by the workplace	X	X			X				
Partially changed organisational objectives	X	X							
Shortage of employees/positions/difficulty recruiting	X	X		X	X				
Skills decline		X			X				
Changeable organisation	X	X	X	X	X	X	X	X	X
Flow organisation			X	X					
Project organisation (at least partially)								X	X

* T&K = High-technology, IT, and knowledge-based industry and service production; PSP = Public Services Production; LSP = Labor Intensive Service Production; LGP = Labor Intensive Goods Production.

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