



Contested Nordic Models of Work and Employment.

Volvo Uddevalla and Welfare Capitalism

Åke Sandberg (editor)

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Photo: The first Volvo to be produced at the Volvo Uddevalla Plant. This Volvo 740 was produced in 1988. On the side: "No 1 from Uddevalla" The Plant was shut down in 1993. Photo taken at the Volvo Museum in Göteborg on July 7 2012 by Wikimedia Commons user Mangan2002, licensed under the Creative Commons Attribution-Share Alike 3.0 Unported license.

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Arena's Economic Council is a project within the think tank Arena Idea. Its purpose is to broaden the economic and political discussion in Sweden with a radical and progressive approach. We want to create an independent arena for developing knowledge and renewing the economic debate.

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***In short:** This report is based upon transcriptions from two symposia at the International Labour Process Conference in Stockholm, March 2012. Participants reflect on models of work and organization, and models of labour markets, and how they relate to each other in creating a 'productive welfare'. Throughout this report we have kept the informal style of the introductions, presentations and debate.*

Introduction: Models of work and society

Åke Sandberg¹

Two symposia (round table discussions) reflected on 'models' of work organization and 'models' of labour markets and how they relate to each other. Volvo and its Uddevalla plant, and the Scandinavian/Swedish models of labour market were our cases. The round tables took place at the International Labour Process Conference ilpc2012 in Stockholm in March 2012 organized by the Department of Sociology in the beautiful Aula Magna at Stockholm University.

Preamble

On the macro level the labour market model with its solidaristic wage policy, active labour market policy, training and job creation is at the heart of the Swedish model. The labour market interacts with a universal welfare and social policy. With these two policies enhancing each other, the labour movement has formulated their aim in a beautiful way: Based upon equality, the free development of all individuals, but at the expense of no one. On the micro level we find models of qualified, decent and even 'good work' and participative forms of management. These are mutually dependent elements in a social contract.

There are however recent tendencies that threaten this contract of emancipation and 'productive welfare': degradation of work, and precarious employment conditions, increased unemployment, social security fee hikes and lower benefits, and problems in the welfare sector (lower taxes, less resources and crisis in schools and healthcare) may result in lower trust in the future of the model. Privatization in the welfare sector with a growing role for tax-evading venture capitalists may additionally strengthen such distrust. The willingness to accept technological change and rationalizations in the economy, so central to the Scandinavian models of economic development and job creation may thus be jeopardized. The often proposed background to some of these austerity measures is globalization and economic crisis. It is true that globalization of production and financial markets puts restrictions on politics in small foreign-trade-dependent countries like the Nordics, but the Nordic welfare economies *are* different from for instance Anglo-Saxon countries, although all are subject to the same globalization. There *is* room for politics, the economy is a political economy.

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Micro

On the micro level, is Volvo's human-centered model of work organization and production at the end of the road? In Volvo's car assembly plant in Kalmar the work content was 20-40 minutes as compared to a couple of minutes in standard line production. Workers followed the car on a wagon along the line between various stations or they worked in a dock, with the car in a kind of side track. The Uddevalla plant had stationary parallel production groups of nine workers assembling whole cars and working for two hours or more before repeating the tasks. Material was brought to the autonomous groups.

Production according to the innovative concepts in the plants in Kalmar and Uddevalla was closed down some twenty years ago, but the ideas are alive not just in academia, but also in practice. In a panel we will discuss what we can learn from the Uddevalla experience. Will we again see forms of production like in the Uddevalla plant where qualified workers in autonomous groups assembled whole cars? And more generally what can we learn for a future development of work organization where workers to a high extent control their own work, supported by advanced forms of automation, organization and learning strategies? And what types of vertical integration of planning and execution and of reorganization, even on the societal level, may be needed to make such an autonomous work possible?

Macro

Turning then to the societal level, do we see now the end of a Nordic and Scandinavian form of welfare capitalism developed since the 1930's? A Nordic model that includes both labour market and social welfare. Here we will focus on the Swedish labour market model based on national negotiations and collective agreements between unions and employers. A central element is the Rehn-Meidner theory and policy of solidaristic wages, implying the same pay for the same work irrespective of the profitability of the individual company. This leads to closures of less efficient units and employee dismissals. To prevent permanent unemployment the wage policy is accompanied by an active labour market policy for retraining of displaced workers for jobs in new and growing sectors of the economy, the so called the high road to advanced economic development. Such a labour market policy is supplemented in the welfare system with unemployment insurance and social insurance of a general reach that guarantees a decent standard of living, related to individual income. All this results in employees and

unions that have trust in the future, as restructuring and technological development serve as a means to secure jobs and welfare.

The Swedish and Scandinavian/Nordic models of labour market and welfare are concepts used at least since the 1930's. Since the 1970's or even 1960's there was also talk about Scandinavian models of work and management. A central example was Volvo Car Corporation in the automotive industry. In the panel we will discuss how the Swedish labour market model and situation was a precondition for the development of the Uddevalla model, and more generally the interaction between the micro level of work organization and the macro labour market model. Factors discussed include low unemployment, cooperation between unions and management, and work-oriented research and design on the workplaces.

Contested

Today both these models, the micro and the macro are contested in various ways. The Kalmar and Uddevalla plants have been closed for two decades and Volvo's plants today use a kind of modified lean production. Under Ford Volvo's dialogue-based management style moved in a more hierarchical direction.

The economic and labour market model combining competitiveness and welfare is also contested, both on a material and an ideological level. Fundamental changes in conditions are related to pressures from globalization and regulations on the EU level, influencing relations of power in the labour market. In Sweden, for example unemployment has grown drastically partly as a result of priorities to keep inflation down rather than unemployment. Political decisions have meant drastic cuts in social insurance and unemployment insurance benefits, and at the same time higher fees and stricter rules for qualification to be covered by unemployment insurance.

The 'Swedish model' is also contested on an ideological level. There is talk about a 'renewal of the Swedish model' which seems to mean mainly an emphasis on competitiveness at the expense of equality, whereas the traditional model had in focus the combination of these two goals. The dominating party in today's government coalition, the Conservative Moderaterna, has also made efforts to rewrite the history of the model, toning down the role of historical struggles during the 20th century where trade unions and social democrats, in early phases supported by a social liberal party, developed the specific model of labour market and social welfare.

Reflections

In the two round table dialogues presented here we try to see what we can learn from the experiences of the Volvo work organization models and the Scandinavian labour market model. Reflecting after the conference I think that important themes for researchers, unions, managers and employers include the following:

- Is the Uddevalla production concept possible today in large scale industrial production? If so, for which products? Could there be broad application of its basic principles – group autonomy, qualifications, participation in planning and development and less hierarchical forms of cooperation between workers and management?
- Are close links between models of work/management and societal models like the Scandinavian models of labour markets and welfare essential preconditions for the creation of qualified jobs and economic development?
- Does globalization of production create a pressure towards streamlining and homogenizing production concepts in a sector?
- How do ideological forces like promotion of the lean production concept promoted by a network of academics, consultants and publishing industry, influence changes in work organization globally?
- Is ‘good work’ (healthy, cooperative, developing competence) possible in one country or company? And if yes, how does that influence work and organization in other parts of production networks and chains?
- How does globalization of capital in production and finances challenge the ability of unions and nations to have a real say?
- Is the Scandinavian welfare state viable as a successful way of combining competitiveness with quality of work and life, or do we see now a race towards the bottom, towards lower standards of work organization, employment conditions and welfare as a result of international competition to attract global investors?

There is more about the conference at the website <http://www.ilpc.org.uk/> and blog <http://ilpc2012stockholm.wordpress.com/>. At the blog the plenary presentations by Joan Greenbaum (CUNY, NYC) and Michel Freyssenet (Gerpisa, Paris) may be downloaded.

Our report based upon two round table discussions is by necessity somewhat fragmentary and casual. The introductions and discussions were transcribed and then edited in dialogue with each speaker. I want to thank all the participants, especially Anders Boglind and Martin Kuhlmann, and also Michael Indergaard (St John's University, New York) for comments on an earlier version.

This Introduction is based on conversations at the two symposia, and also on a forthcoming volume with chapters about various aspects of the Scandinavian and Swedish working life and economy, *Nordic Lights. Work, management and welfare in Scandinavia* (Å. Sandberg, ed., www.sns.se/forlag)

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Round table: The Scandinavian labour market model

Åke Sandberg: Introduction

This symposium and plenary panel is about the 'Scandinavian Labour market model' in an international perspective. As some of you may know there has been a long debate in Sweden and abroad, about the Swedish model, the Scandinavian model or the Nordic model, and I will come back to that. This has been going on at least ever since Marquis Childs' book *Sweden: The middle way* (1936), about Sweden as something in between authoritarian communism and raw capitalism, combining efficiency and welfare. And that picture has existed for a long time, but of course when the Iron Curtain disappeared, that room for Sweden in the middle diminished and many things started to change.

When we talk about the Swedish model it is usually on the macro level, the economy and the labour market, but there are also similar discussions on the micro level and the mezzo level. On the micro level main issues are work organisation and socio-technical reforms, and they are discussed in our other panel about the Volvo Uddevalla plant. Uddevalla is an icon for that development, but it is an element in a several decades long development of work, workplace democracy and new forms of work organisation.

Our plenary panel on the Scandinavian Labour Market Model in an international perspective welcomes four panellists: *Ingemar Göransson* has been a researcher at LO, the Trade Union Confederation and at the Metal workers' union, and before that he was a researcher into work environment and technology at KTH, The Royal Institute of Technology in Stockholm. *Pamela Meil* comes from the Social Science Research Institute (ISF) in Munich and is Director of International Research there. *Gabriella Sebardt* is a legal counsellor in the organization of the Swedish Staffing Agencies. She holds a PhD in law from Stockholm and a Master in industrial relations from London School of Economics. Finally, *Ann Westenholz*, is a professor at the Copenhagen Business School, and has done research on industrial relations, workplace development and democracy.

On the mezzo level we find the typical forms of organisation and management in the Scandinavian countries. What is usually said is that they are characterized by change orientation, international orientation, participation and union influence, consensus processes and dialogue, value-based management with rather broad decisions. Some people say these are not even clear decisions to begin with, but rather talk about some kind of direction and then a very long implementation process full of dialogues with different groups. We have been told about for example French and German international participants in Swedish companies coming out from the meeting room. The Swedes are saying: 'Oh good, now we made the decision and we can go on.' The Germans and French come out and say: 'What – did we make a decision?'

The societal level, which is the most common level when we talk about the Swedish and Scandinavian Models, concerns things like strong labour-market parties, strong unions but also strong and well-organised employers and with a specific relationship to the state. Also of course high taxes, welfare, and a big public sector. As we usually describe it, this has been developed over decades as a result of political and trade union struggle against right-wing parties and often against the employers. Many of those changes have been about labour law and labour market and about welfare.

Interesting is that now this whole picture is changing. Sweden has a centre-right government since quite a few years, and they have a radical agenda of changing Sweden in a neoliberal direction with drastically lower taxes, and privatization of tax-financed welfare services. Now in some parts of Stockholm it is not possible to find a doctor in the public health system. Privatization is far-reaching in education, childcare, care of the elderly, primary health care and also some major hospitals. Venture capitalists have a strong hold in the welfare sector, and oligopolies tend to grow.

The government however now talks about preserving and developing the Swedish model. The government has, after all years of social democratic rule, taken over much of the rhetoric and kept many elements of the model, but they are at the same time making fundamental changes on very concrete levels. For example diminishing benefits in the sick insurance, and in the unemployment insurance benefits and at the same time making drastic hikes in the costs of being in the unemployment insurance, which means that the number of workers covered has gone drastically down. Of course this weakens the trade unions, and there is a list of changes of that type that will alter the balance between labour and capital, while the rhetoric is: we like the unions and we preserve the model.

This rhetoric or idea of preserving the Swedish model is rather recent. Until just a few years ago the idea was the opposite, and conservatives said: Sweden is doing well –but that is in spite of the Swedish model with all this welfare and trade unions and regulations. But now they even say: We are those who developed the Swedish model and now we modernize it. At the Davos World Economic forum in 2011 the centre-right government presented a report on the Nordic Model, *The Nordic way*, with contributions from researchers. An economist among them emphasised that we now see a modernized model including, privatizations, tax cuts, and cuts in welfare.

This rhetoric has now gone too far, the Social democratic party seems to think, so they have now had 'The Nordic Model' (Den nordiska modellen) registered as a trademark in areas like education, entertainment and culture! It is not easy to understand in what way this patent can be used, but it probably may be seen as a desperate way of trying to keep the concept for themselves. It also shows how disturbing the ideological debate that goes on today is to social democrats. A common Nordic social democratic and trade union commission was set up in order to investigate and develop the concept of a Nordic model, their own version of a 'modernized Nordic model'.

After this background about an ongoing debate here, we will now have a first round among the panellists, and first comes Ann Westenholz.

Ann Westenholz

Many years ago when we started talking about the Good Work here in Scandinavia we thought it was possible to measure it in an objective way. That idea is long gone. Today I would argue that if we need to talk about the Good Work we must understand sensemaking in the workplace, So I invite you to follow me to the Scandinavian workplace. My perspective is micro. I look at work today, and don't make historical analysis in this presentation.

I would like to argue that sense-making processes within our companies follow three different perspectives. We have a Managerial perspective, a Critical perspective, and a Dialogue perspective.

Let me start with the Managerial perspective, which assumes that the organization is one unit: a capsule. The managers define the identity of the organization within that capsule and create value for employees in the organization. They design participation schemes and self-

management schemes, and create – what we might call – ‘the Good Work’ in companies.

The Critical perspective raises a debate about the idea of the organization being regarded as a capsule. This perspective is critical towards the management perspective because employees have a past and a future; they have families and a lot of other things going on that are not connected to the company. And because of that, employees don’t buy into the managerial creation of organizational identity and values. Participation and self-management – as suggested by the Management perspective - may well produce a lot of surveillance and stress for the employees. To find out about ‘the Good Work’, we have to see how employees talk to each other and make sense of what’s happening around them in the workplace. What is ‘shit work’ and what is ‘good work’? We must look at informal organization and not just formal organizational discourses.

The Dialogue perspective sits between the Managerial and the Critical perspectives. The idea here is that employees and employers (together with other partners) negotiate on how to produce a ‘Good Work’ in the workplace. This Dialogue perspective definitely doesn’t assume that we have consensus in the beginning. There’s no need for dialogue if we agree with each other. The Dialogue perspective assumes that there might be conflicting interests in the workplace, or that the views on work are very different, or that the situation is very ambiguous and we don’t really understand what’s going on in our environment and so on. If one of these three conditions occurs, we need to talk to each other. That is the idea. And then we have to find out how to develop a good workplace.

If you visit Scandinavian companies you’ll probably meet sensemaking in all three perspectives, both in our discourses and our practices in the workplace. What makes Scandinavian countries stand out compared to other countries or capitalist modes of organizing, is that we take the middle position; we have a lot of Dialogue perspective in our companies. It is this act of discussing good and bad work that really binds our organizations together.

Ingemar Göransson

I retired from the LO, the Swedish Trade Union Confederation of workers, one year ago. In 1985 I was in the Metal workers' union and we wrote a congress report in those days which was called The Good Work, and that made some impact but it is also funny to see how things transform. In those days we tried to create joint local wage policies linked to systems for training and education, and to systems for enriching work. There was a try to modify our local wage policies into an anti-tayloristic situation. It was really one of the foundation stones for what is being discussed here as reflective production at the Volvo Uddevalla plant.

Now, to begin with I find it funny that they try to register the Nordic Model as a trade mark. I thought that to try to use the capitalistic system for branding in order to protect their political ideas is a little bit odd I would say. We never came to think about that while I worked in the union. But it is a political word. When the neo-liberals try to change something in the Nordic countries and still call it the Nordic model, then the labour movement can stand up and say in one voice 'Oh, you cannot do that, that's against the protected Nordic Model. The Swedish Model or the Nordic Model is a fortress, which protects the people from all neo-liberal and central European ideas'.

Now one thing, if you want someone to tell you about this model you will get many different answers. My answer is this: The fundament of the model is the active role of the state, the Swedish or the Scandinavian states, the Danish State etc., to support the weaker part on the labour market, that is to support the employees, the employed, and to support their unions. We many times describe this as if the state is neutral and that we are social partners taking responsibility for the country, and that we are autonomous, but that is not true. The model would not have happened if the state had not taken very clear actions in supporting the unions, thinking that if the social partners were more equal in power, then society as a whole will benefit.

Now, how does the state do this? I think they make it in many ways. The first way is to put no restrictions on union actions; they act free from regulations but under a high responsibility for the development of society. This means in practice no regulations or very few regulations on what type of strikes you can have, and the regulations we have are found in collective agreements rather than in laws. Secondly unions and employees have free access to sympathy actions, which is rare in Europe. The only condition for a sympathy action is that the primary

strike or the primary lockout is legal, and not in contradiction to the collective agreement. A second method for the state to support the weaker party is with laws. There are laws for codetermination, collective agreements, the protection of employment, and what type of contracts are allowed on the labour-market. But then the state says 'if you want to do this, otherwise you can do that as long as both labour market parties agree'. So the state makes laws that are semi-dispositive, that is the labour market parties can do something else if they agree on that.

One rule which is quite a funny one and which the employers are very angry about, is that it is not allowed to work at night in Sweden, night work is almost forbidden. Well, then you go out at night in Sweden and see that there are people working, because you have to do a lot of things during night time. Our fire departments, the police and so on, they are excepted from the rule. So what is the idea about this restriction on working at night? It has created a situation where the social partners have to agree under what conditions work at night should be allowed. The law strengthens the unions in such negotiations.

The third and maybe the most important thing is that when the state gives these rights they give them to the organisations and not to the individuals. The European Union is creating rights for individual citizens, to the members of the European Union as individuals. In Scandinavia we rather have collective rights, the state gives a group of people rights, and it is the unions or the employer organisations that interpret those rights and execute them in negotiations or in a labour court. So the state is not neutral. What is the outcome of this? This creates a situation where we have a Pippi Longstocking – you know that girl with the red hair and socks of different colour, by Astrid Lindgren. Pippi once said: 'If you are very strong, you have to be very, very nice.' And she could lift her horse, did you know that? And if you apply that to our labour market you would say, if you are given strength you have also to use that strength in a responsible way. The Swedish unions, and the other Scandinavian unions, they often talk about and show their responsibility. Once I had unions from Great Britain here and, when they heard me talking, they thought that I was a representative from a yellow union, a union controlled by employers' side. We cooperate and we negotiate based on our power.

What is the outcome? The outcome is responsibility but it is also some things that help the transformation of society. We, the labour market parties and the state have carried out enormous structural reforms with very little opposition. We closed down all four shipyard industries, and

we were the fourth shipbuilding country in the world, with almost no opposition. We closed down 50% or more of our special steel industry, and we closed down almost all our farming – but that was earlier – we have 2% of our people working in farming now, and 50 years ago we had 30%. People in some ways see the good thing of this, they see the benefit of it, and they see that the organisations they are members of, and the state is protecting them. In the Swedish unions we have a saying: ‘We don’t protect jobs, we protect people in their transitional jobs.’

Gabriella Sebardt

I am replacing my boss Henrik Bäckström, who at the last minute got called into collective agreement negotiations.

We both work for a fairly new addition to the Swedish model, the Swedish Staffing Agencies (SSA), which is an employer and trade organisation for staffing companies. Just the other week, we calculated that on the basis of figures from Statistics of Sweden about 97percent of all employees in the staffing industry are employees of our member companies, hence we have a pretty good coverage. I believe the average collective agreements coverage in Sweden is 90 percent. By contrast, having collective agreements is compulsory for membership of the SSA and hence, we are very much part of the Swedish model. This presents certain challenges, however, and as a phenomenon we are a novelty in the sense that legal recognition is fairly recent. Staffing was made lawful in 1991 in Sweden, and I understand the situation has been the same in the other Scandinavian countries. Even so, our collective agreements precede this date and actually, the industry dates even further back. There were staffing related business activities already in the mid-late 1800s (the placement of nurses).

The perspective that the staffing industry brings attention to is the changes to business structures and, hence, employment structures, that have occurred in the past century. Figure 1, used courtesy of Professor Erik Giertz at KTH, shows the evolution of these structures. In the early 1900s, there was a fairly scattered picture, manufacturing being mainly characterised by the putting-out system (subcontracting). Then, in the post-war period, there was a concentration into big business corporations, which, nevertheless, turns out to be a temporary regime. Now, after the millennium, there is again less concentration and a scattered picture, more of a network type, is re-emerging.

Employment and business structures

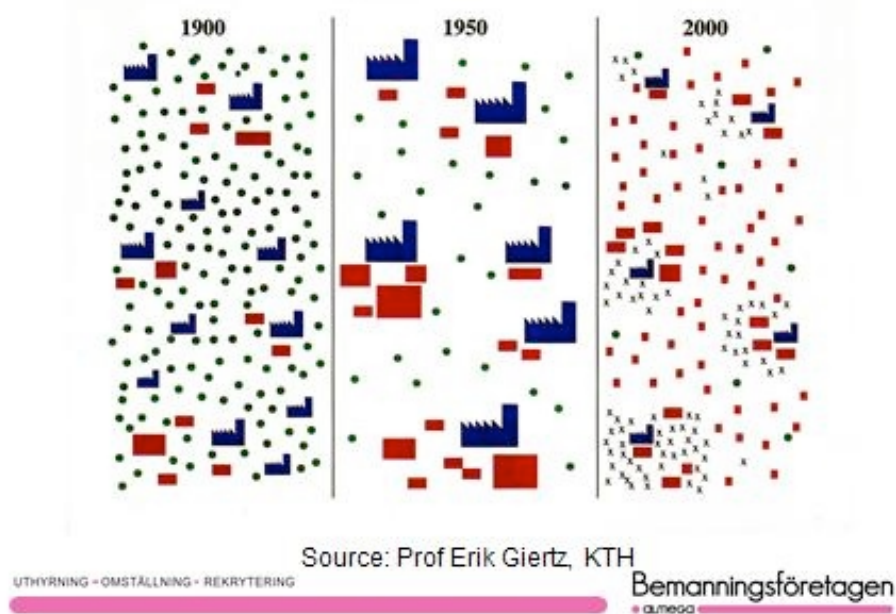
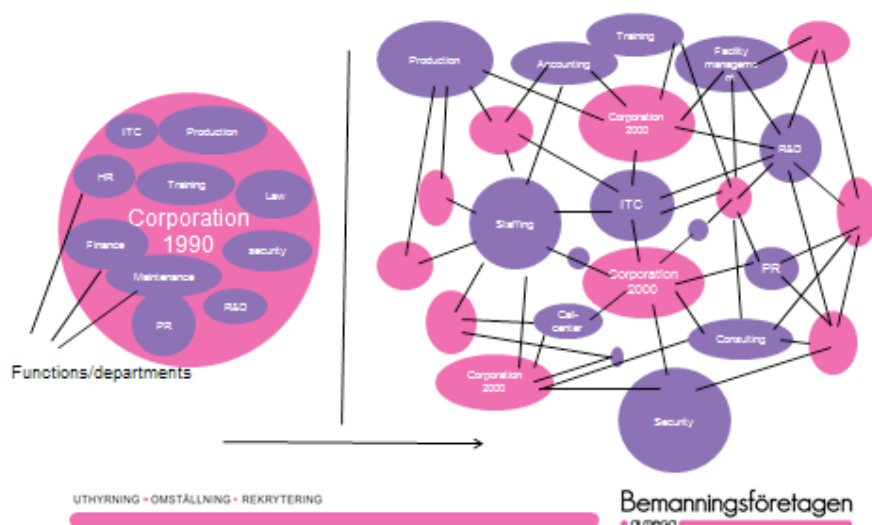


Figure 2. Henrik Bäckström and I frequently use to present how we perceive the role of the staffing industry in this evolutionary process. Previously, illustrated by 'Corporation 1990', all functions were in-house departments. Today, work and business are organized in networks, illustrated by 'Corporation 2000' focusing on certain core activities while having many suppliers for other services. Incidentally, Henrik got his doctoral degree from the University of Uppsala, where research on such business networks has been conducted for many decades

Change of work & business



Of course, this development is gradual, yet this shows how we believe staffing agencies should be perceived: as professional suppliers amongst other professional suppliers.

Naturally, as stated earlier, this transition presents a number of challenges. For one, staffing is sometimes considered a complete anomaly, challenging current perceptions of regular work, regular employment, regular labour markets, and, as a result, such activities sometimes end up in conflict with organised labour. As a matter of fact, our collective agreement with the blue collar unions is being renegotiated today under some strain. But also the employer side, i.e. organised employers, does not necessarily know how to deal with the staffing industry. This is an experience shared by all of the Nordic countries, the staffing industry's relation to the Nordic model of industrial relations is at times complex.

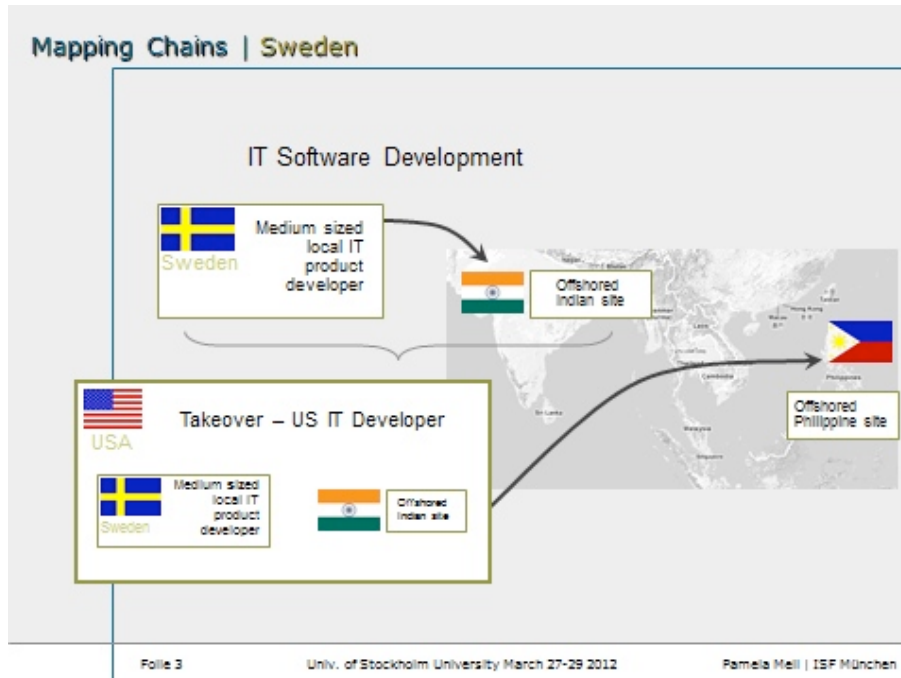
Pamela Meil

Basically Åke asked me to talk about global value chains and comparative industrial relations models in order to look at the Scandinavian model in a broader perspective. Following Gabriella's presentation provides a nice pathway for my comments because she demonstrated very clearly the kind of reorganisation connected with restructuring across value chains, also within Scandinavia. For instance, the way goods and services are being increasingly produced in network structures, and the dispersion and fragmentation: these developments are taking place in connection with changes to networked based structures of organizing businesses. I think just about everybody here is well aware of the fact that we are seeing a pretty intense process across the world involving the restructuring of goods and services in the context of global value chains.

This restructuring across global value chains has consequences for what types of work are carried out, where, and how the work is divided and distributed across sites and the conditions under which work is carried out at the various sites. There are a number of potential impacts for the home site, the origin site, as we call it, in terms of work and employment. There can be various labour market effects, for example job loss due to jobs going abroad. Another potential outcome in a more positive scenario that is sometimes hypothesized is a shift from low-skilled to increasing high-skilled work in the home country as jobs at the low-skill end of the spectrum get outsourced or offshored. Besides labor market effects, there are also effects in working conditions, such as

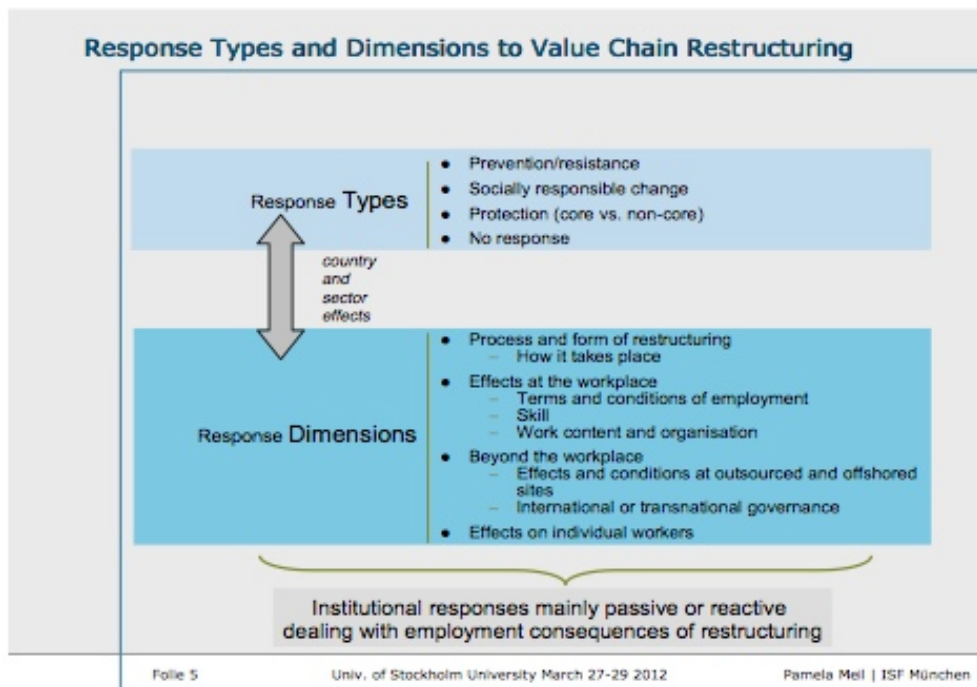
those affecting the content of work, as well as the diverse work contracts that sometimes exist even within the same unit, precarious forms of work that then get generated, and finally changes in the organisation of work. One example regarding changes in the organization of work that often gets discussed together with restructuring across value chains is an increase in project work. This has a large potential impact on work intensification, but can also increase autonomy and empowerment, two potential positive effects for work and workers. Standardisation and formalisation are potential outcomes in the new division of labour across value chains. The sectors in which work takes place can also shift as a result of restructuring across value chains, for instance a shift from production to services or a shift from public to private. All of these developments present major challenges for both employer organisations and unions in particular national settings.

So, I end this part with a rather provocative question: What role does or should a national model of work have, such as the Scandinavian model, for industrial relations in light of the reorganisation of work across global value chains?



To begin addressing this question, it is useful to see how value chains actually grow and develop. I have a very concrete illustration of this process in the slide above. One of the value chains that we mapped started out with a Swedish medium-sized local IT product developer

who had an offshore site in India. Then, both the Indian offshore site and the Swedish medium-sized IT software producer got taken over by a U.S. IT developer. The US developer had an offshore site in the Philippines which it preferred over the offshored site in India and thus started closing down the Indian site and building up the Philippine site. As time progressed, unfortunately quite a bit of the jobs at the original Swedish site were also lost, many to the Philippines. In the process of negotiations about what was going to happen to the Swedish workers, in comparison with all of the other industrial relations responses from different sectors and countries that we identified for value chain restructuring, we found that, among the various response dimensions that might be possible, some differences between sectors can be identified and also some differences between countries.



Thus, our research revealed that there are country and sector effects in response types and in response dimensions. What we specifically found in the various response types was a kind of ‘Scandinavian model’ which we called socially responsible change. We used this term because although the actual restructuring couldn’t be prevented, Scandinavian actors of social dialogue were able to deal with the outcomes the best. They were able to acquire the most generous settlements, and negotiations between union and labour organisations were required. Nonetheless their responses, as in other national settings, were passive and reactive because they couldn’t prevent the restructuring. There was very little happening at the beginning; it was almost always happening at the end.

What we end up seeing is - yes, there are still sector and country differences in value chain restructuring responses, but there are also some rather negative similarities. Basically independent of country or region, value chain restructuring is mainly a management prerogative, even though the outcomes are dealt with differently. One of the main problems for industrial relations actors in general is that value chain restructuring intensifies the power differences between labour and management by creating large diffuse company sites or units across the globe. You have complex networks, you have remote contacts and therefore it is very difficult to have an organisational anchor for industrial relations efforts.

I end with a couple of questions for the plenary discussion.

- What can or should the responses to value chain restructuring and work in value chains be?
- Where is the locus for worker identity? Is it the company, the organisation, the market?

And finally I know that in the Scandinavian model good work is a central discourse. And so, when you are dealing with value chains you always have to ask yourself – good work for whom? Because even within the country or across the value chain there are differences in the effects and consequences that the work ends up having for different people.

Discussion

Åke: Åke: Thank you Pamela, it is good you managed to link up to several of the earlier contributions, which I think is a good start of a second round around the table here before we let the audience take part. Will you start Ann?

Ann: If we believe that we have a Scandinavian model (which is always something that can be contested), where does it come from? The state has a really important role in what happens in Scandinavia, but I don't think that's the whole story. To understand which type of workers were moving into industrial production more than hundred years ago I think we have to go back to the history of Scandinavian countries. We must acknowledge that the industrial period started rather late in Scandinavia and I do believe that saved us from the very worst working conditions. Another part of the explanation may be that peasants were relatively independent in Scandinavia, and they expected some autonomy when they moved into the factories. These were the

conditions when the unions were established at the end of the 18th century. The unions in Scandinavia have the highest number of members in the world today. I am convinced that the Dialogue model exists in the workplace due to the fact that we have very strong unions. Another point to consider is that I think Scandinavian employers have a different attitude towards employees. They seem to be more cooperative than employers outside Scandinavia; they are more willing to cooperate with workers and employees in the workplace.

Gabriella: Following up on Ann's comment here, my view is that the staffing agencies are fully integrated into the Swedish model. At the same time, they represent a great challenge to this model. I have been toying with the idea of writing a paper titled "The Swedish staffing industry, bringing out the best or the worst in the Swedish model?" The reason is that there are lots of issues that are brought to the fore by this industry. Just to mention two examples: First, the organisational structures of trade unions, in particular in the blue collar sector, have not been drawn up having agency workers in mind. Second, the responsibility for the work environment is shared between agency employer and the user company supervising the agency worker. In addition, there is an EU-directive on agency work which will be, eventually I believe, implemented in Sweden. In the long run, it could render collective agreements pointless, even creating a kind of indirect general applicability of collective agreements. In other words, there are many things happening simultaneously

I find that the staffing industry is at the frontline of this development and we will see whether the Swedish model survives. Who knows, the staffing industry might be last-in-first-out. Personally I am quite fond of responsible social partners. Yet, on the other hand, I spoke of the staffing industry's level of organisation which is very high. By contrast, union density is not as high and has been in decline for quite some time.

Anders Kjellberg (sociology professor in Lund) has shown that on average the level of organisation in the Swedish labour market is 15 per cent higher amongst private employers as compared to private employees. I think this represents many challenges, some which the staffing industry is already facing, for instance the issues of legitimate representation and the right to industrial action.

Pamela: I will ask Ann about the following: It appears that the concepts you are discussing are very focussed on internal company-based models. Is that the only place where they can apply? Is it still the best place for them to take place? And then I have a question for Ingemar:

you said that one of the roles of the unions is to be able to help in structural change. When I look at for instance Gabriella's pictures of the network based model that she is presenting, I am wondering what is your response in terms of dealing with that, in terms of these kinds of new organisational structures? Is it a big challenge for you or is it actually just sort of 'business as usual'.

Ann: I talk about sensemaking in companies because I think that is where the discussion about Good Work is happening today. There used to be a hot debate about 'the Good Work' in our society, the unions, the employers' associations, and at state level, but that debate has more or less vanished. But it is still going on at a local level. People are making sense about what is 'shit' and what is 'not shit' in their workplace. But we are missing the voice from the unions, the employers' associations, and the state. It is local at the moment, but I believe it is bubbling over into other groups.

Ingemar: As I see it less is happening than what is told. Sometimes that is good. Many out there describe how dramatic changes are, and that unions are very slow and that we don't react to all these things. In many ways there is however business as usual. For the unions there is business as usual, which means: Organise, organise, organise! And find the employer, sign agreements, see to it that the employers fulfil the agreements and so on. The T&R (Temps and Recruitment) industry is an interesting example because it is really new. Twenty years ago we had no T&R industry in Sweden, they were prohibited in law. Only a restricted segment was allowed, secretary agencies and there is a collective agreement for that since 1979.

And then they exploded over the 80s and the 90s. Among the blue collar unions there was a long discussion during the 90s: Should we sign an agreement or not for T&Rs? An agreement was signed in the year 2000 and I was one of those who created that agreement for the blue collar workers. The employers were more interested to get that agreement than we were on the union side. We put up some demands and the employers said: No, we cannot accept that. We said: Then there will be no agreement, and then they said: Oh please be seated. And why?

Because for them, for the employers, it was a very important step to have an agreement in order to be accepted within the Swedish labour market and the Swedish model. They would be looked upon with even more suspicion if they didn't have that agreement. I had those firms calling me saying, 'hey we are not on the list among those who have signed this agreement, so please add us to the list because I have four

people standing outside a construction site, and they don't get in until we have been accepted' and similar stories.

And this led to that the blue collar workers in Sweden are having I think one of the most complete agreements for T&Rs with equal pay and equal conditions for the people who come in and the ordinary employed people. This is how we handle a new phenomenon. I would not say we handle them all but that is an example of how we have always tried to help or to support a structure that we have created before. The management for Manpower, Europe came to LO in 1995, and said: 'We have a world-wide strategy saying we don't sign collective agreements, nowhere. But now we want to get established in Sweden, and we have understood that here we are going to have a collective agreement. How do we do that? Can I make that with you?' The secretary of collective agreement in LO said: 'No, no that is not the way you do it.' On the whole it is a whole country, it is a structure. We have tried to meet all the challenges, and keep and then transform.

Åke: Now, are there questions or comments from the audience?

Roland Paulsen, Uppsala University: I really think it is a disgrace to hear Gabriella here saying that staffing companies in Sweden are part of the Swedish model without evoking any reaction or raising any eyebrows. The Swedish staffing companies last year probably made the most failed PR project in the Swedish history, I believe. They started a site called we call ourselves and the site was about collecting ideas of what do you call an employee who works for a staffing company; there is no good word in Swedish. So what do we call ourselves? And there were many suggestions. The only problem was that the site was heavily censored, those responsible for the site didn't accept all suggestions. And an alternative site was created that was even more popular actually, and I think that the winning word at that site was slave. That is what you call yourselves in Sweden if you work for a staffing company. This was a big thing in Swedish media. My question is: If we can accept that the Swedish staffing companies are part of the Swedish model then is there really a Swedish model worth talking about?

Elaine McCrate, University of Vermont, USA: A question in a second, but this is the only opportunity I'll have to thank the Organising committee, University of Stockholm, Swedish Council for Working and Social Life Research (fas) for sponsoring the conference. It has been a great opportunity to come to Sweden and I really enjoyed it. I have learned a lot, so thank you.

A question for Ingemar: I believe you said that 'we protect people not

jobs' and I didn't hear anything about the Rehn-Meidner model, which is that when people are laid off there are or it used to be intensive programs of retraining and relocation. This is what we are referring to in the United States. So instead of trying to protect jobs you are sponsoring mobility and allowing turning in the labour market by helping people to adapt to it. Is that a fiction?

Unknown participant: The question about for whom the value chain was created is very perspicacious indeed. For now in the globalized supply chain the problem is, and this is a question that occurred to me in terms of maintaining one model, does it mean that workers, probably like automotive workers in India or garment workers or IT workers, have to bear the burdens for the tightening cycle times etcetera? Managerial strategies have differences, but they are similar in the way in which they are implemented, because companies are the same all over the world.

Second, when people in Sweden in popular culture or in political action discuss the Swedish model what are their points of comparison? Which are the alternative models that they consider and recognise themselves as being different to? Finally, is it possible in the sense of a collective alliance of workers to find a way of norms so that we can have a fair world?

Victoria Lambropoulos, Deakin University, Melbourne: I wanted to thank you also. My question is this: What is the public's view of the move to privatisation of significant assets that the current government is undertaking? I understand that at least they are still a very popular government, because they have been re-elected recently and how much do you think that is manipulated by the very slick propaganda regime of the current government political party?

Åke: Thank you for your questions. I will open up now for anyone in the panel who wants to comment on any question.

Ann: I would like to comment on the 'slave argument' concerning the staffing industry because I think it is a very good argument. When I talk about a Dialogue model as the Scandinavian model, I argue that it is the dominant model in Scandinavia. But it doesn't include everything that's going on in our companies. What you've said about 'slaves' fits into what I call the Critical perspective and you can find those working conditions in some Scandinavian companies. The Scandinavian Dialogue model is something that is specific and very different compared to the Anglo-American liberal model and French dirigisme

model, which have more centrally state-controlled capitalism with weak unions and weak participation in the workplace.

Åke: I might add here that I agree and in Sweden we basically compare with the Anglo-Saxon model, the market-liberal model, with weaker trade unions, and a weaker state than here. I would like to comment also on the question about privatisations, what people think about them. Recently media have reported about scandals in the care of elderly, mainly in a couple of privatized companies, owned by venture capitalists, evading taxes by basing themselves in Cayman islands and the Channel islands. A major research report showed that privatizations have not led to higher efficiency and quality as promised by the centre-right politicians. The public opinion is rather critical and wants to forbid or radically limit profits in the welfare sector. Still only one political party, the left party holds that view and wants to forbid joint-stock-companies in the sector. The green party and social democrats will certainly go for some kind of restrictions, but don't know yet what to do. The social democrats are very divided on the issue, and contrary to our neighbouring countries they contributed in the early stages to far-reaching deregulations and privatization in the sector. Lobbying from business for continued privatizations is very strong and intense. This is a very big market for industry and with very safe financing (from taxes) – loved by venture riskavoiding venture capitalists. All actors, including business talk about better quality control. The centre-right government parties also propose a code of conduct, and talk about limiting possibilities for tax evasion.

Ingemar: I have a short remark. The on-going privatization is a semi-privatization in the sense that it is all financed by taxes. What happened is that these companies are doers, they get the money from the taxation system to perform these services but they are not financed by fees or by income. They are financed by the taxation system, and therefore it is a semi-privatization if you compare it to a full privatization like in the United States, where you have your private insurances and all that, that doesn't exist here. It is a privatization with dramatic changes but it is not a 100% privatization, and it is an important distinction. Therefore the state and the communities can put demands on the doers. Remains to be seen to what extent they will do so.

Åke: And these deregulations have gone on for a long time, and specific to Sweden that Social democrats in contrast to the other Scandinavian countries very early were favourable towards this change, and that is probably what explains the fact that privatizations have such a breakthrough in this country and also why the social democrats have such a problem in knowing what to do now when you see the negative

effects and the public opinion against privatizations. For venture capitalists, who here are called 'risk capitalists', welfare is a good business because you have a very secure demand, people get sick, they need care, and they need to go to the pharmacy, and there is a very good and stable financing that comes from the state, from taxes, all of it. And it is a growing sector here, at the same time as industrial production is outsourced to Asia. So venture capitalists and private capital at large here love the deregulation of the welfare sector.

Ingemar: One question was what has happened with the labour market policies like retraining and education systems. They have been dramatically reduced but still about half of the unemployed are found in what we call active measures, that is training and education for qualified future jobs. The other half of the unemployed people are in open unemployment; all those who are registered. We, from the unions' side, are of course critical towards the fact that education has been reduced.

Gabriella: You also have the structures set up by the social partners to manage redundant employees, based on collective agreements. For private white collar employees, the structures date back to the 1970s, while for private blue collar employees they were set up in 2004. Now the municipal sector has a similar collective agreement, providing extra money on top of the unemployment benefits and also that which is called 'transition support'. The latter is composed of various kinds of measures aimed at assisting the individual in finding a new job, such as training, networking, interview skills etc. So the social partners are contributing in this area as well.

Åke: A small addition to what you both just said. An important change is that there is less money for basic and vocational training for people to be qualified for growing jobs in growing sectors of the future, the 'high-road' strategy, and more money is put into thousands coaches meant to help people to find the jobs that are already there, often less qualified jobs. This is privatized and lot of small coaching companies have developed. One of the big recent reforms was to lower taxes on restaurants in order to create new jobs in that sector, as well as tax subsidies to people employing maids and housekeepers.

Pamela: I will address the question from the audience that dealt with value chains. Restructuring across value chains, that is, the way companies organize their value chains, has consequences for what types of work get carried out at various sites along the chain, the way work is divided and distributed between sites and the conditions under which work will be carried out at various sites. Thus it reorganizes the way

goods and services are produced. Swedish firms participate in these processes both within and outside of their country. But it is certainly not a Swedish phenomenon or a Scandinavian model phenomenon; it is one that happens everywhere where global value chains are occurring.

Swedish companies are still involved in global value chains whether or not there is a Swedish or Scandinavian model. This means they are also potentially participating in outsourcing jobs out of Sweden, or creating precarious work both at home and abroad. And that was one of the points of my presentation in a way. In terms of fair work, there is certainly not a coordinated global action; there are certain initiatives in certain sectors, and there is work from the ILO, and there is certainly some interesting initiatives of putting pressure on Western developed economies to be more responsible in the places that they are going to, and this should definitely be supported - also by industrial relations actors in countries with a well-coordinated national model like the Scandinavian one.

I am going to end with a sort of challenging comment. In the discussion there seemed to be some intimations that a schism exists between academic theorizing and policy practice. Perhaps research on developments in global value chains or in trends of financialization or in trends of privatization can be characterized as seeing more severity in trends than in reality exist. But I do think that we are trying to address a real problem, namely that unions or actors of interest representation have difficulty responding to developments and consequences for work connected to restructuring across value chains or reorganization in global production networks. Solutions, methods and procedures that are used for national models are often not applicable to this type of restructuring and it is difficult to change course in a system that has been so successful and effective in the past. I think this is certainly not only a Swedish or a Scandinavian model problem; it is actually a general European problem.

Ann: Now approaching the end I would like to thank Åke and his colleagues Fredrik and Lotta for their Good Work in making it possible for us to be together during this well organized and productive ilpc2012 Stockholm conference.

Åke: I am simply going to thank you all for coming here, for contributing this afternoon and during the whole conference, and for staying so long, and now it is lunch.

Round Table: Twenty years after – what can we learn from Volvo Uddevalla?

Åke Sandberg: Introduction

In this symposium and panel on Volvo's Uddevalla plant we will ask ourselves what we can learn today from Uddevalla's production concept. Although car production still continues in the factory – but will be totally closed down in May 2013 – the unique production concept ceased operation already twenty years ago. We will also hear reflections on why the original Uddevalla plant came about and why it was closed down.

The Uddevalla model with groups working in parallel assembling whole cars has been called reflective production, a general term used especially in research. Beyond the autonomous, competent production teams Uddevalla in a second stage developed a new type of direct cooperation between engineers and production workers and a focus also on cooperation and learning between the teams, and on participation and influencing production planning. Issues of power emerged as more important than was first envisaged, and a key role for unions and collective agreements seemed necessary.

Our plenary panel on Volvo's Uddevalla plant welcomes five panellists: *Anders Boglind* is a sociologist and HR Manager from Volvo Cars and now at Gothenburg University. *Michel Freyssenet* from the CNRS in Paris and the GERPISA network on auto industry research. *Ingemar Göransson* is an engineer and was a researcher at the KTH Royal Technical University, and then moved to the trade unions, to the Metalworkers' union and then to LO, the Trade Union Confederation. He worked both with work organisation issues, in Uddevalla for instance, and with collective bargaining strategies. *Martin Kuhlmann* from SOFI in Göttingen, is an industrial sociologist and worked with Michael Schumann on the car industry. *Lennart Nilsson* from the University of Gothenburg took part with his pedagogical expertise in the development of the Uddevalla production concept together with engineers from Chalmers technical university. *Hikari Nohara* is a professor in industrial organization and relations and also President of Nagano University in Japan. And myself, *Åke Sandberg*, studied work and management at Volvo in the 1980's and 90's.

We can ask ourselves: Do we see *reflective production* today in car production or in other sectors? Do we believe that reflective production can come back again on a large scale? In which types of production? And which parts of the concept has a capacity to survive and inspire further developments? Will it be reborn or is it finished. And what about lean production. Lean it sometimes seems could be anything, so perhaps reflective production could in that respect be seen as one version of lean! There seems to be a need for some conceptual clarifications here. Concepts and empirical experiences will be discussed by our competent panel here around the table. All of them in one way or other took part in developing or studying the Uddevalla plant.

The Uddevalla plant was in operation with that specific production concept for only four years, between 1989 and 1993. The Kalmar plant, which was not as advanced or as different to line production started much earlier and was closed in 1994, one year after the Uddevalla plant. In Kalmar the job cycle was about half an hour, with workers accompanying the car along the line. In Uddevalla to put it very short typically nine workers were producing one car in a stationary way. There were advanced technical solutions like logistic systems that brought components to the group, as well as advanced, new ideas when it came to pedagogics and learning. The idea was that people were capable and competent to work for two to four hours before repeating tasks, had they the right technology, tools and training. This was in contrast to the prevailing idea that workers in a car factory shouldn't work longer than one or two minutes and then repeat, otherwise you couldn't have the type of productivity and learning that was needed. So there was a belief that workers can learn much more than what is commonly assumed, and also a belief in group work. Lennart Nilsson will talk about that later.

For a start I thought that I would bring up the role of the company ideology, and the person Pehr Gyllenhammar who was the CEO during those years. He was in a way symbolizing the Scandinavian model of work organisation: socio-technical experiments with autonomous groups as a component and cooperation with unions on the plant and corporate level. Uddevalla and to some extent also the Kalmar plant were icons in the industrial sector for this type of development. Gyllenhammar still today talks about work quality in those production concepts, and he finds share-holder value too dominant today and development of work and industry neglected. He also says that today it is too easy to recruit workers: You can find workers for any type of job

and there is not any pressure from the labour market to develop new production concepts.

Gyllenhammar also says that good jobs of this type are the key to productivity through using the competence and learning capability of workers. Gyllenhammar, and the unions, seem to have a fundamental belief in these concepts, in a 'high road', but today it is challenged. Many argue for a growing market of low income, low qualification jobs, a 'low road'.

There was a fierce debate in Sweden at the time when Kalmar and Uddevalla were closed down with opinion articles in major newspapers, by union people, managers and researchers. A couple of the researchers, both Swedish and European, and a former manager from Volvo are seated here around this table. One of the outcomes of that debate was the book *Enriching Production. Perspectives on Volvo's Uddevalla Plant as an Alternative to Lean Production* that I edited.² I have a difficulty believing, but an hour ago Michel Freyssenet told me that the book has been downloaded more than 7.000 times since 1997 from his website only, I think the hardcover book back in 1995 was printed and sold around 900 copies.

The other book I would like to draw your attention to is *The Machine that Changed the World* by Womack et al (1991). I see it as a skilful, ideological, propagandist summary of an interesting and good MIT research programme. The book was used everywhere. When we researchers had a seminar with Volvo Gothenburg headquarters management and unions, we presented our own research and also a critique of this book pointing at its theoretical and methodological weaknesses, including flaws in diagrammes, and that they wrote about things like the Uddevalla plant without having studied the site and without referring to the research that there was.

² The hardcover book was published by Avebury in 1995. It may now be downloaded in full text at www.freyssenet.com or at www.akesandberg.se All authors in the book make a positive evaluation of the importance of the Uddevalla experience and e.g. Paul Adler and Robert Cole conclude that we do not know the answers to questions like whether Uddevalla managers and workers would have adopted more standardized work and broader cooperation and learning, and that 'it was a tragedy that the plant was closed and these questions will remain unanswered'. They also argue that GM:s NUMMI plant was superior to Uddevalla when it comes to productivity and quality, and that quality of work at NUMMI was acceptable. They call NUMMI a 'learning bureaucracy' and even 'democratic taylorism' (as methods and standards are, they say, determined by the work team). - In a similar vein Uddevalla might be called 'interactive democratic control of group autonomy' – but I do not find the word democracy the right one in either of the systems. Reflecting over Uddevalla compared to NUMMI's type of taylorism however generates interesting perspectives still today.

Next Volvo Gothenburg management and unions put the book on the table and said: 'Look here at this diagram on page x showing what we must do to be competitive'. This book was the Bible also at Toyota and Renault that I visited. And Anders, you were at Volvo at that time, and I think you said something like: 'Why does this happen? Because Volvo and in a way Sweden as a whole had lost their self-confidence, there was nothing to believe in: There were crises everywhere, a fundamental economic crisis in Sweden, which led to austerity reforms (which in turn lead to Sweden coming out quite good after today's financial, but that is another story.) Volvo had overcapacity and must do something. And then on the company level you had this bible that could give you a direction and meaning, save your soul. Uddevalla was closed down and with that also to a high extent a model of production and work. – With these words I now give the word to the panel, and first to Lennart Nilsson.

Lennart Nilsson

In 1985, that means 27 years ago, seven criteria formed the Uddevalla plant. The first criterion was that it had to be a model for renewal of industrial production. The second was that it had to be a workplace desired by men and women, young and old, and with a friendly, helpful mentality supporting cooperation and work-related communication. So there should be no conveyor belt and no short cycle work, but long cycle work and mutual agreement as a tool for control.

Control in the plant should have three dimensions: social control, professional identity, and agreement. A new professional identity as a car builder had to be developed, and it was necessary to have a qualitatively new learning strategy to fulfil that. Products should have high quality, and performance should be better in terms of man-hours for producing a car than in other plants in Sweden or in Europe. Thus the plant should have lower total production costs . After seven years all those things were fulfilled in 1992

The Uddevalla plant was replacing a shipyard and got a state subsidy of 300 million SEK and Volvo was obliged to operate in Uddevalla for at least seven years, otherwise they would have to pay back the same sum. In the spring of 1993 when I gave a final talk to the 800 people at the plant I focused the attention on the possibility that this concept and this kind of new knowledge could be used in other kinds of enterprises.

And you could see that Uddevalla car builders were getting jobs in various sectors after the plant had been closed down.

The knowledge developed in Uddevalla can be used in pragmatic ways elsewhere. One piece is flow analyses in logistic processes from Chalmers Technical University in Gothenburg. Another is knowledge about vocational didactics developed in my research at the University of Gothenburg. After Volvo had taken the decision to build the plant they asked: How to organise learning in order to create long cycle work? I wrote a report and then they had also the intentions about the socio-technical approach, and the philosophy from CEO Gyllenhammar, who was also a leading person in the liberal party (Folkpartiet, at that time a social liberal party), hoping to create a model for the new middle-class in Sweden, to change and unite middle managers and competent workers through a new kind of group organization. In the groups, some belonged to the union, but I do not agree with those who argue that unions had an important role.

Åke: The plant, its design and the closing down were controversial in Sweden and Europe, politically and in the public opinion, on the employers' side, in unions and in academia. You and other researchers wrote critically about the closing down process and were told they shouldn't do that if they wanted to carry on doing research. Others said nothing and could continue by humanizing the reintroduced line production.

Hikari Nohara

For the comparative study of Uddevalla and 'New Toyota' I sum up the work of some Japanese researchers and Swedish researchers such as Lennart Nilsson, Tomas Engström and Lars Medbo at Chalmers in a joint research group for a comparative study between Japan and Sweden. We still have an ongoing debate among us but I will now give you my interpretation based upon our overall research.

First of all Toyota and Uddevalla they have the same problem, but different social conditions and as a result they have different solutions. The common problem is a shortage of young labour. On different conditions: Compared to Uddevalla among Japanese managers there is no interest in human inherent cognitive capabilities and there is no knowledge of holistic learning strategy. As a result they have different solutions. Of course in Uddevalla they abolished the assembly line. On

the contrary in Japan, they kept the assembly line and made partial improvements within the line system. That is the overall situation.

Also we have the same problem and the same technical conditions, and as a result the same technical devices to solve the problem. The same problem is, as I just said, young labour shortage. The same advantageous technical conditions, means the existence of manufacturing engineers, which make work-focused improvements possible. Such work-focused improvement-approach is quite different from the traditional Western way of improvement, where they only focus on equipment, and that is quite different from the way of Uddevalla, Toyota and actually Honda.

As a result they have the same solutions and by this I mean the same work-focused technical devices development. I will show you four examples: The first one is the buffers, the second one is the recovery of contextually meaningful work from fragmented work, the third one is assembly-oriented part grouping, and the fourth one is the kit system for material handling. – Please note that just-in-time is now misunderstood. Actually just-in-time (JIT) is not non-stock production but minimized stock production – and that is important. So there are a lot of buffers on the line in Toyota.

Anyway these four devices are found both in Uddevalla and in Toyota and that's why we call the Toyota system with these devices as the New Toyota system. And as I said, they have the same technical devices but Japan and Sweden have a different social context. So these same technical devices function differently in a different social context. For example buffers function as a tool of efficiency and autonomy in Uddevalla. But in Japan buffers function as a tool of only efficiency.

And in addition, as I said, the recovery of contextually meaningful work, assembly-oriented part grouping, and kit system – these are the common devices found in Uddevalla and also in Toyota. But they function differently. They function as tools of long cycle work in Uddevalla. On the contrary, they function as tools of simplification of work in overseas Toyota plants. There is a very opposite way to utilize these tools.

Finally, what about the possibility of a revival of the Uddevalla model. The existent advantageous tool of revival is standardization of how to conduct inner dialogue on the labour process. One should note that from an efficiency point of view standardization is the important tool to

produce repeatedly the same product. Only this kind of standardization makes long cycle work efficient. So in this regard the learning strategy developed by Lennart Nilsson is a kind of standardization of how to conduct inner dialogue on the labour process. Of course that is quite different from the so-called standardized work in which every motion, one by one, is strictly instructive. That's quite different, but both are a kind of standardization in different dimensions. Therefore, when long term employment becomes prominent the Uddevalla model can be revitalized, because long time employment makes a rather long time of training possible.

Michel Freyssenet

I would like to talk about three points. Reflective production as a mean to better understand the structural inefficiency of assembly line and the productive models that use this machinery. Reflective production as a mean to design another type of automation. Reflective production as a mean to develop a new social relationship

First: Reflective production as a mean to better understand the structural inefficiency of assembly line and the productive models that use this machinery. The organization of production and work in the Uddevalla plant was not an organization which 'humanizes work' in the sense that it renders work in industry acceptable and even interesting. Nonetheless, in seeking to attribute ordinary human cognitive and co-operative dimensions to work activity, Uddevallian designers have elaborated radically new industrial principles which are applicable and perform under certain social conditions (as with any system), hence resolving structural problems inherent to the moving belt, used by all the other productive models, especially the Fordist model and the Toyotist model.

And more important: The Reflective production system removes the loss of time inherent to assembly line, because it is impossible to completely balance the line. Finally the Toyota production system was mainly a system to reduce this loss of time, but without getting rid of the conveyor belt. The Toyotist model, if it is considered from the point of view of a pragmatic search for the primary causes of dysfunction by involving workers and their team leaders in the search, did not go as far as questioning the *production principles* which are at the origin of a large number of these very dysfunctions. Taichi Ohno seems to have forgotten a sixth 'why'! (He said that the workers must reconstitute the line of causes of each problem and so they should ask the question

'why?' five times) Toyotism attempted to reduce the economic consequences of structural problems linked to assembly line. The pressure that was put on workers to achieve this has, at present, forced Toyota to take a few steps backwards and reduce the workload. The Reflective production system, by basing itself on cognitive principles and parallel production, eradicates structural problems that Toyotism has not sought to analyse and thus avoid.

Reflective production manages to overcome practical obstacles used to justify assembly line activity. Reflective production overcomes the fact that it is impossible to memorize a large number of operations, to feed parts into parallel work stations without obstruction and costly interruptions, and to instantly adjust tools for each different operation.

Second: Reflective production as a means to design another type of automation. Reflective production has only involved assembly activity. Is it applicable to mechanics, pressing, sheet metal work, and painting, activities which are all highly automated?

In our opinion, at the assembly level, the Reflective production system must be analysed as another automation strategy. In fact, all small added value operations are automated, that is to say handling and administrative tasks. On the other hand, that which is complex, costly, and premature to automate, i.e. materials handling and the assembly of vehicles which are increasingly equipped and varied, remains manual for the time being. However, Reflective production would not have much of a future if it was set rigidly in the actual division between manual and automated activity. Hence, the question is raised as to how holistic principles could reorient the design of assembly and production automation in general.

Difficulties encountered in perfecting automated sections stem from the fact that they are designed, in both their mechanical and computerised aspects, with the objective of reducing to a minimum interruptions caused by dysfunction, and to do this it is necessary to have a predetermined estimate of incidents that could occur. However, unpredictable incidents are more numerous and frequent than expected. Rapid intervention by operators and repairmen to re-launch production as quickly as possible results in postponing and making other workers deal with the major causes of the dysfunction.

A holistic conception of work applied to the design of automated sections allows for the operators of the latter to practically and

cognitively locate and participate in the analysis of the origin of fabrication hazards and machine breakdowns. It is by creating technical and organizational conditions which give the operators a general intellectual overview of the product and the automated process that one can hope to see a socially 'anthropocentric' form of automation develop, thus inaugurating a genuine and long-lasting social process in the reversal of the 'intellectual division of work' in automated workshops.

The firms have not only to consider their future with regard to their markets, but also in the light of skills developed by their workforce. Such a scenario presupposes a profound change in 'employment relations', that is particularly increased power of workers over their work, their professional trajectory, and the enterprise strategy.

Third: Reflective production as a mean to develop a new social relationship. Three social conditions have been seen to be necessary for Reflective production. They also set limits to its expansion.

- Time allocated for each model and variant must be negotiated, because technical and organizational means which can impose a work rhythm no longer exist.
- The significant potential for improving the product and process and for reducing assembly time by assembly workers can only become reality if they do not also reduce employment.
- Finally, the collective dynamics of a genuine reversal of 'the intellectual division of labour' which thus comes about must be able to develop in an unrestricted way, which was not the case for Toyota, in order to make social compromise possible and to make the implication that needs last.

But the failure of all attempts to develop this type of production system leads to the conclusion that it is incompatible with the capital-labour relationship. We know now that the free cooperation of persons can be more efficient than work under capitalist conditions, as demonstrated for example by the development of free software and its capacity to compete with big software companies, the hegemony of Wikipedia developed in just a few years, etc...The current crisis could be an opportunity to find social relationships more friendly to Reflective production principles. What could be these other forms of social relationships? Utilities, public enterprises, worker cooperatives, associations, foundations etc. could be more efficient than capitalist enterprises, and win the competition if they developed the Reflective

production principles, that is to say if they reversed the ‘intellectual division of labour’.

Anders Boglind

I will take up a slightly different perspective here. I was working at Volvo during that time, not in Uddevalla but in the Torslanda factory where I worked for the HR department and in the R&D department.

You can read about the background to new plants in Åke’s excellent introductory chapter in *Enriching production*. There was a labour market situation that was very good with 2% unemployment. You had a very generous social benefit system, and you had high job security at that time. You also had a wage structure that was very different from other countries with automotive business. Automotive workers in Sweden didn’t earn a lot of money, it was perhaps a little bit above the average for blue collar workers but not at all the same pay level as in the US for example.

These factors contributed to the fact that shortage of labour, especially in the assembly, was a real restriction for the automotive business. This was not unique of course for Volvo but for all Swedish manufacturers. Many of them tried to make some experiments with socio-technical models of production. No one went so far as Volvo I would say, they took the lead. You could compare with the other auto maker SAAB, they started to modify the assembly line in their plants in Trollhättan and Malmö but they never were so eager or so determined in trying to find new and radical solutions.

These differences have of course to do not only with the strategy but also with people, with agency, with the unique corporate management by Mr. Gyllenhammar, which Åke touched upon. Gyllenhammar was unique in the way he built his development team. He hired or related himself to other kinds of people than most business leaders, to intellectuals, to union people, to researchers – you see some of them here, Lennart from the university and Ingemar was there from the union’s side. I think, Lennart, that the small role of the union you were talking about will be contested. Gyllenhammar was a politician and he moved freely around the arenas of the public and the business, politics, high social life. He was the most admired person in Sweden for seven years, he was chosen the most sexy person in Sweden – I mean power and sex go together.

Gyllenhammar was a grandiose guy in many ways, and he protected the Uddevalla idea at least in the beginning. He also had a strong position in the company as the owners were almost non-present. The shareholders were mainly minor stakeholders; this was going to change but at that time, until the crisis in the 90ies he was very free to use his managerial power. It is fair to say that the Uddevalla development was labour-market driven to a high extent, but it was only possible by means of intelligent and opportunistic political alliances with unions, with politics, with the public opinion and so on.

All this changed in a few years into the 90s , in a very dramatic way. You had a financial crisis, you had state budget deficits, it was almost like in today's Greece. You had for some time 500% interest rate from the State bank to the commercial banks. You had inflation, you had unemployment. After 60 years of profits for the first time Volvo made big losses in 1990/91. They had to make layoffs and for the first time they laid off white collar employees, which was a shock to an old Volvoites. During this period Volvo was in an alliance with Renault, and Renault was the big and strong part and Volvo was the weaker part. Renault didn't like Volvo's type of sketchy and very unconnected industrial system. In a future integrated industrial system, common for Volvo and Renault, there was no place for small and somewhat odd assembly plants like Uddevalla and Kalmar.

So you could say that it was sort of a double crisis. A moral crisis, or rather a financial crisis that was transformed to a moral crisis. Maybe Swedish solutions, the Swedish middle-ways and unique solutions didn't work any longer, not on the national level and not on the corporate or the company level? Some people felt that some darlings had to be killed in order to turn it around.

Then the MIT book, *The machine that changed the world*, was really read as the bible among the big majority of Volvo engineers. Renault managers used it to tell Volvo about its shortcomings. It had lots of figures and diagrams showing the weak position of the Volvo factories, but – and this is very important – already at that time the real problem for Volvo was not the factories, and not the plants and not the work organisation. It was about product development. We had an extremely long and costly way from ideas to products on the market. We had perhaps three times longer leadtime than the Germans or the Japanese had. This put the idea that other companies could learn something from Volvo under attack. Maybe Volvo had been too inward-looking, maybe Volvo had too look into what the best of its competitors were up to.

Volvo's picture of itself as a company in alliance with the future was questioned.

The small assembly factories, Uddevalla and Kalmar, were not complete factories, they were only assembly plants who got painted bodies from the mother factory in Torslanda. It seemed irrational in this situation to share a total amount of something like 150,000 – 160,000 bodies and divide them among three assembly plants, and send the bodies by truck from Gothenburg. The National Metal workers' union and the Gothenburg union agreed, and I think Ingemar will touch upon that also. This was one of the important reasons for closing Uddevalla and Kalmar.

But productivity was not so decisive, because one of the best factories – except for Gent in Belgium, which was always the best – was Kalmar and at the time of its closure in 1994 Kalmar was VCC's best Swedish plant, second only to Belgian Gent and much better than Uddevalla that had been closed the year before. At the closing-down of Uddevalla no one shed any tears in Gothenburg and in Torslanda I can tell you. Among Volvo's engineers, the legacy of the Kalmar factory is regarded as more important than that of the Uddevalla plant, perhaps because in the late 1980s, the Kalmar plant was re-organized in a way that was compatible with the new Japanese-inspired rationalisation strategy. Straighter flows and more stringent control brought about dramatic improvements in terms of man hours and quality.

To many of Volvo's managers and technical specialists, an adoption of the Japanese way seemed to point out a more viable road to modernisation, more in touch with international best practice. To bring the Torslanda plant up to an internationally competitive level, the means selected was the Japanese-inspired strategy that had been used by Kalmar in its final years. Between 1991 and 1995, manpower in Torslanda was halved from 9 600 to just under 5 000, and productivity and quality at the same time significantly improved, even if it was difficult to sustain levels that matched those in Gent.

Today Uddevalla has a very small place in the history of Volvo. Within Volvo, it is almost forgotten. Few Volvoites have personal memories of the plant. It is obvious that the Uddevalla experience has put deeper marks in academia than in the automotive business.

Åke: Yesterday we talked about the difficulties for small and different factories in globalized production and financial contexts. I have seen a

copy of a consultant's report that Edith Cresson, the French minister of finance, commissioned. She wanted to have an analysis of Volvo in case there was to be a merger between the two companies Renault and Volvo. The conclusion was very clear. As long as Volvo kept those two small plants with their own production and organization concepts a merger is not of interest to Renault and the French state.

Anders: The Renault guys called them 'Volvo's white elephants'. Odd and very interesting but not very useful.

Martin Kuhlmann

My view on Uddevalla will be a German one, and I want to concentrate on the question: what have we learned from Uddevalla or even better: what can we learn today from Uddevalla? And what can be done out of the Uddevalla experience for the future maybe?

The *first* thing, which becomes even more obvious looking backwards, is that Uddevalla really was a significant break with a long tradition of taylorism in high-volume car assembly. At the same time: Uddevalla did not come out of the blue. Instead it was part of a long tradition of socio-technical reform of tayloristic work. Abolishing the assembly line, Uddevalla took this tradition to an extreme point inventing a radical new way of assembly layout. But, the idea of working beyond the line was already established in the Swedish motor industry during the 1970s and 1980s.

The *second* point I want to make is that Uddevalla also came up with new issues, and seen from today, these are much more important than the issue of breaking the line. Things happened in the second phase of the original Uddevalla plant. I visited Uddevalla at that time and we were told that Uddevalla was going through a process of internal change. In the first phase the focus was on the assembly shop and the issue of stationary assembly of whole cars. At that time, some of the experiences were not as good as people had hoped, and so in the second phase of the original Uddevalla, managers and engineers moved out from their offices onto the shop-floor engaging themselves much more directly with the assembly workers. This second phase of the Uddevalla story is not often told, but from my point of view it is much more important when we think about what we can learn from Uddevalla today. At that time, the different technical functions and the different hierarchical levels came together in a new and different way working with developmental questions and improvement activities. By

this move they established bottom-up process improvement activities at Uddevalla. People who were closer to Uddevalla than me said that the main gains in productivity and in quality came under this second phase, and not under the first phase. But, of course, the two things are related: Improvement activities make more sense and are more effective if engineers work together with skilled assembly workers.

The *third* point is that seen from today, one message of the Uddevalla experience is, that we should not concentrate too much on the issue of teamwork and on the layout of direct production tasks – line or not. Since the 1990s we focused our research much more on the question of how the shop-floor is managed, how different functions and groups of people work together. Let's call it work organisation in the broader sense which also includes pay structures, plant organisation, management and accounting systems. I do not know the details how things went on, but I would say, focusing on these issues, there are a lot of things to learn from the Uddevalla experience even today.

I will now concentrate on in what way Uddevalla still is important for the discussion in the sociology of work. The first point is a rather pessimistic answer. One has to admit that when it comes to high-volume manual assembly work, this has developed in a much more tayloristic way. The line is back almost everywhere and cycle-times have become even shorter. If we look on a global scale, at the booming car assembly clusters in Eastern Europe, Korea, or China, things are even worse. Not only in countries like Sweden or Germany, but especially on a global scale there is a huge wave for 're-taylorisation' of car production work. This is of course a very pessimistic answer to the question of the ongoing the relevance of Uddevalla. Looking at assembly layouts it would be almost 'nil', no relevance at all.

But, a more optimistic account is possible. The first point is that work policy issues (we call it 'innovative work policy'), work organisation in the broader sense, which I already mentioned before, are much higher on the agenda now. For me personally, Uddevalla meant one step in the direction of focussing not only on direct work, on the organisation of assembly tasks.

The second point has to do with work organisation and working conditions in other areas than manual car assembly. Work and even production work is much broader than manual assembly tasks. In areas like automated assembly systems, high-tech production work in general, and even in the service sector, the basic principles of Uddevalla are very important even today. By basic principles a mean: having a

skilled, professional workforce with a high level of work-autonomy as well as engaging it in developmental work and improvement activities. We can learn a lot from the Uddevalla experience for other sectors where there are not the same economical disadvantages for a strategy of re-integration of work as in high-volume manual assembly areas.

The third and last point is that positive effects are possible especially if you look at new forms of improvement activities: new forms where you combine direct and indirect work, where people from different hierarchical levels and different functional departments are working more closely together. Blue collar, white collar employees is a somewhat older but still relevant term for this. The point is to achieve a higher and more equal level of collaboration. Visiting Swedish companies like Scania or SKF many years after the closure of the original Uddevalla, I've found that these ideas are still alive.

In the end, from my point of view, we have to look not only at the direct work process and the allocation of tasks, but we have to look much more at the social organisation of production, and the social relations in production. Today, they are of growing importance and we can learn a lot from the Uddevalla experience to develop more equal forms of collaboration. Of course, the issue of changing capitalist relations, which social organisation meant for the older school of American radical economists is not on the agenda today. I propose a more pragmatic and procedural answer to the still important question of power-relations on the shop-floor. And, just to mention it: the power relations on the labour market, are of course also very important. This has already been mentioned by my colleagues when it comes to the history of Uddevalla.

We should still work on the question of work organisation, on the issue of how labour processes are organised but, we have to consider labour market issues, the issue of employment systems even more than before. In most countries there has been a huge upswing of insecurity because of the growth of temporary agency work and other forms of precarious employment. Uddevalla equipped employees with more skilled work, more autonomy in the work process and new, less hierarchical forms of cooperation. One cornerstone was to equip people with more resources. To equip people with social rights, to give them better chances to use and develop their capabilities, is from my perspective the main general thing we can learn from Uddevalla. This is still important although, at least today, almost nobody in this world would use a non-line assembly layout in a high-volume car production plant, like Uddevalla did.

Ingemar Göransson

My experience of Uddevalla comes from working as a researcher at the head-office of the Swedish Metal workers' union in Stockholm in the 1980's. I quit there in the early 90s and moved to LO, the Swedish trade union confederation of workers. At that time I worked mainly with questions of work organisation, pay systems and education/training

My reflections will be about the question: Where was the union in this? Why did they do what they did? I will start with Pehr Gyllenhammar, because many of you have talked about him, and I have some issues to contribute. He was the CEO of Volvo. Volvo had a divided ownership structure, and his way of running the company was to get other partners to face the owners. One of the affiliates that he used was the labour unions. At this time the Volvo unions were by far the strongest unions in Sweden on the local level. If the union in Gothenburg opposed something they would coordinate that with Gyllenhammar, and he was very, very anxious to listen to what they said, and what they did not say, because that was his fundamental way of building his power.

In the Uddevalla project this was radically demonstrated between phase 1 and phase 2. In the Uddevalla factory project Volvo had what they called a red book, a blue and a white book system and that was how the project was organised. Now what Volvo designed was a traditional factory, and the project went to the company board to get the investment decision, but the whole project was rejected, and it was delayed one year. The costs increased by 20%. An important fact was that the local Metal workers' union at Volvo in Gothenburg said that they were definitely opposing the layout proposed because it was a rather traditional one, and it did not include the idea of a group organisation with full body assembly. Then to realise the higher demands the project group established a new way of production.

But we must know that Uddevalla is not that exceptional as many used to describe it, because since somewhere in the middle of the 1970s, that is 10 years before the start of the Uddevalla project, Volvo had been pushing new production concepts all over their plants, in trucks production, in trucks assembly, in engine production and in engine assembly, in gear boxes, and in busses. Every production management in that company had to be offensive in redesigning production and redesigning the organisation otherwise you didn't fulfil the culture of the company. This was a very special situation between 75 and 1991. So

they did it all over Volvo and Uddevalla was in some way the turning-point of that development.

But why it all ended had very little to do with Uddevalla plant design. It had to do with external issues like the bank crisis, the drop of demand for cars. Because of the whole market situation they had to reduce capacity any more, therefore they shut down Uddevalla and they shut down Kalmar, because they were not full concept factories, body shop, painting and assembly.

So there were many external factors and the union was smashed due to this crisis between 1990-1993. Unemployment in Sweden rose from 2% to 17% in two years. The unions were terrified, and all the ambitions that the unions had for a new world of good work they had been pushing for 15-20 years were dropped, especially in the Metal workers' union, and it was a tragedy. They didn't have the power or did not make the effort to stand up for their ideas since 20 years when they were smashed due to the high unemployment and the crisis in the economy. The union change to employability and to develop competence in order to fill up the jobs that the employer offered, instead of having demands on the quality of jobs. They turned the demand on themselves so the members would have the competence to fulfil the demand that the employer had a very tragic development.

After that, from 1993, 1995 and onwards the Swedish labour movement hasn't risen yet. They are still fighting a defence war against short-term contracts, temporary work agencies. Maybe we are not in such a bad situation as continental Europe, maybe it is a little bit easier up here, but still there are very few discussions about the things that in some way ended with Uddevalla. Seen in a 20 years' perspective Uddevalla wasn't that unique as it is described afterwards. There were a long chain of developed plants, and Uddevalla would never have come forward like that, unless the earlier 20 years' of building the culture in the company, trying different types of layouts and of ideas how to organise production and work and different concepts of group work.

Today there is no quick fix. It will be a long way. There must be a better economic situation in Europe and in the world. Now when the workforce experiences high unemployment they are not interested in putting up demands, and therefore it will take a long time to find out how to come back to the situation like in the late 80s and the discussion about various types of work organisation.

I will end with a remark on why the union didn't fight against the closing-down. The union was criticized because they didn't stand up for the Uddevalla concept when the discussion came in 1991-93. And that is true and that is also a tragedy, and the reasons are very simple. There was a need to close down capacity and the question was which plant to close. The union was very strong in the Gothenburg area. They had a special organisation with one common local call union club for all Volvo plants in Gothenburg, which in those days had 15,000 members, a very large local union in Sweden. They dominated the National Metal workers' union as is usually the case, the strongest will win, will get the jobs.

Another reason why Uddevalla was closed is that there was a divided view within the unions about the new production concept. Not all were in favour of it. The reason for that is that the union, especially in the car industry, has put a lot of effort since the 50s: is trying to get control over work intensity, because work intensity is one central issue in manual assembly work. There were agreements with the company that they must have a local agreement on the speed of the assembly line. The company could not change the speed or reorganise work on the assembly line without an agreement with the local union. The local union in Gothenburg, who had put all efforts in this type of union strategy to control Taylorism, saw the new concept as more complex. Our agreement, our strategies, our ways of controlling speed and work intensity will not work in that complex structure, so they were really afraid that all their union strength would be lost in the Uddevalla production layout..

In Gothenburg they had also an add-on system, giving extra pay when working on the assembly line because it was considered a hard and repetitive manual work. The chairman of the local union said: They will not get that add-on in Uddevalla! They get less paid because it is not such a repetitive work. So the unions were divided into those who believed that the task of the union was also to try influence in what type of jobs our members have, and those who said we should not have any opinion about the jobs, our mission is to get the right pay for the jobs that they offer. And with that Uddevalla as a concept went out.

Personally I am very, very sad that the union didn't fight for the new concepts as much as they could have done, and tried to develop them further with the researchers.

Discussion

Åke: Thank you Ingemar for that engaged exposé and performance. I would like to ask you just a very quick question about the salary, and the extra pay for assembly line work, the add-on. What about making another argument and saying: But as the Uddevalla work is more qualified, you must learn much more, you have with your group more responsibility, so you should have more pay. I realise that is more difficult to control for employers, and unions, so perhaps because of that they do not want it.

Ingemar: All over the world it's the same when blue collar workers' work is evaluated in a traditional way. In principle, you get paid based on two different factors. One is qualifications values like the demand for knowledge and experience. The other is hard-core factors like workload and the work environment. Now, when you make a lousy job better you will get higher points for experience and knowledge and lower points for the hard-core factors. What happens is that in the beginning, when changing a job, it is very likely that the job loses more points in hard-core factors than it gains in qualifications factors. This is not a question of good or bad. It is just how workers' work is evaluated traditionally and the difficulties this leads to when new work organization concepts meet old pay-systems and old pay-structures.

Michel: Certainly Uddevalla couldn't be understood without the Swedish sociotechnical tradition, without Kalmar, and so on. At the same time it seems to me it is very important to insist that Uddevalla is not a prolongation of the previous experiments. There is a correlation but at a certain point there is a rupture. Uddevalla is not an extension of the Kalmar principles. It is not an addition of more operations for each worker. It obliges the worker to have a complete understanding of the architectural and functional logic of the product to assemble. The skills to do that are the same that each person uses every day to solve ordinary problems.

Lennart: In Uddevalla we tried to make something new. Instead of being paid for the operations they carried out workers were paid for teaching and learning each other. There was no department for education in Uddevalla. I was there two days a week and learning was organised so that workers learnt from each other, 800 people; it was extremely cheap. One thing that Gyllenhammar decided was that it was forbidden for the Volvo education department in Gothenburg to have any influence at all in the learning process in Uddevalla.

Anders: I wasn't there, I can only confirm your view that there was a second round that made a difference, and that learning issues were a core part of the success or failure of Uddevalla. But those issues may have been too tightly linked to the factories

As I said before, there were alternative routes that could have been tried. Some people have said that it was a pity that the whole thing became so linked to the shop floor and the blue collar workers, and to some extent I agree. It could have been made into a broader concept, it could have been an attack on the division of labour between the engineers and the workers, and also to break through to the marketing. I mean, such steps to broaden the concept were taken by for example Saturn in General Motors. They related a new production model and a new plant to an new product, i.e a new car and to a new category of customers. This was to say that this is not only about good work conditions and learning issues, this is about the good products, it is about the new markets, it is about the brand. And if they had attached it to the core Volvo brand of quality, environment, safety, and quality sustainability maybe they could have made it.

On the other hand the social climate in the teams was not always that friendly, it was not a tea party. The problem is what happens when you take away the conveyor belts: What is the alternative to see to it that you have the right quality, the right pace when pressure disappears? It is peer pressure. You can stand harassment from your boss but not harassment from your team workers. The guy who isn't that productive, who is absent a little too often... As you can understand absenteeism is a real problem when they have this group-based production concept.

Lennart: I have never said that there was anything romantic about Uddevalla. It was very clear in the recruitment strategies: workers should be able to stand group work and a new and different type of hard pressure on them. It is very dangerous to make war on the human capacity, you can exploit and misuse people much more if you use both body and mind of course. Therefore there must be a very clear agreement on the work organization and performance demands. That is a question of power, and at that time there was not enough talk about that.

Anders: A comment on unions and politics. There was a left wing trotskyist opposition in some union clubs in some plants. Their position on the teamwork issues was to warn for a new kind of pressure, a new kind of exploitation that could happen in the teamwork if you don't

take precautions. If you don't see to it that you get influence as a worker and union, that you have regulations of work organization you will have problems with peer pressure. You saw the examples at Uddevalla. You see it in other industries as well, in the building sector for example, especially if you have self-selected teams with self-selected leaders. It is tough and would have been really tough also in car assembly.

Åke: To just supplement that very quickly. There has been a discussion in unions, and Ingemar knows about that, about something like negotiated self-management or something where you negotiate not only the pay, but the boundaries for the groups, how much work are they supposed to do, what are the resources they get to do that work (personnel, material, support, time for communication etc.), and that is of course very difficult to negotiate, to put figures on it like in pay negotiations. So Uddevalla is not totally unique there. Many companies with self-managed or half-autonomous groups have been struggling with that problem. How do you do that from the companies' side without losing control and from the workers' side avoiding self-exploitation because of group-pressure. As Ingemar said there is a long union tradition of course to regulate work that is divided and standardized. But also work where operations are less standardized needs standardization of some kind to avoid exploitation and secure decent pay. Standardizing the mutual learning process may be one part, but also resources and performance.

Ingemar: The qualitative change in Uddevalla would not have been possible without the development in the company going on since decades, and all experiences from the different plants. In that sense it was a result of a tradition. Then you can discuss if it was a large or medium qualitative change or a positive or negative change, that is a second question. But you must see it in the historical perspective.

Åke: Now are there questions or comments from the audience?

Ann Westenholz, CBS, Copenhagen: From my point of view I think it is very important not to see Volvo as a unique experience. As Ingemar says it is a long history. And I think there are also many successful cases in Scandinavia, not exactly like Uddevalla but other initiatives where unions and management have come together and that have continued for a long time.

Hans Pruijt, Erasmus University, Rotterdam: When I was interviewing workers in Uddevalla I was wondering what exactly people were

learning, what the cognitive content of the work was. So I asked: What are you learning, are you for example getting the skills of a car mechanic? And they said absolutely not. So I was left with that question. Of course people learned to assemble parts of a car from kits, and it was a long cycle of work, but in terms of learning, it did not seem to lead to transferable skills; at least I did not hear about anything that was transferable in terms of skill.

Claudio Markham, London: Are there any workers' accounts of what actually happened there? These experiments, as I understand were about workers' autonomy and workers doing things differently and getting a new role. It would have been nice if one of them might have been here saying something about that experience. Any accounts on whether they actually were happy or unhappy about that experiment's ending and how they judged it. We have heard the unions' and the social scientists' accounts of this but not the workers' opinion.

Tommaso Pardi, GERPISA network, Paris: My comments would be on the role of history. History normally belongs to the winners, and we now know that history is deficient. Most of the time historians are saying that what happened in the past had to happen. There was no possibility that things would go otherwise, and in this way people are persuaded that there is no alternative. It is important to deconstruct this kind of history. If we don't get the opinion of workers' who were there, then what shall we believe?

Indeed there an important part of the *Enriching Production* book focussed on Uddevalla. There were people in the United States who were so afraid of the Uddevalla plant concept spreading that they made a book that was supposed to be very influential in screening certain ideas. When they described lean production work they were saying things that they knew were untrue, about the enriched tasks, and about workers in Japanese plants enjoying fantastic working conditions. They knew that that wasn't true but it was an ideological battle. I think that retrospectively it is important to put in perspective the fact that there was nothing fatal about the triumph of lean production on one hand, and the demise of socio-technical experiences on the other, that was something that was construed politically and was not about efficiency and/or productivity.

I find it important that what we have learnt from Uddevalla is not buried, that we keep the idea that there was in fact an alternative, and it was not lost because things had to go that way, but because there was a political struggle concerning what kind of a road the industry should

take. They were not telling the truth about Uddevalla, nor about the disadvantages for workers of lean production. Clearly, from the point of managers and from the point of employers, lean production was a much better solution and not as problematic, because basically you would keep Taylorism without changing much.

Åke: Perhaps one might add here David Noble's argument that for management politics and control is often more important than productivity, for example his book, *America by design*. I tried to contact David for this conference but learnt that this researcher and ecological activist died recently.

Hikari: Yes, just to refer to the comparison between new Toyota way of work and the Uddevalla type of work. As you know, in the MIT book, *The Machine that Changed the World* and in most of the management world, work at Uddevalla is regarded almost like craftsman work. But in reality it is quite different. In the case of craftsman work it is not standardized in the form of an inner dialogue on the labour process, it is very particular for each individual craftsman. On the other hand, in the case of Uddevalla the way of inner dialogue is very standardized. So the Uddevalla model of work will be revived in some situations.

Anders: I agree that there are other things, everything hasn't been ruled out. And the MIT book *The machine that changed the world* has certainly been misused. But still we needed something to take us out of the snugness of the Hising island syndrome (in Gothenburg, where Volvo is situated), the idea that what we did in Sweden, in Gothenburg, at Volvo was top of the line. It wasn't. In many cases we really needed to learn from the outside, and that is a difficult thing. I am not saying that you should always use benchmarking and go for best practice but there is something to it. My best example is the problem of slow product development at Volvo. It took some time to realize this, but there was a growing awareness that Volvo was falling behind the best of its competitors in terms of efficient production and – primarily – in product development. Here, VCC and the other Volvo companies were left behind by their competitors' fast adoption of platform concepts. This was a much more serious threat to Volvo's survival than mediocre records in the assembly plants.

Lennart: If we wanted to create a new concept and a new plant today, of course no one would make the same thing as in Uddevalla in 1985, because now we have knowledge, which we didn't have 30 years before. The Uddevalla experience created a lot of new and unique knowledge. And also of course we learn from the rest of the world.

No let me say this about *The machine that changed the world*. Researches behind the book were not serious. They wrote about things they didn't know. Uddevalla was not, as the MIT researchers wrote, without having studied the plant, a case of old-fashioned handicraft job in a factory, it was in a very modern way a new type of professional work in industry, advanced from technological, organizational and learning points of view.

To the question about accounts from workers: There is a lot of research about people's views on working for Volvo at Uddevalla, in interviews, questionnaires, videos and so on. Most of this material is collected at Chalmers Technical University. Tomas Engström there has at least 500 pages of such empirical material from Uddevalla and Kalmar, and there is some also in my library. This is forgotten by Volvo.

Åke: At this point I could perhaps mention that some of the researchers who contributed about Uddevalla to *Enriching Production* they also have an up to date chapter in a book I edit and that will be published late spring 2013: *Nordic Lights on Management. Work, organization and welfare in Scandinavia*. Tomas Engström and colleagues from Chalmers contribute, and also Anders Boglind, among other things about Volvo's management philosophy and practice meeting that more hierarchical and detailed from Ford.

Martin: I would also like to react to the question about what do the workers think and what do we know about what workers want. Unfortunately, there is not much empirical work published on this issue when it comes to Uddevalla. If research has been done, which I do not know, it would of course be interesting to see it published. It is a severe problem that there is no well-grounded empirical research published on this issue. But from our studies in Germany and from some minor observational studies that I did myself in Sweden, I would like to point out two or three things which might also be relevant for Uddevalla. First: we did research on high-volume car assembly with long-cycle-times in Germany. Actually, the cycle-times were up to about one hour per car. It was not exactly the Uddevalla model, it was different, but the type of work and the work situation was somewhat similar. For us, it was interesting to find that these workers regarded their work in several ways as still boring. Comparing it with craft-based work, which they knew from their apprenticeship and their work experience repairing cars, they did not feel that even long-cycle assembly work was really skilled, professional work, a task and a work situation where you can develop yourself. The point is that long-cycle assembly work does

not automatically also mean problem-solving. And it is problem-solving that people like to do. Doing basically the same things again and again, can include more or less variation, which of course also is important. But, the workers told us, as long as we have to do the same thing, even if it takes more time, it is still boring. On the other hand, when it comes to the issue of occupational health, variation in cycle-times actually make a big difference.

My second point: The situation becomes already different, when people are involved in improvement activities. Which means, when they are really involved: Not in the backseat of some management experts telling them 'you should do this or that', or 'you might come up with improvement ideas'. The point is to give people real opportunities to develop their own work, the overall work process and their working conditions. This is something which workers want and which is a pivotal part of their view of good work.

A third point of importance is the issue of more democratic procedures on the job and more work solidarity on the shop-floor. In our research on group work, we found that talking together with colleagues deciding for example who is allowed to take a day off or planning holidays together in a more democratic and solidary way was another important issue for the workers. In our studies, even when the work itself was still more or less boring, these two other features – being involved in developmental work as well as improvement activities and deciding things in a more democratic and solidary way – has been very important for workers. In our German studies even small steps in this direction has been of big importance. I would guess there might be similar results when it comes to the situation of the workers at Uddevalla, but I don't know. Talking with Swedish workers myself, I had not the impression that there are big differences between Swedish and German workers in this respect.

Michel: I would like to add two points concerning automation and Reflective production. First, applying the Uddevalla principles is also a strategy of automation. The automatization is applied firstly to the few added value operations and secondly to the complex operations only when the concrete parameters of the process have been clearly identified and controlled by the workers. This first point leads to the second point.

Secondly, the knowledge and the skills developed by the workers themselves, identifying and controlling the numerous parameters of the concrete process, are knowledge and skills that engineers cannot have because they don't work with the team. A very efficient cooperative work can be developed between workers and engineers, if this work allows workers collectively to grow professionally. In this way, a reversal of the 'intellectual division of labour' can begin. But to develop and continue this process to reach a cooperation between equals solving more and more complex problems, a societal negotiation and transformation is necessary resulting in enterprises having other and different objectives.

Åke: I will not at all try to summarize, because I can't. I was thinking about the documentation. There is no book called *Working for Volvo* or *Working in Uddevalla* but there are, as Anders said, also some ethnographic studies made and there is empirical material in Gothenburg at Chalmers. But it is a good idea to do what the MIT researchers did, that is collect a lot of case studies. In such a project we would look for really good work and organization in competitive companies, where productivity goes hand in hand with good work and development and democratic procedures etcetera. Collect them and analyse the preconditions for those interesting developments in various sectors, in various countries, in various historical and economic situations, and make a good volume of collected papers. And then make a serious and popular book, about how another world of work might be possible. And in doing so I think it would be a good idea to involve not only researchers but workers, who are either interviewed or write themselves. We were doing that in a small scale some twentyfive years ago involving workers, unionists and journalists in a team. Perhaps we could slowly do something of that kind. - Thank you for staying so long with us and thank you everybody here around the table. Thank you.

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