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# **Paradoxes of traditional industrial work in knowledge society**

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Traditional industry, where work is repetitive and submitted to a comprehensive machine system, did not disappear with the rise of 'knowledge society', not even in the developed western societies. An illustrative case is the Danish food industry, which employed 85,353 in 1997 and 65,842 in 2008. Even though the number of employees has been falling, the food industry is still a significant sector in the relatively small Danish labour market. However, traditional industry is marked by the principles of work organizations supposed to belong to 'knowledge society': functional flexibility, flexibility of time, team organisation, project organisation, and value management. The way working conditions are influenced by these new principles of organisations was studied in two case factories. The two factories, one producing biscuits and the other producing sweets, have similar production systems. Both factories are owned by a capital fund, seeking short term profit.

In each factory the working conditions have been mapped in a survey, observation studies have been conducted, and around 15 individual interviews have been carried out<sup>1</sup>.

## **Boundarylessness – a conceptual clarification**

Working life researchers are constantly searching for concepts to enhance understanding of current development characteristics in working life. Flexibility has been, and continues to be, a key concept in understanding the development of working life. Knowledge, learning and skills development are other concepts which have been used in the attempt to understand current development trends in working life.

In recent years, a new concept for understanding work has become established – boundarylessness (Allvin 2008). The concept is based on an ideal-typical understanding of the many socially established boundaries which existed in capitalist industrial society throughout the 19th and 20th centuries, and subsequently focuses on the gradual dissolution of these boundaries which is taking place.

The basic idea is that the spread of capitalism and development of industrialisation during the 19th and 20th centuries led to the establishment of numerous new boundaries. Boundaries between work and leisure, with working hour boundaries structuring the allocation of time. Boundaries between various job functions, which contributed to the creation of narrow and repetitive jobs. Class boundaries, which were reflected in the workplace in the battle of interests between workers and management, and at the subjective and cultural level in a clear differentiation between 'them' and 'us'. These boundaries were key to the development dynamic which characterised modern society

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<sup>1</sup> This paper is a work in progress, and it has not yet been possible to refer specifically to our empirical data.

in the 19th and 20th centuries, but they also set limitations on the development of individuality. Leisure activities were subjugated to the limits of working life in terms of place and time. Workers were locked into their well-defined job functions, and had no opportunity to use themselves in the development of the work. The class boundaries impeded dialogue, both within and between the class divides.

The concept of boundarylessness focuses on current trends towards dissolution of the social boundaries created in the 19th and 20th centuries. A dissolution which may lead to better opportunities for individual development and social responsibility. Or which could result in the economic rationality of companies becoming unlimited, and taking over all of life.

We will focus here on three analytical dimensions in the development towards boundarylessness: temporal/spatial, organizational, relational (subjective, cultural and political) (Hirchhorn & Gilmore, 1993, Lund & Hvid, 2007, Lund 2007)<sup>2</sup>:

*Temporal and spatial boundarylessness* involves a break with standards in traditional industrial work regarding where and when to work. Management control is moved from working hours to output (Perlow, 1999), and we see more jobs without upper working time limits. Working hours can be self-chosen or dictated by deadlines, and work can be performed at home as tele-work. ICT supports this development (Felstead and Jewson, 1999, 2000). Standards of working time are dissolved, and paid and unpaid extra hours are common (Jeppesen, 1993). This development implies a change in work location and length, however, the qualities of time may also change. Unpredictability (as to where and when to work) may increase and the intensity of work may increase, because working time is placed when there is much to do (Buser, 2008).

*Organizational boundarylessness* implies that the traditional bureaucracy is replaced by a flexible work organization. Work is more situational and task specific and there is an increased emphasis on self-management and self-accountability (Piore and Sabel 1984, Furåker, Håkansson and Karlsson 2007). This implies an erosion of rhythms and routines of work, including the routines of joint breaks. We thus see a greater unpredictability in the work, due to the quest for 'just in time orientation', and self-management of time becomes an important focal point. At the same time, the complexity of tasks increases and ICT allows people to pack more and more different activities together in the present. This makes multitasking a distinctive development feature.

*Relational boundarylessness* involves a break with the traditional collective-oriented wage-earner as an ideal type, and an orientation towards individual reflexivity, self-fulfillment and career orientation through a constant change in work (Giddens 1990). Work is conducted as a series of projects, not necessarily in the same workplace or with the same colleagues (Botanski & Chiapello, 2005).

With the introduction of value-based forms of management and the focus on human resources, team spirit, passion and creativity are emphasized at the expense of discipline and solidarity. This dimension of boundarylessness tends to alter workplace values and norms, by attempting to create a strong business community with a high degree of cohesion.

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<sup>2</sup> Lund & Hvid 2007 and Lund 2007 operate with five dimensions of boundarylessness, as what we have labelled relational boundarylessness is divided into subjective, cultural and political boundarylessness.

Changed subjectivity and changing culture is followed by changes in the regulation of social relations: collective forms of regulations are weakening and regulations based on dialogue are strengthening. Employee representatives disappear, and regulation takes place in direct dialogue between employees and management. Or if there is an employee representative, he or she has been given the task of contributing to the company's survival and development (Hull Kristensen, 2005).

This ideal-typical presentation of the development towards boundarylessness applies most strongly to development within the knowledge industry. We will now investigate whether we can find the characteristics of development towards boundarylessness in traditional industrial work, and if so, the consequences it has for work conditions.

## **Presentation of the two case companies**

The two case companies are both involved in food production. One company produces biscuits, and the other produces sweets. Both companies have a provincial location, making them important to both local and regional employment. The companies each have around 300 production workers (primarily in unskilled positions), and around 50 white-collar workers.

Both companies are burdened by relatively out-of-date production equipment, with the consequence that they still have a large amount of monotonous repetitive work. They are unable to invest in more modern technology because both companies are fighting for their survival. Both companies have been put on sale by their respective owners, a Danish pension fund and an international capital fund. Both companies have undergone tumultuous development over the last five years. They have been through a streamlining process.

The companies have been running at a loss for several years. Even though they have increased their turnover, they have been unable to reduce their costs. The change processes have therefore been aimed at minimising costs – and making production more efficient. Both companies have succeeded at this, but the profit is still not big enough.

Lean has been used as the streamlining process. Both companies have relatively simple production processes which are very similar. Production basically consists of four processes: ingredients are mixed, the mixture is prepared (shaped), the shaped product is finished in an oven or drying cabinet, and the product is packed. The packaging requires the most labour, while shaping and drying primarily take place automatically, under monitoring. It is a sequential process which cannot easily be halted – once a production line is up and running, it runs until the product is finally packed. The opportunities for optimisation in such a production process are few and simple:

- Increase the pace on the line
- Minimise production stops
- Minimise waste and error
- Perform quicker changeovers from one product to another on a given line.

Work is being done on all four elements, following a common Lean recipe. There is also a focus on the working environment – although primarily on workplace accidents – as accidents are cost-intensive.

The preliminary results are that operations are now profitable. They have successfully increased efficiency and productivity, reduced the number of accidents and waste, and reduced the number of employees.

The companies run 24-hours a day, using day, evening and night shifts. It is too expensive to shut down production. A fixed roster is used. Most employees work during the day. Both companies employ a majority of women, and there is a clear gender-based division of labour, such that the women typically work in packaging. When employees and the management highlight the strengths of the two companies, and why they believe they will survive, they mention:

- Employee readiness to embrace change
- Delivery reliability
- Employee loyalty towards the company
- Employee commitment

## **Boundarylessness in traditional production companies**

In the following sections, we will examine the way the three dimensions of boundarylessness are playing out in the two traditional production companies.

### **Temporal and spatial boundarylessness**

Work at the two case companies is characterised by fixed working hours (workers clock in and out), a fixed locality (production takes place at the company), and by a separation between work and leisure (money is exchanged for time), and workers generally do not take work home with them, either physically or mentally – i.e. a classic wage earner working life with a one-dimensional barter relationship (Højrup, 2003).

The reason we have noted certain tendencies towards developing boundarylessness, despite the above, is due to increasing expectations of readiness to change and flexibility in working hours.

#### ***Readiness to change and functional flexibility***

The just-in-time production concept is part of the general streamlining of production processes at the two companies. Production is not stored as inventory, but shipped directly to customers. This means that changeovers to other products occur far more frequently than was previously the case. Where they previously might run the same product on a line for a whole week, it is more normal now to change over once a day. This has several consequences.

Firstly, it means that all employees have to learn to quickly change over production equipment. Previously it was normally the technical staff who performed the changeovers, but today the management is encouraging production employees to perform the changeovers themselves. Obviously this requires training – a training that has to be provided and scheduled by the technical staff.

Secondly, it means that each employee has to perform several different types of functions – both on an individual line, and on other lines. In other words, greater demands are being placed on employees' functional flexibility. Requirements have increased from mastering one working task on one line, to being able to perform several working tasks on several lines.

This is only possible through training. The traditional training takes place on the job, carried out by peers. It varies greatly how long it takes to master a new job function – from a few days to several months. There are also great differences in the opportunities each person has to participate in training. Receiving training in a new work task requires that a person leave their existing job function, and they cannot do this if the conveyor belt is running. The women in the packaging areas are particularly bound to their posts – they cannot leave unless they are replaced. This means that training has to be planned very carefully if it is to take place during the working day, and the result is that it is largely a management decision as to who receives training in what, and when.

As a result, production workers at both workplaces are experiencing greater demands on their skills, but it is difficult to be able to fulfil these requirements. This contributes directly to insecurity. It is no longer enough to be able to perform your usual work function, you are expected to be able to do more.

Finally, it means that the predictability which has characterised the production work is now disappearing to a certain degree. Production workers have been used to performing the same task at the same conveyor belt each day, with the same colleagues. Now they do not always know where they are going to be working when they clock in. In principle they can be sent anywhere throughout production, depending on which products have to be run and where there is a need for extra hands. Their placement is only limited by which work tasks they have been trained in. This unpredictability is new and is received very differently by production workers.

There are several positive consequences of the development towards a greater degree of functional flexibility:

- Each employee experiences more job rotation, reducing the strain from monotonous repetitive work
- The skills of production workers are developed, leading to a higher degree of employability
- The work becomes more developing and interesting

The more negative consequences are:

- Predictability disappears

- There are poor conditions for social fellowship because each person is moved around
- The production workers who are most bound to their posts in production are also those who have the most difficulty in receiving training, even though they are the groups experiencing the most strain in their work
- The boundary between working life and leisure time is moved when employees begin to experience negative spill-over effects

### ***Flexible working hours, but less flexibility during the working day***

Both companies are also working directly with working hours, but in slightly different ways. One company is characterised by a high and low season, with the result that they have traditionally hired and laid off a portion of the employees. In order to avoid this, which is costly to both management and the workers, they are working to introduce more flexible working hours, such that employees work more hours in the high season, and less hours in the low season. This initiative has not yet been implemented and employees are somewhat sceptical towards it. It is a major change to go from fixed working hours in terms of both length and placement, to flexible working hours in terms of both length and placement. However, if it is up to the management, this is the future.

Working hours are also being discussed at the other company. They have already introduced 12 hour shifts, leading to a more compressed working week. They have also streamlined the work, at the packaging lines in particular, through a review of production processes, such that they no longer shut down during breaks and lunch, but run continually. They have introduced a new substitute position to facilitate this. Workers must not leave their post without being replaced. Workers on a line now take breaks at different times, and never together with their colleagues. If people wish to talk, it has to be before or after working hours, or during informal breaks due to production stoppages and the like. As a result, the women – because it is the women most affected – have a tendency to extend their working hours, free of charge to the company.

Positive consequences of changes in working hours are hard to find. It will be a positive change if they can avoid having to lay people off, but right now current employees are concerned about the consequences for their own working hours if the plans for more flexible working hours are introduced. Their family life is arranged around fixed working hours, and they therefore find it difficult to imagine working hours which are not as fixed. The employees who work 12 hour shifts are very pleased with them. However, the women working in packaging say it will be too hard physically if they have to work 12 hours straight.

In contrast, the negative consequences are clear. In terms of the working environment, 12 hour shifts do not represent progress, even though employees have more days in which to rest. Preventing workers from taking breaks together promotes individualism and impedes fellowship. However, it will help make the unpredictability in daily work easier to handle, because workers will get to know more people at the company, by taking breaks with different people. This can help promote fellowship. But all other things being equal, the strong location binding will have negative consequences on the working environment.

There have been changes to the time environments in both companies, and there are plans to make even more changes – changes which will presumably create working conditions reminiscent of the time environments of boundaryless work.

### ***Temporal and spatial boundarylessness – summary***

The traditional production work continues to be primarily bound to fixed locations, with fixed working hours in terms of length and placement, but changes are happening – primarily as a result of streamlining production.

The boundary between working life and leisure time is being pushed. Unskilled production workers can no longer leave their work behind them when they clock out. Working hours are being extended informally, there is a movement towards flexible working hours and skill demands are placed on individual employees.

The functional flexibility also entails changes to daily rhythms, as there is now less predictability. Workers do not always know who they will be working with, or where, conditions which were a given just a few years ago. This lack of predictability pushes on the boundary between working life and family life.

The changes to the organisation of production have also meant that common breaks have been removed from the working day. In other words, the time and social environments which used to exist for each production line now have more difficult conditions.

Finally, it appears that the women, who have the most location-bound and physically demanding work are the ones who will benefit the least from the changes. It is more difficult for the women to be functionally flexible. It is more difficult for them to receive training in new functions because they are location-bound in their daily work. The women continue to have the most physically demanding work, are most dependent on fixed working hours in relation to their families, and more acutely feel the loss of fellowship due to the new unpredictability and lack of common breaks.

## **Organisational boundarylessness**

The work organisation in both factories has a history of being characterised by many strong boundaries, but some of the old boundaries are being broken down. The boundary between workers and managers has become weaker, and workers have taken over a number of functions in relation to managing production, which were previously the domain of the work supervisors. The boundaries between various work functions have also become less pronounced.

### ***Self-managed production – within narrow limits***

Both factories are working to delegate tasks from the production manager, planners and work supervisors, to employees. Most production employees work in teams with a team coordinator. In



some cases, employees take turns to act as the coordinator, so everyone gains an understanding of the complexity of the production process.

The production plan for the days ahead is prepared by a production planner based on the orders received by the factory. Given that production to inventory is avoided as far as possible, a production plan may well entail many changeovers on the same production line. The team has the opportunity to give feedback to the production planner if the planned production changeovers are not appropriate. The order of the production changeovers has an impact on productivity, because if two production runs are similar, the changeover is quicker than is the case for completely different production runs. Some changeovers are best performed during the day, while others may be done at night, etc. The workers are the ones who are most aware of these factors, and they have therefore been given the opportunity to be involved in production planning.

Once production is running, the workers decide themselves who should do what tasks. Given that most functions involve monotonous repetitive work, there has to be a rotation between the various tasks. The workers manage this rotation themselves.

Most of the production work is very routine, but there are still many functions which require some skill. In some functions, workers have to assess the quality of the mixture to be used to make biscuits or sweets. If the mixture is too sticky, too hard, too runny, or too granular, this will lead to difficulties in production. In other functions workers have to monitor the machine, being familiar with its sounds and danger signals, and reacting quickly if problems arise. In yet other functions workers need to have developed a special dexterity. The workers organise and divide the work, taking into account these individual skills. As mentioned above, it is the work supervisors who decide who is to receive more formal training in the various work functions.

Production stoppages have to be minimised. The technicians therefore carry out preventative maintenance, as they have done for decades. But there is also a focus on production workers who tend the machines being aware of where faults can arise, and reporting these to the technicians, or rectifying the damage themselves. Workers are allowed to stop production and adjust the machinery if this can prevent a more major production stoppage. Once a production stoppage occurs, action needs to be taken as quickly as possible, and the quickest thing is for workers to rectify the damage themselves, rather than to call a technician. The technicians therefore have to teach the workers what they can do themselves.

Responsibility for quality control lies with the workers in the first instance. Workers are expected to look at and taste the products, and take action if the quality is too poor. However this is a constant source of conflict, because the workers have a higher standard of quality than the work supervisors, and therefore relegate more product to waste than management is willing to accept. For the workers, it is important to ship a product which they can be satisfied with. The management is more

governed by feedback from sales, and the quality is good enough for them if it does not damage sales.

When there are production stoppages due to changeovers on the line, or due to a temporary discontinuation of production, the workers must take part in other functions. Cleaning has become this kind of buffer function. The same is true of project work. The Lean process takes place through a number of projects, and workers can be called out to participate in this project work when they are not needed in production. Functional flexibility has been heavily expanded, as already mentioned. If a production line is down, it should ideally be possible to move the workers to another line – but this requires that they have been trained in the necessary skills for this work. Finally, the companies are seeking to meet fluctuations in demand by implementing more flexible working hours, with the expectation of many working hours in weeks of high demand, and shorter working weeks in periods with low demand.

### *Performance focus*

The gradual allocation of autonomy to workers is taking place at the same time as more and more focus is being given to performance. The planning department outlines a production norm for every shift, subdivided into every team. At the end of the working day, the coordinator has to report how much was produced – whether it was more or less than expected. The team results are displayed on a notice board, so that everyone in the team can see how they are performing in comparison with other teams. This has led to a strong performance focus among workers, and to competition between the teams to some degree, which has been damaging to productivity in some cases (one team refrains from tidying up in order to impede the team taking over, etc.).

Production output is the key performance goal, but others are also used. Waste is also a performance indicator. A project focusing on energy consumption was initiated at one of the factories, such that workers were heavily involved in saving energy. The other factory has focused on making the number of workplace accidents a performance indicator. A goal was set of halving the number of workplace accidents, and much attention was given to actual workplace accidents, as well as ‘near misses’.

### *Continual improvements through dialogue*

In line with the Lean concept, both factories attempt to achieve continual improvements through comprehensive dialogue. The team typically meets with their work supervisor once a week to discuss performance and what can be done better. The work supervisors and production manager meet every day to discuss performance and possible improvements to all performance indicators being worked with. According to the management philosophy being followed, the workers are best qualified to know where the problems lie, and must therefore be involved in a process of constant improvements. However, many of the workers still report that it is difficult to have their views heard.

### *Boundaries between the sexes*

When you walk into the production area as a visitor, you immediately notice that some parts of the factory are populated with women and other parts with men. The men produce the mixture the cakes and sweets are made from, and the women do the packaging. The men look after the production machines, and the women look after the packing machines. The technicians are men, and most of those working with transport and logistics are also men. The restructuring of production has not impacted on these boundaries, and there is very little awareness of the boundaries between the sexes in either factory. Thus a boundary is maintained that creates unequal working conditions and reduced flexibility.

### *Organisational boundarylessness – summary*

Both factories have a work organisation with many restrictions and many boundaries. But both factories are working at making the boundaries more fluid. Workers are being involved more directly in production planning and management. The workers perform multiple functions, and are expected to participate in improvements.

Some workers experience this as a major personal challenge. They find that they grow to meet the task, and experience a pride in their work that they have never had before. Others see the development as small ripples in the surface of a production which in its details has always been managed and controlled by the management, and which is being run with ever-increasing intensification. Everyone is experiencing an intensification of their work. Greater busyness, fewer breaks, no days where they can take it easy. As a consequence, there is a diminishing number of employees to carry out the same work.

## **Relational boundarylessness**

Both companies are traditional production companies in which the social relationships have been characterised by strong boundaries between ‘them’ and ‘us’. There have been strong boundaries between the management and workers, between those on one production line and those on another, and between the various production groups. These boundaries are largely being broken down. A common “we”, encompassing the entire company, is being established, at the same time as an individualised “I”, emphasizing personal development, is in the process of replacing ‘us’.

### *Narrative of the small local company and the international financial market*

In both factories, management has succeeded in getting workers to understand the company’s situation, making the struggle for the company’s survival the uniting perspective. In both workplaces, the management is very open towards workers about the company’s situation. The common narrative about each company’s situation is as follows: The company is owned by a fund which is not interested in retaining its ownership. In the sweets factory it has been proclaimed that all investments have to pay for themselves within two years, because the time horizon of the fund is no longer than this. Rationalisation and streamlining is required in the short term, and a culture has to be created characterised by work responsibility and team spirit, so the company can demonstrate

good financial results and potential for the future, thereby allowing it to be sold at a higher price than it was purchased for. The sweets factory has the goal of doing better than the other companies in the group. The biscuit factory has the goal of avoiding acquisition by a major capital fund, and retaining its position as an independent company.

This narrative provides significant legitimacy to the drive for greater efficiency, intensification and staff reductions. Layoffs continue to create disquiet among personnel, and workers often feel that the layoffs that have been made are unjust. But no one questions the fact that there have to be layoffs.

Openness is something management gives priority to. Occasionally the factory is closed, and the entire staff are invited to a day in a conference centre to hear information from management and carry out exercises in social and personal development. There is a staff magazine which is used to communicate messages. The union representatives also play a major role in communicating information.

#### *The trade union as the company's underwriter*

Both factories are traditional production companies with a long tradition of union organisation. At both factories, virtually all production workers are members of the trade union. There is one full-time union representative at the biscuit factory, and two full-time union representatives at the sweets factory. The union representatives worked closely with the managers responsible for personnel in all matters relating to wages, skills development, worker participation in projects, organisation development, layoffs, and recruitment.

The union representatives see themselves as active participants in the efforts to modernise their company. Their task is to ensure that modernisation takes place with adequate consideration for workers, and in compliance with applicable regulations. The union representatives also work closely with the management to improve the working environment, and create opportunities for personal development for the workers. At both factories, one of the tools used to improve attitudes, working conditions and personal development is the semi-annual performance interview. All workers are called in for a personal interview with their immediate supervisor, to discuss their performance, their attitude, and their desires for the future.

In the sweets factory in particular, a major effort has been made to improve the working environment – especially by reducing the number of accidents. It is characteristic that both managers and union representatives talk about working environment initiatives as good business. Workplace accidents disrupt production, and being able to document a reduction in the number of workplace accidents increases the value of the company. It is also characteristic that the working environment initiatives focus on changing each employee's attitudes and actions. However, the relatively short time horizon they are working with accounts for the lack of interest in strain injuries caused by monotonous repetitive work.

### *Personal development under difficult competition conditions*

Personal development has become a central theme at both factories. A large project is underway at the biscuit factory which focuses on personal skills development. A wage system has been introduced at the sweets factory which has a focus on personal character. During performance interviews, managers place each worker in a matrix, where one axis represents professional skills (primarily the number of machines the worker can operate), and the other axis represents the degree to which the employee fulfils the company's values – 'passion', 'team play', and 'focus'. The goal is naturally to have as many employees as possible in the quadrant representing multiple skills and good values. No effort is made to hide the fact that the people furthest from this quadrant are likely to be laid off during the next round of retrenchments.

Some employees have found that this focus on personal development has been very beneficial. They have seen themselves as competent people, who are capable of more than they had believed, both socially and professionally. Others view the development with scepticism. They do not trust the management, they see the ongoing intensification of the work as unreasonable, and they see many of the decisions about wages and layoffs as unjust. However, there is not much room for these critical voices.

### *Relational boundarylessness – summary*

Relational boundarylessness is developing within each company, with traditional social divides being broken down. Some see this as a liberation, others as a threat towards the established security.

There is widespread understanding of the companies' survival conditions, as these have been presented, and many see it as unavoidable that each person will have to adapt to the new conditions. However, there is also widespread scepticism towards the common project of ensuring the company survives, but this scepticism is rarely expressed.

Personal development has become key, primarily because it increases the company's chances of survival, but also because personal development is good for each person. However, some are sceptical towards this focus on development.

## **Close**

As this review has shown, major changes are taking place in traditional production companies – leading to changes in the content of work:

- There is a departure taking place from the classic wage earner life. Production workers today cannot count on working with the same colleagues, on the same line, with the same tasks, on the same shift, or for the same number of hours. All the predictable elements in production work are undergoing change. There are also requirements for functional flexibility, greater responsibility for production, including reaching production goals, participation in decisions and projects, and co-responsibility for Lean processes. For some

employees this will mean personal development and challenges, while for others it will create insecurity. Most will probably experience a mix of both. In any case, it will push the boundary between work and the rest of life, in a fundamental way. It will be more difficult to delimit work, both physically and mentally – a delimitation which has otherwise been a classic characteristic of the wage earner's life.

- The changes taking place have being sparked by the fact that companies are acting within a global world. Both companies are for sale, and the changes need to be seen in this light. The time horizon for the professional management is short – until the next sale – which has an impact on how comprehensive the changes will be in the long term. The work on the physical working environment is an example of this short-term perspective. There is a focus on workplace accidents, but not on long-term strain. The short time horizon will also have an impact on how genuine employee participation will be. There are only top-down processes, and participation takes place from an optimisation perspective, which is not necessarily a part of the workplace culture. The trade unions are not very evident in these processes. It can also be seen in the fact that production workers are more loyal to the company, than to the management. These are seen in each case as two completely different things.

The time environments at the two companies are undergoing major changes, in line with the first point, above. In addition to the impacts this has on individual employees, it also has impacts on the social life/culture within the workplace. It has become difficult to meet with colleagues throughout the working day, and it is therefore presumably difficult to create a space within which one can reflect over the changes and potentially present alternatives to the management, such that a bottom-up perspective is also represented in the changes. This will be necessary if the changes are to have a more long-term perspective, but will also make it possible to create more developing and challenging work in otherwise traditional production companies.

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