Changing organisations and work-related health

Technical report of methods, sample and design of three studies

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Abstract

This report is presenting the methodological designs of different studies aiming at the investigation of the relationship between organisational characteristics and individual working conditions and health. The theoretical background to this line of research is summarized in Härenstam and collaborators (2006). The report displays methods, samples and designs of three studies. Three different methods were used in the studies and different focal units were chosen. In the first presented study "The Healthy Workplace Study", the Organisation was used as the focal unit. In the second study, "The National Working Life Cohort", individuals were set as focal units, and in the final study, "Power over Working Conditions" –Case studies of organisational responsibility, interpersonal relations were set as focal units.

In the Healthy Workplace Study the aim was to explore the importance of organisational conditions and individual characteristics for the variation in working conditions and health for employees. The study was designed as a longitudinal, multilevel analysis, of a two-step data collection of organisations, and of the individuals working within the studied organisations. About 5000 employees, in 90 establishments in 32 parent organisations were included.

The National Working Life Cohort examined how work career and changes in employment and working conditions affect health and well-being. The study also covered aspects of how individuals' ambitions and plans change over time and how this affects working life behaviour. The study was representative and longitudinal and comprise d a representative sample of 4929 individuals living in Sweden between the ages of 25 and 50.

In the third study called "Power over Working Conditions" – Case studies of organisational responsibility, two multiple case studies were used to explore mechanisms of power and responsibility within public and private organisations. The first of the two studies explored mechanisms of power and responsibility within private multinational industry and service organisations. The second study explored a similar complex of relations in the public sector. Critical-Incident interviews, semi structured interviews and workshops with about 140 employees, managers, labour union representatives and politicians, were conducted in one company group and two municipalities between 2004 and 2006.

Foreword

This report is presenting the methodological designs of different studies aiming at the investigation of the relationship between organisational characteristics and individual working conditions and health. There is no ideal single scientific design that can solve all the challenges in the study of the complex relationships between organisations and individual conditions. Depending on the specific question, different materials and different analytical strategies must be used. In this report three alternative study designs will be presented. The theoretical background to this line of research is summarized in Härenstam and collaborators (2006). The focus here is on design and methodology and the results from individual studies are published elsewhere.¹

In the first study a multilevel design was used. This means that data about the organisations as well as data about the individuals were collected and that data was analysed through multilevel statistical methods. The questions in this study were of two kinds. The first set of questions concerned the degree to which organisational conditions are at all related to individual working conditions and individual health outcomes. The second set of questions were dealing with what specific organisational conditions that could be found to explain differences in working conditions and health.

The second study is a longitudinal cohort study. A population sample has answered a number of questions at three points in time, in 2004, 2005 and 2006 in order to study changes in working life and private life conditions. Additional information about labour market conditions, organisational affiliation, sickness absence and income was collected through register information and this information will be updated each five years in the coming years. The main idea in this design is to capture short time and long time effects of changes at work, in the family and in the balance between work and family life.

The third study is based on a number of case studies and is focussed on relations in organisations. Relations between individual workers as well as relations between managers and supervisors on the one hand and workers on the other hand are studied. The basic question concerns how working conditions and health are intervened with social relations and how they are handled within an organisation. This includes studies of leadership and how restrictions in the role of supervisors may affect the conditions of the employees.

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Organisation as the focal unit: The Healthy Workplace Study

Introduction

Work is an intentionally organised activity and the organisation constitutes the context in which work is regulated and performed. The organisation is in contrast to occupations a social context to which prevention can be directed. The question is no longer if organisation matters but how much organisation matter for individual working conditions and health. The aim of the Healthy Workplace Study is to explore the importance of organisational conditions and individual characteristics for the variation in working conditions and health for employees. However, knowing how much organisation matter is not enough to improve prevention. By their very nature, organisations are multilevel consisting in varying degree of hierarchical levels (Kozlowski & Klein, 2000). Knowledge of which organisational level being of importance as well as organisational factors for different types of individual working conditions and health prerequisites for directing preventive "measures" to the right place in the organisation. That is, what are the causes that should be improved? Is it the production process or the leadership? Another question is how general or specific the relationship is between organisational factors and individual working conditions. Are different preventive strategies needed in different types of organisations such as type of business (health care and manufacturing), ownership, or goes the line between organisations with different structures? Furthermore, knowledge is needed whether the effect of organisational factors vary for groups of employees defined by sex, education and occupation. These are all research questions in the Healthy Workplace Study.

The Healthy Workplace Study is a sequel of the MOA (Modern work- and life conditions for women and men) Study (Annika Härenstam, Bejerot, Leijon, Schéele, & Waldenström, 2004). Lessons drawn from the MOA study is that organisational characteristics clustered distinguished of differences in working conditions, furthermore that relations to other organisations and customers were of importance for explaining differences in working conditions. In the Healthy Workplace Study, causal relations identified in the MOA-study, will be tested. By empirically testing interaction between organisational dimensions and their effect on individual working conditions patterns of interaction and causal relationships can be found, guiding work of prevention.

Design of the study

Data about organisations as well as individuals is needed in order to link organisation with individual working conditions and health. Therefore, the Healthy Workplace Study is designed as a two-step data collection of organisations and of individuals working within these organisations. It is a design following the recommendations by Kalleberg (1994), which makes it possible to study whether individual working conditions vary between organisations as well as between individuals.

The Healthy Workplace study is a part of an ongoing follow-up of the so-called WOLF project. The first wave of the WOLF project (Work, Lipids and Fibrinogen) was carried out as a field study in 1993-1998 in three regions in Sweden. The aim was to study the association between psychosocial factors in the work environment and individual risk factors for heart-and coronary disease. The Occupational Health Service at each organisation constituted the field organisation of the project. The Occupational Health Service collected data about individual health and working conditions using a combination of a questionnaire, a health

investigation and blood tests. All employees in participating organisations were asked about their physical and mental health status as well as questions concerning the physical and psychosocial work environment, such as job strain, effort –reward imbalance, and work-family balance.

A two-step selection of organisations and individuals was done in the first wave of the WOLF study. In the first step, Occupational Health Services in the regions were asked if they wanted to participate in the investigation. In the second step they made an inquiry to their associated organisations and their employees about their willingness to participate. Only very few organisations declined to participate and partly due to the fact that data collection for individual workers was linked to a health check up the participation rate of workers employed in these organisations was extremely high and varied between 95 and 99 per cent. The data was originally meant to be collected in one region only, but as the number of employees was smaller than expected and the fact that there were few manufacturing industries two regions in mid-Sweden were added. In this part of the study such organisations were given priority and the number of employees was increased by some 4 000 individuals. In the three regions about 10 000 employees participated. Some results from this first part of the study have been published (Fahlén, Peter, & Knutsson, 2004; Fransson, Alfredsson, de Faire, Knutsson, & Westerholm, 2003; Peter, Alfredsson, Knutsson, Siegrist, & Westerholm, 1999; Theorell, Alfredsson, Westerholm, & Falck, 2000; Westerlund, Ahlborg-Hultén, Alfredsson, Hertting, & Theorell, 2000).

In 2000 a follow-up study of the employees in the WOLF study was started and it was carried out only in the two regions in mid- Sweden. The WOLF study had a modified aim, compared to the first study. This was to investigate the association between stress exposure and health problems and organisational and work environmental risk factors. The main instrument of data collection was a questionnaire to all employees that participated in the original study as well as to all new employees in these organisations. The focus on blood composition and medical examinations was reduced. Blood samples were collected only for small sections of the sample of employees and health tests were also carried out only to a minority of the employees. However, the follow up was expanded to include an adjunct and careful study of the participating organisations. The idea was to combine individual as well as organisational factors that may influence health and well being of employees. In order to explore the organisational factors a questionnaire for organisational dimensions of the participating organisations was needed. As a result a partial study called The Healthy Workplace study was incorporated in the WOLF study. The way to get in touch with organisations and employees followed the strategy used in the original WOLF-design. Thus, the main field organisation was the Occupational Health Services, which served as the link between the research team and the organisations. They have in a majority of cases handed out and collected the questionnaires to the employees. The Occupational Health Services have also helped to locate and establish contact with informants for the organisation study. In some cases they have booked the interviews with the informants and in other cases premonition the informants they will be contacted by us for interview. The organisation study started in an organisation when the individual study had been completed or at least come halfway.

The sample of organisations in The Healthy Workplace study was given by the sample of the earlier WOLF study. The procedure gave a sample consisting predominantly of employees in male dominated manufacturing industries. Therefore, a complementary sample of organisations was drawn for the Healthy Workplace study to include more female dominated organisations and more organisations in the service sector. The final sample is presented in

figure 6. In this figure the classification of different operations developed by Giertz (2000) has been used.

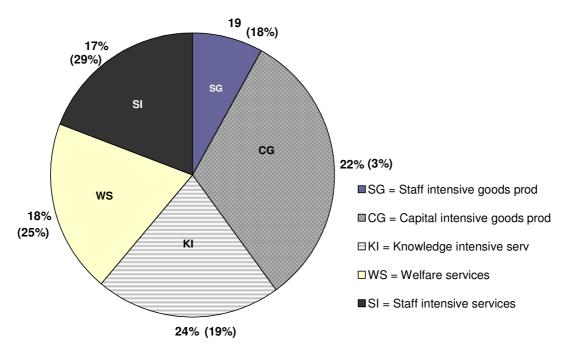


Figure 1. Distribution of staff in the selection of organisations in the WOLF organisation study according to a modification of Giertz (2000) classifications of types of operations. Data from a representative sample of the Swedish labour force in brackets (SCB, 2003). Beside the categories included in the Wolff study, one more category; raw material production is represented in the national sample with 3 per cent of the work force.

Thus, the follow-up study consists of two sets of empirical data, a database of individual employees and a database on organisational characteristics. About 5000 employees, in 90 establishments in 32 parent organisations are included. Data is also available from two points in time for the majority of the employees who are employed in organisations in the original sample and still are. Individuals who participated in the original study and have left their employer have also been asked to fill in a questionnaire that was mailed to them. Individuals employed in the additional organisations are covered only by information at one point in time. For organisations, data is primarily from one point in time, but a number of questions about the organisations are oriented towards change and covers retrospective information for the last few years.

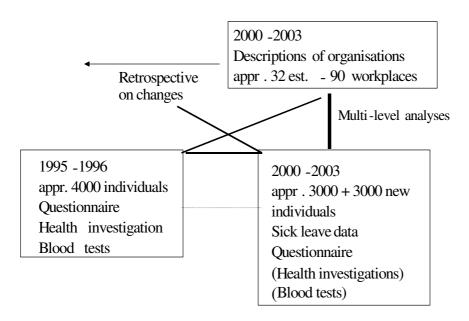


Figure 2. Data sources and analyses in the Healthy Workplace study.

The focus of the organisation measurement was at a low level of the organisation, on the establishment level. The idea behind this was the assumption that particularly individual psychosocial conditions are best understood at a level where individuals actually work and where there is an interaction between individual workers and between the individual worker and the supervisor. However, data was also collected at a higher level of the organisation that is the parent organisation level or corporation level. The specific criteria for selecting units of an organisation to be studied was defined as a unit having one address, one responsible manager and that it created a separate cost centre. These units were defined as establishments. When organisations were large, with several hundred employees and/or work conditions that differed largely between departments within them, they were divided into several separate establishments from these three criteria. Consequently the empirical definition of an organisational unit constitutes a low formal level at the organisation. According to this definition the establishments vary in size from five to 590 employees. At establishments with many employees all three criteria appear jointly only at a high organisational level in contrast to smaller establishments were they coincide at a lower organisational level. In addition to information about the establishment level of the organisation, information at the level of the parent organisation has also been collected.

Interview questionnaire

At the establishment level operative managers were interviewed by means of a structured interview questionnaire. In several cases informants were interviewed collectively answering one questionnaire representing the same establishment. In some cases several informants answered different parts of the same questionnaire for the same establishment. Often, but not always was the chief executive manager of the parent organization not interviewed at all, especially in the larger organisations. Instead production managers, personnel managers, and similar functions were interviewed, that is managers knowledgeable of the daily operations. Each informant received the questionnaire in advance with a covering letter explaining the purpose of the interview and how the information would be handled in the project afterwards. Two members of the research team participated at each interview. One concentrated on filling

in the questionnaire and taking notes, while the other person posed the questions. The interviews were in average about two hours. Within a week after the interview a fair copy of the filled in questionnaire was returned to the informant for a comment and/or complement of information. Finally, a summary text to describe the organisational unit in two to three pages of the interview was sent to each informant.

Questions at issue

The 15 main organisational dimensions measured in the interview questionnaire were ownership structure, the company's surroundings and business activity, innovation, development and skills, the operational or organisation, organisational change, management and control, flexibility, power structure, formalisation, control systems, resources, personnel structure, time and place of work, working environment policy, and trade union.

Ownership structure. Ownership includes a number of related dimensions. That is if the ownership of the organisation is public, privately or cooperative owned, whether it is part of at larger organisation such as a combine or network, is it family owned or a stock company, whether it is a co operative or a charitable organisation and if it has national or international ownership are all important. Several studies have shown differences in working conditions and health between public and private establishments. Organisations organised in networks in large conglomerates may to a varying degree be controlled at the local level and control may be executed through economic and financial means or through technical and administrative measures. Furthermore, the increasing incidence of splits and take-overs of establishments seems to have created a diffusion of employer's responsibility over working conditions and human resources management at different levels of organisation (Larsson, 2000). It seems likely that the ability for integrating various aspects of leadership does not only vary due the size of the organisation but is also affected by ownership and control.

The company's surroundings and business activity. A dimension measuring type of operations, that is, the organisations' cores activities, whether it produces goods or services, and to which degree other establishments are contracted with outsourcing and/or consultants. Work environment is principally settled by what is done, that is the product or service produced. It is also an indicator of the organisation's external borders. There are reasons to believe that organisations dealing with industrial production differ from companies dealing with human services or with symbols (Kohn, Miller, & Schooler, 1983; Marshall, Barnett, & Sayer, 1997). There are also large differences between organisations whose products are very specific and those who produce very different outputs as well as between organisations with long and short production chains. Trade conditions are a measure of the organisations external conditions, degree of competition, local or national market, degree of specialisation and generalisation that is how much of total activity is customer-tailored. It can be assumed that trade conditions have an impact on organisational decision latitude and thereby its possibilities to achieve good work conditions. It is also assumed that companies with a very high degree of market dependency create higher degree of uncertainty for its employees. Local and regional labour market conditions are likely to affect how employees are recruited and their possibilities to alternative employment as well as the degree to which the establishment is able to find specialised workers.

Innovation, development and skills. Innovation and development is a measure of how much the organisation invests in product development, organisational development, work environment development, competence development, and development of leaders. It is

assumed that a high degree of innovativeness has a positive impact on employee's ability for control and learning (Wikman, 2001). Questions about skills level are assumed to measure degree of homogeneity in composition of skill structure, competence level, presence of jobrotation, enhancement of employee skills, on the job training and promotion. It's a measure of possibilities for personnel development in work for workers but also of flexibility strategies.

he operational or production process. Technology, integration and social interaction are measured mainly at the establishment level and pictures how the every day production is conducted. It measures length of work- cycles, dependence of technology and degree of vulnerability at technical disturbances, presence of Just In Time demands (JIT) and how predictable the production-flow is. Whether the organisation is flat or hierarchical is measured through vertical integration, that is if planning and execution of work are integrated at the same level, and through horizontal integration i. e to what extent operations are organized as a flow through the whole process. Frequency and forms of social interaction with colleagues at the establishment, with actors outside the establishment and daily social interaction with customers is also measured. This dimension can be seen as both an obstacle and a possibility to for creating better working conditions. In large-scale industrial organisations the individual worker often has little to do with the customer whereas in human services where the customer often is welfare client the relationship is very direct.

Organisational changes. The MOA-study showed that organisational change was common and affected working conditions and health. This dimension measures if the establishment has implemented any organisational change and how this was done, whether it was implemented with participation of the employees or if it was top-down driven by manager(s). Furthermore change in the last few years that cover a range of dimensions is measured in the questionnaire. This includes frequency of change, intensity of change, noticed results of change and the process of change itself.

Management and control. This dimension refers to the daily operational process and measures degree of standardisation in daily operations and what type of control that structures the production process itself, if it is technical, order, group or direct consumer control. The questionnaire covers conventional measures of the degree of freedom over work and in the organisation and how management is organised to optimise efficiency as well as workers level of self-control.

Flexibility. Flexibility measures several types of flexibility strategies such as numerical, functional, financial, dynamic, time flexibility and possibility to adjust to the capacity of the employees is asked for. This dimension has been proved to have effect on working conditions and health (The MOA-study). It covers a number of related aspects of how dependent the production and the employees are of the technique, the products and the customers or clients. It also includes the degree to which an organisation is increasing its flexibility to meet demands of their employees or to meet demands of the production itself as well as items on family friendly policies.

Power structure. This dimension measure authority at different levels in the organisation, how dependent basic operations are upon decisions from these levels. That is, external influence of decisions from external politicians or board of directors, top management within the workplace and the 'closest' manager in daily operations in the establishment. It is of particular interest to understand how the power structure is affected by 'matrix' or 'project' forms of

organisations and how power is executed when the manager is not even physically working at the same location as his or her subordinates.

Formalisation. Formalisation of organisation measures whether incorrect actions and decisions can be appealed or reported. It has been seen both as an obstacle and a possibility for creating better working conditions. Apart from legal regulations of work environment activities and economic conditions it may concern rules of conduct for individual workers and in some public organisations more strict forms of judiciary regulations.

Control systems. This aspect includes what system the organisation use in order to measure how its goals are completed. Questions concerning whether the methods are hard or soft and based on the use of Human Resource Management, quality control, dialogue, and development talks are raised. Financial incentives and salary systems are also measured as a type of control system.

Resources. Resources for support measures if the organisation has a supply or scarcity of administrative and IT support, materials and personnel. This can be seen as an indicator of how lean the organisations are.

Personnel structure. Distribution among employees in terms of ethnicity, sex, competence, forms of employment and work, but also supply of labour are essential characteristics of the staff structure. This includes homogeneity or heterogeneity of the workforce in a number of dimensions.

Time and place of work. Location of work in time and space measures working time and geographic location of work, if it's scattered to different places or gathered at one address. Although most organisations can be seen in terms of a building located at a particular place, there are also examples of organisations where employees are scattered in large geographical areas. There are also examples of establishments that are based on matrix- or project organisations. This means that work in terms of where and when may vary, but it also means that an individual worker may have different supervisors and that this may change over time. Questions about overtime compensations are also included here.

Working environment policy. Working environment and internal control measures how much the establishment spend on Occupational Health Service, if there are safety representatives at the establishment, presence of systematic mapping of risks and established objectives based on the risks, proportion of managers and safety representatives attended working environment training, if there is a rehabilitation program and policies for gender equality at the workplace. Extent of reported occupational injuries and sick-leave rates are also measured.

Trade union. Trade union questions measure share of employees being member of the trade union and extent of communication between trade union and management at the establishment.

Questionnaire

The focus of the questionnaire was on 'objective' and 'factual' information rather than on attitudes or values. It was also the ambition to use as specific and concrete information as possible to reduce the degree of subjectivity. The majority of the questions had closed-ended response alternatives ranging from 1 (low) to 3 (high). The researchers decided the criteria for each value label in advance. However, since very different organisations were included in the

sample and there was also a wish to be able to compare the establishments, some questions were more general. Furthermore, to guarantee that the same criteria were used for all organisations, the researchers did the classification of each answer. The interview questionnaire was structured in three parts measuring aspects of the structure of the establishment, the production and the production process and the personnel reflecting two levels of organisation: the parent organisation level and the establishment level.

The interview questionnaire was to a large part based on previous studies of organisational structures; in particular the methods and conclusions from the MOA- study (Annika Härenstam et al., 2004). The results in the MOA- study indicated that inter-organisational relations seemed to be important in addition to the intra-organisational characteristics. Thus, whether the establishment operates at a local, regional, national or international market and relationships to customers, clients and co-operating firms are of significant importance. For this purpose new questions have been created and also added from other studies. From the Dutch SZW panel study (Goudswaard, Dhondt, & Kraan, 1999) questions about inter-organisational relations have been added to the questionnaire (questions number 15, 22, 23 and 29). New questions about flexibility originate from the same Dutch study (questions number 48,54,55,91 and 170-174).

From the Swedish Flex II study (Wikman, 2001) questions within several dimensions have been added, such as type of market (questions number 35-38), customer adaptation (questions number 43-46), innovation (question number 47), integration (questions number 86-90), control (questions number 158-169 and 194-201), personnel structure (questions number 211, 213 and 220) time and place of work (questions number 225, 226, 228-232). The measurement of different dimensions and items about the implementation of change was also copied from the Swedish Flex II study (questions number 104-140). Several studies had pointed at the importance of organisational change for studies of working conditions and health. It has repeatedly been argued that change in organisations affect different categories of employed differently and that the way an organisation is undergoing change is determining many aspects of work related health (Wikman, 2001).

Another study used is the International Manufacturing Strategy Survey (IMSS, 2001), questions concerning the operational process (questions number 70-82) have been added, and questions of inter-organisational relations (questions number 16-20), quality (questions number 150-157) and personnel structure (question number 210). Two questions (numbered 50 and 60) about personnel and skills have also been included from Workplaces in Sweden-Organisation, staff development and management (le Grand, Szulkin, & Tåhlin, 1996). Remaining questions originate from the MOA study or are newly created for The Healthy Workplace Study of members in the project. The interview questionnaire is supplemented in Appendix 1.

In summary, about 5000 individuals, in 90 establishments nested within 32 parent organisations are included. The study was designed to allow for multilevel analysis, as separate data was collected both for the individuals and for the establishments.

Individuals as focal units: The National Working Life Cohort

Introduction

In work health research, the assumption has been that the individuals remain in the same job with the same obligations throughout their working life. This is not a reasonable assumption. Large shares of the labour force are moving between jobs but there are also large occupational and other differences in this mobility pattern. Very little research has been carried out on how mobility between jobs and from one position to another may affect health in a positive or negative manner. There may be selection processes in the sense that individuals with a health problem remains in particular positions or is recruited into specific positions while more 'healthy' people has a more open choice. Individuals may also be selected to specific jobs due to personal characteristics that might cause ill health in the future (e.g., low education, lone parenthood, high alcohol consumption) (Östlin, 1989). Individuals occupied in highly specialised positions may have small alternative markets even if they are well educated. People in declining occupations have fewer options to move to another employer regardless of individual resources. Since most previous studies on work and health are cross-sectional, knowledge about selection processes are scarce and insufficient. It also means that change in itself has not been given proper attention. Rather, change is often measured with a set of retrospective questions. However, retrospective questions of change might have a number of limitations regarding the magnitude of changes compared to longitudinal data where the same information is collected at different time points for the same individuals.

In summary, the main purpose of the National working life cohort study is to look at how work career and changes in employment and work conditions affect health and well-being. However, the study will also cover different aspects of how the individuals' ambitions and plans change over time and how this might affect working life behaviour. Through individual and organisational information we will also be able to study the relationship between individual strategies and restrictions and possibilities for change in different social groups and for women and men. The Working Life Cohort comprises a representative sample of 4929 individuals living in Sweden between the ages of 25 and 50.

Design

The main features of the cohort study are two. First, the study is representative. This means that a random sample of people in Sweden has been drawn. Second, the cohort is longitudinal. In 2004 the first out of several waves was collected. The aim is to collect a new wave once a year the first three years and after that go into five year and then ten-year intervals. Because of the long-term foci the population was set to individuals living in Sweden between the ages of 25 and 50. The lower boundary was set to 25 because the primary interest was in working life and by that it was natural to limit the sample to working ages. The upper boundary of the sample was set to 50 because it is a long-term project and the age of 50 would precede automatic dropouts due to retirement. The sample size of the cohort was set to approximately 5000 in order to meet two important criteria. First, it must be possible to stratify the sample considering for example age, gender or sector and still keep the power of the study. Second, the longitudinal character of the study implies that the drop out rate will increase over time, the so-called attrition problem (Magnusson & Bergman, 1990), why it is necessary to start with a proper sample size.

As a consequence of the representative sample the questions were formulated on the individual level. We do not have qualitative knowledge about the respondents' organisations, as in the case of the other two designs in the programme, why the questions aim at investigating how individuals perceive their organisational settings and environment. However we have the possibility to add organisational information with register data. The registers we have access to are mainly national registers from the tax authorities comprising information about the individual but also on the individual's work place. It is also possible to add information from national organisational data registers with more specific company information.

Measures and questionnaire

The survey was roughly divided into six sections – background questions, organisational changes, life events and life balance, labour market situation and attitudes towards work, working conditions and health.

Questions at issue

Background questions. The section with background questions comprised for example items concerning age, gender, education, where the respondent work and characteristics of the employment contract as well as characteristics of the employer.

Organisational changes. We found three central reasons to investigate the changes in the modern labour market. First, several studies argue that organisational changes are closely related to work related health and well-being (Szücs, Hemström, & Marklund, 2003; Westerlund, Ferrie, Jeding, Oxenstierna, & Theorell, 2004). Second, the literature implies that changes are occurring more often and are carried out with higher speed (Addleson, 2000; Cox, 2000; Dore, 1997; Rantanen, 1999). The final issue concerns the character of the changes – what types of changes occur in the modern labour market? We have divided changes into three main groups, structural changes, changes in working conditions and changes in management systems. The cohort study was mainly concerned with structural changes in management systems, but also to some extent covered changes in working conditions.

In the introduction of this chapter we turn our selves against retrospective questions about organisational change. However we included several retrospective questions in the questionnaire. It is possible to gain knowledge with these questions as a complement to level investigations. Also, we are in the present study concerned with the individual perception of the organisational change. Thus, we asked about the change and we asked the respondent if they perceived it positive or negative, which gave us insight in how the perception of an organisational change is related to other organisational factors such as influence, well-being.

Life events and life balance. Changes in the modern working life, however, do not only concern organisational changes. We postulated that changes in individuals' private life also are highly important to health and well-being. The theoretical work in this field is centred on two areas. The first of these two areas concerns the relevance of life events on individual health and well-being. The literature argues that the occurrence of stressful life events, e.g. death of spouse or divorce, have a negative effect on health and well-being. Not only negatively related life events but also positive events such as marriage could be associated to impaired well-being and the sum of many events is also bad for health (Fontana, 1989; Holmes & Rahe, 1967). In the present survey the aim is to investigate what events appeared

during the last year, but also to use the longitudinal design to see what happens over several years. With this design we can investigate if one tragic event is followed by other tragic events and if one positive event is followed by other positive, as the literature indicates. Just like in the case of organisational changes we asked about the individuals' perception of the specific event. The respondents were asked to rate if the event has affected them positively or negatively.

The other area concerns life balance, meaning if there is a just balance between the spheres of work and home. The general hypothesis is that the combination of work roles and roles at home is associated with health and well-being (Frankenhaeuser et al., 1989; Hall & Hall, 1980; A. Härenstam & Bejerot, 2001), however there are different views on how these variables are related to each other. One hypothesis argue that combining roles have a health promoting effect (Lennon & Rosenfield, 1992), while other hypothesis claim that role conflict is negatively related to health (Coser & Rokoff, 1971) and a third view argue for a selection bias (Aston & Lavery, 1993). In either case, it is important to investigate how individuals on the modern labour market combine working life with home life. The cohort study approached this issue with questions concerning who bears the responsibility for home work and possibly for taking care of elderly relatives. We also asked the respondents if problems at work affect their home situation and if their home situation affects their working life.

Labour market situation and attitudes towards work. This section of the survey comprised selection processes, how individuals move on the labour market, attitudes towards the organisation and working life. Questions concerned among other things if individuals want to get a new job, if they have searched for new job, how they believe their possibilities to get anew job are, if the education they have is relevant for their career, loyalty, job insecurity and job involvement. The section also comprised items concerning how people perceive their possibilities to affect the organisational environment from top down. This incorporates how the respondents rate their possibility to affect management decisions and changes implemented from the organisation, but also how the employees perceive their possibility to affect their local environment, physical as well as psychosocial.

One part of the labour market situation section concerned the issue of employability as a replacement for job security (Bagshaw, 1997; Fagiano, 1993; Kanter, 1993). By being employable the individual guarantees his or her own job security or career path. Hence, the present study is aiming at investigating how employees of today perceive their own job security and by that their possibilities to get a new equal job. This is a question that we believe is closely connected to the issues of health, well-being and employee responses.

As mentioned, the selection processes can be measured in different ways. In the cohort study employee responses is central. The theory of exit, voice and loyalty (Hirschman, 1970) has been valuable in this case. Based on the theory of exit, voice and loyalty the survey consisted of questions about turnover intentions and job search behaviour as well as actual turnovers. Information about the actual turnover behaviour can be gathered through data registers connected to the cohort study, e.g. there are no questions regarding this in the interview or the questionnaire. The survey also included how employees criticise or affect their organisations when changes are brought upon them, e.g. using their voice. The questions concern if the respondents say what they think and feel during changes, if they participate in the local union club, if they feel that the local union club has any influence on the management of the organisation. Last, the survey also addressed the issue of loyalty.

Working conditions. Working conditions included questions on the work environment, both physical and psychosocial, mainly developed from the Work environment study (SCB, 2003), but also items on development and adjustment. Development concerns how people perceive their work as developing, engaging, interesting and if they have had proper education on the job. Adjustment comes from a line of theory where the foci lies on individuals possibilities to adjust their work when something happens suddenly (Johansson & Lundberg, 2004).

Health. The last part of the survey concerned the health aspects of the respondents. There has been made a lot of research around work and health, especially the concept of health has been subject to many methodological discussions. The aim of the cohort study is to get a broad picture of the health status of the respondents. Although we had dominantly self-rating questions we had different measures of different aspects of health and well-being in order to get this wider understanding. We also supplemented our questions with objective register data as suggested in the literature (Frese & Zapf, 1988).

Health and well-being is measured in five different ways in the cohort study. First, respondents had to grade their individual over all health in one global question ("How do you grade your overall present health?"). Second, the respondents answered if they have been sickness absent during the last year. Third, an index developed from the Finnish work ability instrument (WAI) (Tuomi, Ilmarinen, Jahkola, Katajarinne, & Tulkki, 1994) was used to measure the respondents work ability. Fourth, an index of physical health complaints frequently used in the Swedish Labour Force Surveys (conducted by the Statistics Sweden) (SCB, 2002) was used to asses physical complaints. Last, the WHO well-being index (Bech, Gudex, & Staehr Johansen, 1996) was used to measure the mental well-being of the respondents.

Questionnaire

Most items in the interview and the questionnaire are used in previous research or based on existing questionnaires. Items that are not discussed below were constructed especially for the Working Life Cohort Study. Items in the interview will be denoted I followed by a number indicating its position in the interview(e.g. I45-46) and items in the questionnaire will be denoted with Q and a number indicating its position in the questionnaire are attached in Appendix 2 and 3 together with a supplement describing changes made after the first wave.

Background questions. From the Labour Force Surveys (LFS) (SCB, 2002) questions on employment status (I1-3), working hours (I4-6), organisation (I7-8), profession (I9-10) and family (I47-50) were taken. From the Work Environment Survey (WES) (SCB, 2003) questions concerning employment status (I14), management (I12-13) and number of employees (I15) were taken. Questions on management were also adopted from The Flex II Study (I11 (Wikman, 2001)).

Changes in working life. The items concerning changes in the working life were adopted from WES (I29, I36-40 (SCB, 2003)), LFS (I41(SCB, 2002)) and from Härenstam with colleagues (I19-31 (A. Härenstam et al., 1999; A. Härenstam & Bejerot, 1995).

Life events and work family balance. Items on spill over effects were adopted from the QPS Nordic questionnaire (I45-46 (Dallner et al., 2000)). Items concerning work family balance were adopted from Härenstam and colleagues (I51, I54-56 (A. Härenstam & Bejerot, 2001)

and I57-58 (A. Härenstam et al., 1999)). Finally, questions concerning life events were adopted from Holmes and Rahe (1967).

Labour market situation and attitude towards work. In this section questions concerning labour market situation (I17-18 (Gardell, 1971), I24 (Gunnar Aronsson & Göransson, 1999), I28 (SCB, 2002)) can be found. Items concerning "lock-in" effects were derived from Aronsson and Göransson (1999) (I16, I22-23). In this section there can also be found items on general attitudes towards work (Q1 (Petterson, 1995)), future possibilities (Q2-6 (Torgén, Stenlund, Ahlberg, & Marklund, 2001) and Q7 (Gunnar Aronsson & Göransson, 1999)), job insecurity (Q41-43 (Hellgren, Sverke, & Isaksson, 1999), commitment (Q46-47 based on (Cook & Wall, 1980)), work engagement (Q48-49 (Zetterberg, 1980) and Q50 (Isaksson et al., 2003)) and internal employability (Q44-45 (van der Vliet & Hellgren, 2002)).

Working conditions. Working conditions reflect psycho social working conditions (Q59-61 (Karasek & Theorell, 1990), Q62², Q63-72, Q81-83, Q87-88 (SCB, 2003), Q84-86 (Wikman, 1999)), ergonomical environment (Q90-97 (SCB, 2003)), but they also reflect if the job is interesting (Q73-74 (Wikman, 1999), Q75 (SCB, 2003)), education and on-the-job training (Q76, Q79-80 (SCB, 2003), Q77 (Wikman, 1999) and possibilities for adjustment at work (Q100-106 (Johansson & Lundberg, 2004), Q107 (SCB, 2001)).

Health. The health items concerned general health issues (I62 (SCB, 2002)), medication (Q132-135 (Torgén et al., 2001)), exercising (Q136-138 (SLL, 1999)) smoking habits (Q140 (Hällström, Damström Thakker, Forsell, Lundberg, & Tinghög, 2003)). They also comprised sickness absence and presence (Q108(G. Aronsson, Gustafsson, & Dallner, 2000), Q109 (Gunnar Aronsson & Gustafsson, 2002), Q110-112 (Johansson & Lundberg, 2004)), work ability (Q115-119 (Tuomi et al., 1994)), physical complaints (Q127-131 (SCB, 2003)) and mental well-being (Q143-152 (Bech et al., 1996)).

Additional items in wave two. In the second wave a number of items were added (See also Appendix 4). These items concerned involvement (Kanungo, 1982; Mauno & Kinnunen, 2000), self-efficacy (Chen, Gully, & Eden, 2001) and adaptation (Johansson & Lundberg, 2004).

The first wave

During the spring in 2004 we collected the first data wave. The study was a combined telephone interview and questionnaire study. The motive for this was the quality of the screening process. By performing a telephone interview the response rate exceeds the essential share of the gross sample. The interview was followed by a questionnaire.

The telephone interview comprised 83 questions divided into two sections; one for employed individuals and one for unemployed. The first section comprised 63 questions and the second section 27 questions. The telephone interview ended with asking the participant to fill out a supplementary questionnaire. The questionnaire was delivered by mail and 3 reminding letters were sent. Finally, a telephone reminder was carried out to raise the response rate. The questionnaire as well as the interview was divided into two parts. The first was sent to

² This question is derived from the project "Mental belastning, trötthet och återhämtning" financed by The National Institute for Working Life (Dnr 2000-1217). Corresponding researcher is Professor Anders Kjellberg (University of Gävle).

employed individuals comprising 152 questions. The second part consisted of 45 questions and was sent to 542 unemployed.

In Figure 1 the response rate is demonstrated. Here, the two separate parts in the interview and the questionnaire (one part for the employed and one for the unemployed) are taken together so that the interview as well as the questionnaire is reported as a whole. The total sample consisted of 5 009 individuals, taken as a random sample of individuals living in Sweden between 25 and 50 years of age. In this sample it turned out that 80 individuals where not in the population due to for example death or living outside Sweden (but not yet in the statistics). Of the remaining 4 929 individuals 3 579 participated in the telephone interview, giving us a response rate of 72.6 percent. When we sent out the questionnaire another 625 individuals dropped out of the study and 2 954 individuals participated in the questionnaire (59.9 %). These 2 954 individuals thus participate in both the telephone interview and the questionnaire; it was not possible to participate in only the questionnaire.

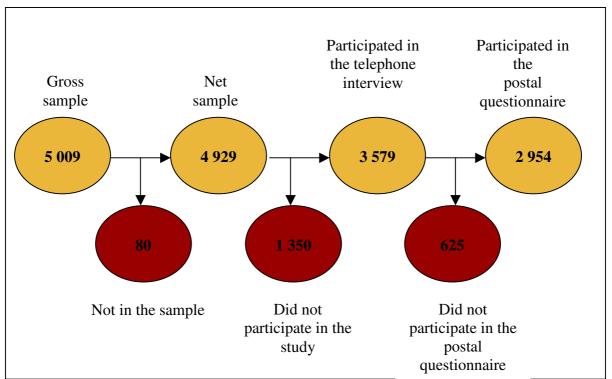


Figure 3. The response process of the first data collection of the Cohort. From the Gross sample to the final individuals who participated in the whole first data collection.

In Table 1, a non-response analysis is presented. The results from the analysis indicate that unemployed individuals had a tendency to withdraw from the study. This conclusion is based on the fact that unemployed individuals are underrepresented in the study. Also, low-income individuals and low educated individuals are underrepresented in the study which is interpreted to be a consequence of the underrepresentation of unemployed individuals. Considering age and gender the representation was assessed as satisfying. There was however a slight underrepresentation of individuals living in metropolitan areas.

	Non-respondents	Respondents
Age (years)	37.2±0.4	37.8±0.2
Gender (women)	44.0±2.6	49.8±1.6
Education (university)	25.5±2.3	39.6±1.6
Living region (metropolitan areas)	43.7±2.6	36.8±1.6
Employment (employed)	66.6±2.5	85.2±1.2
Income (thousand SEK per year)	159.2±14.4	206.2±4.7
N Note: When the present non-response analysis w	1396 as made, the Net sample	3579

Table 1. Descriptive statistics concerning non-respondents and respondents. Mean values with 95 % confidence intervals for age and income. Shares in percent with 95 % confidence intervals for gender, employment, education and living region.

Note: When the present non-response analysis was made, the Net sample was calculated to 4 975 individuals. This figure has later been adjusted to 4 929.

In summary, the representation of the first data collection was estimated as satisfying considering employed individuals. Most of the questions in the study are directed towards employed individuals and thus the problem of the underrepresentation of unemployed is not that great. Furthermore, the representation was also assessed to be satisfactory considering correlation analyses. If descriptive analyses are carried out, weighing of the variables could be an option.

The second wave

The procedure of having a combined telephone interview and postal questionnaire is advantageous although it is necessary to consider two issues. First, there is a two-stage process of drop out, those who did not want to participate in the study at all and those who participated in the telephone interview but did not accept the questionnaire. This issue is important to recognize when analyzing the material as well as the response rate. A second issue concerns the definition of the panel. The design of the National Cohort Study gives at hand three possibilities in defining the panel. Firstly, it is possible to define the panel as those individuals who attended the whole study. In this case, it would have meant that the panel should comprise those who attended both the interview and the questionnaire. The second alternative is to choose those individuals who at least participated in the first telephone interview. Third, the option chosen was the gross sample minus those individuals who refused to participate. Thus, in the second data collection the sample consisted of 4 377 individuals.

The second wave was collected during spring 2005. The procedure of this wave aimed at being as similar as possible to the first data collection. With the first wave in mind two corrections were made before the second wave. Firstly, we engaged the telephone interviewers in a one-day education of the purpose of the study. Secondly, more focus was directed towards finding all respondents. These two steps were taken in order to minimize the drop-out rate in the first follow-up study.

The study commenced with a cover letter explaining the purpose of the study and contact information. The respondents were then approached and a telephone interview was performed with the interviewees. The telephone interview comprised 67 items for employed individuals and 26 items for unemployed. As in the first wave, the interview was followed up by a postal questionnaire comprising 169 questions to the employed participants and 54 questions to the unemployed individuals.

In Figure 2, response rates from the second data collection are reported. The first circle contains those individuals who were approached in the second data wave, 4 377 individuals. In this group are the 3 579 individuals who participated in the first telephone interview found. Furthermore, another 798 individuals (that could not be reached in the first wave) were also approached. 3 431 individuals participated in the second telephone interview, which corresponds to a response rate of 78.3 percent. 699 individuals dropped out between the interview and the questionnaire; thus 2 729 individuals answered the questionnaire (62.3 %).

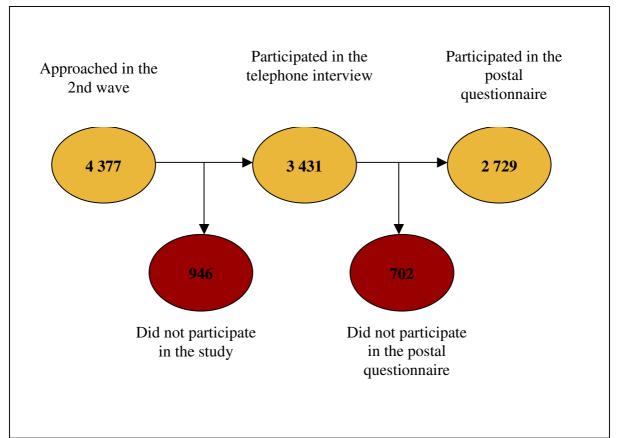


Figure 4. The response process of the second data collection of the Cohort. From the sample of the second data collection to the final individuals who participated in the whole second data collection.

In the second data collection no comprehensive non-response analysis was made. Some data were however gathered (see Table 2). The pattern from the first wave was repeated in the second wave. Men were underrepresented as well as younger individuals. The deviations were however not alarming, and it was assessed that the deviations would not affect correlation analysis in a great extent.

Table 2. Response rates considering gender, age.
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Category	Percent
Overall response rate	78.4
<i>Gender</i> Male Female	75.0 79.4
<i>Age</i> Younger (born 1972-1978) Older (born 1953-1971)	73.7 78.3

Third Wave

The third wave comprised no significant changes in procedure. 4 053 individuals were approached in the same way as in the first and second wave (see Figure 5.). 645 individuals that were classified as drop-outs during 2005 were approached again in 2006. The response rate was similar to the two previous waves.

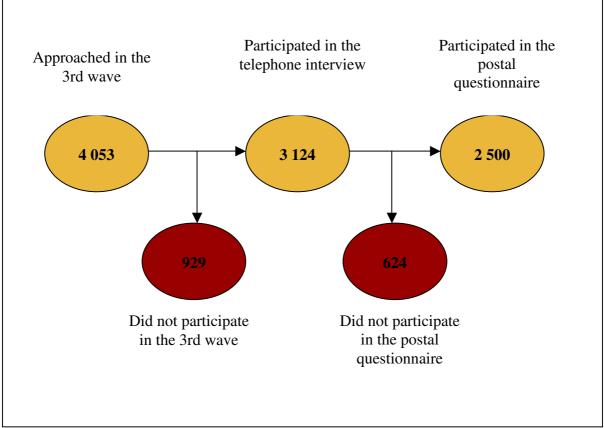


Figure 5. The response process of the third data collection of the Cohort.

In Table 3 the response rates considering gender and age are presented.

Category	Percent
Overall response rate	77.4
<i>Gender</i> Male Female	75.2 79.6
<i>Age</i> Younger (born 1972-1978) Older (born 1953-1971)	73.2 78.8

 Table 3. Response rates considering gender and age.

 Category
 Percent

In summary, the National Working Life Cohort Study has after three waves gathered information about 3 934 individuals between 25 and 50 years of age living in Sweden (see Table 3). This number corresponds to 79.8 percent of the net sample in the study. Complete information from both telephone interviews *and* postal questionnaires has was received from 1 943 participants (39.4 percent).

Table 4. Response rates from data collection 1, 2 and 3 (2004, 2005 and 2006). Number of individuals and percentages of net sample.

	Response rate interview		Response ra	ate questionnaire
	Ν	Percent*	N	Percent*
Data collection 1 (2004)	3 579	72.6	2 954	59.9
Data collection 2 (2005)	3 431	69.6	2 729	55.4
Data collection 3 (2006)	3 124	63.4	2 500	50.7
Data collection any	3 934	79.8	3 392	68.8
Data collection 1, 2 and 3	2 761	56.0	1 943	39.4
Data collection 1 and 3	2 863	58.1	2 137	43.4
Data collection 1 and 2	3 152	70.0	2 397	48.6
Data collection 2 and 3	2 952	59.9	2 146	43.5

*Percentage of the net sample (4 929)

Relations as focal unit

Two case studies are used to explore mechanisms of power and responsibility within public and private organisations. The first of the two case studies is exploring mechanisms of power and responsibility over working conditions within private multinational industry and service organisations. The second study is approaching a similar complex of problems in the public sector. In the search for mechanisms of power and responsibility we presuppose that power is exercised from "innumerable points" (Flyvbjerg, 2001), in an interaction between unequal and mobile relations. Focal in a study of such mechanisms are relations (Foucault, 1982), in the actual case studies described here focal relations are relations between employees, managers, unions and external actors.

In short the following questions constitute the main frame for the two studies; how does employer responsibility coincide for tasks of production, operations, accounting/finance and HR-services? How should a work organisation be defined or demarcated when psychosocial working conditions are in focus? How do different actors in organisations interplay in shaping psychosocial working conditions? How are information about psychosocial working conditions ascertained and distributed within organisations and how are the sources and arenas for dealing with psychosocial problems found and sustained? Method and sample

Below, the technique behind the case study comprising the private multinational organisation will be described. The samples and the methods will be presented in short and then a higher level of detail will follow.

The project is an exploratory study. The samples for the part of the project comprising the private organisation consist of three companies within the Volvo company group. Criterions for choices of multinational companies were service producing and industry producing units with some history and a broad age spread of personnel. The method used for the initial data collection was Critical Incident interviews (Eriksson & Larsson, 1974, 1986; Flanagan, 1954; Herzberg, Snyderman, & Mausner, 1959) within a random sample of the personnel. Of 38 persons contacted 36 agreed to participate. The initial Critical Incident interviews led to other, semi structured interviews, in the studied organisations.

After the first round of Critical Incident interviews parts of the findings were presented for the managerial groups in the form of workshops. The workshops had the function of group interviews with the managerial groups. After the workshops new interviews were conducted. 11 line managers, 5 staff managers, one business partner, one head of development and 2 labour union representatives were interviewed.

After the second round of interviews findings were presented to the managerial groups for another round of workshops. All interviews and workshops were recorded and transcribed. Participating observation was used as complement to study the organisations. In total data was collected during a period of one and a half years.

The four phases of data collection

First persons of the base personnel were interviewed. Then a presentation of the interviews were conducted with managers from the executive level, then new interviews followed with persons from the managerial level, and finally the executive level was interviewed again. Thus moving the focus of the process between levels as well as combining the focus on more than one level at a time.

Phase	Research subject	Amount of interviews	Analysis	Expected insight
1	Critical-Incident interviews with employees	36	How do subjects narrate emotional periods, how are effects on the individual as health, anxiety, sense of well- being manifested?	Understanding critical-periods
2	Workshops: executive management view on critical- periods	3 group interviews 16 persons all in all	How do managers act during critical-periods?	Mechanisms of power and
3	Semi structured interviews with managers	17	Operative management of critical periods, how do line managers express their scope of action ?	working conditions. Relations between
3	Semi structured interviews with labour union representatives	2	critical periods, how do labour union representatives express their scope of action?	subjects and organisational levels. Mapping complex of
4	Workshops: executive management, "feed-forward reflecting"	3 group interviews 16 persons all in all	How complex is the phenomenon we are studying?	phenomenon.

Figure 6. The four phases of data collection.

Detailed project description

In contact with the Volvo Company group a research proposal was presented to study questions of psychosocial working environment, power and responsibility relations. We met the head at the HR-company to discuss the study and there was immediate interest to move along with the project.

Deciding the organisational units to study turned out to be a matter of getting access as much as satisfying the preferences of the project plan. The purpose of the plan was to study service producing and industry producing units, Volvo suggested a HR-company, a purchasing organisation and two large production units within the same industry producing company. A prerequisite for using the Critical Incident method, which will be described in detail below, was that the personnel had been employed for a minimum of one year and that the organisational units had some history, at least reaching a few years back. Volvo declared that organisational changes were common but that the time of employment would fit our demands because of a drop in the latest recruitment.

Discussing the study we were carefully declaring that we wanted to study several levels of each organisation. At this stage it was important to emphasize that we were in need of access among personnel as well as among line managers and within each managerial group. It was made clear that the study was conducted in parts, with time for analysis in between, at each

studied company. The method was depending on us gaining access within the managerial groups at least at three occasions. In order to put forward the specified requests we were presenting the study to be as self-propelled as possible.

The following activities set the actual frames of the study. At each managerial group a detailed presentation of the project plan was drawn. These first presentations structured the following one and a half years of empirical collection. In retrospect the following steps is seen as crucial for the successful development of the case studies. We were clear about what we wanted to do. We clearly presented that it was an exploratory study and because of that we would not be presenting a hypothesis driven research plan. We put emphasis on the presentations to be process oriented. By referring to the exploratory design we could focus on each developing step of the study without having to force through any expected results. This was met with understanding by each company. We put emphasis on explaining that the study was depending on dialogue between practice and academy, that the intention was to start interviewing personnel and that those interviews would lead to other interviews with persons not yet known, but that it was of methodological necessity that the managerial groups would volunteer to participate at three occasions.

We were asking for access to the organisations with some sort of independence and manoeuvrability. In concrete terms this meant that we were asking for a workplace, entrance permit, lists over personnel, phone directories, process maps of each enterprise, guiding policy documents regarding management and control, including mutual agreements that we freely could contact any one employee in order to satisfy the need for anonymity and confidentiality. All in all the companies met our demands.

Within a couple of weeks the project was given clearance to go ahead. The companies approved to the project plan without any major changes, we were given access and had sent out inquiries of participation in Critical Incident interviews to a random sample of the base personnel at each company.

Fieldwork

The three companies were studied simultaneously but the interviews and the participating observation took place in the following order. First the HR-company followed by the purchasing organisation, where the fieldwork was conducted on two different sites, located about one hours drive apart. Last in order was the industry producing company, located yet another hour's drive away from the other sites. The order was set partly by the geographical placing. The HR-company and part of the purchasing company was located at the "home ground" of the company group, in the vicinity of the Volvo headquarter. Initiating the fieldwork on home ground meant that I would gain entrance to places that for many employees served as a symbolic centre of the company group. This would show to be of importance during the later stage of the fieldwork when the remaining part of the purchasing company and the industry producing company were studied.

It could be argued that the location was of no importance for the company group at the time because it was organised and defined as global in many ways. It could also be argued that there is of no interest to an organisational researcher to study a place (Czarniawska, 1997) but it is not because of the former or the latter reason I am describing the geographical location, but because it was of importance for the prospect of gaining access during the later part of the study. If the project was approved on home ground it also signalled that the project was

welcome and approved of by the Volvo group and not just a matter of significance for the researchers behind the study. It was in that aspect of methodological importance.

Contacts at the companies were; at the HR-company: head of health and competence change, at the purchasing company the staff manager, who was also staff manager for a sister company, and at the industry producing company the staff manager. The two staff managers eventually put their chief secretaries and their staff administrators in charge of the day to day contacts. Staff administrators have the position of administrating staff issues and contacts with the labour unions without being labour union representatives. They all had large circles of contacts in the company group, they had direct access to their managerial groups and they were at the same time rather autonomous, which they would transfer to the research project. They gave the study personalised access without being too absorbed by the studied context.

Preparatory fieldwork

Initiating the study on "home ground" appeared to be of importance for the communication with persons from all parts of the studied organisations. During fieldwork one is dependent on the ability to quickly orient oneself when business familiar individuals want to describe a course of events or a certain phenomenon. A narrative of the kind is for the most part an important element of the empiric material from the field. The mode of relating to places and local events appeared to be of importance for the comprehensibility of the narrations. The desire among staff to describe a course of events with reference to places and organisational units placed in the vicinity of the head quarter was frequent. Yet if the geographical locations were of minor importance to the narrative people used them as "brainplaces" in an organisational space. They used them as positions to relate the narrative to in order to make themselves clear and in order to adjust the sequence of the described chain of events. As researcher on the field you develop an appreciation of the use of brainplaces as a frame of reference because they seem to have a soothing effect when uncertainty arises in the communication with business familiar individuals. Even though the reason for a misunderstanding is unclear or when it is not evident what's unclear, the feel of knowing where the misunderstanding is supposed to take place provides the researcher with the confidence to gradually comprehend more little by little. It makes it easier to continue listening without losing track of the context.

At the HR-company a workplace was provided. It was centrally situated in an open office space with eavesdrop of inner operations. It provided for a "feel" for the on goings. With the pass permit coming and going was unproblematic and the daily presence soon diffused the attention upon the researcher. The facilities provided at the HR-company were accessible throughout the whole project period and was functioning as a beachhead into the company group. During the following study at the other companies the workplace at the HR-company was used from time to time to keep in touch with some central business functions. Equivalent workplaces were provided at the other companies and used during the local fieldwork.

Through contacts at the HR-company an invitation to a full day's conference on leadership for the company group was provided. Managers, staff managers and executive management from the company group were gathered for seminars and leadership coaching, resting on the leader policy the company group had recently attained. For the research project this was an interesting opportunity to at an early stage familiarise with several of the questions concerning formal power and responsibility of the Volvo Group.

For some weeks interviews and observation was combined with attendance of coffee breaks and lunches with the personnel. The daily lunch walks was a recurrent feature of the HRorganisations health plan and each day new and familiar faces would show up outside the canteen. Such occasions provided interesting meetings with the organisational culture. In informal conversations with employees a lot of important background information was gathered. Complex and everyday occurrences would be given thorough explanations, often with a thick descriptive background from those who had been in the business for some time. The information from those meetings was recorded with the memorandums from interviews where the questions had arisen. They provided for a deeper understanding and perhaps more importantly with a more profound feel for asking better questions during the Critical Incident interviews. They also provided a feel for the validity of the study in terms of the view of the practitioners. Those who had been working professionally with the type of questions we were addressing in the study said that they had been touching upon them many times but never had had the opportunity to bring them any further. It gave a reason for comfort and trust to the relevance of the research project.

Preparing the Critical Incident interviews

In order to conduct the Critical Incident interviews near but not directly adjacent to the place of work an interview room was established nearby each studied company. Through access to the intranet and with an internal e-mail account, the search for and correspondence with the informants was discreetly kept on the low. The combination of external researcher using internal e-mail address provided for a trustful dialogue during the Critical Incident interviews. Each interview was scheduled to last for at least two hours. Not all interviews used the full time but mentally setting off two hours is of methodological importance to give the interviewee time to for reflection. A few times, more than two interviews were booked the same day, but since it had a drastic impact of the quality of the interviews according to the high level of concentration on the interviewer's part, usually no more than two interviews were conducted on the same day.

Before each interview, coffee and water was offered to provide a relaxed conversational setting. The interviewees were given time to settle and be relaxed if they felt a need for it. The aim and structure of the project was presented already in the letter the informants had received asking them to participate, but before each interview this was discussed again. The intention was to give the informants the opportunity to feel that they were participating on their own terms. It also gave the interviewer the opportunity to grasp the informant's precomprehension of, and reason for, participating in the interview. It varies between enterprises how the overarching research questions are regarded and were the ownership of the issues normally is laying. In some cases it might be important to declare that the study is not a union intervention or that the study is detached from, and not primarily operated by, the studied organisation.

A Critical Incident interview can be a pressing experience and any reason for suspicion or mistrust on the informant's part should be avoided. Because of which the reason for the study was described, as well as who we were and what we were doing. We also discussed the purpose and the future use of the material. Finally we asked, which also was a question of the letter of participation, if the informant would agree for a recorder to be used during the interview. Not on any occasion was this request denied. There are ethical reasons for the procedure, the project had undergone an ethical vetting, but there are technical reasons as well. The interview technique relies on the ability to establish a sincere and trustful communicative relation between interviewee and the interviewer at the very beginning of the interview.

The Critical Incident interviews

Working with the Critical incident technique is to work with an open technique based on the ability to combine information about emotional experiences with factual events. Central to the ontological basis for choosing the method is that the information the interview is aiming for is not scattered around waiting for just any question to be discovered. The research answers are not "out there". The answers to the research questions are created during the interview in interaction between the interviewee and the interviewer. Therefore it is central to the method that the informant is offered time to reflect during the interview. Many of the answers developed in the Critical Incident interview are based on mental reflections that the informant has never engaged in before.

The first part of the interview comprises questions giving a background description of the informant. The persons are asked to answer questions about what type of assignments and work tasks they have had the last ten years, they are asked about organisational affiliation and if they work full or part time. The information is noted along a time axis. The technique has two main functions. One is to guide the conversation during the open part of the interview, the other is to emphasize the consciousness with the informant that the information shared is of significance.

The next part of the interview is focussing on psychological issues. The informants are asked to talk about one or several periods of importance, when they have been more content than usual or when they have not felt well. In order to emphasise the relevance of the question a written copy of the question is handed over to the informant to read.

"Try to recall a period that has been <u>important</u> -when You have been a lot more content than normal OR a period when You have not felt well -during the period starting with the mid -90's until today."

Figure 2. A paper copy of the question is handed over to the informant to read.

It is an open question and the informants may choose what to share at will. The main task for the interviewer is to assist and lead the informants back to the time period they wish to talk about. The information from the first part of the interview is used as a tool of reference to help the informant to demarcate the chosen periods. This is aiding the informant to be as precise and specific as possible about the time for the start and ending of the period. It is of importance to provide sufficient time for the informants to prepare before moving on with the interview. The informants must feel comfortable to come to a decision when they see a good purpose of going back to the chosen periods, because it is sometimes associated with the undertaking of going back to a period of emotional strain. It is also important that that the interview at this stage is clearly demarcated to *personal and private experiences of the informant*.

In order for the interviewer to grasp the course of events during a narrated period, questions about specific circumstances are asked. As an example if the informant can recall what was affecting the emotions or the experiences during the time period? Irrespective of the qualitative aspects of the periods described, i.e. if they were positive or negative, if they were taking place in the interviewees private or the professional sphere, is it important that the narratives are followed up by questions that reveal *action*. It is particularly important when working with the technique that the interviewee are accounting for actions that are leaving material traces and that have traceable consequences, verifiable at a later stage of the research process.

The informants are asked to talk about *who* or whom that acted during the period, as well as *how* they acted during a critical period, how the interviewees acted *themselves* during the period, what scope of action they felt that *other* persons had and what scope of action they *themselves* felt they had. How they reasoned about what they *could* have done themselves was followed by questions about what they in fact *had* done. How they reasoned about what others could have done was followed by questions about what others in fact had done. The emotional significance of certain events was followed by questions about stated and verified consequences, i.e. if they affected the informants' way of acting at work or at home, if they resulted in certain consequences according the informants view on how they should perform their job or their view on their work role or role in the organisation. The interviewees were asked to discuss whether the events were in line with the ethical values and principles of the organisation or in line with their own ethical values and principles. Emotional events were contrasted with factual events. The purpose of the technique is to give room for a deepened examination of the mechanisms behind emotionally strong experiences from factual events in an accumulated analysis at a later stage of the research process.

During the interviews the informants tend to oversimplify their experiences and describe them in generalisations or say that many people at the time experienced the same thing. The primary task for the interviewer is to consequently and firmly bring the informant back to concrete and self experienced events. It might be interesting for the later analysis to share the informant's interpretation of the general state at the time of a critical period, but it is primarily the *personal* and *factual experiences* that are of interest for the method and it is decisive for a successful analysis when data from several organisational levels are gathered in the same analysis. (This will be further developed under "Group interviews/Workshops with managerial groups")

The third and final part of the Critical Incident interview has two functions. The first is a technique to map the informant's circle of contacts regarding such persons the informant would turn to when he or she is in need of support. For that purpose sociograms are filled out by the informant. The sociograms are used to clarify significant relations and further promote an analysis of the informants own and other actors` influence over the informants work situation. The information can later be compared with the information from the critical periods and has analytical importance because it can either mirror or diverge from the information received earlier in the interview.

The used technique, to talk about factual events resting on a sociogram as reference is also functioning as a conclusion of the interview, which is the second function. The idea with the technique is to bring the informant back to normal conversation again which is of importance in order for the informant to feel balanced after the interview. This is also fundamental for the exploratory inception of the methodology, because it makes it possible to follow up the reported relations with new interviews. Finally after each interview memorandum notes were made.

Analysis of the Critical Incident interviews

The taped interviews were transcribed. The material was de-identified as far as possible without corrupting the quality. In total the material resulted in 1300 pages of text, or talk for that matter. For the transcription two transcription bureaus were used. The project used four full weeks on controlling the quality by listening and reading the interviews, correcting any inaccuracy in the transcribed material. Along with the process the subjects from each interview stood out with a high level of detail, which in turn led to a methodological complication I will return to and develop further in the text below.

A compilation of the results from the Critical Incident interviews was to be presented for the managerial group at each company. The presentations would use de-identified empirical examples. The intention was to conduct workshops discussing the scope of action and formal responsibility during critical periods at each company. Therefore the interviews were analysed focussing on *mechanisms* of critical periods. Critical periods was found to originate from a combination of reasons. Usually the informants describe a period in life when several factors coincide into a critical period. For the continuing research process the analysis was concentrated to periods that could be tied to work life processes.

In the analysis of the Critical incident material computer aid was used through the text analysis program nVivo. The exploratory text analysis is time-consuming whether it is supported by computer aid or not. All text has to be read several times in order to give structure to relevant entries into the material. In nVivo the analysis was built up out of hierarchies pertaining to critical incidents. The technique is popularly called coding and can be structured differently according to the choice of work method (Yin, 2003). In concrete words the material was coded on the critical incidents and whether they were manifested psychologically or in actions, if they were connected to the private or the professional sphere, if they were concrete or complex and if they were "caught up" by the organisation or if they resulted in the employees reporting in sick due to psychosocial strain. In the process the coding had to be repeated over and over again before a systematic pattern appeared. The aim is to abstract the analysis and after some time the analysis has grown from subject specific focus into a search for returning patterns of the critical incident periods.

The methodological complication mentioned above was related to this phase of the process. Through the analysis of the critical incidents the researcher develops a close up relation to the informants for some time. Being close to subject specific processes and narratives for some time will impede on the analyst in reaching higher analytical levels. A technique for reaching higher analytical levels was provided through the use of nVivo. By following the structure of the critical incident interviews, parts from different interviews was put together into a so called type-interview. In this way the analysis could change focus from subject specific private occurrences into a contextual and socially oriented analysis. Through the technique the "organisational" context would appear rather than the "subjective" ditto. In the analysis there is a point of intersection between the subject specific occurrences and the collectively popularised experiences and interpretations of a series of events.

The technique facilitate the analysis of complex series of events, because it provides structure to the analysis and to the phenomenon that subject specific experiences are repercussive onto, and at the same time constituting, the psychosocial environment in the organisation. This is also a concrete example of how extremely complex the phenomenon of psychosocial environment is to examine.

Group interviews/Workshops with managerial groups

When a qualitative case study is claiming to be based on information about psychosocially important experiences with the support from factual events it is imperative to find methods that will allow qualitatively different data to be cross referenced through the project and that the validity and relevance of the information is confirmed from several directions. The methodology of the study therefore builds upon the mode of first elucidating the phenomenon from a subject specific focus and then drawing on a consensus oriented perspective, with the aim to gain leverage to the reliability of the study. In this way the study differs from many phenomenologically oriented studies, because it makes pragmatic pretensions on realism.

In order to maintain the methodology, information from emotional experiences among personnel, must be combined with factual events and factual decisions. The managerial groups are presented a first draft of the analysis of the mechanisms behind critical periods, together with a compilation of the sociograms. The technique to present and to discuss the empirical data with the managerial groups had two methodological functions. The first was, supported by the reasoning above; to test to what extent the presented critical periods corresponded to the experiences of the managerial groups during the same periods. The other reason was to carry out a form of group interview with the managerial groups by using the data from the Critical Incident material. Both of these purposes were clarified before the interviews were started. All three managerial groups agreed to a recording of the interviews.

The critical periods that were presented were specified in two dimensions: the event, and time of the event. They were presented on overhead along with longer citations from the Critical Incident material. Each critical period was discussed in terms of what events preceded the period, what managerial decisions that were made at the time, what significance the period was given, if it was known, what scope of action the managerial groups considered they had in relation to the course of events, and what responsibility they considered they had in relation to the period.

The information provided a managerial perspective on critical periods. The purpose was to give structure for a linking of the information on psychosocially important processes over a number of levels in the studied organisations. The technique requires openness in the dialogue between academy and practice when discussing the critical periods. The intention to present critical periods with the support of de-identified private experiences was to concretize the dialogue around factual critical periods.

However one experience from the group interviews was that the critical periods were looked upon as subject specific and that the managerial groups were trying to find out who the discussed period concerned. For the project and the chosen method it was important to emphasise that the focus was put on *the factual events and decisions made in relation to a critical period*, not the individual experiencing the critical period. It was emphasised that the workshop formed a part of a longer research process with the aim of understanding the mechanisms behind critical periods from an organisational perspective.

Soon an important experience was made, that time is not a uniform and accurate unit when discussing critical periods. Time is not well suited for direct translation into an occurrence or an event, and events are not á priori well suited for direct translation into a given time period. Time is a floating unit of measurement unless it is precisely connected to factual events and vice versa. People from the studied organisation talk about a series of events as if they were following a time line, but in fact they are describing the cause and effect in order of

experience, which was how they understood the causality (Czarniawska, 2004). Another important experience was that documented concordant statements about an episode may have widely different meanings on different levels of the studied organisation (Weick, 1979). It may even have widely different meanings in the same managerial group. An interesting effect of the chosen interview technique was that the managerial groups would present several individual interpretations for the reasoning behind the decisions they had made collectively. On several occasions spontaneous discussions would break out within the managerial groups. This kind of empirical information on managerial action and decision-making was conveyed open curtain and was therefore also regarded as relevant empirical contributions. Analysis of Group interviews/Workshops and Critical Incident interviews The group interviews from workshops were recorded and transcribed. The analysis that was made with the Critical Incident material was broadened with the information from the managerial level. Primarily, at this point, the analysis from the Critical Incident material seemed futile and faulty. Information that initially seemed reliable could in some cases be repudiated with support by the new information from the managerial group interviews. The reason for this was the passage described above when subject specific data was put in context with the empirical findings from other organisational levels. This in principle brought the analysis to a halt and the process had to start over again, perhaps this has to be regarded as a natural part of a hermeneutic analysis process.

What proved to be important for the success of the continuing analysis work was first and foremost the effort of keeping the Critical Incident interviews *subject specific* and *action oriented*. The fact that informants frequently substitute chronological events with order of experience was in this way counteracted. Creating order in conflicting statements is important to continue forward with the analysis. The analysis was focused on links between actions and experiences, between subjects on many levels of the studied organisations. However, the fact that conflicting statements are found in the material does not imply that the information from one individual should be considered to fully refute the statement of another informant. Rather the finding of contradictory conceptions is an important part of the result.

Rather than putting together a touched up chronology, the analysis was focused on finding recurring patterns and action regularities, which provided a new structure for the empirical data. Actions and events are leaving imprints and are used as junctions in the analysis. The information about a company group decision was used to give structure to processes that could not be portrayed solely by the Critical Incident material. Critical periods that initially had appeared to be unique were put in relation to other similar events in the studied organisations and subsequently appeared as plots in patterns rather than isolated phenomenon. Findings from the Critical Incident interviews, based on information from subjects that had categorically made a mental note of a special event and its significance, were nuanced with the empiric findings from the group interviews, and out of the analysed material new research questions arose.

A consequence of the chosen technique and methodology was that the information from several organisational levels was contrasted and therefore polarized around the time/action-dimension. Through the technique of using polarized information from specific events the analysis formed a basis for the questions of next interview batch. The next set of interviews included what would be labelled as "responsibility personnel"(RP:s), i.e. persons with responsibility for the work environment, labour union representatives and persons with responsibility for HR-issues.

Interviews with Responsibility Personnel

If the conceptions were contradictory between the base personnel and the managerial groups, what role would the RP:s play to bring order into the analysis? In accordance with the exploratory approach another set of interviews were carried out with persons that had appeared in the sociograms from the Critical Incident material. Colleagues and persons that did not belong to the given organisation were de-selected because of ethical reasons, but persons with operative responsibility or similar positions were feasible informants for the next step of the process.

The interviews included the following actors; from the HR-company: one former staff manager, one labour union representative, and three staff managers from other companies of the company group (the three were staff managers who hired internal consultants from the HR-company). From the purchasing company: three managers with operational responsibility of staff and a so called Business Partner who was responsible for HR-issues. And from the industry producing company: eight line managers, one labour union representative and an organisation development manager from managerial staff. The purpose of the interviews with the RP:s was to clarify what scope of action the formal and informal RP:s experienced having during critical periods. Some of the interviewed had operative responsibility for the personnel who had participated in the Critical Incident interviews, a number of them had rather unclear responsibility relations and some did not have any formal responsibility at all. They were all described in the critical periods, alternately as persons that the base personnel argued should have had the possibility of acting and supporting personnel during a critical period. They were not primarily defined as responsibility personnel by work title, but by association.

The interviews with the base personnel were semi-structured and was following a structure similar to the one used in the Critical Incident interviews. They were usually carried out in the RP:s's workrooms. If no personal office was available interview rooms were made accessible nearby. The purpose was just as in the Critical Incident interviews to provide for a peaceful conversation environment. Just before the interview the informants were given time to settle themselves. The purpose of the project was presented, even though the study was fairly known at that time. Finally they were asked whether it was ok to use a recorder for the transcription of the interview, every informant agreed to this.

A technical detail was that the informants were regarding the overarching research questions as issues they normally owned and worked with themselves. It would appear necessary to make clear that they were expected to participate both as RP:s and as employees. There was no interest from the part of the project to be informed of any official version of the answers to the discussed topics. As in the Critical Incident interviews it was primarily the subject specific dimension of the interview that was requested, the interviewer had to put effort in consequently bringing the informant back to concrete and self experienced events and to steer clear of any generalisations from the interviewees part.

The first part of the interview comprises questions giving a background description of the informant. The interviewees are asked to talk about what type of assignments and work tasks they have had the last ten years, they are also asked about their organisational affiliation. The informants who are superiors are asked to describe the circumstances that led to them gaining their position. The information is noted along a time axis. The technique has two main functions. One is to emphasize that the information is of significance. The other is that the interview should be concrete according to any information regarding the time/action-

dimension. (See above the discussion about time as not being well suited for direct translation into events, and events are not á priori well suited for direct translation into a given time.)

In the next part of the interview responsibility issues are discussed. Together with those informants who are upholding formal responsibility for personnel, questions of management and control along with prerequisites for leadership are discussed. With those who are superiors with informal responsibility, or those who have supporting functions, questions concerning their ability to influence management and leadership are discussed. Questions concerning the main geographical placement of co-workers, superiors and subordinates are used to discuss responsibility relations. Decision levels for questions regarding staff, work environment, economy and business operations are discussed in order to elucidate the experienced level of action scope. This part of the interview eventually transcend into a concrete discussion of two certain scenarios. The scenarios are taken from the Critical Incident material with relevance for the specific interview. It is during this stage that the concrete information from the Critical Incident interviews and Group Interviews/Workshops with the managerial groups is polarized in order to elucidate specific events.

In a final part of the interview, questions focusing on the significance and the personal and value specific experiences in relation to Critical Incident periods are discussed. Just as in the Critical Incident interviews the RP:s are asked to clarify, with the aid of a sociogram, within what relations *they* seek support and ask for advice. The concluding part formed a basis for the analysis of the RP:s and other actors' influence over their personal work situation.

Analysis of interviews with Responsibility Personnel

The interviews with the RP:s was recorded and transcribed. The analysis that was made with the Critical Incident material and the Group interview/Workshops was combined with the information from the RP:s. The focus of the analysis primarily was to reveal the RP:s experienced and factual scope of action.

The polarized information from the specific events mentioned above was after that used to formulate the work questions of the second part of the analysis, which was carried out in order to connect separate actors and groups of actors. The purpose was to abstract the perspective. By triangulating (Silverman, 2001) the information from the experiences and the experienced scope of action of the *base personnel*, together with the information from the experiences and the experiences and the experienced scope of action of the *RP:s*, along with the information from the experiences and the experiences and the experienced scope of action of the *managerial groups* the project would gain a good birds eye view of the mechanisms spanning over several levels of the organisation during a specific time frame and during a specific course of events. The work resulted in a dynamic model of how responsibility relations are established and maintained.

After abstracting the analytical level the analysis was returned to studying differences between successful and non-successful Critical Incident periods. The successful periods were defined as such periods that were "caught-up" by the organisation and that the period did not result in sickness absence for the person experiencing the Critical period. The non-successful periods were defined as such periods that led to sickness absence or such periods that had not come to be known by the organisation. Put side to side, comparisons were made possible between what course of events that led to successful periods and what factors that was significant for the responsibility relations and the psychosocial work environment, and how these mechanisms are working dynamically over several levels of the studied organisations.

Analysis of Group interviews/Workshops, Critical Incident interviews and Responsibility Personnel

During the expanding project described above a form of meta-analysis has developed. In concrete terms this is a result of the chosen methodology and as consequence for the project it is futile to return to the original research questions, because they have partly or completely lost their meaning and relevance for the contextualisation that entered in its place.

It is in principle impossible to "de-learn" the insights established through the repeated analysis and returnings to the empiric material that has shown to be the methodological advantage of this project. A consequence of following an exploratory approach is that the research questions eventually will appear "irrelevant" and misapplied.

Above all, a result of the meta-analysis is a developed cognitive ability to see the whole and the pieces at the same time. Complex and dynamic events become easier to take in because they are allowed to be just complex and dynamic. In return, the primarily cognitive effect of the meta-analysis is difficult to pass on. The complex and dynamic events are not made less complex and dynamic. Another result is that it is possible to see what kind of questions that is possible to work with in the material. A consequence of the chosen methodology is therefore that the answers to the research questions are not immediately given; they rather have the potential to be formulated as new questions, than as finalized answers.

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Appendix 1

Interview guide "Healthy work place study"



WOLFF

INTERVIEW TEMPLATE - WOLFF NORRLAND

3 October 2002 (rev)

Var.no	Source	Company Name:				
6	V9	What type of ownership?	PrivateImage: Constraint of the second s			
7 8	N1	Change? When?	No Yes Year:			
9	V11	In what way has the ownership structure changed during the last two years?	From public to privateNew private ownerOther change			
10	N2	What was the ownership structure before the change?				
11	V10	Is the workplace a part of a larger organization?	No 🗌 Yes			
12	N3	If yes, can you give more details about your position in the organization?				
13 14	N4	Change? When?	No Yes Year:			

1. Ownership structure

2. The company's surroundings and business activity

16 17A 17B 18 19 20	M1 N6	How are the following types of cost split as a percentage of th total cost of the end-product (total 100%).	
21	N7	What do you do in-house?	
22	T2	Are some of your operations outsourced to an entrepreneur/contractor/- subcontractor or leased out?	No Construction No Construction No Construction Construct
23	Т3	If yes, what and how much?	
24	N8	Have you previously made it yourselves?	No Internet and In
25	N9	When did you stop doing so?	
		activity during the last	nies' services in order to be able to work on your principal ype of personnel that were called in and the reason why.
26			Production peaks Particular Other reason needed Not relevant
27	F45	Production personnel	
28	F45	Computer consultants, other experts/ consultants	
29	F45	Other personnel	
30	T4	How often are other companies called in?	Occasionally, max a few times per year

Appendix 1	Interview guide "Healthy work place study"

31	F18	Are you entrepreneur/contractor/- subcontractor to other companies?		, to one company , to several companies	
32	N10	If yes, were you previously a part of the company?	No Yes		
33	N11	Change?			
	V15	To what degree is the workplace exposed to competition?	One. Con	ne with its products in the market /some competitor(s) siderable competitive pressure from by competitors	
34	N12	Change?		Decreased Unchanged Increased	
35 36 37 38	F6	Where is/are the customer(s)? Give your answer as a percenta		Internally Locally, regionally Nationally Internationally	
39 40	V23	Market orientation: To what degree is the basic activity influenced by long-ter reciprocal communication in order to develop the product together with the customer?	·m,	Small Some Considerable	
41	N13	Change?		Decreased Unchanged Increased	
42	N14	To what degree do you look fo new markets?	or	Small Some Considerable	
	N15	Change?		Decreased Unchanged Increased	

43		<i>Customer adaptation:</i> What proportion of your total sales/activities during the last 12 months was made up of standardized or customer-tailored services/products (customer- tailored = the customer was involved in the design of the service or product)?				
45	F5	Standardized	0% 1-20% 21-40% 41-60% 61-100%			
46	F5	Change?	Decreased Unchanged Increased			
	F5	Customer-tailored	0% 1-20% 21-40% 41-60% 61-100%			
	F5	Change?	Decreased Unchanged Increased			

3. Innovation, development and skills questions

47	F8	In what proportion did you invest last year in service and product development, measured as a percentage of your total sales/operations?	0% 1-5% 6-10% 11-20% >20%	
48	Т5	To what degree did you invest last year in IT development, measured as a percentage of your total sales/operations?	0% 1-5% 6-10% 11-20% >20%	

49	V59	<i>Homogeneity:</i> What is the composition of the company's skills structure?	Good mixture (several types of skills, <50%)	
		company's skins suddule.	Certain mixture (at least two types, of which one >30%)	
			Homogenous (same type of skill, >75%)	
50	S 1	What proportion of the employees	< 10%	
50		have company-specific skills?	11-40%	
			> 40%	
51	V57	Competence level:	Small proportion with higher education, $<9\%$	
		What competence mixture do you	As average for salaried employees, 10-20%	
52		have?	Large proportion with higher education, > 20%	
50		Higher education means people with a university education. Give your answer as a percentage.		
53	V58	Have competence requirements	Unchanged requirements	
		changed?	Increased requirements to a certain extent	
54			Strongly increased requirements	
	N16	How have they changed?	Company-specific	
			Both	
55			General	
	T6	Do you have a policy for the enhancement of employee skills?	No Yes, to a certain extent/certain groups	
50			Yes, for a majority of the employees	
56			No	
	Τ7	Do you have job-rotation in order to enhance employee skills?	Yes, to a certain extent/certain groups	
			Yes, for a majority of the employees	
	V62	What is the extent of in-house	None/very small	
		training?	Some	
			Considerable	
		(both internally and externally but paid by the employer)		
57	N17	What did the training consist of?		
58	V61	What is the degree of internal	None	
		movement in the form of promotion?	Some	
			Considerable	

59	N18	How readily available is manpower?	In short supply
60	S2	What is the length of time required to train new employees?	Up to one week Up to one month One month or more
62	N19	Which skills do you need?	
63	N20	To what degree did you invest last year in skills enhancement for employees, measured as a percentage of your total sales/operations?	0% □ 1-5% □ 6-10% □ 11-20% □ > 20% □
64	N21	To what degree did you invest last year in management development, measured as a percentage of your total sales/ operations?	0%
	N22	Total change in development investment?	

Basic operations means the workplace's principal business activity, excluding separate support functions and administration. Use examples of employees who best fit the picture of your particular workplace/company.

65A 65B	N23 N24	What is the length of the work- cycle in basic operations?	< 5 min 5-15 min 20-60 min 1-3 hours 4-8 hours 9-23 hours 1-5 days 6-30 days > 1 month	
			The work cannot be divided into cycles The work-moments are never repeated	
			Large variation of both short and long work-cycles	
66 67	V22	To what degree are basic operations dependent on technology (for achieving the business activity's objectives)?	Low Medium High	
07	N25	What is the degree of	Production continues essentially without any interruption should technology cease to function	
		vulnerability should	Parts of production continue. Operations are affected but do not stop	
68		technical disturbances arise?	The workplace's principal activity is totally interrupted if technology does not work	
69	V24	What is the extent of use of information technology (IT)?	The organization needs no/little support from IT Certain parts of operations are dependent on IT support	
			Production is very dependent upon IT support	
70A	N26	Change?	Decreased	
70B			Unchanged	
			Increased	
71	M2 N27	How far in advance is the production schedule drawn		
		up?		
		Give your answer in number of working days.		

4. The operation-al process: technology, integration and social interaction

	M3	What percentage of raw	0%	
	1110		1-20%	
		materials and components	21-40%	
		are received "Just-In-Time"?	41-60%	
			61-100%	
72	M4	What percentage of the company's	0%	
		products are delivered "Just-In- Time"?	1-20%	
			21-40%	
			41-60%	
			61-100%	
73	M5	What percentage of orders are	0%	
75		delivered too late to your	1-5%	
			6-10%	
		customers?	11-20%	
			>20%	
74 75	M6	What are the principal reasons for	Insufficient machine capacity	
73 76		delays?	Bottlenecks	
77 78			Quality problems	
79		Give the most common reasons.	Changes of delivery date (subcontractors)	
80 81			Staff shortages	
82			Materials shortages	
			Design changes	
			Other	
			Give details:	
83	V30	Vertical integration: To what extent are operations	Operational activities are separated from planning and long-term decisions	
		organized so that planning and	Some integration	
		execution be integrated?	Employees in operational activities	
			participate in planning and decisions	
84	V32	Horizontal integration:	Production is divided up and specified	
0.	V 32	To what extent are operations organized as a flow through the	Production has a certain overall concept	
		whole process?	Production is very integrated	
85	V33	Change?	Decreased	
	135	change.	Unchanged	
			Increased	
		If basic operations are organized in s different units collaborate with each	several different organizational units, do employ other? (One x per line)	ees from

			Yes, in normal cases	Yes in certain cases	No, not at all	Not relevant
86 87	F22	In the production of services and products				
88	F22	In the planning of work				
89	F22	With follow-up of results and quality control				
90	F22	With the choice of production technology				
	F22	In services and product development				
91	Т8	Do you allow employees to rotate between different departments?	No Certain emplo Yes	oyees		
92	V42	What is the extent of social interaction at the workplace in order to be able to carry out one's tasks?	Considerable Both Considerable colleagues	with		
93	V43	What is the extent of social interaction outside the workplace in order to be able to carry out one's tasks?	Does not arise Arises someti Arises often			
94	V27	To what degree is work organized in groups?	None Some Considerable			
95	N28	Is project organization a large part of the work?	No Yes, to a certa Yes, to a cons	ain degree siderable degre	e	
96	N29	If yes, how long does it normally last?	< 2 months 2-12 months > 12 months			
97	N30	To what extent is there daily social interaction with customers?	None/small Some Considerable			
98	N31	Change in social working interaction?	Decreased Unchanged Increased			
99						

100	N32	Time dimension of customer contacts	Short Both	
			Long	
	N33	Complexity of customer contacts	Superficial	
101	1,00		Both	
101			Complex	
	N34	Changes in customer contacts?	Decreased	
	1,51	changes in customer conducts.	Unchanged	
			Increased	

5. Changes in the organization

102 103	V28	Have you carried out any changes to the workplace's organization during the last three years?	No In progress Yes, certain changes Yes, significant changes		Year:
104		If you have implemented organization behind them?	onal changes during	these years, what we	ere the reasons
104 105			Not relevant	Contributable reasons	Main reason
106	F64	To face customer demands			
107	F64	New/changed services/products			
108	F64	Increased competition			
109	F64	Increasing demand			
	F64	Declining demand			
110	F64	Cost reductions			
111	F64	Changed forms of collaboration with other companies			
112 113	F64	Changed forms of collaboration within the company			
113	F64	Problems with working environment			
	F64	Introduced new information technology			

	F64	Introduced new production technology					
115 116		Who has contributed with initiatives	in the cha	nge-proces	ss of the orga	nization?	
117			Not relevant	No initiative	Few initiatives	Many initiatives	Majority of initiatives
118	F66	Top management of the workplace					
119 120	F66	Personnel and planning department					
120	F66	Lower and middle management					
	F66	Personnel affected by the change- process					
	F66	Trade union representatives					
	F66	Consultants					
121 122 123 124 125	F67	Which employee groups were affected by changes to the workplace's organization? Give each group's part as a percentage.	Qualified General White-co	employees l workers white-colla ollar with a s/Foremen	cademic educ	cation	
120 127 128 129 130	F68	What proportion of each employee group actively participated in the change process, e.g. work groups, management groups, etc.? Give each group's part as a percentage.	Qualified General White-co	employees l workers white-colla illar with a s/Foremen	cademic educ	ation	
131		Which forms of collaboration have t	been used	during the	changes to th	e workplace's	;
132		organization, and to what extent?	Has not a	arisen	Has arisen	Consid input	derable
133	F69	Ordinary management and planning groups					
134	F69	Special project groups with only management and experts					
135	F69	Special project groups with personnel directly concerned					

	F69	Direct meetings with all personnel concerned					
	F69	Referral procedure where					
136		employees may express their views and opinions					
137			any of the following been a problem during the change-process of the organization, mentation of information technology or for the development of services/products?				
138		(Several x per line are possible)	0,	1	1		
139			No	Yes, for the organization	Yes, for IT	Yes, for services/	
140						products	
	F72	Shortage of capital					
	F72	Shortage of skills					
	F72	Shortage of time					
	F72	Employees' attitudes					
	F72						
		Regulations and standards					

6. Management/control of the daily operational process

141	N35	<i>Standardization:</i> To what degree are daily operations at the workplace managed with standard procedures?	None/small Some Considerable	
142 143	S2	Are there any detailed job descriptions?	No About half Most	
144	S 3	To what degree are tasks specified in advance as per regulations and procedures that must be followed?	< 10% 11-74% > 75%	
145	N36	<i>The production process:</i> Technical control	Low Medium High	
146	N37	Direct customer control	Low Medium High	

	N38	Order control	Low		
			Medium		
147	N39		High		
		Group control	Low		
			Medium		
148			High		
	N40	How are breaks decided?	Fixed scheduled breaks that cannot be changed		
	1140		Fixed breaks with possibility for each person to change		
			Governed by workload		
149			Completely up to the employee		
		Quality control:	No		
	T9	Do you have ISO certification or	Started/Partially		
150 151		some other quality certification?	Yes		
152	M7	How are the costs for quality	Control costs		
153 154		(approximately) divided as a percentage between the following alternatives? (Total 100 %).	Internal quality costs (e.g. wastage, rejects)		
155			Preventive costs (e.g. training,		
			documentation, preventive maintenance, etc.)		
			External quality costs (guarantees, returns)		
			Other		
156			Give details:		
157	M8	How are the company's costs for	Preventive		
	1110	maintenance divided as a	Remedial		
		percentage between preventive and			
		remedial maintenance? (Total			
		100%)			
158	F23	Who has the primary responsibility	Administrative level (department)		
159	120	for the detailed planning of the operational process?	Foreman		
160 161		operational process	Work group		
162			The individual employee		
163			Other		
			Give details:		
164	F24	Who has the primary responsibility	Administrative level (department)		
165	1.774	for the follow-up of production results?	Foreman		
166 167			Work group		
168			The individual employee		
169			Other		
			Give details:		

	the op	erational process and the stan			
170	T10	How do you cover short absences,			
		i.e. less than two weeks?			
171					
	T11	And if the absence is longer than			
172		two weeks?			
173					
	T12	How do you manage unexpected increases in work volume?			
174 175	T13	How do you manage decreases in work volume?			
175	T14	How would you solve a potential shortage in staff?			
176	N41	Absenteeism disturbances.	None. Operations hardly affected by short-term absenteeism		
			Some		
177			Considerable. Operations must be interrupted if staff are absent with short notice		
177	N42	Possibilities of adapting operations with partially incapacitated staff	Everyone must be able to work at full pace in the san way		
		and light occasional ailments	Some		
			Considerable		
	N43	Do you use strategies in order to	No		
		facilitate being a parent? (e.g. financial, cultural,	Cultural and/or organizational		
		organizational)	Financial compensation, cultural and/or organization		
	Example: Managers show a good example (cultural). Special schedule for parents with children (organizational).				

7. Flexibility i.e. the operational process and the staff

178	V1	How powerful is external influence, i.e. to what extent are operations dependent upon decisions from shareholders, the board of directors, politicians, etc?	No shareholders "exterior" to the workplace, or shareholders are present but do not have any noticeable influence Certain external influence from e.g. parent company, political representatives, etc. Operations are totally controlled and are dependent on decisions from shareholders such as municipality, state, county council, parent company in "strong profit chains".
179	V4	Power structure within the workplace: To what degree is there influence from top management in relation to basic operations?	Decisions and responsibility are decentralized to basic operations at the workplace
180 180	What ?		
181	N44	How?	
182	V5	Power structure within the workplace: What degree of power is there from the "closest" manager in daily operations?	The closest manager does not get involved in daily operations if nothing unexpected happens The individual operator in the organisation can decide how and what to a certain extent Daily operations are controlled to a high degree by the closest manager.
182 183	N45	What?	by the closest manager.
183	N45	How?	
183	N46	Department level	
184	N46 What?		
	N46	How?	

8. Power structure

	V8	Has a change of the power structure occurred – increased or	Decreased	
		decreased centralization?	Unchanged	
			Increased	

9. Degree of formalization

185	V26	formalized as per applicable laws and regulations?	None/very small For parts of operations For the majority of operations	
186	N47	Change?	Decreased Unchanged Increased	

10. Control system

107	3724	Hard control systems:	Small	7
187	V34	To what degree is control used	Some	Ξ
		with the help of result measurement, controls and follow-	Considerable	
		up with quantitative methods with the objective of achieving		
		goals/increasing productivity?		
188	V35	Change?	Decreased	
		change i	Unchanged	
100			Increased	
189	V36	Soft control systems:	Small	
		To what degree is control used with qualitative methods, e.g.	Some	
		dialogue, ideas, development talks?	Considerable	
190	V37	Change?	Decreased	
			Unchanged	
			Increased	
191	V38	Financial incitements:	Not used	
		To what extent are used piece rates, bonus salaries and similar	< 20% of the salary	
		financial performance-related	> 20% of the salary	
192	1/20	incitements?	< 10 % of the employees	
	V38		11-50% of the employees	
102			> 50% of the employees	
193	V39	Salary system:	Majority of individual salaries	
		Which salary systems are used?	About equal (<30/70)	
			Majority of collective salaries	
		Indicate whether you use one or mor employees in basic operations (seven	re of the following as a basis for setting salaries of ral examples per line are possible).	

			Not relevant	Based on the group's performance	Based on the individual's performance
194	F32	Work pace and work volume			
195	F32	Social ability			
196	F32	Flexibility and ability to handle several tasks			
197	F32	Ability to solve complicated tasks			
198	F32	Skills			
199	F32	Ability to work independently			
200	F32	Quality of work			
201	F33	Indicate the salary spread between the highest and lowest salary expressed as a percentage of the highest salary for employees in basic operations.	0-15% 16-30% 31-50% 51-70% 71-100%		
202	N48	Change?	and has the lowest s $5,000 = 0.54 \times 100$ Increased Unchanged	alary, and earns SEI	
			Decreased		

11. Resources

203	N49	<i>Materials resources:</i> To what degree are materials resources available (raw materials, premises, sub-	Production is affected basically the whole time due to some kind of materials shortage Production is sometimes affected by materials shortage
		components)?	There is good access to materials resources

204	N50	Administrative resources: To what degree are administrative support and expertise available (IT support, well-established procedures for information and administration, access to expertise)?	Production is affected basically the whole time due to lack of administrative support and expertise Production is sometimes affected due to lack of administrative support and expertise There is good access to adm. support and expertise	
-----	-----	--	---	--

11. continued

205	N51	<i>Personnel resources:</i> To what degree are personnel resources available at the workplace?	Production is affected basically the whole time due to personnel shortages Production is sometimes affected by personnel shortages
206	N52	Change?	Decreased resources

These questions are primarily to be answered by the company's health officer and personnel manager.

12. Personnel structure

207	V48	Number of employees: Staff size (number of employees)	< 10 10-50 51-150 151-300 301-500	
			> 500	
208	V48	Numbers of employees - exactly		
209	V49	Has total staff changed in number of employees?	Decreased Unchanged Increased	
210	M9	How large is staff turnover?	Only those entering retirement < 20% per annum > 20% per annum	
211	F36	What is the proportion of staff at the workplace who are employed with service production (excluding administration) as a percentage of total employees?		
212	N53	Change?	Decreased Unchanged Increased	

12. continued

12. conti	12. continued					
213	F36	What is the proportion of staff at the workplace who are employed with <i>goods production</i> (excluding administration) as a percentage of total employees?				
014	N54	Change?	Decreased			
214			Unchanged			
			Increased			
215	V63	Forms of employment:	< 66%			
		What is the proportion of staff who are employed full-time?	66-90%			
			> 90%			
216	V64	What is the proportion of staff	None/a few			
		who are employed temporarily?	Some (10-30%)			
			Majority (> 30%)			
217	V65	Have the proportions changed?	Decreased proportion fixed			
			Unchanged			
			Increased proportion fixed			
218	V50	Gender:	<10%			
		What is the proportion of female employees at the workplace?	10-30%			
			31-70%			
			71-90%			
			>90%			
219	V51	Has the proportion of women at	Decreased			
		the workplace changed?	Unchanged			
			Increased			
220	F38	What is the proportion of female managers with operational responsibility and/or personnel responsibility?				
221	V52	Gender segregation;	None			
		²² To what extent do women and men carry out similar tasks?	Some			
			Majority			
222			Not relevant, only one gender is represented in the company			
	V66	What is the proportion of	<10%			
		employees with foreign background?	10-33%			
223		0	>33%			
	V67	Has the proportion of employees	Decreased			
		with foreign background changed?	Unchanged			
			Increased			

224	V20	What proportion of operations are carried out at the company's	The majority but not all operations (>50%)	
		address?	All operations	

13. Time and place of work

13. Time and place of work					
225	F47	Have any of the employees carried out parts of their tasks outside the normal workplace (distance work) during the last 12 months?	Not relevantImage: Constraint of the second sec		
226	F48	If yes, indicate the percentage of staff concerned.			
227					
228 229 230	V21	How are operations spread out over time?	Office hours Image: Constraint of the second se		
231	F42	What is the proportion of staff that has had the following forms of work during the last 12 months?	Fixed working hours		
232	F43	Have you used working time adapted to the economic climate during the last 12 months? By working time adapted to the economic climate, we mean time adapted to the upturn and downturn of the market.	Not relevant		
233 234	F44	If you have used working time adapted to the economic climate during the last 12 months, what was the proportion of staff concerned, expressed in percent?			
	N55	Is the volume of overtime registered?	No Yes		
235	N56	Has overtime compensation been taken away through negociations?	For merparten		
236	N57	How much overtime is there?	För alla		
237	N58	Is it paid or unpaid?	Mostly unpaidBoth (50/50)Mostly paid		

	N59	Has the volume of overtime	Decreased	
	1(5)	changed?	Unchanged	
			Increased	

14. Working environment. Internal control

238	V69	Do you have an in-house occupational health service?	No Yes	
239	N60	SEK per person per interval?		
240	N61	Are there any safety representatives at the workplace?	None Yes, but only as voluntary positions Less than half-time Half-time or more	
241	V75	Extent of reported occupational injuries at the workplace during the last 12 months?	None Certain problems Important problems	
242	V74	Extent of short-term sick-leave		
243		up to one week? Number of days per person.		
244	N62	Extent of short-term sick-leave up to two weeks? Number of days per person.		
245	N63	Extent of long-term sick-leave, more than two weeks? Number of days per person.		
246	V68	Is a systematic mapping of risks carried out?	No To a certain degree/have started Yes	
247	N64	Are there established objectives based on the risks?	No To a certain degree/have started Yes	
248	N65	What is the proportion of managers and safety representatives who have attended working environment training?	< 50% of managers and safety representatives > 50% of managers or safety representatives > 50% of both managers and safety representatives	
249	N66	Is there an equality of opportunity plan at the workplace?	No To a certain degree/have started Yes	

250 251	N67	How much communication is there between management and employees in the form of physical meetings? (Not giving of orders or information)	Weak/when needed Certain structure and regularity Considerable structure, regularity and frequency	
	V70	Is there a rehabilitation program at the workplace?	No To a certain degree/have started Yes	
	N69	What does working environment development signify to you?		
252	N69	How much do you invest in development of the working environment, measured as a percentage of total sales/operations?	0% 1-2% 3-5% 6-10 > 10%	
253	N70	Is your company part of an employer group or equivalent collaboration with other workplaces/companies?	No To a certain degree/have started Yes	

15. Trade union questions

254	V44	What is the percentage of employees who are a member of a trade union at the workplace?	< 25%
255	V45	What is the extent of communication between the trade unions and management at the workplace?	Non-existent/weakImage: Certain contactConsiderableImage: Certain contact

16. Classification

		of operations (Giertz); sification based on first-hand info.	
256	V29	Classification of the company	
257	V29	Classification of the workplace	

- = Nutek-Flex F
- Μ = IMSS
- = Swedish workplaces = TNO/Dhorndt S
- T
- V = MOA
- Ν = New

Appendix 2

Telephone interview wave 1 "Cohort study"

con	questions are about the situation of those who are in work and the opportunities they have to tinue to work in the future. They are also about the opportunities unemployed people have for ing work.
1	Do you have a job/paid employment? (Include all paid work even if only a few hours and if you are self-employed or work freelance.) Yes No <i>Turn to the last page</i>
2	<i>If you are in work</i> : Do you work (mainly) as an employee a self-employed person an unpaid co-worker in a relative's or close friend's enterprise
3	<i>If employed:</i> Do you have temporary employment or fixed/permanent employment? Temporary Fixed/permanent
4	If employed: What are your contracted weekly hours? hours a week
5	How many hours a week on average do you work evenings, i.e. 18.00 hrs – 22.00 hrs?hours
6	How many hours a week on average do you work nights, i.e. 22.00 hrs – 06.00 hrs?hours
7a 7b	With what organisation are you working at present? What is the name of the company?
8	What is the address of your workplace?
9 10 11	As what profession or trade do you count your work? What are your main work tasks? Do you work in management with management tasks as a low line "manager" in neither of these positions
12	Do your work tasks include managing work for, or apportioning work to, other employees? Yes No
13	If yes: How many people (about) do you have directly or indirectly under you?
14	How long have you worked at your present workplace? (If more than 1 year give only the number of years.)
15	How many employees are there at your workplace?
1.7	Yes No
16	Your present workplace, is it the one you wish to have in the future?

		Yes	No
17	Have you during the past year seriously considered changing workplaces?		
18	If yes: Have you in fact applied for other work?		
	Have you not applied because		
19	it has been hard to find working hours that suit?		
20	it has been hard to find a job that is near enough?		
21	it is hard for you to get other work at all?		
22	Your present occupation, is it the occupation you wish to have in the future?		
23	<i>If not:</i> Do you think that in the future you will have the opportunity to work in the occupation you want?		
24	Have you the training/education needed for the occupation you want?		
25	<i>If no:</i> Have you tried to get this training/education?		
	Have you not attempted to get training/education of this nature because it has been		
26	hard to find the time?		
27	hard to manage economically?		
28	How easy would it be for you to get another, equivalent, job without having to move?		
	Very easy		
	Rather easy		
	Rather difficult Very difficult		
	Don't know		
29	Are there plans at your workplace to increase, cut down or activities?	completely	shut down the
	Increase		
	Cut down		
	Shut down completely		
	Don't know		
		Yes	No
30	Has the organisation to which you belong been organised	100	110
	differently during the past year with e.g. a new organisation, altered work tasks or altered responsibility?		
	Have changes during the past year meant		
31	that there have been staff reductions		
32	that there has been more for everyone to do		
33	that individual work groups have become more independent		
	and assumed greater responsibility		
34	and assumed greater responsibility that some of the work has been outsourced and managed by a different company/organisation		

Yes No In connection with the change, was there... 36 ... co-operation between union and employer? 37 ...co-operation in other ways in which staff participated? 38 ... opportunities for staff to express their views? 39 Were you yourself able to join in and affect the organisational changes so that they were partly in line with your wishes? 40 In general, do you hesitate to express, at your workplace, critical views concerning your working conditions? Always Mostly Mostly not Never Yes No Are you a member of a trade union or professional union? 41 42 Does your union raise and point out the problems you consider you have at your workplace? Always Mostly Mostly not Never Have no problems 43 When conditions are being criticised and questioned, does this usually come to the attention of the management? Always Mostly Mostly not Never 44 Do you feel a conflict between your work and your private life so that you sometimes think you need to be at both places at once, e.g. remain at work when you need to go home, or do important things at home when you must go to work? Happens every day Every other day At some time during the week More infrequently Never 45 Do the demands of your work interfere negatively with your home and family life? Happens every day Every other day At some time during the week More infrequently Never 46 Do the demands of your family or spouse/partner interfere negatively with your work related activities? Happens every day Every other day At some time during the week More infrequently Never 47 Do you have children under 16 years living at home? Yes No

48	How many are under 7 years?child/children
49	How many are between 7 and 16 years?child/children
50	Are you
	single
	married/partner
51	Who sees to the daily housework and family matters?
	I do, almost entirely
	I do, largely
	About equal
	Others do a larger proportion Others do most of the work
52	Are your responsibility for housework and family matters a great burden for you?
52	Always
	Mostly
	Mostly not
	Never
53	Can you get help with various activities in the home when the responsibility weighs you down?
	Always
	Normally
	Not normally Never
54a	Is your spouse/partner gainfully employed?
J 4 a	Yes
	No
54b	How many hours a week?
55	Do you have a close relative who is long-term sick or handicapped?
	Yes
	No
56	Does the work of caring rest
	almost entirely on you
	largely on you
	about equally on you and on others
	largely on others almost entirely on others
57	Does your responsibility of care weigh you down?
51	Always
	Mostly
	Mostly not
	Never
58	Can you get help with care when the responsibility weighs heavy on you?
	Always
	Mostly
	Mostly not
	Never
	How much free time do you have on a normal day/evening when you can relax, watch TV, read
	a book, do exercise, do a hobby or similar?
59a	hours
59b	minutes

60	Do you consider you need more time for relaxation/recreation?
	Yes
	No
61	Do you believe you will be able to change circumstances so that you get more time for this in
	the future?
	Yes
	No
62	How do you assess your present state of health?
	Very good
	Fairly good
	Neither good nor bad
	Fairly bad
	Very bad

To avoid troubling you with more questions on the telephone, we would also like to send you a questionnaire form with further questions on your situation. Is it okay to send it to this address?

To be answered only by those who are not in work.

64	Do you consider yourself mainly as
	a student
	working at home with or without care of children
	a job-seeker
	a military conscript
	free
	old-age / service pensioner
	early-retirement pensioner, labour-market reasons
	ill for less than a year to come
	long-term ill 1 year or more to come (including early
	retirement pension for health reasons)
	something else
	How long is it since you last worked? (Please think carefully so that even small occasional jobs are included.)
65a	years
65b	months
66	Was your most recent job
	time-limited employment?
	fixed/ permanent employment?
	self-employed?
	as unpaid helper/assistant in company run by relative/Close friend?

67	Do your opportunities of taking a job depend on whether
	you can get part-time work
	you can get a different job from what you had previously
	you can vary your work input from day to day depending on your condition
	there are people who can relieve you when needed
	you yourself can influence the length of your breaks
	you can work without being disturbed
	you can work partly at home
68a	Do you have children under 16 years in your home?
	Yes
601	No
68b	How many are under 7 years?child/children
69	How many are between 7 and 16 years?child/children
70	Are you
	single married/partner
71	Who sees to the daily housework and family matters?
/1	I do, almost entirely
	I do, largely
	About equal
	Others do a larger proportion Others do most of the work
72	Are your responsibilities for housework and family matters a great burden for you?
12	Always
	Mostly
	Mostly not
	Never
73	Can you get help with various activities in the home when the responsibility weighs you down?
	Always Mostly
	Mostly not
	Never
74a	Is your spouse/partner gainfully employed?
	Yes
7.41	No
74b 75	How many hours a week? Do you have a close relative who is long-term sick or handicapped?
15	Yes
	No
76	Does the work of caring rest
	almost entirely on you
	largely on you
	about equally on you and on others
	largely on others almost entirely on others

77	Does the work of caring rest
	almost entirely on me
	largely on me
	about equally on me and on others
	largely on others
78	Can you get help with care when the responsibility weighs heavy on you?
	Always
	Mostly
	Mostly not
	Never
	How much free time do you have on a normal day/evening when you can relax, watch TV, read
	a book, do exercise, do a hobby or similar?
79a	hours
79b	minutes
80	Do you consider you need more time for relaxation/recreation?
	Yes
	No
81	Do you believe you will be able to change circumstances so that you get more time for this in the future?
	Yes
	No
82	How do you assess your present state of health?
	Very good
	Fairly good
	Neither good nor bad
	Fairly bad
	Very bad

To avoid troubling you with more questions on the telephone, we would also like to send you a questionnaire form with further questions on your situation. Is it okay to send it to this address?

Appendix 3 - Questionnaire wave 1 "Cohort study"

Appendix 3

Questionnaire wave 1 "Cohort study"

Living and working in Sweden today

Here comes the questionnaire with questions on your circumstances at and outside work, which we discussed at the interview some time ago. Let us once again emphasise how important it is to gain a picture of how conditions are changing for all of us who live in Sweden.

It is crucial that everyone answers the questions so that our descriptions cover as much as possible. Your description is needed if the overall result is to give a completely true picture. Regardless of your background, whether you are young or elderly, are in work or not, it is important that you answer the questionnaire.

The answers will be collated so that working and living conditions can be described for women and men in different parts of our society. They will never be used in such a way that individual responses can be identified; nor for describing conditions in any individual company or organisation.

Statistics Sweden is conducting the survey on behalf of the National Institute for Working Life (ALI) and all particulars collected are protected by the Confidentiality Act (?*) and the Act on Personal Particulars (?*)..

Thank you for your co-operation

Anders Walkman Researcher, ALI Kerstin Fredrik son Programme Manager, SCB

Please return the completed form in the reply-paid envelope. (*Our postal address is Statistiska centralbyrån, answer-post 700029900,SE- 708 01 Örebro, Sweden*)

If you have questions about the survey you are welcome to get in touch with us:

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Your attitude to your work				
(1) How do you feel about starting work on a normal we	orking day?			
1 Happy at the thought of a stimulating day				
2 Fairly positive feelings				
3 Rather indifferent (i.e. neither-nor)				
4 Certain disinclination or distaste				
5 Strong disinclination				
How central and important are the following circumstar	ces for you	life as a whole	9	
	Quite	Of some	Important	One of the
	unimpor-	importance	and	most
	tant overall	but not central	central	central and
	overan	central		important
				things in
(2) To be able to work at my job tasks	1	2	3	my life 4
(3) To be able to work at my job tasks (3) To be able to work for my company/organisation	1	2	3	4
(4) To join in providing our services/manufacturing	1	2	3	4
our products				
(5) To be able to work with my workmates/colleagues	1	2	3	4
(6) To be able to work in my profession/occupation	1	2	3	4
(7) Is the job you have today what you want to do in the	future?			
1 Yes	iuture.			
2 <i>No</i>				
Changes				
(8) Can you at your workplace change your work tasks	so that your	work hetter m	atches what	vou want?
1 No	so that your		atonos what	jou want.
2 Yes, perhaps this is possible for me				
3 Yes, this is fully possible for me				
4 Does not apply				
(9) Do you have the possibility at your workplace to ma	ke a career?			
1 No				
2 Yes, perhaps this is possible for me				
3 Yes, this is fully possible for me				
4 Not applicable				
		2		
(10) Do your family circumstances limit your opportuni	ties of makin	ng a career'?		
1 No				

2 Yes

Have any of the following become more common at your workplace during the past 12 months?

	have become more common	about the same as previously	do not exist either now or previously	don't know
(11) Economic incentive schemes	1	2	3	4
(12) Internal purchaser/provider systems (between functions, departments or similar)	1	2	3	4
(13) Investments in employee's competence and work ability	1	2	3	4
(14) Contacts between ordinary employees and customers/clients	1	2	3	4
(15) Collation of information from customers/customer surveys	1	2	3	4
(16) Decisions taken without you on the job being consulted	1	2	3	4
(17) Ongoing follow-ups and scrutinies of individual work tasks/ work items	1	2	3	4
2 Rather negatively3 Neither one nor the other				
0	ed as fa	r as you a	re concer	ned
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions change 	ed as fa	r as you a reduced	remained unchanged	ned increased
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changeduring the past 12 months? 	ed as fa	reduced	remained unchanged 2	increased 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changeduring the past 12 months? 19) Your work load 20) The degree of difficulty of your work 		reduced	remained unchanged 2 2	increased 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed luring the past 12 months? 19) Your work load 20) The degree of difficulty of your work 21) Opportunities for developing and learning something the past 12 monthing the part of the part of		reduced	remained unchanged 2 2 2 2	increased 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? 		reduced	remained unchanged 2 2 2 2 2	increased 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? (19) Your work load (20) The degree of difficulty of your work (21) Opportunities for developing and learning something results (22) The support and back-up you can get (23) The influence and control over your own work		reduced	remained unchanged 2 2 2 2 2 2 2 2	<i>increased</i> 3 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed uring the past 12 months? (19) Your work load (20) The degree of difficulty of your work (21) Opportunities for developing and learning something results (19) The support and back-up you can get (23) The influence and control over your own work (24) The number of work tasks you perform 		reduced	remained unchanged 2 2 2 2 2 2 2 2 2 2	<i>increased</i> 3 3 3 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? 19) Your work load 20) The degree of difficulty of your work 21) Opportunities for developing and learning something the past 22) The support and back-up you can get 23) The influence and control over your own work 24) The number of work tasks you perform 25) The opportunities for you to take initiative		reduced	remained unchanged 2 2 2 2 2 2 2 2 2 2 2 2 2	<i>increased</i> 3 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? (19) Your work load (20) The degree of difficulty of your work (21) Opportunities for developing and learning something results for developing and learning something results and back-up you can get (23) The influence and control over your own work (24) The number of work tasks you perform (25) The opportunities for you to take initiative (26) Your responsibility at work 	new	reduced 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	remained unchanged 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<i>increased</i> 3 3 3 3 3 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? (19) Your work load (20) The degree of difficulty of your work (21) Opportunities for developing and learning something response to the influence and control over your own work (23) The influence and control over your own work (24) The number of work tasks you perform (25) The opportunities for you to take initiative (26) Your responsibility at work (27) Your opportunities to perform your work as well as you	new	reduced 1 1 1 1 1 1 1 1	remained unchanged 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<i>increased</i> 3 3 3 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? (19) Your work load (20) The degree of difficulty of your work (21) Opportunities for developing and learning something the support and back-up you can get (23) The influence and control over your own work (24) The number of work tasks you perform (25) The opportunities for you to take initiative (26) Your responsibility at work (27) Your opportunities to perform your work as well as you work physically	new	reduced 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	remained unchanged 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	increased 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? (19) Your work load (20) The degree of difficulty of your work (21) Opportunities for developing and learning something the control over your own work (22) The support and back-up you can get (23) The influence and control over your own work (24) The number of work tasks you perform (25) The opportunities for you to take initiative (26) Your responsibility at work (27) Your opportunities to perform your work as well as you conditions for managing your work mentally	new ou wish	reduced 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	remained unchanged 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	<i>increased</i> 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
 3 Neither one nor the other 4 Rather positively 5 Very positively 6 Not applicable Have the following working conditions changed during the past 12 months? (19) Your work load (20) The degree of difficulty of your work (21) Opportunities for developing and learning something the support and back-up you can get (23) The influence and control over your own work (24) The number of work tasks you perform (25) The opportunities for you to take initiative (26) Your responsibility at work (27) Your opportunities to perform your work as well as you can get (28) Your conditions for managing your work physically	new ou wish	reduced 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	remained unchanged 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	increased 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3

Have you experienced any of the	follow	ing durin	g the past	12 mo	nths?	
	No	Yes and it i very negatively	has affected me rather negatively	not very much	rather positively	very positively
(32) Dismissed from the job I had	1	2	3	4	5	6
(33) Divorce/separation	1	2	3	4	5	6
(34) Got married/a partner	1	2	3	4	5	6
(35) Moved	1	2	3	4	5	6
(36) Had/adopted a child	1	2	3	4	5	6
(37) Death of close relative	1	2	3	4	5	6
(38) Worsened economic circumstances	1	2	3	4	5	6
(39) Been subjected to serious crime (e.g. burglary, crime of violence)?	1	2	3	4	5	6
(40) Your own children had serious problems (e.g. illness, substance abuse, repeated truancy, bullying)?	1	2	3	4	5	6
How far do you agree with the fol	llowing	g stateme	ents?			
		Do n agre all entir	e at			Agree
(41) I am worried about having to leave my would like to.	y job bef		2	3	4	5
(42) There is a risk that I will have to le present job in the year to come.	eave my	1	2	3	4	5
(43) I feel uneasy about losing my job in th future.	ne near	1	2	3	4	5
(44) I could easily get an equivalent (or bet in this company/organisation.	tter) job	1	2	3	4	5
(45) My skills are so important that even if present job ends I can easily get a new the company/organisation		1 1 in	2	3	4	5
(46) I am proud to work for my company/r organisation.	ny	1	2	3	4	5
(47) I am willing to work harder than I nee my company/organisation will be succ		1	2	3	4	5
(48) I am committed to my present job and am an important part of a meaningful of	l think I	1 ion	2	3	4	5
(49) Actually I only bother about what I m at my work. My involvement stretches and not to my employer or workplace	yself do	1	2	3	4	5

	Do not agree at all entirely				Agree
(50) I do not think management consider the employees' interests	1	2	3	4	5
(51) My competence is sought-after in the labour market.	1	2	3	4	5
(52) I would have no problem in getting a new equivalent job in another company/organisation	1	2	3	4	5
(53) I have a contact network that I can use to get a new (equivalent or better) job	1	2	3	4	5
(54) I know of other organisations/companies where I could get work.	1	2	3	4	5
(55) I can easily get a new (equivalent or better) job since I am prepared to move.	1	2	3	4	5
(56) My personal qualities make it easy for me to get a new (equivalent or better) job in a different company/organisation.	1	2	3	4	5
(57) My experience is in demand on the labour market.	1	2	3	4	5
Demands on you in your work. Think abou past three months.					
(59) Do you have to work very hard?(60) Is there enough time to perform work tasks?(61) Are there conflicting demands?	Always 1 1 1 1 1	Mostly 2 2 2 2 2		en duri	Never 4 4 4 4
 (59) Do you have to work very hard? (60) Is there enough time to perform work tasks? (61) Are there conflicting demands? (62) Can your job involve you encountering other 	Always 1 1 1	Mostly 2 2 2	Most 3 3 3		Never 4 4 4
 (59) Do you have to work very hard? (60) Is there enough time to perform work tasks? (61) Are there conflicting demands? (62) Can your job involve you encountering other people's strong feelings? 	Always 1 1 1 1 Every	Mostly 2 2 2 2 2 2 A few days per week(1 day in	Most 3 3 3 3 0 ne day per week(1 day in	A few days per month(1 day in	Never 4 4 4 4 4 Not at all Seldom in the past 3
 (59) Do you have to work very hard? (60) Is there enough time to perform work tasks? (61) Are there conflicting demands? (62) Can your job involve you encountering other people's strong feelings? 	Always 1 1 1 1 Every day	Mostly 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Most 3 3 3 3 0 ne day per week(1 day in 5)	A few days per month(1 day in 10)	Never 4 4 4 4 4 <i>a</i> <i>b</i> <i>b</i> <i>b</i> <i>b</i> <i>b</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i>
 (59) Do you have to work very hard? (60) Is there enough time to perform work tasks? (61) Are there conflicting demands? (62) Can your job involve you encountering other people's strong feelings? (63) Do you sometimes have so much to do that you have to shorten your lunch breaks, work overtime or take work home with you? (64) Does it ever happen that you cannot keep your mind off your work when you are free? (65) Do you ever find it difficult to sleep because	Always 1 1 1 1 Every day	Mostly 2 2 2 2 2 2 2 2 2 2 3 4 few days per week(1 day in 2) 2	Most 3 3 3 3 0ne day per week(1 day in 5) 3	A few days per month(1 day in 10) 4	Never 4 4 4 4 4 4 <i>a</i> <i>b</i> <i>b</i> <i>b</i> <i>b</i> <i>b</i> <i>c</i> <i>b</i> <i>b</i> <i>b</i> <i>b</i> <i>c</i> <i>b</i> <i>b</i> <i>b</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i> <i>c</i>
 (59) Do you have to work very hard? (60) Is there enough time to perform work tasks? (61) Are there conflicting demands? (62) Can your job involve you encountering other 	Always 1 1 1 1 Every day 1 1	Mostly 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Most 3 3 3 3 3 0ne day per week(1 day in 5) 3 3	A few days per month(1 day in 10) 4 4	Never 4 4 4 4 4 4 <i>all</i> <i>Seldom</i> <i>in the</i> <i>past 3</i> <i>months</i> 5

	Almos all the time		ut ¾ ne time	Half the time	About ¼ of the time	A littl e (perh 1/10 c the tir	aps of	No not at all
(68) Are you so stressed at certain times that you cannot talk, or even think, about anything except your work?	1	2		3	4	5		6
(69) Does your work require your whole attention and concentration?	1	2		3	4	5		6
(70) Can you take short breaks at practically any time to talk?	1	2		3	4	5		6
(71) Does your work require you sometimes to repeat the same work items many times an hour?	1	2		3	4	5		6
(72) Is part of your working time spent on understanding or solving problems?	1	2		3	4	5		6
Possibilities for developing in your j	job							
			Every day	A few days per week(day in 2)	day per 1 week		th(1	Not at all Seldom in the past 3 months
(73) Do you have work tasks that capture your interest, (e.g. arouse your curiosity)?	r		1	2	3	4		5
(74) Do you have work tasks that do not absor	:b		1	2	3	4		5
you at all (e. g. bore you)? (75) Does your work give you the opportunity to learn something new and develop in your occupation?			1	2	3	4		5
(76) Have you during the past 12 months had to $1 No$ 2 Yes \rightarrow $1 total number of control of total number of total number of control of total number of$	_	in pai	d work	ing time?	,			
(77) How valuable has this training been?								
1 Of marginal importance								
2 I manage my work better now								
 3 I manage my work better and have gaine 4 Not applicable 	ed in val	lue on	the lab	our mark	tet			
(78) Do you have any agreement with your supprofessional qualifications?	perior tl	hat giv	es you	the oppo	rtunity t	o develo	op y	our
1 Yes								
2 No 2 Not applicable								
3 Not applicable No	Only a few days	Some weeks	Some month	1/2 s year		2 3 vears y	ears	4 years or
(79) Does your job require any1formal education or course apart fromcomprehensive or elementary school?	2	3	4	5	6	7	8	more 9

	No	Only a few days	Some weeks	Some months	1/2 year	l year	2 year	3 rs year.	4 s years or more
(80) (Apart from training or course), is any on-the-job apprenticeship required before doing your job?	1	2	3	4	5	6	7	7 8	9
Influence									
			1	Always	Normal	lly	Not no	rmally .	Never
(81) Can you yourself decide your work	pace	?		1	2		3		4
(82) Can you yourself partly decide whe tasks are to be done (e.g. by deciding to faster some days and taking it more easi	work	a little		1	2		3		4
(83) Are you ever involved in planning work (e.g. what is to be done, how it is to who is to work together with you)?	your			1	2		3		4
(84) Are you ever involved in the long-t of your work?	erm p	lanning	5	1	2		3		4
Support									
			1	Always	Norma	lly	Not no	rmally	Never
(85) Are you usually able to get help wh difficulties in your work?	nen yo	u run iı		1	2		3		4
(86) Is your work organised in such a w unload and help one another in a work g	roup?		an	1	2		3		4
(87) Are you able to get support and end from <i>colleagues/workmates</i> when you for difficult?			c is	1	2		3		4
(88) Are you able to get support and end from your <i>immediate superior</i> when you your work is difficult?			eel	1	2		3		4
(89) Are you able to get support and end from someone <i>outside your job</i> when yo work is difficult?				1	2		3		4
Physical load									
				Every day	A fev days per week day i 2)	2 1 2(1 v 2(1 v	One lay per week(1 lay in 5)	A few days per month(1 day in 10)	Not at all Seldom in the past 3 months
(90) Does it ever happen that you bend of in the same way in your work many time hour for many hours on the same day?		1		1	2) 2	-	3	4	5
(91) Does it ever happen that you, when home from work, are bodily tired out?	you c	come		1	2		3	4	5

	Almost all the time	About ³ ⁄4 of the time	Half the time	About ¹ /4 of the time	A little (perhaps 1/10 of the time)	No not at all
(92) Does your work mean that you sometimes work purely physically, i.e. that you exert yourself more than when you walk, stand and move about normally?	1	2	3	4	5	6
(93) Do you exert yourself so that you breathe more quickly?	1	2	3	4	5	6
(94) Do you many times a day have to lift at least 20 kg at a time?	1	2	3	4	5	6
(95) do you sometimes work in a twisted position?	1	2	3	4	5	6
(96) Do you work at a computer screen?	1	2	3	4	5	6
(97) Do you input data or copy text for other people?	1	2	3	4	5	6

Adaptation

	Always	Normally	Not normally	Never	Not applicable
(98) When your work gets <i>bodily troublesome</i> , are you able to slow down or work differently to reduce the problems?	1	2	3	4	5
(99) When your work gets <u>mentally troublesome</u> , are you able to affect what you are doing so that the strain is reduced?	1	2	3	4	5
How can you adapt your work if you feel unwell? Can you					
(100)do only the work that is absolutely necessary and put off the rest?	1	2	3	4	5
(101)yourself decide which of your various work tasks you will do?	1	2	3	4	5
(102)get help from colleagues/workmates?	1	2	3	4	5
(103)work more slowly than usual?	1	2	3	4	5
(104)take longer breaks?	1	2	3	4	5
(105)shorten your working day?	1	2	3	4	5
(106)go home and do the work later?	1	2	3	4	5

(107) If an unforeseen situation should suddenly arise in which you had to find 14 000 crowns (a thousand pounds) in a week, could you manage this?

- 1 Yes, always
- 2 Yes, normally
- 3 No, not normally
- 4 No, never

Sickness presence and sickness absence				
(108) Have you during the past 12 months gone to work e you should really have reported sick?	even thoug	gh, consider	ing your state	of health,
1 Not even once				
2 Once				
3 2-5 times				
4 More than 5 times				
5 Not applicable – I have not been ill during the past	12 months	5		
(109) Have you during the past 12 months taken vacation	/compens	ation/flexiti	me days instea	ad of reporti
sick when you have been unwell.				_
1 Not even once				
2 Once				
3 <i>2-5 times</i>				
4 More than 5 times				
5 Not applicable – I have not been ill during the past	12 months	7		
	Always	Normally	Not normally	Never
(110) Would your work be done by someone else?	1	2	3	4
(111) Would your work be still there for you to do when you get back?	1	2	3	4
(112) Would some of your work tasks remain undone?	1	2	3	4
(112) Would some of your work tasks remain undone.	1	2	5	•
 (113) How many days in all during the past 12 months ha your own illness (sick listed, care, treatment or examination <i>None</i> <i>Less than 1 week</i> <i>1-2 weeks</i> <i>3-4 weeks</i> <i>1-3 months</i> <i>More than 3 months</i> (114) Have you yourself been involved in an accident or the past 12 months? <i>No</i> <i>Yes</i> 	on)?			
Work ability				
(115) How many points would you give your current wor	k ability?			
completely			work ability	
			at its	
work 0 1 2 3 4 5 6	7 8	9 10	best	

(116) How do you rate your current work ability with respect to the physical demands of your work?

- 1 Very good
- 2 Rather good
- 3 Moderate
- 4 Rather poor
- 5 Very poor

(117) How do you rate your current work ability with respect to the mental demands of your work?

- 1 Very good
- 2 Rather good
- 3 Moderate
- 4 Rather poor
- 5 Very poor

(118) Do you believe that, from the standpoint of your health, you will be able to do your current job two years from now?

- 1 Unlikely
- 2 Not certain
- 3 Relatively certain

(119) Is your disease or injury a hindrance to your current job?

- ¹ There is no hindrance/I have no diseases
- 2 No, my disease or injury does not hinder me in my job
- 3 I am able to do my job, but it causes symptoms
- 4 I must sometimes slow down my work pace or change my work methods
- 5 Because of my disease, I feel I am able to do only part-time work
- 6 In my opinion, I am entirely unable to work

Have you during the past 3 months....

	Every day	A few days per week(1 day in 2)	One day per week(1 day in 5)	A few days per month(1 day in 10)	Not at all Seldom in the past 3 months
(120)felt tired and listless?	1	2	3	4	5
(121)felt bodily tired after the working day?	1	2	3	4	5
(122)felt mentally tired after the working day?	1	2	3	4	5
(123)had disturbed or restless sleep?	1	2	3	4	5
(124)woken too early and been unable to get back to sleep?	1	2	3	4	5
(125)felt rested and refreshed in the morning?	1	2	3	4	5
(126)felt you have had enough rest/relaxation between working days?	1	2	3	4	5

	Every day	A few days per week(1 day in 2)	One day per week(1 day in 5)	A few days per month(1 day in 10)	Not at all Seldom in the past 3 months
At the end of the day, do you have pain in					
(127)the upper part of your back or in your neck?	1	2	3	4	5
(128)the lower part of your back?	1	2	3	4	5
(129)your shoulders or arms?	1	2	3	4	5
(130)wrists or hands?	1	2	3	4	5
(131)hips, legs, knees or feet?	1	2	3	4	5

To what extent during the past 3 months have you....

	Never	Once or a few days a year	Once or a few days a month	Once or a few days a week	Every day, practically
(132) Used sleeping pills	1	2	3	4	5
(133) Used tranquillizers	1	2	3	4	5
(134) Used preparations against severe heartburn/stomach ulcers	1	2	3	4	5
(135) Used painkillers	1	2	3	4	5
(136) Taken exercise for at least 30 minutes(i.e. run, done a sport or similar so that "the sweat runs off you")	1	2	3	4	5
(137) Spent time on fairly light physical activity for a total of at lease 30 minutes a day (walks or similar)	1	2	3	4	5
(138) Spent time on regular leisure activities outside your home (e.g. study circles, non-profit work)	1	2	3	4	5
 (139) On one and the same occasion drunk alcohol corresponding to at least 12 bottles of medium-strength beer (or 6 cans of strong beer, or 2 bottles of wine or half a bottle of spirits) 	1	2	3	4	5
 (140) Do you smoke? 1 Yes, daily 2 Yes, sometimes (party-smoking) 3 No but I used to smoke 4 No, I have never smoked 					
(141) How much do you weigh?	kg				
(142) How tall are you?	cm				

	All of the time	Often	Sometimes	None of the time
(143) I feel downhearted and blue	1	2	3	4
(144) I feel calm and peaceful	1	2	3	4
(145) I feel energetic, active or vigorous	1	2	3	4
(146) I have been waking up feeling fresh and rested	1	2	3	4
(147) I have been happy, satisfied, or pleased with my personal life	1	2	3	4
(148) I have felt well adjusted to my situation	1	2	3	4
(149) I have lived the kind of life I wanted	1	2	3	4
(150) I have felt eager to tackle my daily tasks or make new decisions	1	2	3	4
(151) I have felt I could easily handle or cope with serious problem or major change in my life	1	2	3	4
(152) My daily life has been full of things that were interesting to me	1	2	3	4

With thanks for your help

Appendix 4

Changes in "Cohort study" after wave 1

Added item	S				
Interview					
(49b) How well do you combine your job with being a par	ent?				
1 Very well	•				
2 Fairly well					
5 Very badly					
The questionnaire					
•	Do not				Agre
	agree at all				
	entirely				
(60) Most of my interests revolve around my work.	1	2	3	4	5
(61) Most of my interests revolve around my family	1	2	3	4	5
(62) The most important things that happen concern my	1	2	3	4	5
family.					
(63) I will be able to achieve most of the goals I have	1	2	3	4	5
set for myself.					
(64) When facing difficult tasks, I am certain that I will	1	2	3	4	5
accomplish them.					
(65) In general, I think that I can obtain outcomes that	1	2	3	4	5
are important to me.	1	2	2	4	~
(66) I believe I can succeed in almost any endeavour I	1	2	3	4	5
set my mind to. (67) I will be able to meet many challenges successfully	1	2	3	4	5
(68) I am confident that I can perform effectively at	1	2	3	4	5
many different tasks.	1	2	5	+	5
(69) Compared to other people, I can do most tasks	1	2	3	4	5
very well.	-	-	U		c
(70) Even when things are tough, I can perform quite	1	2	3	4	5
well.					
(91) At your workplace are there					
1 Almost only women					
2 More women than men					
3 About as many women as men					
4 More men than women					
5 Almost only men					
(92) Do women and men have approximately equal condition	ons at your	workpl	ace in tei	rms of e.	g.
salary, influence, opportunities for development?	2	r			-

- 1 Women are disadvantaged
- 2 Approximately equal conditions
- 3 Men are disadvantaged
- 4 Don't know

		Daily	Several times a week	Fairly seldom	Never
(102) In your work group do you normally talk a	bout	1	а weeк 2	seiaom 3	4
your	ioout	1	2	5	-
lives outside work?					
(103) Do you and your <i>immediate superior</i> norm talk	nally	1	2	3	4
about your lives outside work?					
, see a second se					
			Yes	No	Don't know
Considering yourself and your immediate super- you feel that	ior, do				
(104)there is mutual understanding(104)ther understanding	re is mu	tual	1	2	3
(105)that your conditions of life are very diffe	erent		1	2	3
(106)that you know very little about one anoth	ner's life	•	1	2	3
		Same as	Better for	Worse	Live in great
		now	me	for me	un-certainty, hard to know
How do you think the following will turn out					
during the year to come					
(122)your income?		1	2	3	4
(123) your working hours?		1	2	3	4
(124)your work tasks?		1	2	3	4
(125)your colleagues/workmates?		1	2	3	4
	Always	Normally	Not normally	Never	Not relevant
Can it be difficult for you to stay at home for a few days			č		
(126)if you are ill?	1	2	3	4	5
(127)if you need to look after a sick child?	1	2	3	4	5
NEW	WOR	DING			

(10) Do your family circumstances limit your possibilities of making a career?

1 *No*

2 Yes, to some extent

³ Yes, they make a career impossible

Have any of the following become more common at your workplace during the past 12 months?

	No	Ves and it	has affect	od mo			
	NO	positively		negat	ively N	 Not applicabl xnow	e, don't
(11) Incentive pay, bonus and similar	1	2	3	4		5	
(12) Internal debiting, /internal purchaser- provider system	1	2	3	4		5	
(13) Individuals' work followed up and scrutinised	1	2	3	4		5	
(14) Time reporting	1	2	3	4		5	
(15) Drives on employee competence and work Ability	1	2	3	4		5	
(16) Contacts between ordinary employee and customers/clients	1	2	3	4		5	
(17) That customers' demands and custor benefit are emphasised and clarified	1	2	3	4		5	
(18) That decisions are taken without you in as an employee being asked for	1	2	3	4		5	
your opinion							
			Do not agree at all entirely				Agree
(54) I could without problems get an equiv in another company/organisation	valent	i job	1	2	3	4	5
				Always	Normally	Not normally	Never
(101) Are you able to get support and enco your workplace regarding problems and d have outside work?	•			1	2	3	4

Appendix 5

Interview guide "Power over working conditions" - Critical Incidents

Appendix 5. Interview Guide: Power over Working Conditions - Critical Incidents

IP no.

Interview Guide

Confidential

NB! This guide is not written to be spoken. Formulate the questions in your own words as they apply to the situation in question.

1. **Sex:** Male Female

2. **Year of birth**: 19

If consent is given, Turn On the Tape Recorder!

3. What is your current position?

4. **Type of employment?** Permanent employment

Temporary employment

If temporarily employed:

Why temporary employment?.....

For how long?

5. Working hours? % of full time.

- 6. Do you often work more hours than are specified in your particular contract?
 No Yes (approximately additional hours per week)
- 7. What formal education do you have?
- 8. What formal education do your co-workers (subordinates) have? (Find out if the IP's education differs from that of his/her co-workers.)

9. When you chose your education, did you have this type of work/position in mind?

Yes No If no, how does it differ?.....

10. Did you actively choose this career?

(Find out how it happened that the IP ended up in this career path)

11. Could you give an <u>overview</u> of the jobs or employment that you have had from 1990 to today, 2004?

(Periods of certain types of employment in chronological order since 1990)

From 1995

2000

to today (2004)

-Periods when the IP worked in certain profession/position (State position; name of workplace; municipality/district; employer [publicly/privately/cooperatively run])
-Pos. periods of unemployment, education/further training (state type/specialization), parental leave, sick leave (if so, for what?)

12. Could you briefly describe your current job? (*-area of responsibility*)

13. Could you briefly describe your place within the organization, your <u>organizational</u> placement?

(Find out where the IP is located within the organizational structure)

14. Could you briefly describe where you, your co-workers/subordinates and your managers are <u>geographically</u> located?

(Find out the "spatial" placement of the IP, subordinates and managers)

15. Do you have supervisory responsibilities? How many are you responsible for?

-Informally?

- 16. In what types of formal/informal settings do you meet your coworkers/subordinates? How often do you meet them? On whose initiative do the formal meetings take place?
- 17. In what types of settings do you meet your managers/clients/supervisors? How often do you meet them? On whose initiative?

18. Is anything within your area of responsibility outsourced?(Internal and external consultancy services, long- or short-term contracts)If so, since when?What sort of contacts do you have with your contractors?How often? On whose initiative?

Give Written Instructions! (Critical incident) Read Aloud Slowly and Clearly!

Try to recall a period that was <u>important</u> – when you were particularly more satisfied than usual <u>OR</u> when you did not feel well – sometime during the period between the middle of the 1990's and today.

Guide – Control Questions

- A. Limit the period!
- When did the period begin? (When did you start feeling this way?...)
- When did the period end? (When did you stop feeling this way?...)

B. Determine the course of events!

- When you felt this way: Could you describe what happened and the circumstances?
- What was it in particular that made you feel that way?

(Ask flexible follow-up questions until the key circumstances/series of events are determined. Avoid Leading Questions!)

- Did anything else happen during this period that had an effect on this feeling or experience?
- Is there anything else you can remember that was of importance in connection with this period?

(Repeat the question until you feel that the IP has shared all of the vital information that explains why he/she felt good/bad during this period.)

You mentioned several different factors in connection with this period: Were any of these factors especially <u>important</u> or <u>crucial for how you felt</u> during this period?

- Which persons/functions were involved in bringing about the situation? What did they do?
- Why did the situation ariseden?

(if not mentioned already: -What brought the period to an end?)

If pos: How do you think you helped contribute to this positive period?

If neg: What did you personally do about the situation? What could you have done?

- From your point of view, could it have been handled in another way?
 - Who should have acted? How should they have acted?
 - Where does this idea come from?
 - Have you seen any examples of this being done in similar situations?
- How was the situation resolved? Which individuals/functions took part in resolving the situation?
- C. <u>Find out the **personal** and **value-related** significance of what happened!</u>
- How did you feel about what happened in terms of values?
- What did this feeling represent?
- Do you think that what took place is in accordance with the principles and values that this organization stands for? (as in the "spirit of Volvo," tradition, culture, practice)
- Do you think that what took place is in accordance with the principles and values that you stand for?

- What significance did the occurrence have for you during that period?
 Listen intently. To facilitate interpretation Ask open-ended follow-up questions! e.g.:
 Could you explain what you mean by that? or
 Or
 - I don't quite understand. Could you expand upon that?
- Did this affect how you were at work? Did this change your perspective in different situations compared to how you conducted yourself earlier?

(e.g. work capacity/efficiency with different work tasks, relationships with workmates and family, difficulties sleeping, etc.)

- Did that which happened lead to you changing your views on how work should be conducted?
- Did that which happened lead to you changing your views on your own role within the organization?

Try to recall <u>another important</u> period – when you were particularly more satisfied than usual OR when you did not feel well during the period between the middle of the 1990's and today.

Return to the instructions after the end of each period until the IP has presented all of the periods they wish to speak about. For each CI period, you should determine when the period was, what happened during the period, and the significance of the period.

19. What formal support resources do you have?

(Find out about administrative support, expert support and support from consultants)

20. Who is the most influential person you know in regard to your work situation?

21. How is your relationship with this person?

22. Use the sociogram and conclude with the instructions on the last page.

23. If you one day feel tired and out of it, and have a headache, are you able to adjust your work in order to suit how you feel? (Investigate frequency: often, sometimes or rarely/never)

If yes, in what ways are you able to adjust your work on the days when you feel worse? (e.g. by postponing work tasks, getting help from workmates, working slower, taking longer breaks, working a shorter day, going home and doing the work later, working without being disturbed or working at home; are there "buffers" in the organization?)

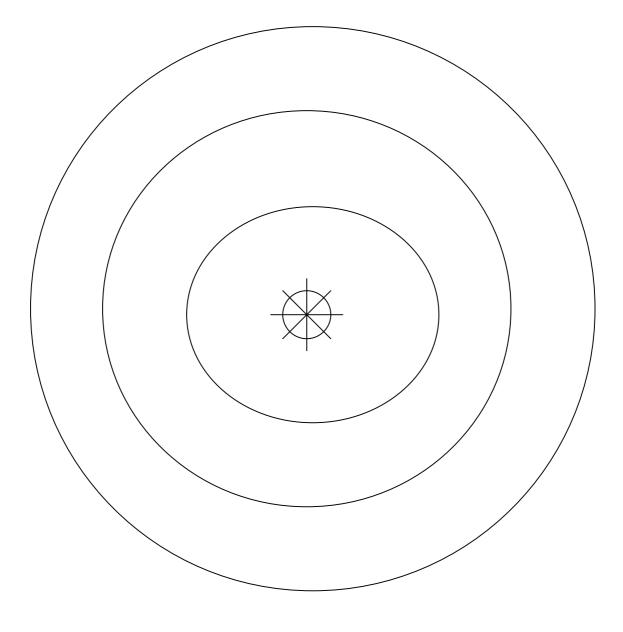
- **19. Could your work make it difficult for you to stay at home if you become sick for a day or two?** (*Investigate frequency: often, sometimes, or rarely/never*) **How come?**
- 20. Are you planning on switching workplaces? If so, why? If not, why not?
- 21. Are you planning on switching professions? If yes, why and to what? If yes, would you still want to switch professions if it meant having poorer working conditions than at your current job? If no, why?
- 22. In three years are you still working at this job?
- Concl.Was this interview as you expected?Had there been anything else you wished to say?Is there anything you want to talk about that we did not discuss?

Hand over the questionnaire and a pencil!

A: If you want to commence with a project that you consider vital, or affect your personal development:

-Who can you turn to?

-Who do ask for advice?

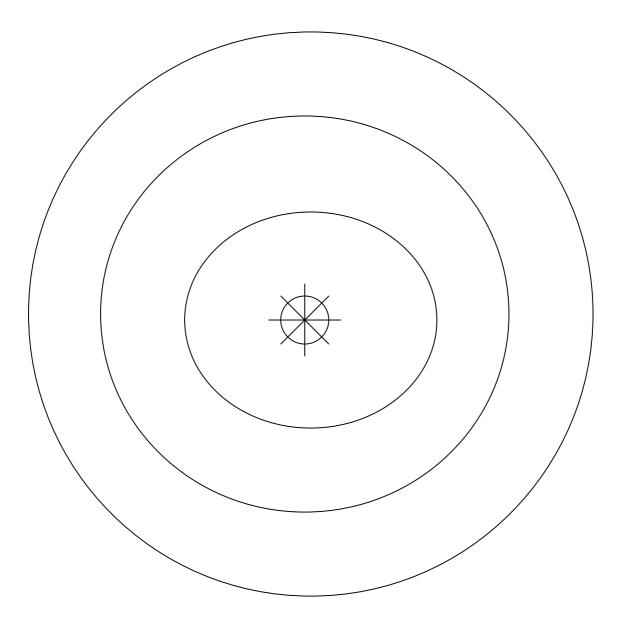


Hand over the questionnaire and a pencil!

B: If you are facing a problematic or sensitive situation at work:

-Who can you turn to?

-Who do you ask for advice?



Try to recall a period that was <u>important</u> – when you were particularly more satisfied than usual OR when you did not feel well – sometime during the period between the middle of the 1990's and today.

Appendix 6

Interview guide "Power over working conditions" - Responsibility personnel

Appendix 6. Interview Guide: Power over Working Conditions –Responsibility Personnel

IP no.

Interview Guide

Confidential

NB! This guide is not written to be spoken. Formulate the questions in your own words as they apply to the situation at the company.

- Sex: Male Female
 Year of birth: 19
 If consent is given, Turn On the Tape Recorder!
- 3. What is your current position?
- 4. **Type of employment?** Permanent employment

Temporary employment

If temporarily employed:

Why temporary employment? In what capacity? (project temp, etc).....

.....

For how long?

- 5. Working hours? % of full time.
- 6. Do you often work more hours than are specified in your particular contract?
 No Yes (approximately additional hours per week)
- 7. Could you give an <u>overview</u> of the jobs or employment that you have had from 1995 to today, 2004?

(Periods of certain types of employment in chronological order since 1990, emphasize works tasks and employer, as well as why IP switched jobs)

From 1995 2000 to today (2004)

12. Could you briefly describe your place within the organization, your <u>organizational</u> placement?

(Find out where the IP is located within the organizational structure)

13. How did you become a manager?

14. Could you briefly describe your current job?

(area of responsibility, work tasks, in relation to previous experience)

15. Could you describe what you do on a regular workday?

(Do you know what is going to happen from day to day?)

Questions on the Managerial Setting and Leadership Conditions <u>Clear organization? Distinct integrated functions?</u>

16. How many are you responsible for? What are their positions?

17. Could you briefly describe where you, your co-workers/subordinates and their managers are geographically located?

(Find out the "spatial" placement of the IP, subordinates and managers)

18. How formal is the setting when you meet your co-workers/subordinates? How often do you meet them?

a. formal

b. informal

19. How formal is the setting when you meet your subordinates' managers? How often?

- a. formal b. informal
- 20. Is anything within your area of responsibility outsourced?

21. In your organization, what decision-making levels are there for the following areas?

Personnel.....

Work Environment.....

Finances.....

Operations.....

-What is the overlap between the decision-making organizations in these areas?

22. Matrix organization? Are dual commands given?

23. How long has the organization been like this? *How was it before?*

Managing Conditions

24. Does your job involve many administrative duties?

19. What formal support resources do you have? (Find out about administrative support, expert support and support from consultants)

-Is it effective? / Is it enough?-Do you have a replacement?

- 25. How is the continuity of leadership? Do you feel that you are able to follow up with your subordinates?
- 26. Do you have the same profession as that of the general personnel, or a different one?

27. What sort of support do you have for operational problems? Does it differ when it comes to temporary personnel?

28. What are the most common causes of problems? Does this apply to temporary personnel?

(Organizational and in the role of manager)

29. How is the climate? Is there a risk of "silence"? Can problems be channeled in ways other than via the managerial organization?

How aware of informal structures does a manager have to be? Is there an informal safety net?

20. Who is the most influential person you know in regard to your work situation?

12. How is your relationship with this person?

13. Do you feel that you receive support from those above you/below you?

14. What is the extent of work-related ill health amongst the managers in your organization?

Are you able to take over for each other in case of sickness? Does absence in a leadership function have a latitudinal effect?

Methods of Feedback as a Management Tool (focusing on HR service personnel!)

15. What methods of assessing results/quality assurance systems are used?

16. What are they used for? What are the benefits?

17. Do the managers and employees know what the information is used for?

18. How much time does the follow-up of these systems take?

19. What forums are there for the mutual exchange of information between operations managers and "side-ordinates"?

20. What forums for dialogue are there between the operational and strategic levels?

- 21. How does "bottom-up" feedback regarding operations take place?Does the IP act as a mediator or are there other formalized channels of communication?
- 22. Are there opportunities to gather feedback on the operational effects of decisions made on the strategic level?

Present two typical situations (formulated for the respective company based on previous interviews and attached as separate sheets), and conduct the investigation using the follow-up questions below.

Guide – Scenario

- A. Limit the presented period!
- B. <u>Describe the course of events!</u>
- (Which persons/functions were involved in bringing about the situation? What did they do? Why did the situation arise?)

Guide – Control Questions

- Could you describe how you would act in the described situation?
- On what specific grounds do you make this conclusion?
 (Ask flexible follow-up questions until definite underlying reasons are disclosed. Avoid Leading Questions!)
- Which persons, or individuals with certain functions, would you contact in order to deal with the situation?

Find out if the named persons hold organizationally assigned functions within **personnel or HR**, or if they are **union representatives** or external actors such as **consultants**, **physicians**, **psychologists**, **etc**.

- Is there anything else that is of importance when it comes to this type of situation? (Repeat the question until you feel that the IP has shared all of the vital information that explains why he/she has chosen to act in the way described.)
- You mentioned several different types of functions in connection with this course of events: Are any of these functions especially <u>important</u> or <u>crucial for your function</u> <u>as manager</u> in such circumstances?
- Do you have experience with the type of situation that has been described?
- How did you react at that time? What was the course of events on that occasion? Find out if the IP has a background connected with practical experience (an ingrained pattern of conduct) or if the IP makes decisions based on a professional value system (code of conduct)
- <u>If pos.</u>: How do you think you helped resolve the situation in a positive way?
- <u>If neg.</u>: What did you personally do about the situation? What could you have done? Was there anything that limited your ability to act at that time?
- Was the situation unique?
- Have you seen any examples of this type of situation in other contexts?
- How was this type of situation or course of events handled then?
- From your point of view, could it have been handled in another way?
 - Who should have acted? How should they have acted?
 - Where does this idea come from?
 - Have you seen any examples of this being done in similar situations?

- How was the situation resolved? Which individuals/functions took part in resolving the situation?
- C. Find out the **personal** and **value-related** significance of what happened!
- How did you feel about what happened in terms of values?
- What did this feeling represent?
- Do you think that what took place is in accordance with the principles and values that this organization stands for? (as in the "spirit of Volvo," tradition, culture, practice)
- Do you think that what took place is in accordance with the principles and values that you stand for?
- In retrospect, what significance did the occurrence have for you during that period? Listen intently. To facilitate interpretation – Ask open-ended follow-up questions! – e.g.:
 Could you explain what you mean by that? or
 I don't quite understand. Could you expand upon that?
- Did this affect you in your role as manager? Did this change your perspective in different situations – compared to how you conducted yourself earlier?

(e.g. work capacity/efficiency with different work tasks, relationships with workmates and family, difficulties sleeping, etc.)

- Did that which happened lead to you changing your views on how work should be conducted?
- Did that which happened lead to you changing your views on your own role within the organization?

22. Use the sociogram and conclude with the instructions on the last page.

- 23. Could your work make it difficult for you to stay at home if you become sick for a day or two? (Investigate frequency: often, sometimes, or rarely/never) How come?
- 24. What are the best aspects and the most difficult aspects of being a manager in this organization?
- Concl. Was this interview as you expected?

Had there been anything else you wished to say?

Is there anything you want to talk about that we did not discuss?

Hand over the questionnaire and a pencil!

If you, in your role as manager, need to act in a problematic or sensitive situation:

- -Who can you turn to?
- -Who do you ask for advice?
- -What does the organization have to offer?
- -Do you have your "own" channels?

