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The rise of lean organisations in Nordic countries

How recent changes in public sector management are shaping working life

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Introduction

Organisation of work has long been at the core of sociological debates of working life: how working life is changing, why and what implications these changes have on the organisation of work, employees and society. Work organisation is also a central scene where the management and the employees, theories and everyday practices confront one another. From a managerial perspective, the main interest is in increasing the productivity and efficiency of the processes, whereas employees tend to resist the continuous intensification and erosion of working conditions. Consequently, questions of autonomy and control are inherently intertwined in these discussions of the organisation of work.

At the era of industrialisation in the late 1880s and 1890s, scientific management—better known as Taylorism—was introduced

to analyse manual labour (process) piece by piece and to reorganise to maximise productivity. These ideas have been criticised widely during more than one hundred years of degradation of work: increasing managerial control, routinising and stripping tasks from skills, making jobs dull and employees unsatisfied (e.g. Braverman 1974). Management theories and various ideas for increasing productivity travel across the borders but also across sectors, from manufacturing to services and from private to public sector organisations. Taylorism was born and considered to belong to factories; however, similar elements of formalisation and control of work have been applied to white-collar work in offices (Crompton & Jones 1984) and services, such as call centres (e.g. Taylor & Bain 1999).

Similarly, to increase efficiency and productivity, the lean production model was born and developed in the Japanese car industry and American consultancy, but its main principles have recently gained wide interest, including in Nordic countries, for the processes of restructuring the public sector organisations such as hospitals (Björkman 2013; Laursen, Gertsen, & Johansen 2003). More broadly, New Public Management (NPM) is the common heading for the public sector managerial reforms aiming at increasing efficiency by relying on adopted ideas from the private sector (Emery & Giaqu 2005). Public organisations are facing increasing demands for constant structural rationalisation and result-based resource allocation. New demands concerning accountability have turned into increased usage of auditing and evaluations (Hall 2013; Movitz & Sandberg 2013). These ideas have become widely articulated and disseminated by consultants, think tanks and international agencies such as the IMF, the World Bank and OECD (see e.g. Hebdon & Kirkpatrick 2005).

Consequently, the public sector has been in considerable turbulence: organisations are being reorganised and restructured, functions are outsourced and new technologies and new work processes are being introduced. This travelling of managerial ideas

shapes and reshapes working life as ideas born in different contexts are imported and implemented to national platforms and specific sectors and organisations. The suitability of imported managerial models in different contexts, especially success of NPM inspired organisational reforms from employee point of view has been questioned in various studies (e.g. Björkman 2013; Hvidman & Calmar Andersen 2013). In Scandinavian countries, research around lean production models has remained active (Sederblad 2013), yet in Finland, NPM and especially invasion of lean production models into managerial and organisational reforms have attained surprisingly little academic attention (also Heikkilä & Martinsuo 2015). Especially the consequences of these reforms for employee relations and organisation of work have remained largely untouched in academic debates in Finland. Subsequently, in this chapter we discuss, in the light of recent studies, how the organisation of work has changed and what possible implications these changes have for employees. The chapter is based on the research made in the Work Environment funded project “Organisation of work, co-determination and employee wellbeing in Finland and in Europe” led by Timo Anttila at the University of Jyväskylä from 2013–2015.

Management and change in organisation of work in Nordic countries

Workplaces in the Nordic countries, including Finland, have been most active in organisational restructuring compared to other European countries: over 70% of Nordic workers report restructuring impacted their immediate working environment during the three preceding years. Health and public administration have been among the sectors where the largest proportion of workers report having been exposed to organisational change (Eurofound 2012, 31). The public sector has been in turbulence and the target of large

restructuring pressures due to the drive to curtail expenditure on public services. Reasons for public sector restructuring lie in the changes in the demographic structure and worries concerning the sustainability of the cost structure of the welfare states. Critical tones have emphasised, that public organisations are inefficient, and the public sector employment model was characterised as inflexible and hierarchical, producing a poorly motivated and overprotected workforce (Hebdon & Kirkpatrick 2005).

Radnor and Osborne (2013) state that “lean thinking” has especially become a recent prominent and popular approach to public service reform. New public management has made an entry also to the Nordic public sector, leading to restructuring of organisations and work practices and a strongly present tradition of lean thinking. Sederblad and colleagues (2013) identified a “second wave” of lean management in Nordic countries, also visible in the public sector. The core idea of the lean concept is effective resource management that will be achieved with a flow-based production layout, reducing waste and increasing standardisation.

In the situation of constrained public spending, lean thinking has been promoted as enabling to maintain service quality and at the same time even to increase service productivity and to improve resource utilisation. Lean thinking in public sector may be seen to include various related management models, such as management by performance and objectives, total quality management and business process reengineering (e.g. Hall 2013; Hvidman & Calmar Andersen 2013).

At the work-place level, these management and production models increase the need for organisational capabilities for standardising, documenting, reporting and assessing the quality of their functions (see e.g. Meagher & Szebehely 2013). For the organisation of work and workers, this means increased accountability and control of work processes, using of working time and compliance to various

standardised processes. These processes naturally restrict autonomy of the employee. Certain level of freedom is seen to be required in order to create innovations and reversely, hurriedness, standards and predefined procedures might limit the time and space to create innovations.

If restructuration of the public sector has been politically promoted and publicly accepted in order to sustain—and renew—the Nordic welfare state, another dogma for success and competitiveness of the national economy is innovation. Innovation is seen as a central requirement for the success and competitiveness of a business (Kantola 2006), but also that of national economy. Fostering of national performance has been a national interest in Finland on many occasions through the 1900s, and work and production have from time to time been connected to political issues (Kettunen 2001).

In recent years, innovation-focused approaches to management have been recognised and promoted greatly in Finland, both nationally and at the organisation level. Centrality of innovations has been promoted to the extent that it is seen as a new paradigm in management theories (Seeck & Kuokkanen 2010; Seeck & Laakso 2010). The core aim of the innovation paradigm is to increase the productivity of workers by getting them to constantly improve products and processes, and to develop new ones in order to improve the competitiveness of organisations; in this respect it does not fall far from principles of lean management, which also rely on constant improvement.

Innovation and new forms of work organisation are closely linked: they are seen as a key for employee wellbeing and competitive performance. Adoption of new forms of work organisation have also been on the European political agenda since the Luxembourg Employment Summit and the launch of the European Commission Green paper on new forms of work organisation (CEC 1997).

Within innovation research, autonomy has probably received the most attention as a feature of the working environment that enables creativity and innovation (Gilson & Shalley 2004; Shalley, Gilson, & Blum 2000). Capabilities for innovation have been best developed in work organisations characterised as “learning organisations”. At the workplace level, it refers to an organisational culture where employees are encouraged to learn, take initiative to improve processes and services and solve problems independently. Autonomy encompasses personal control over how time is allocated and determination of how the work is carried out. Learning organisation is seen to represent “the opposite” of Tayloristic organisation of work, which is characterised by separating the planning of the work process from the execution of the task. Tayloristic work organisation may be described in terms of low autonomy, direct control by the boss, a work pace externally determined by the boss, customers, colleagues or production line and low possibilities for learning at work. In the next section, we discuss some recent results concerning the changing organisation of work in Nordic countries. The chapter is concluded with discussion concerning the possible implications of observed changes.

Changing organisation of work in Nordic public and private sector organisations 2000–2010

In our study (Anttila, Oinas, & Mustosmäki 2018) we have applied a two-phase methodology¹ developed by Lorenz & Valeyre (2005) for

¹ First, multiple correspondence analysis (MCA) is used to identify the underlying associations that exist among the individual variables measuring work organisation and to synthesise the responses to several categorical questions which have a common theme. Second, the results of MCA are used as a basis for clustering individuals into distinct types of work organisation using hierarchical cluster analysis. After deriving results from MCA and hierarchical cluster analysis, we use crosstabs to examine differences between sectors and countries with regard to the prevalence of different forms of work

deriving different types of work organisation. We have analysed the change in organisation of work in Denmark, Finland and Sweden both in public and private sector organisations covering the years 2000, 2005 and 2010. The analyses are based on the European Working Conditions Survey (EWCS) collected by The European Foundation for the Improvement of Living and Working Conditions (Eurofound 2012). EWCS is an employee-level survey, thus the forms of work organisation are based on individual reports. We adopted this methodology to compress information and build “ideal types” of work organisation from large data and to see how different types of work organisation have increased or declined. Based on 15 categorical variables, four “ideal typical” forms of work organisation are derived: learning, lean, simple and Tayloristic.

High levels of autonomy, significant task complexity, learning, and independent problem solving at work characterise the *learning organisation type*. *Lean* type of work organisations also entails similar characters of decision latitude and task complexity, yet various types of controls and norms are more prevalent. Lean organisations have autonomous teams, but employees also have more responsibility over quality control and working up to quality norms. In addition, lean type of work organisation involves more horizontal controls (work pace determined by colleagues). Norm-based constraints (numerical production targets or performance targets) characterise both the Japanese as well as *Tayloristic* forms of work organisation. Measures of hierarchical (direct control by the boss) and automatic (automatic speed of machine or movement of product) work pace constraints are characteristic of Taylorist work settings. Measures

organisation. We use regression analysis on the dimensions derived from MCA to analyse which factors might explain country and sector differences in work organisation. Interaction effects between country and sector with survey year are tested to gain insight into whether the general trend in the prevalence of different forms of work organisation varies between countries and sectors. For more details, see Anttila et al. 2019.

of task repetitiveness and task monotony capture typical features of Taylorism. *Simple* type of work organisation involves low autonomy, task complexity and learning possibilities and less external controls compared to lean and Tayloristic types (see also Arundel, Lorenz, Lundvall, & Valeyre 2007; Holm, Lorenz, Lundvall, & Valeyre 2010; Valeyre et al. 2009). Somewhat similar typologies on job types (Holman 2013; Vidal 2013) have also been applied in other studies.

We were especially interested in analysing how the organisation of work changes: Does the actual change correspond to the assumption that could be made based on the recent political and business trends? Do we find a) convergence between private and public sector organisation which could be expected due to the “management fashions”, such as second wave of lean which have inspired organisational change processes in the public sector? Consequently, the organisation of work in the public sector would increasingly resemble to that of the private sector. Or do we find b) an increase in learning organisations? This could be expected as a result of both popularity of innovation management as well as political endeavours to promote the success of businesses and economic growth through learning organisations and their ability to create innovations.

The rise of lean organisations in Nordic countries

Table 1. Prevalence of types of work organisation (%) by country and sector 2000–2010

Type of work organisation	Year	Denmark		Finland		Sweden	
		Private	Public	Private	Public	Private	Public
Lean organisations	2000	23.8	25.2	23.2	24.5	21.1	24.2
	2005	32.8	36.4	27.6	36.7	26.2	34.2
	2010	30.0	39.8	26.6	35.8	32.0	29.5
Simple traditional work organisations	2000	19.9	15.7	19.3	22.2	23.8	19.9
	2005	17.8	9.1	21.0	13.6	16.3	11.4
	2010	19.9	7.1	17.1	14.8	14.1	14.9
Learning organisations	2000	33.3	44.9	18.0	25.2	28.1	39.4
	2005	27.1	39.2	16.6	27.3	36.1	44.3
	2010	31.4	42.1	20.4	27.8	29.9	38.0
Tayloristic organisations	2000	22.9	14.2	39.5	28.2	27.0	16.6
	2005	22.2	15.4	34.9	22.4	21.3	10.1
	2010	18.7	11.0	35.9	21.6	24.1	17.5

Interestingly, our findings do not exactly correspond to either one of these assumptions. It is evident that the general trend in all Nordic countries has been the increase in work formalisation, in other words, the lean type organisation of work. Put another way, work processes where employees are involved include more standardisation, production and performance targets than 10 years earlier, they have to look up for quality norms, and colleagues determine work pace. However, this process has not resulted in convergence between public and private sector work organisation, although the direction of change has been similar moving towards the lean type in each Nordic country, both in public and private sector organisations.

When comparing public and private sectors, lean type is more prevalent in the public sector even after controlling for sectoral differences in structural factors. This finding indicates that lean has been adopted widely into public sector organisations and is currently at a higher level than it is in the private sector. In addition, lean type of work organisation was more prevalent in larger establishments.

Contrary to the expectations that only lower level occupations and jobs could be subjected to controls and standardisation, our results show how work formalisation (lean type) became more prevalent in upper occupational groups; in other words, knowledge work has not been insulated from these trends.

When comparing countries, it was revealed how lean types of work organisation were at the same level in all three Nordic countries in 2000, but in 2010, the lean was most popular in the Finnish and Danish public sector. Learning forms are clearly more common and Taylorist forms are less common in Sweden and Denmark in both sectors when compared to Finland. These differences are quite notable and large, especially with regard to the private sector. This indicates how the cultures and ways of organising work are quite different in Finland. The new forms of work organisation associated with productivity and innovation are not as common as in other Nordic countries.

Implications for the wellbeing of employees, working life and policy making

Implications of various management fashions and different ways of organising work may be studied from various perspectives: interest could be placed for instance on organisational matters such as operations and processes, innovative capabilities or employee wellbeing. Previous literature reviews and studies show that lean inspired management and organisation of work have been associated with both negative and positive consequences for employee well-being. Lean has been associated with intensification of work, standardisation and, consequently, with decreased health and well-being. On the other hand, there is also evidence of positive outcomes, such as improved processes and job contents and increased opportunities for participation and learning (see e.g. Hasle, Bojesen, Langaa Jensen,

& Bramming 2012; Landsbergis, Cahill, & Schnall 1999; Seppälä & Klemola 2004).

More precisely, it has been concluded that different elements of lean production models have different consequences on employee well-being (see e.g. Schouteten & Benders 2004; Toivanen & Landsbergis 2013). The consequences are also related to what kind of job these principles are applied. For instance, there has been discussion on whether principles of lean, especially the control and measurement models, are suitable for all kinds of work, especially in public sector work; studies have found that in more easily standardised processes, such as laboratories and routine operations in a hospital, employees benefit from lean management by improved work practices and work processes. However, employees with complex tasks and processes, such as social workers or nurses in care work, perceive lean as controlling their autonomy, increasing hurriedness, disturbing the possibilities for good care, or even posing problems to work according to ethical standards (e.g. Hasle 2010; Nielsen & Edwards 2010; on NPM lead reforms see also Hirvonen 2014; Mänttari-Van der Kuip 2015).

Implications of increasing lean inspired organisation of work for innovation are also somewhat unclear and dependent on the implementation. Research literature differentiates between enabling and coercive bureaucracies which either support or restrict innovation (see e.g. Lovén 2013). Coercive organisations restrict innovative capabilities by concentrating on rules, standards, productivity and continuous improvement, and consequently, time and space for creativity might be wiped out of the organisation. On the other hand, by reducing waste and improving processes, lean ideology might also lead to more innovation through saving time and space for creativity and innovation. In the study of Arundel et al. (2007), the lean type of organisation of work was associated with innovation strategies related to modifying and adopting from others, whereas learning forms were coupled with radical and creative in-house innovation.

This gives reason to presume that although lean involves learning and problem solving, opportunities for innovation might be limited by higher prevalence of constraints and limited autonomy.

Do these results on the increasing formalisation of work have implications for national policy making in Finland? Our results underline how Tayloristic forms of work organisation are clearly more common in Finland compared to Sweden and Denmark, and the differences were not due to structural factors (such as differences in shares of industry and services). Thus, there is demand for organisational development and policy support for further work life development, especially in Finland. However, recent political efforts to create a “productivity leap” have concentrated on rather old-fashioned resolutions, such as increasing working time without increases in wages. Less emphasis is put on developing the (quality of) working life or seeking increases in productivity from new forms of work organisation. In addition, unions and labour legislation are accused of becoming barriers to innovation and productivity, even if vast research evidence emphasises the success of the Nordic model from various perspectives (e.g. Ulkoasiainministeriö 2006). There is research evidence on how unions in Nordic countries have not rejected new management ideas, such as lean management. On the contrary, employee organisations have played an active role in diffusing and shaping a Nordic version of lean management. The Nordic employment model has especially been successful in yielding job quality and employee well-being (e.g. Gallie 2013; Oinas, Anttila, Mustosmäki, & Nätti 2012), partly explained by strength of the unions and labour legislation (e.g. Esser & Olsen 2012). Research has informed our knowledge on the relationships between new forms of work organisation, autonomy, innovation and productivity although—at least on a rhetorical level—there is a growing need for policy-making.

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