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The power of workers: Knowledge work and the power balance in Scandinavian countries

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Abstract

Purpose – The purpose of this paper is to examine how occupations and the institutional setting shape the power balance (individual bargaining power) between employees and employers. It builds on theoretical approaches on knowledge work and institutional theory.

Design/methodology/approach – The paper uses the European Social Survey data in 2010/2011 to compare the power balance between employees and employers in three countries: Denmark, Sweden, and Norway. Multinomial logit regression was employed.

Findings – The results show that occupation and the institutional setting shape the power balance between employees and employers. Employees in highly skilled occupations perceive greater power *vis-à-vis* their employer, and employees in Denmark, characterized by greater flexibility for employers, perceive less power than in Sweden and Norway. In addition, age and gender are important demographic factors determining employees' perceived power towards their employers.

Originality/value – The literature makes a number of assumptions with regard to the attitudes and behaviour of knowledge workers. However, research that compares employees in knowledge work with other occupational groups is scarce. This paper adds to the literature by comparing employees in highly skilled knowledge work with employees in lower skilled occupations. It also empirically shows how different approaches to definitions of knowledge work correspond.

Keywords Employee relations, Power, Institutional theory, Knowledge work

Paper type Research paper

Introduction

This paper addresses a core topic in sociology of work and organizations: the control and power of workers. Two trends in the labour market accentuate the need to know more about the power balance that exists between employees and employers. First, there has been an expansion in higher education over recent decades. This has led to researchers arguing that there is a shift in the transfer of power from the employer to the employee (Reed, 1996). Second, in many European labour markets, there is a trend towards more flexibility for employers in employment decisions and less security for workers (Heyes, 2011). These two trends may have distinct consequences for employees and may influence the power of occupational groups differently. In this paper, we examine employees' perceptions of the balance of power across occupations in three "inclusive" employment regimes.

Previous research presents a divergent picture of the power balance between knowledge workers and their employers. On the one hand, researchers argue that knowledge and professional workers have a strong position *vis-à-vis* their employers. The essence of this argument is that the value of their labour is linked to their expertise and skills, which are easily transferred to another firm, leaving them in a stronger position with regard to individual bargaining power. Because knowledge workers are the owners of their own human capital and therefore the means of production, employers depend on them to a larger extent than other workers (Reed, 1996; Robertson

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and Swan, 2004; Teece, 2003; von Nordenflycht, 2010). Additionally, it is generally assumed that knowledge workers derive their power from individual bargaining in the workplace rather than from institutional power in the form of trade unions (see Pernicka and Reichel, 2014). On the other hand, the critical management literature argues that knowledge workers often do routine work (Alvesson, 2001). Thus, they do not necessarily do expert work that matches their formal qualifications. Furthermore, the empirical basis for the "distinctness" of knowledge workers is scarce and the findings mixed (Mastekaasa, 2011; Huang, 2011; Benson and Brown, 2007). The inconsistent picture calls for more studies that compare knowledge workers to other occupational groups.

The many claims regarding knowledge workers seem to be universal regardless of country and labour market situation. In order to shed light on how institutional and labour market features may influence the position of knowledge workers, we apply a "comparable cases" design, studying Denmark, Sweden, and Norway (Svallfors *et al.*, 2001; Lijphart, 1975). The Scandinavian countries are characterized as "inclusive" employment regimes (Gallie, 2003) where employees have relatively more autonomy and power than in other European countries (Gallie, 2003; Gooderham *et al.*, 2015; Edlund and Grönlund, 2008). If inequality in the power balance between occupational groups is prevalent in these countries characterized by "inclusiveness", it may be even more pronounced in countries where labour markets are more segmented and employers have a stronger position. Although the Scandinavian countries share many similarities, there are some institutional differences between these countries. The development of the "flexicurity"-model in Denmark constitutes one difference between the Scandinavian countries (Madsen *et al.*, 2011). This model provides Danish employers with flexibility on staffing issues, combined with security for workers through generous unemployment benefits and active labour market policies. The greater flexibility for Danish employers may be crucial for the power balance between employees and employers. Thus, the study may also have policy implications through its revelation of how the institutional setting shapes the power balance between employees and employers.

In this paper, we address two main questions: first, how does the power balance (individual bargaining power) vary between occupational groups, and second, to what extent does the institutional context shape the power balance? We compare employees across occupational groups and nations in terms of relative power between employee and employer. We measure the power balance by two dimensions: first, how easy/difficult it is to get a similar or better job, and second, how easy/difficult it is for the employer to replace the worker. Both of these dimensions pertain to issues of individual bargaining power and control: how workers can secure future income and control over the work situation.

Theoretical background

Defining knowledge work

Very generally, we can distinguish between two main approaches by which to define "knowledge workers": what workers do, involving factors such as the level of autonomy, complexity, variety, and problem-solving (Benson and Brown, 2007) and what workers are educated to do, that is, individuals' formal education. The latter definition is commonly found in research on occupational groups, such as lawyers, accountants (von Nordenflycht, 2010), consultants (Donnelly, 2009), and medical professionals (Mastekaasa, 2011). Furthermore, one has distinguished between highly

qualified work and professional work. Professional work includes occupations that require a code of ethics, standardized education, criteria for certification, etc. (Alvesson, 2001). Some use "knowledge work" as a broader category and "professional work" as a more narrow term (Alvesson, 2001)[1], whereas others apply "knowledge workers" as a term to describe one sub-group of highly skilled workers (Pernicka and Lücking, 2012) or expert groups (Reed, 1996). In this paper, we apply the term knowledge workers as the broader category of highly skilled workers, including professionals and highly technical occupations.

Because highly skilled workers are heterogeneous, researchers have distinguished between different types (e.g. Reed, 1996; Pernicka and Lücking, 2012). Reed (1996) distinguished between three categories of expert groups: independent professions (e.g. doctors and lawyers), organizational professions (e.g. managers), and knowledge workers (e.g. financial consultants, IT analysts). These groups have different knowledge bases depending on the extent to which the knowledge is technical, abstract, codified, etc. Furthermore, Pernicka and Lücking (2012) developed two ideal types of knowledge and professional work, arguing that control over knowledge derives from different logics.

We use the International Standard Classification of Occupations (ISCO) provided in the ESS data to distinguish between different occupational groups. These codes are based on skill-level (Ganzeboom and Treiman, 2003) and permit us to distinguish between eight occupational groups (see Table II). Among these groups, professionals and individuals in highly technical occupations are typical examples of knowledge workers (e.g. Donnelly, 2006, 2009; von Nordenflycht, 2010). The category "managers" (who are also highly skilled workers) has a more dubious position, because the power of workers in managerial posts derives from their hierarchical position, and not only from their technical expertise. In order to see how well the ISCO codes correspond to what workers do, we also compare the occupational groups to job characteristics (autonomy, ability to transfer skills), as well as their levels of education (see Table II). We treat all the eight occupational groups separately in the analyses.

Employee power in knowledge work

Researchers have addressed the power and control of workers from different perspectives. The radical, conflict perspective emphasizes the inherent conflict of interests between the owners (represented by managers) and the workers, and there has been a longstanding scepticism to the possibility of long-term upskilling of workers (Thompson and Harley, 2007). In this perspective, in which labour process theory (Braverman, 1974) has played a prominent role, one sees the workers and the organizations embedded in the structural properties of capitalism, which shapes skill formation and control (Thompson and Harley, 2007). The deskilling-thesis presented by Braverman (1974), suggested that despite technological development, employees' work tasks stayed simple due to the control processes in the workplace. Subsequent research presents a more nuanced picture (see Paton, 2013).

By contrast, a "mainstream" Human Resource Management (HRM) perspective sees managers and workers as having aligned interests (Legge, 2005). In this perspective, one has a more optimistic view on the possibility of skill development for workers. Although HRM is not a homogeneous collection of research, much of the research rests on the idea of enhancing motivation through commitment, shifting the emphasis from control to commitment (Thompson and Harley, 2007). One dominant line of research in this perspective focuses on how a high-commitment work environment fosters

autonomy and skill development and may benefit both workers and managers (Legge, 2005). In this perspective, the formation of skills is of major interest because knowledge is a strategic asset that creates a competitive advantage for firms.

In this paper, we focus on the individual bargaining power, and we are less concerned with power relations inside the organization. Thus, we are mainly interested in the knowledge base through the formal skills of knowledge workers. The power of knowledge workers, however, may appear in other arenas and in different forms, because highly skilled workers may have different knowledge bases and distinct sources of power (Pernicka and Lücking, 2012; Reed, 1996). In the context of Scandinavians countries, knowledge workers are also likely to be members of a union[2].

In the following, we summarize the main arguments for why knowledge workers may have greater power *vis-à-vis* their employers. First, employees may exercise control with regard to job tasks in a given job. Autonomy over work tasks has been defined as "the degree to which the job provides substantial freedom, independence, and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out" (Hackman and Oldham 1975, p. 162). The main assumption is that knowledge workers will have more of this form of control. Knowledge workers' job tasks require some autonomy; for instance, through customization to the needs of the client (customer or patient) (Donnelly, 2009; Mastekaasa, 2011). Although all jobs require some autonomy, it is assumed that autonomy is particularly important for knowledge workers. In sum, job autonomy is one main dimension that has been used to define knowledge work and is a driver for shaping the relationship between employees and employers.

Second, one source of power for knowledge workers may be the expertise possessed by these workers that is hard for the non-expert to evaluate and replace (von Nordenflycht, 2010). Their knowledge is "esoteric and non-substitutable" (Reed, 1996), and they rely on knowledge and tacit skills that are difficult to standardize. As the employers do not "own" the knowledge of these workers, this increases the relative power of employees over their employer. Thus, the higher the skill-level (e.g. of the higher occupational group), the more power employees will have over their employers.

Third, because knowledge workers often do their work in relation to a client or a customer (Donnelly, 2009; Briscoe, 2007), their skills will often be transferable to other employers. The transferability of skills may increase the power of the employee *vis-à-vis* her employer. In line with this, Robertson and Swan (2004) argue that knowledge workers are in a position of power: "when their autonomy is threatened they can still walk out the door" (p. 147). The implication is that the individual knowledge worker may be less concerned with job security in a given job and more concerned with the potential for finding another job. For employers, the implication of transferable skills may be that they are less inclined to invest in long-term relations with employees, and want instead to rely on market-based employment relations (Cappelli, 1999).

In sum, job autonomy, expert knowledge, and transferability of skills all entail that highly skilled knowledge workers will have greater individual bargaining power. Most empirical research on knowledge work has studied knowledge workers without contrasting them with other groups (e.g. Briscoe, 2007; Donnelly, 2006, 2009; Pernicka and Reichel, 2014). However, we find some exceptions. Huang (2011) found that knowledge workers share greater motivational characteristics than blue-collar workers, but similar levels of job satisfaction and turnover intention. Furthermore, Mastekaasa (2011) found that autonomy was not more important to professional workers (health sector, medical occupations), nor more important in determining job satisfaction and commitment than in

the general population. Benson and Brown (2007) found that organizational support was more important to knowledge workers than to routine workers. Thus, the findings on knowledge workers' "distinctness" regarding attitudes and behaviours are mixed. None of these studies examined the power relations between employees and employers.

We test one main assumption about the distinctness of knowledge workers: whether employees in knowledge work perceive that they have greater power with regard to their employer than do lower skilled occupational groups. We examine the power balance between employees and employers in three countries characterized as inclusive employment regimes.

Institutional and labour market factors

The Scandinavian countries share many similarities with regard to basic cultural, social, and political structures. The literature characterizes the Scandinavian countries as inclusive welfare or employment regimes (Esping-Andersen, 1990; Gallie, 2007a) or coordinated market economies (Hall and Soskice, 2001). The institutional frameworks of employment regimes and market economies emphasize the importance of institutional features such as union density, employment protection legislation (EPL), and training and education systems for the organization of work. Furthermore, institutional theory underscores that organizations face regulatory, normative, and cognitive pressures (Scott, 2001). Whereas regulations in labour law, such as EPL, are explicit, the normative and cognitive pressures are of a more informal kind. These pressures may vary across countries. In contrast to industrial relations in Germany (as the typical coordinated market economy), which are governed by regulations, the Nordic countries are characterized to a greater extent by collective agreements and on-going discussions between unions and employers (Gooderham *et al.*, 2015; Keller and Kirsch, 2011). Thus, although Germany and the Nordic countries are labelled coordinated market economies, there are differences between the statutory setting of Germany and the more flexible Nordic context (Gooderham *et al.*, 1999).

Several authors have recently pointed to the "distinctness" of the Danish system. The concept of "flexicurity" was introduced in the 1990s. The lenient EPL, combined with active labour market policies and generous unemployment benefits, is the essence of what has been labelled the flexicurity model and comprises an important regulatory difference between Denmark and the other Scandinavian countries (Madsen *et al.*, 2011). Weak employment protection provides employers with flexibility to adjust their work forces in relation to changes in demand, providing employers numerical flexibility. Madsen *et al.* (2011, p. 224) acknowledge that Danish employers have a degree of staffing flexibility that is "on par with that of the United Kingdom". In particular, the protection of permanent staff from individual dismissals is more lenient than in Sweden and Norway (OECD, 2008; TemaNord, 2010), and job mobility is higher in Denmark (TemaNord, 2010). The employers' right to introduce staffing changes on short notice is a vital part of the flexicurity model in Denmark, and staffing changes are mainly a matter of on-going discussion rather than regulation in labour law (Gooderham *et al.*, 2015). Thus, the less stringent regulations in Denmark may make the actors relatively more prone to normative and cognitive pressures. The flexicurity model, however, is not static. Greve (2012) emphasizes the erosion of benefits and reduced influence of unions in Denmark. Thus, the flexibility for employers concerning staffing seems to have become the most stable characteristic of the model.

In sum, there are some institutional differences between the Scandinavian countries, and these may influence how employees perceive the power balance between

themselves and their employers. Previous research has found that employees in Scandinavia have higher levels of job autonomy, which researchers have attributed to the strength of unions and the work-life policies in these countries (Gallie, 2003; Esser and Olsen, 2012). Furthermore, Edlund and Grönlund (2008) found that workers perceived greater independence in the Nordic and Liberal regimes compared to the Continental and Mediterranean regimes. Moreover, in a comparison of a number of European countries, workers in Sweden were found to enjoy the highest degree of protection from dismissals, whereas workers in Denmark had the same level as other European countries (Norway was not included) (Gallie, 2003).

Based on the greater employer freedom in Denmark, and consequently the higher job mobility, our main assumption is that employees in Denmark will perceive a lesser degree of power *vis-à-vis* their employer compared to employees in Norway and Sweden. However, the bargaining power of employees will depend on the labour market situation. Table I shows the unemployment levels for the years before the survey was conducted. In the period 2000-2010, Norway had the lowest comparative unemployment rates. Sweden and Denmark were more severely hit by the global financial crisis, resulting in an increase in unemployment rates in 2009 and 2010. This may be particularly important as an explanation of the relative power of employees *vis-à-vis* their employer, and employees' ability to change jobs. Based on the unemployment levels, we assume that employees in Norway will perceive greater power *vis-à-vis* their employers than will employees in Denmark and Sweden.

Data, variables and methods

Data

We use data from the ESS (2010/2011), including the available measurements for Sweden, Denmark, and Norway. For the analysis, a sub-sample includes only full-time or part-time employees aged 25-59 (excluding self-employed persons), yielding 2,478 respondents. Response rates are 58 per cent (Norway), 51 per cent (Sweden), and 55 per cent (Denmark). More information on the ESS data set appears at: www.europeansocialsurvey.org

We set the lower age cut at 25 years because most people with higher education end their university education (or equivalent) around this age. We made the upper cut at 59 because our main interest lies in the individual bargaining power of employees, which to some extent relates to the potential for future employment and income. Although, the formal retirement age is 65-67 in these countries, a large proportion of employees exit the labour market several years prior to this.

Variables

We captured the power balance between employees and employers based on employees' perceptions regarding two questions first, how easy/difficult is it to get a

	2000 %	2003 %	2007 %	2008 %	2009 %	2010 %
Norway	3.2	4.2	2.5	2.5	3.1	3.7
Sweden	5.6	6.6	6.1	6.2	8.3	8.5
Denmark	4.3	5.4	3.8	3.3	6.0	7.6

Source: OECD Statistics (www.oecd.org)

Table I. Unemployment rates by country, selected years, per cent

similar or better job, and second, how easy/difficult is it for the employer to replace the employee (see also Edlund and Grönlund, 2008). Based on these two dimensions, four power-balance outcomes may be measured: employee power, employer power, mutual dependence, and independence (see Table III).

We measured job autonomy by a summed average index of three questions, in which the respondent was asked to rate the following on a scale of 0-10: "Please say how much the management at your work allows/allowed you to…" first, "decide how your own daily work is/was organised", second, "influence policy decisions about the activities of the organisation", and third, "choose or change your pace of work" (0 = no influence, 10 = complete control). Cronbach's α is 0.756, and the average index range is 0-10.

Transferability of skills was measured by one statement: "Know other employers who would have good use of what was learnt in present job". Responses range from 1-4 (1 = no, none, 4 = yes, many).

We measured occupation by eight occupational categories based on the ISCO codes: managers, senior officials, and legislators professionals (e.g. lawyers, doctors, researchers, etc.), technicians and associate professionals, clerks, service, shop, and market sales workers, craft and related trade workers, plant and machine operators and assemblers, and elementary occupations. Because there were very few cases of workers in the armed forces and skilled agricultural occupations, we excluded these. The two groups comprising professionals and technicians/associate professionals were regarded as knowledge workers. The 1-digit ISCO codes are an indication of skill-level (see Ganzeboom and Treiman, 2003). The ISCO codes have also been used to identify social classes (EGP, ESEC), socio-economic status (ISEI), and prestige (SIOPS). We applied the original codes because skill-level is essential when identifying knowledge workers.

In the multivariate analyses, we included the following control variables: gender, age, tenure (0-3 years, 4-9 years, ten or more), full-or part-time work (less than 30 hours per week), education, employment contract (temporary or open-ended), union membership (present/previous member of union = 1, not member = 0), firm size, and industry (private or public). Because the ISCO codes are fairly detailed, we do not control for industry beyond private-public. Education was indicated by the total years of full-time education completed (ln). To check for a curvilinear relationship in terms of age, we constructed three age groups: 25-34, 35-44, and 45-59 years. Table AI presents descriptive statistics for the explanatory variables.

Methods

First, we analyzed how job characteristics – autonomy and transferability of skills, and educational level – vary by occupation, for each country. These analyses were based on descriptive statistics and OLS.

Second, we estimated a multinomial logit model to analyze the power balance for four outcomes: employee power, independence, mutual dependence, and employer power (reference). The multinomial model may be represented as follows (Long, 1997):

$$\Pr(y_i = 1|x_i) = \frac{1}{1 + \sum_{j=2}^{J} \exp(x_i \beta_j)}$$

$$\Pr(y_i = m|x_i) = \frac{\exp(x_i \beta_m)}{1 + \sum_{j=2}^{J} \exp(x_i \beta_j)} \quad \text{for } m > 1$$

where y is the dependent variable with J nominal outcomes. The effects (β), of the independent variables (x), are allowed to differ for each outcome (Long, 1997). This enabled us to examine whether the different factors affect the outcomes differently. The outcomes, presented as m, can take four values: 1, 2, 3, or 4.

Results

Autonomy, transferability of skills, and education

Table II presents the results for how well the occupational categories correspond to autonomy, transferability of skills, and education. Table II shows, with a few exceptions, that professionals and technicians share higher levels of autonomy, transferability of skills, and have longer education. The educational level is the highest for professionals in all three Scandinavian countries, that is, between 16.6 and 17.7 years. The reference group is clerical work, and the significance tests have controlled for background characteristics. The results indicate that the definition of knowledge workers based on formal education and skill-level corresponds fairly well to the perceptual measures of autonomy and transferability of skills. However, we see that managers also have higher scores on these characteristics, in particular job autonomy. This is probably a result of their hierarchical position in organizations, illustrating the organizational power of this group.

The power balance of employees and employers

Table III presents results for the power balance between employees and employers by country. Table III shows that 30 per cent of employees are categorized as having employee power (difficult to replace and easy to find another job), 22 per cent as employer power (easy to replace and difficult to find another job), 26 per cent as independence (easy to replace and easy to find another job), and 21 per cent as mutual dependence (difficult to replace and difficult to find another job). We present the proportions by country in parenthesis. These numbers show that employee power is highest in Norway (34 per cent) and lowest in Denmark (26 per cent). Conversely, employer power is highest in Denmark (28 per cent) and lowest in Norway (17 per cent).

Table IV presents the numbers for the power balance by occupation. Table IV mainly shows a pattern revealing that employees in knowledge work – professionals (34 per cent) and technicians (33 per cent), as well as managers (45 per cent) – have higher proportions of employees in the "employee power" category. By contrast, among the lower skilled groups, we find the highest proportions in the "employer power" category, for instance plant operators and elementary occupations. The pattern for power balance mainly follows the high and low-skilled occupations. One exception is craft and trade workers who perceive that they have a relatively high level of power (33 per cent).

Table IV shows that slightly less than one-third of the employees in clerical, service, plant-operator, and elementary occupations are in the group where employers have more power. The situation of mutual dependence (difficult to replace and difficult to find a similar job) is highest for clerical work and craft and trade workers.

Table V presents the results from multinomial regressions analysis. This analysis allows us to compare all four groups of outcomes for the power balance between employee and employer. The reference category is the outcome "employer power", in which the employees consider it difficult to find another job, and the employer finds it easy to replace the employee.

Table II.
Job characteristics and education by occupation

	Norway			Sweden			Denmark		
Range	Job autonomy 0-10	Transfer skills 1-4	Education years	Job autonomy 0-10	Transfer skills 1-4	Education years	Job autonomy 0-10	Transfer skills 1-4	Education years
Managers	8.6**	3.5**	15.7**	8.3*	3.8**	14.5**	9.0**	3.4	15.0
Professionals	7.2**	3.5	17.4**	7.4*	3.5**	16.6**	7.4	3.4*	17.7**
Technicians	7.0*	3.4*	15.7**	7.0	3.4*	14.8**	7.2	3.2	15.3*
Clerks	6.4	3.2	12.7	6.5	3.1	12.1	6.7	3.0	13.6
Service workers	6.6	3.4**	13.4*	6.1	3.4*	12.8	6.6	3.1	13.3
Craft and trades workers	7.1	3.3	12.7*	7.4	3.3	11.9	6.3	2.8	12.4
Plant operators	5.7	2.9	12.4	5.6*	2.7	11.8	5.4*	3.0	11.5
Elementary occupation	6.0	3.0	12.5	5.3	3.1	11.8	5.7**	2.8	11.6
Total	6.9	3.3	14.6	6.8	3.4	14.1	7.0	3.2	14.5
n		892			747			839	

Notes: Means (weighted). Significant tests based on OLS, controlling for: gender, age, tenure, part-time, employment contract, union member, supervisor, firm size, and public sector. Reference group occupation: clerks. *$p < 0.05$; **$p < 0.01$

First, Table V shows that that professionals and technicians have greater employee power ($b = 0.694$, $b = 0.731$) compared to the reference group: employer power. In this analysis, only the knowledge workers stand out, which suggests that it is the knowledge base rather than the hierarchical position that may be more decisive for the individual bargaining power. The effects of occupation on independence and mutual dependence are not significantly different from the reference category. The findings support that knowledge workers have greater power *vis-à-vis* their employers than do lower skilled employees; however, when conducting the analyses separately for each country, we find fewer occupational differences (analyses available upon request).

Second, the likeliness of being in the categories "employee power", "independence", and "mutual dependence" compared to the other three situations, is lower for employees in Denmark compared to Sweden and Norway. In other words, employees in Denmark are more likely to be in the category employer power, when compared to employees in Sweden and Denmark. This may be explained partly by the staffing flexibility – leaving employers with greater freedom in Denmark compared to Norway and Sweden, and partly by the labour market situation. The difference between Sweden and Denmark is also significant, which supports greater staffing flexibility as a more important factor than the labour market situation. Overall, employees in Norway and Sweden perceive greater employee power compared to employees in Denmark.

		Replace you Easy	Difficult
Get similar job	Easy	Independence 26 % (SE 28, DK 22, NO 28)	Employee power 30 % (SE 33, DK 26, NO 34)
	Difficult	Employer power 22 % (SE 22, DK 28, NO 17)	Mutual dependence 21 % (SE 18, DK 24, NO 22)

Notes: Per cent (weighted). The four outcomes for power balance were based on two questions: first, how easy/difficult it is to get a similar or better job, and second, how easy/difficult it is for the employer to replace you if you left. The values range from 0-10. Both questions were divided into difficult (range 0-5) or easy (range 6-10). SE, Sweden; DK, Denmark; NO, Norway

Table III.
The power balance employee-employer by country

	Employee power	Independence	Mutual dependence	Employer power	Total
Managers	45	23	19	13	100
Professionals	34	27	21	19	100
Technicians	33	27	21	19	100
Clerks	23	22	27	29	100
Service workers	24	31	16	28	100
Craft and trades workers	33	23	26	18	100
Plant operators	27	19	24	31	100
Elementary occupation	20	24	24	32	100
Total	31	26	21	22	100
n	562	472	384	403	1,821

Note: See Table III (and method section) for definition of the four outcomes for power balance employee-employer

Table IV.
Power balance employee-employer by occupation (weighted) per cent

	Employee power		Independence		Mutual dependence	
	b	SE	*b*	SE	*b*	SE
Occupation (clerks)						
Managers	0.737	0.396	0.242	0.412	−0.150	0.411
Professionals	0.694*	0.318	0.365	0.316	0.100	0.309
Technicians	0.731*	0.302	0.471	0.298	0.107	0.290
Service workers	0.283	0.317	0.339	0.305	−0.376	0.312
Craft and trades workers	0.603	0.377	0.416	0.383	0.249	0.371
Plant operators	0.144	0.370	−0.126	0.380	−0.043	0.359
Elementary occupation	0.160	0.434	0.187	0.419	−0.132	0.410
Country (Norway)						
Sweden	−0.122	0.179	−0.196	0.181	−0.303	0.196
Denmark	−0.695**	0.175	−0.758**	0.178	−0.384*	0.181
Controls						
Job autonomy	0.117**	0.037	0.098**	0.037	0.117**	0.040
Union member	−0.299	0.229	−0.172	0.236	−0.472	0.245
Gender (men)	−0.398*	0.162	−0.216	0.166	−0.363*	0.173
Age 35-44 (25-34)	−0.017	0.206	−0.075	0.211	0.184	0.237
Age 45-59	−0.725**	0.207	−0.497*	0.209	0.060	0.230
Seniority 0-3 years (4-9)	0.083	0.207	0.292	0.210	−0.091	0.221
Seniority 10 + years	−0.006	0.169	0.185	0.173	−0.203	0.179
In eduation years	0.268	0.220	0.695**	0.254	0.158	0.218
Supervisor (not supervisor)	−0.728**	0.168	−0.518**	0.173	−0.339	0.181
Public (private)	−0.113	0.163	−0.047	0.164	0.111	0.173
Part-time (full-time)	−0.302	0.196	0.130	0.186	−0.216	0.204
Temporary contract (open-ended)	−0.320	0.298	−0.154	0.285	0.117	0.305
Firm size 11-99 (less than 10)	0.121	0.212	0.079	0.214	−0.194	0.218
Firm size 100-499	−0.073	0.247	0.014	0.250	−0.216	0.255
Firm size 500+	0.165	0.272	0.221	0.276	−0.147	0.285
Intercept	−0.065	0.738	−1.608*	0.813	−0.002	0.745
Nagel kerke R2	0.134					
n	1,772					

Table V.
Determinants of the power balance employee-employer

Notes: Outcome reference category: employer power; multinomial logit model; reference categories in parenthesis. *$p < 0.05$; **$p < 0.01$

Third, we find that job autonomy is positively related to employee power. Because autonomy may vary within the occupational groups, we also included this as an explanatory variable. Table V shows that higher job autonomy ($b = 0.117$, $b = 0.098$, $b = 0.117$) makes employees more likely to end up in the categories employee power, independence, and mutual dependence compared to the reference, employer power. This supports the argument that high autonomy in the job makes employers more dependent on the employees. Moreover, Table V shows that there is no significant relationship between union membership and the power balance. Union members are not likely to perceive greater power *vis-à-vis* their employer than non-union members.

Fourth, the factors of gender, age, and supervisory role are significantly associated with employee power. Women are less likely to perceive employee power ($b = -0.398$) and mutual dependence ($b = -0.363$) compared to men. Furthermore, the higher the age, the more employees perceive themselves to be dependent on their employers. Employees in the age group 45-59 are less likely ($b = -0.725$) to end up in the category

employee power. Higher education is associated with greater likelihood of ending up in the category independence. Lastly, we see that supervisors perceive that employers have more power over them, and that supervisors are less likely to feel employee power ($b = -0.728$). This may seem counter-intuitive at first glance, but probably reflects the fact that supervisors are less likely to get a similar job due to fewer options in that job segment.

In order to see whether the effects of occupation depend on country, we have conducted the analysis by individual country (tables omitted). These analyses showed that there were no significant effects of interactions between country and knowledge work. In other words, the institutional setting does not seem to affect the power balance differently for knowledge workers and lower skilled workers. We also checked whether there were interactions of gender and occupation, and the results showed no significant interactions of gender and knowledge work.

Conclusions and discussion

In this paper, we have examined how employees perceive the power balance *vis-à-vis* their employers in three countries. The paper contributes to discussions concerning how much control and power knowledge workers have. Furthermore, the paper addresses the extent to which institutions in labour markets shape the power balance by studying three countries that are similar in many respects but different regarding some crucial institutional features.

We present four main findings: first, employees in knowledge work – professionals, and technicians – perceived that they have more power *vis-à-vis* their employer than do lower skilled workers. The knowledge workers are more likely to perceive that they are difficult to replace and that it is easier to find another similar job than lower skilled workers. The findings support the hypothesis that employees in knowledge work are distinct in terms of power balance, although the differences between occupations are not always significant in the analyses conducted for each country individually. Generally, this finding is in line with previous research showing that workers with lower education are more vulnerable in the "knowledge-based economy" (Muffels and Luijkx, 2008). Furthermore, the findings are consistent with previous research on job satisfaction, showing that workers in higher occupational classes are more satisfied with their jobs (Pichler and Wallace, 2009).

Second, we found differences in the power balance between the three countries. Employees in Denmark tended to have lower power *vis-à-vis* their employer than do workers in Sweden and Norway. This finding may be explained by the greater staffing flexibility enjoyed by Danish employers, which is one aspect of the flexicurity model. This system provides numerical flexibility for employers and facilitates job mobility. We were not able to establish how much of the differences in employee power may be explained by the labour market situation. However, despite the large differences in labour market situations in Sweden and Norway, the power balance is equal, which may indicate that the institutional setting is the prevailing determinant. The fact that unemployment levels were similar in Denmark and Sweden at the time of the survey supports this interpretation.

Third, the power balance between employees and employers was associated with job autonomy. When employees have greater job autonomy, they also tend to have greater power *vis-à-vis* their employer (also when controlling for occupation). This shows that the independence arising from job autonomy constitute a source of power for employees. Union membership did not have the same effect, which indicates that

this may be an important contextual variable, and, not surprisingly, less important for a given individual at the workplace. Workers in the Scandinavian countries have relatively high institutional power *per se*, union density being high, but union membership for a given employee does not seem to increase the perception of power *vis-à-vis* the employer.

Fourth, we found that the power balance was related to socio-demographic factors such as gender and age. Women tend to feel less power *vis-à-vis* their employers than do men. This was also the case when we controlled for variables such as occupation, part-time work, job autonomy etc. Despite the high participation of women in the labour market in the Scandinavian countries, this finding may reflect that women more frequently have the main family responsibility. Furthermore, older workers feel less power *vis-à-vis* their employers, which is in line with previous research showing lower job mobility for older workers (Krecker, 1994).

The study is not without limitations. As the analyses are based on representative samples, there are relatively few respondents in each occupational category. The data do not allow us to go into greater detail within occupations or within different organizations. In addition, the study does not include the self-employed, which may consist of independent and autonomous workers. Lastly, the cross-sectional data limit assessment of causality. Future research should aim to include longitudinal designs, which would improve the possibility of exploring the mechanisms for power relations between employees and employers over time.

Our study has important implications for employers and policies. Information on employee power is important to employers in terms of policy-making to reward and control these workers. Our findings show that knowledge workers perceive that they have greater power compared to lower skilled workers. Moreover, the study shows how staffing flexibility for employers may influence employees' perceptions of the power balance *vis-à-vis* their employers. Furthermore, our study contributes to the literature on knowledge work. Even though employees in knowledge work may have greater bargaining power, the influence of institutions, as well as demographic factors, are at least as important as occupation. Finally, further research should be conducted on how individual bargaining power influences organizational behaviour, such as commitment to the employer.

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Notes

1. Alvesson (2001) defines knowledge-intensive organization as a broader category than professional organization.
2. Analysis of the ESS data (numbers available upon request) showed that the proportion of professionals and technicians who were members of a union ranged from 77 to 95 per cent in the three countries.

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Appendix

	Mean	SD	1. Manag	2. Prof	3. Tech	4. Service	5. Clerks	6. Craft	7. Plant	8. Element	9. Autonomy	10. Union	11. Gender	12. Age	13. Seniority	14. Edu	15. Supervisor	16. Public	17. Part-time
1. Manager	0.09	0.28																	
2. Prof	0.20	0.40	−0.16**																
3. Tech	0.24	0.43	−0.18**	−0.29**															
4. Service	0.18	0.39	−0.15**	−0.24**	−0.27**														
5. Clerks	0.07	0.25	−0.08**	−0.13**	−0.15**	−0.13**													
6. Craft	0.09	0.28	−0.10**	−0.16**	−0.18**	−0.15**	−0.08**												
7. Plant	0.08	0.27	−0.09**	−0.15**	−0.16**	−0.14**	−0.08**	−0.09**											
8. Element	0.05	0.23	−0.07**	−0.12**	−0.14**	−0.11**	−0.06**	−0.07**	−0.07**										
9. Autonom	6.93	2.26	0.25**	0.09**	0.05*	−0.11**	−0.05*	0.00	−0.17**	−0.12**									
10. Union	0.83	0.38	−0.08**	0.06**	0.05**	−0.03	−0.02	−0.03	0.04	−0.02	−0.04								
11. Gender	0.49	0.50	−0.12**	0.04*	0.08**	0.24**	0.06**	−0.26**	−0.16**	−0.02	−0.06**	0.06**							
12. Age	43.16	9.58	0.06**	0.00	−0.01	−0.08**	0.01	−0.01	0.03	0.04	0.11**	0.19**	0.03						
13. Senior	10.58	9.27	0.04	−0.04	0.03	−0.06**	0.06**	−0.01	0.03	−0.03	0.07**	0.13**	0.01	0.51**					
14. Edu	14.42	3.76	0.06**	0.37**	0.13**	−0.16**	−0.11**	−0.17**	−0.19**	−0.16**	0.09**	0.03	0.09**	−0.11**	−0.11**				
15. Superv.	0.65	0.48	−0.34**	0.01	0.01	0.11**	0.04*	−0.02	0.07**	0.09**	−0.29**	0.03	0.17**	−0.05*	−0.02	−0.07**			
16. Public	0.38	0.49	−0.13**	0.17**	0.06**	0.13**	−0.02	−0.20**	−0.17**	−0.01	−0.09**	0.17**	0.32**	0.09**	0.12**	0.19**	0.11**		
17. Part-time	0.22	0.42	−0.12**	−0.11**	−0.06**	0.28**	0.04	−0.11**	−0.02	0.09**	−0.11**	−0.04*	0.26**	−0.09**	−0.04	−0.06**	0.19**	0.14**	
18. Temp	0.11	0.32	−0.06**	0.01	−0.04*	0.09**	−0.01	−0.02	−0.01	0.04	−0.21**	−0.05*	0.06**	−0.18**	−0.19**	0.04	0.12**	0.12**	0.12**

Notes: The correlations between firm size and all the variables were never greater than 0.1. *$p < 0.05$; **$p < 0.01$

Source: Pooled sample of countries

Table AI.
Descriptive statistics for the explanatory variables