

Mühlau, Peter

Article

Gender inequality and job quality in Europe

Management Revue

Provided in Cooperation with:

Rainer Hampp Verlag

Suggested Citation: Mühlau, Peter (2011) : Gender inequality and job quality in Europe, Management Revue, ISSN 1861-9916, Rainer Hampp Verlag, Mering, Vol. 22, Iss. 2, pp. 114-131, https://doi.org/10.1688/1861-9908_mrev_2011_02_Muehlau

This Version is available at:

<https://hdl.handle.net/10419/79066>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Peter Mühlau*

Gender Inequality and Job Quality in Europe**

In this paper, I examine whether and to which degree the quality of work and employment differs between men and women and how these gender differences are shaped by societal beliefs about 'gender equality.' Using data from the 2004 wave of the European Social Survey, I compare the jobs of men and women across a variety of measures of perceived job quality in 26 countries. Key findings are that job quality is gendered: Jobs of men are typically characterized by high training requirements, good promotion opportunities and high levels of job complexity, autonomy and participation. Jobs for women, in contrast, are less likely to pose a health or safety risk or to involve work during antisocial hours. However, contrary to expectation, the job profiles of men and women are not more similar in societies with gender egalitarian norms. While women are relatively more likely to be exposed to health and safety risks, work pressure and demands to work outside regular working time, in more gender-egalitarian societies their work is not, relative to men's, more skilled, complex or autonomous. Neither do more egalitarian societies provide more opportunities for participation and advancement for women than less egalitarian societies.

Key words: **job quality, gender inequality, gender egalitarianism**
(JEL: A14, J16, J24)

* Dr. Peter Mühlau, Department of Sociology and Institute for International Integration Studies (IIS), Trinity College Dublin, 3-5 College Green, Dublin 2, Ireland.
E-mail: muhlaup@tcd.ie.

** Article received: August 31, 2010
Revised version accepted after double blind review: April 6, 2011.

Introduction

While largely dormant during the 80s and 90s, concerns about the quality of jobs and employment have increased as a result of initiatives such as the ILO decent work (e.g., Ghai, 2003) and the European Employment Strategy (European Commission, 2001). Of particular interest in the recent discussion of job quality is the gender dimension: How does the quality of jobs of women compare with the jobs of men (e.g., Smith, 2008)? The general finding appears to be that there are persistent gender differences with regard to job quality, in particular less access by women to high-status occupations such as managers and an overrepresentation in part-time work that is associated with an inferior quality of work (Burchell et al., 2007). However, there are also indicators that the jobs of women are not poorer in all dimensions: For example, women are less likely to work long hours and exposure to physical health risks is higher for men (European Foundation, 2007; Leeth & Ruser, 2006). A systematic description of the gender differences regarding quality indicators for work and employment is missing. The first aim of this paper is to describe the perceived quality of working men and women in European countries using a wide range of relevant attributes of the job and the employment relation.

The second issue is to understand how differences between ‘male’ and ‘female’ jobs vary across European countries. For example, Pollart & Fodor (2005) see a higher level of gender equality in the New Member States of Eastern Europe when compared with the established member states (Pollert & Fodor, 2005). In this paper, I take a closer look at one dimension accounting for the salience of differences between the quality of jobs of men and women in different societies, the prevailing gender ideologies or norms of gender-egalitarianism. Gender egalitarianism has been found to be associated with higher employment rates among women (Fontin, 2005), a smaller gender-wage gap (Fontin, 2005), a more equal division of domestic work (Fuwa, 2004) and less educational gender segregation (Charles & Charles, 2002). The second aim of the paper is to establish whether norms of gender equality at the societal level are also associated with a more similar profile of the jobs held by men and women. The basic idea underlying the hypothesis that an egalitarian gender ideology is associated with a larger similarity between men and women across attributes defining job quality draws on economic and cultural theories of occupational sex segregation: In societies emphasizing gender inequality, behaviour and trait differences between men and women are amplified, segregated gender roles are supported by societal expectations and policies, jobs are more consistently packaged in ‘masculine’ and ‘feminine’ bundles and women and men are more stringently allocated to these jobs by processes of selection and self-selection. It is expected that this leads to a stronger contrast in the job attributes of men and women than in more gender egalitarian societies. Before elaborating on this basic idea, I briefly discuss the relevant literature regarding job quality and how job quality is shaped by social institutions.

Job Quality

Job quality refers to characteristics of work (such as work autonomy, physical working conditions, risks for health and safety), characteristics of the employment relation

(such as work hours, wage, job security) and characteristics of the interface of work and employment (such as participation and career development) that affect the subjective and objective well-being of the 'typical' employee (Munoz de Bustillo et al., 2009). Job quality or the quality of work and employment is a multi-faceted concept that includes a variety of dimensions which reflect different layers of the debate what constitute a 'good' job (Gallie, 2007a, 2007b). In the 60s and 70s, sociologists developed a 'skill-centered' understanding of 'quality of work life' against a backdrop of expanding mass production industries creating a stratum of semi-skilled workforce engaged in fragmented and repetitive tasks with little influence and control over the work process. This approach emphasized the importance of a close link between skill level, autonomy, participation and intrinsic quality of work. In the 70s and 80s, institutional economists and structural sociologists, in contrast, expanded the concern with wages as a dominant indicator of job quality to other aspects such as job security, chances of advancement and health risks with 'good' and 'bad' jobs being organized in different segments of the labour market. More recently, work pressure and intensification (e.g., Green, 2005) and, in conjunction with the increasing share of women participating in the workforce, issues of combining work and family commitments ('work-life balance') have received increasing attention. In this paper, I examine a variety of job quality indicators that reflect these different layers of the quality of work debate. I look at training requirements, job complexity, job autonomy, participation in organizational decisions and co-worker support, key aspects of the 'skill-centered approach'. Along with job security, promotion opportunities and health and safety risks, training requirements belong also to a second cluster of characteristics of 'good jobs' as understood by segmentation theorists. The recent discussion is represented by the dimensions of experienced work pressure and the extent that the employee works antisocial hours such as weekends, evenings or unscheduled overtime.

Societal context and quality of work and employment

Only recently, sociologists have started to theorise explicitly about how the societal context shapes the quality of work and employment of the workforce. Following Gallie (2003, 2007a, 2007b), three directions can be distinguished: a production regime approach, an employment regime approach and the idea of an exceptional development in Scandinavian countries. The production regime approach is closely connected to the varieties of capitalism literature (Hall & Soskice, 2001; Estevez-Abe et al., 2001). In coordinated market economies, long-term attachments between companies and workers, supported by cooperative relations between labour and management, protect investments in specific skills which are utilized in production strategies such as diversified quality production. Loose bonds between employers and employees and adversarial labour relations in liberal economies, in contrast, provide no safeguard for training investments other than in general training and skills are substituted by strict rule governance and Taylorist strategies. The production regimes of coordinated market economies are expected to involve better jobs for workers: The heavy reliance on internal labour markets in coordinated market economies is reflected in higher job security and more opportunities for internal advancement; the use of skilled labour goes along with higher levels of autonomy and participation (Dobbin & Boychuk, 1999;

Gallie, 2007b). While the production regime approach emphasizes the importance of employer strategies, the employment regime approach highlights the power of organized labour which is directly or indirectly converted into job quality. Gallie (2007a) distinguishes between inclusive, dualist and market employment regimes. While the role of organized labour is marginal in market employment regimes, it has a strong power base in collective bargaining and government in inclusive regimes. In dualist regimes, participation is largely restricted to consultative workplace arrangements, leading to a polarization between high quality jobs for core workers and low quality jobs for marginal workers. The exceptionalism hypothesis shares the emphasis on the mobilization of power resources, but holds that Nordic countries were much more committed in translating these resources into a concerted efforts to improve the quality of work life of low skilled workers since the 60s, in particular in the areas of skill development, autonomy, participation and teamwork (Payne & Keep, 2003; Alasoini, 2006; Gustavsen, 2007). The Scandinavian exceptionalism thesis appears to be empirically the best supported perspective (Arundel et al., 2007; Gallie 2003, 2007b, 2009), but few insights regarding the gendering of job quality follow from it. In the varieties of capitalism tradition, Estevez-Abe (2005, 2006) has argued that production regimes based on specific training and internal labour markets create a stronger divide between men and women than production regimes based on general skills and external labour markets as women are excluded from the core sectors in these societies. Similarly, Gallie (2007a) makes the point that dualist employment regimes tend to reinforce the gender divide as women are less likely to be a part of the core workforce, while women benefit strongly from inclusive employment regimes, in particular if the 'decommodification' of labour is complemented by the 'defamilization' of care (cp., Esping-Andersen, 1990). In the following, I build on this idea, assuming that those policies are an integral part of an institutionalised gender ideology.

Gender ideology and the gendering of job quality

Gender ideology or gender egalitarianism primarily refers to beliefs held by individuals about appropriate roles for women and men in family and the wider society. McDaniel (2008, p. 59), for example, regards gender egalitarianism 'as a belief that men and women should attain a certain degree of equality within both public and private realms of society, and that women's status should not depend on their reproductive behavior' while Davis and Greenstein (2009, p. 89) use the term gender ideology "...to represent the underlying concept of an individual's level of support for a division of paid work and family responsibilities that is based on the notion of separate spheres". Women with more gender egalitarian beliefs tend to work longer hours, are longer in full-time employment and earn more than women who believe in a more traditional division of labour between men and women. (Vella, 1994; Corrigal & Konrad, 2007; Stickney & Konrad, 2007). Men with gender egalitarian beliefs in contrast tend to contribute more to domestic and child-rearing tasks (e.g., Nordenmark 2004, Gaunt, 2006). Gender ideology or egalitarianism may however also refer to socially institutionalised beliefs or cultures. Gender egalitarian cultures (as opposed to individual beliefs) may be important in shaping the opportunities and constraints of individuals. The views of others, for example employers, but also of spouses and friends, and gen-

eral social expectations matter directly and indirectly via policies and structures that emerged from the collective gender ideologies. Indications that gender egalitarian cultures shape labour market outcomes are provided by Fortin (2005) who finds that the employment rate of women is larger and the gender-pay gap is smaller in countries with more gender egalitarian cultures. Fuwa (2004) reports that housework is more evenly divided in countries that exhibit a strong empowerment of women. Furthermore, Charles and Bradley (2002) find that gender egalitarian countries exhibit less vertical and horizontal sex segregation in third-level education. The picture however is less clear for occupational segregation: Blackburn et al. (2000) find no relationship between empowerment and occupational segregation while Charles (2003) sees gender egalitarianism as associated with less vertical occupational segregation in the non-manual occupation but also with more horizontal segregation and vertical segregation in manual occupations.

How do individual and collective beliefs in gender equality translate into gender differences with regard to the quality of work and employment? On the one side, sociologists and social-psychologists have pointed to the pervasive role of gender socialization and gender stereotypes in the process of sorting men and women to gendered jobs and occupations. It is likely that women and men are attracted to jobs that require traits and behaviour that is akin to the behaviour and traits defining general gender roles and gender identities (e.g., Marini et al., 1996; Marini & Feng, 1997; Johnston, 2005). Moreover, gender stereotyping might affect the selection and self-selection of men and women for 'gendered' jobs: For example, Eagly and Steffen (1984) argue that gender stereotypes reflect the role distribution in society. Cejka and Eagly (1999) identify specific 'masculine' and 'feminine' personality, physical and cognitive characteristics (such as being gentle, nurturing, helpful, sociable vs being competitive, dominant and aggressive) which respondents associate with being successful in male or female dominated occupations. Similarly, employers may use these stereotypes in hiring decisions to fill 'female' and 'male' jobs. Charles (2005) emphasizes the importance of distinguishing between two aspects of gender ideology, gender essentialism and male primacy, in this respect: Gender essentialism refers to the ideological construct that "men and women are naturally and fundamentally different and that women are better suited than men for tasks involving service, nurturance, and social interaction. The second principle, male primacy, represents men's traits as more valuable, and men as more status worthy and accordingly better suited for positions of authority and domination." Moreover, society may overvalue 'masculine' characteristics and undervalue 'female' ones (e.g., England et al., 1994).

On the other side, economists have analysed how gender roles affect the accumulation and atrophy of human capital and how that in turn shapes human capital investment strategies of men and women and their occupational and job choices (Mincer & Polachek 1974; Polachek, 1981). Differentiation of gender roles tends to allocate the primary role as provider to men while women are expected to be responsible for housekeeping, child rearing and other caring tasks. While men typically have continuous careers and little involvement in household tasks, many women work limited hours and interrupt their careers in order to fulfill domestic and caring obligations. As a consequence, women suffer a disadvantage in jobs where productivity depends on

experience and continuous accumulation of human capital. Moreover, statistical discrimination by employers reinforces this process. Women and men also go for jobs that fit their perceived family roles and orient their educational and occupational choices toward their expected roles. Anticipating their different career trajectories, women are expected to invest less than men in schooling and training, in particular in training that is specific to particular jobs or employers and that they choose jobs and occupations where productivity is less dependent on specific skills and accumulated, continuous work experience. Moreover, women are expected to choose education and jobs that develop and draw on skills that overlap with the skills needed to fulfill their role as housekeeper, mother and wife. Finally, the gender role division in families makes it likely that investment and career moves are biased toward furthering the career of the 'breadwinner' at the expense of the 'second earner' (Bielby & Bielby, 1992)

In societies with more gender-egalitarian norms, gender socialization is expected to be less directed toward traditional gender roles and individuals experience less pressure to comply with corresponding expectations. Consequently, gender identities are more diffuse and behavior and traits less differentiated between men and women weakening the link between gender and job and occupational choices and between gender and career continuity. Gender stereotypes guiding employer discrimination are expected to be less pronounced and gender discrimination, whether statistical or 'implicit' (Bertrand et al., 2005), less legitimate and more strongly sanctioned in societies with strong beliefs in gender equality (Weichselbaumer & Winter-Ebmer, 2007). It is also likely that gender-egalitarian norms are translated into policies that help women to combine domestic and work roles and erode the primacy of the 'breadwinner model'. Separate taxation of couples, provision with childcare facilities and maternity leave arrangements remove disincentives for women to participate in the labour market and strengthen the workforce attachment of women (Jaumotte, 2003).

Hypotheses

With regard to job quality, the previous leads to the following hypothesis: First, I expect that the profile of gender differences regarding job quality characteristics reflects primarily stylized differences in work commitment and attachment, but also 'masculine' and 'feminine' job contents. Specifically, I expect that men will more likely hold jobs that require more training, will more likely have higher job security and better possibilities of advancement than women. Men's jobs will be more complex and they will experience greater autonomy and more participation in organizational decisions than women. Women in contrast will experience less work pressure and more co-worker support and are less likely to work asocial hours. Moreover, women are expected to be less exposed to working conditions that are risky in terms of the health and safety of the employee.

Second, I expect that 'gender egalitarianism' at the societal level is associated with weaker gender differences. In more gender-egalitarian societies, women will have relatively more access to 'full commitment'-jobs characterized by high levels of training needs, task complexity, autonomy and participation, job security and opportunities of advancement. The side other of the coin is that women are also expected to be less sheltered from demands of their employers. Lower restrictions on the use of female

labour power in gender-egalitarian societies will be reflected in relatively higher levels of work pressure, health risks and antisocial working times and less experienced co-worker support. Empirically, this implies a differential relationship between measures of ‘gender egalitarianism’ at the country level and job quality attributes for men and women resulting in a narrowing of the gender-gap in more egalitarian countries: For job quality characteristics for which males typically have an advantage compared to females the relationship with gender egalitarianism is expected to be more positive for women than for men. For job quality attributes which score more favorable for the average women relative to men the relationship is expected to be more negative for women than for men.

Data, Measurement, Modelling

For the individual-level data, I use the Second Round (2004) of the European Social Survey (ESS2). This round contains a module on Family, Work and Well-Being, with a special emphasis on the experience of work on which this study largely draws. The European Social Survey is a comparative multi-national survey ensuring that the samples and data collection are comparable in the different countries and that the questions are understood in the same way by respondents in different countries and languages. The data collection consists in face-to-face interviews. Sampling is based on simple random sampling or multi-stage cluster sampling, sometimes stratified. The net sample size of the ESS2 is 47,537 respondents in 26 countries. The national samples range from 579 (Iceland) to 3,036 (Czech Republic). Response rates vary from 43.6 (France) to 79.1 (Estonia) percent. The job quality module has been only asked for employees. This reduces the sample size to 16,227. The share of employees among the sample appears small, but is largely in line with labour force survey data on employment in these countries if it is taken into account that the ESS also covers people older than 65 and that about 20 percent of the workers are self-employed. Sample sizes vary from 204 (Luxembourg) to 918 (Poland) and the share of women (unweighted) between 27.3 (Turkey) and 54.8 percent (Hungary). For the combined sample, the share of women is 48.3 percent.

Measurement

Dependent variables

All variables measuring perceived quality of job and employment have been standardized as normal scores using the pooled data. These pooled data are weighted by a product of design and population weights. The reference point for standardization is thus the universe of workers in Europe. If measures consist of multi-item composites, the standardized individual items have been summed up and the resulting variable again standardized. This procedure secures that the means of variables can be compared and, in the case of multi-item variables, that each of the item exerts the same influence on the composite regardless of the scaling of the item. Variables have been recoded so that positive values in the dimensions refer to high quality and negative values to low quality in the respective dimension.

Training: normal score of the sum of the normal scores of the following items: ‘If someone was applying nowadays for the job you do now, would they need any educa-

tion or vocational schooling beyond compulsory education?’ (no=0, yes-> how many), ‘About how many years of education or vocational schooling beyond compulsory education would they need?’ (1=less than one year, 8= 10 years or more), ‘If somebody with the right education and qualifications replaced you in your job, how long would it take for them to learn to do the job reasonably well?’ (1= 1 day or less, 8= more than 5 years).

Job security: normal score of the following item: ‘My job is secure (in the sense of an actual or implied promise/likelihood of continued employment)’, (1=Not at all true, 4=Very true)

Promotion opportunities: normal score of the following item: ‘My opportunities for advancement are good’, (1=Agree strongly, 5=’Disagree strongly’, reversed)

Job complexity: normal score of the sum of the normal scores of the following items: ‘There is a lot of variety in my work’, ‘My job requires that I keep learning new things’ (1=Not at all true, 4=Very true)

Autonomy: normal score of the sum of the normal scores of the following items: ‘how much management at your work allows you to decide how your own daily work is/was organised?’, ‘how much management at your work allows you to choose or change your pace of work?’ (0=I have no influence, 10= I have complete control), normalised , ‘I can decide the time I start and finish work’ (1=Not at all true, 4=Very true), ‘My work is closely supervised’ (1=Agree strongly, 5=’Disagree strongly’, reversed)

Participation: normal score of the following item: ‘how much management at your work allows you to to influence policy decisions about the activities of the organisation?’ (0=I have no influence, 10= I have complete control)

Work pressure: normal score of the following item: ‘I never seem to have enough time to get everything done in my job’ (1=Agree strongly, 5=’Disagree strongly’)

Co-worker support: normal score of the following item: ‘I can get support and help from my co-workers when needed’, (1=Not at all true, 4=Very true)

Health/Safety: normal score of the following item: ‘My health or safety is at risk because of my work’, (1=Not at all true, 4=Very true, reversed)

Antisocial hours: normal score of normal scores of the following items: ‘How often does your work involve working evenings or nights?’, ‘How often does your work involve having to work overtime at short notice’ (1=never, 7=every day), ‘How often does your work involve working at weekends’ (1=never, 5=every week)

Independent variables:

I measure gender egalitarianism in three different ways in order to assure that the results are robust and independent of potential shortcomings of specific measures of gender egalitarianism.

Gender Egalitarianism (ESS) is the country average of an individual-level measure of the belief in the primacy of the breadwinner role (cp. Davis & Greenstein, 2009). This individual measure is the sum score of following items: “Women should be prepared to cut down on paid work for the sake of the family”, “Men should have more

rights to jobs then women when jobs are scarce” (1=Strongly agree, 5=Strongly disagree). These items are contained in ESS2.

Gender Egalitarianism (WVS) is derived from the fifth wave of the World Value Survey (2005-7). It is the sum score of the country means of the following items: “When jobs are scarce, men should have more right to a job than women” (1=agree, 3=disagree), “Men make better political leaders”, “University is more important for a boy”, “Men make better business executives than women” (1=strongly agree, 4=strongly disagree). It is a wider measure of the acceptance of male privilege than the ESS-based measure (cp. Davis & Greenstein, 2009). Unfortunately, it is currently only available for a subset of the countries in the EES2: Finland, France, Germany (East), Germany (West), Great Britain, Greece, Italy, Netherlands, Norway, Poland, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine

Gender Empowerment Measure (GEM). This GEM is an indicator for de-facto gender equality. It is a composite of 25 quantitative indicators covering the dimension of economic participation, economic opportunity, political empowerment, educational attainment and health and well being. Measures are taken from the 2004 edition (Lopez-Claros & Zahidi, 2005). This measure is not available for the Ukraine and there are no separate measures for West and East Germany.

As control-variable, I use the cluster a country belongs to. Following typologies largely inspired by the Varieties of Capitalism or World of Welfare Capitalism literature, I distinguish between *Continental* (Conservative), *Nordic* (Scandinavian, Social-Democratic), *Liberal, South* (Mediterranean) and *East* (Post-Socialist, Transition) clusters (Pollart & Fodor, 2005; Gallie, 2007; Cerdeira & Kovacs, 2008; Davoine et al., 2008). Countries are allocated to clusters as follows:

- *Continental*: Austria, Belgium, France, Germany (West), Luxembourg, Netherlands, Switzerland ;
- *Nordic*: Denmark, Finland, Iceland, Norway, Sweden;
- *Liberal*: Great Britain, Ireland;
- *South*: Greece, Italy, Portugal, Spain, Turkey;
- *East*: Czech Republic, Estonia, Germany (East), Hungary, Poland, Slovenia, Slovakia, Ukraine.

Modelling

The data have been modelled as hierarchical linear models (multi-level models) using MLwiN 2.15. Two levels have been specified: Individuals at the lowest (n=16, 227) and countries of residence as the highest level. As there are strong differences regarding the gendering of work and regarding gender ideologies between the West and East Germany, they have been specified as separate countries (n=27). All regressions are linear in order to facilitate comparison across different indicators. Robustness checks indicated that significance levels of linear specifications are qualitatively not different from ordinal specifications. Random intercepts have been specified for the countries and random slopes for gender that are interacted with higher level predictor variables. Co-variances between intercepts and slopes are estimated but not reported.

Results

Table 1 and table 2 report the results of the regressions of job quality characteristics. Model 1 refers to a specification that contains only one predictor variable, being female. The estimates for this variable give the average differences between men and women for the respective job quality indicator, adjusted for country nesting. These estimates are relevant for evaluating the support for the first general hypothesis regarding the 'typical' differences between the quality of 'male' and 'female' jobs.

As hypothesized, women hold jobs that require less skills or training than the jobs of men. The highly significant estimate for the gender difference (-.20) indicates that men have the largest advantage in the dimension of *training*. The jobs of women are also less complex (-.09), i.e. 'male' jobs consist of more varied tasks and provide more opportunities to acquire new knowledge and skills, and women exert less discretion in carrying out their work: As the negative estimate for *autonomy* (-.13) indicates, men have more say about method, timing and pace of their work and are less likely to be directly supervised. In line with this, women are less likely than men to influence organizational decisions, as evidenced by the negative estimate for *participation* (.06).

However, contrary to expectations, women do not report less *job security* than men. There are no significant gender differences with regard to promised or signaled permanence and continuity of the job. It may be that the greater likelihood for women to hold fixed-term contracts (e.g., Burchell et al., 2007) and to be part-time (which arguably frequently implies less job security) is balanced on the one hand by a higher representation of women on particularly secure 'public sector jobs' and on the other by an overrepresentation of men in declining sectors such as manufacturing or industries which are more volatile by nature, e.g., construction. In line with expectations, women experience less opportunities for promotion in their jobs than men. As indicated by the estimate for *advancement* (-.15), the men enjoy a substantial advantage over women with regard to promotion opportunities, second only to the training requirements.

It was hypothesized that women experience less work pressure than men and experience more help and support from co-workers. Both expectations do not find support in the data. With regard to *work pressure*, women experience, if any, more work pressure than men as the negative, but insignificant estimate indicates (.03). The estimate for *co-worker support* is negative (.05) implying that women are more likely to report that they cannot get help from co-workers when they need it.

The largest differences between women and men are found for *safety* (.32) and *un-social hours* (.31). Men report substantially more than women that their work poses a hazard for their health or safety and men work more frequently in the evenings, weekends or are more likely to be scheduled for overtime on short notice.

Taken together, the data provide substantial evidence that job characteristics relevant for the well-being of employees are 'gendered'. Significant gender differences are found for 8 of the ten dimensions. No differences were found in only two of the dimensions - job security and work pressure. Moreover, the pattern of the differences was largely consistent with the expectations that the profile of quality of work attributes and employment correspond to gender roles, i.e. that women are expected to combine work roles with domestic roles of mother and homemaker and choose

‘feminine’ jobs while men focus their energies on the job in their ‘provider’ role and choose jobs that are consistent with their ‘masculinity’. All estimates were in the expected direction but one: women experience less and not more support from co-workers.

Table 1: Multi-level linear regressions of job characteristics

Fixed Effects	Skill		Job Security		Advancement		Complexity		Autonomy	
<i>Model 1</i>	<i>Coeff</i>	<i>SE</i>	<i>Coeff</i>	<i>SE</i>	<i>Coeff</i>	<i>SE</i>	<i>Coeff</i>	<i>SE</i>	<i>Coeff</i>	<i>SE</i>
Constant	0.124**	0.061	0.042	0.054	0.089**	0.043	0.108**	0.053	0.047	0.067
Female	-0.199***	0.031	0.020	0.028	-0.154***	0.024	-0.090***	0.023	-0.129***	0.027
<i>Model 2</i>										
Nordic	0.090	0.165	0.201	0.174	-0.111	0.102	0.206**	0.096	0.124	0.111
Liberal	-0.208	0.187	0.113	0.198	0.195*	0.115	0.005	0.106	-0.386***	0.125
South	-0.305*	0.162	-0.144	0.171	-0.046	0.100	-0.479***	0.094	-0.633***	0.109
East	-0.016	0.144	-0.286*	0.152	-0.339***	0.089	-0.229***	0.084	-0.280***	0.097
Egalitarianism (ESS)	0.095	0.097	-0.086	0.100	0.020	0.060	0.026	0.061	0.057	0.066
Egalitarianism (ESS) X Female	-0.087**	0.035	0.070**	0.034	0.012	0.030	-0.006	0.028	-0.091***	0.027
<i>Model 3</i>										
GEM	-0.098	0.121	0.044	0.158	0.064	0.099	-0.085	0.109	0.239**	0.106
GEM X Female	-0.026	0.048	0.073	0.046	0.042	0.040	0.050	0.033	-0.080*	0.043
<i>Model 4</i>										
Egalitarianism (WVS)	0.143**	0.069	0.072	0.061	0.016	0.048	0.124**	0.049	0.058	0.035
Egalitarianism (WVS) X Female	-0.112***	0.030	0.062*	0.035	-0.043	0.031	-0.058*	0.030	-0.088***	0.026
Random Effects										
<i>Model 1</i>										
IL-Variance	0.846	0.009	0.876	0.010	0.898	0.010	0.882	0.010	0.904	0.010
CL-Intercept Variance	0.097	0.027	0.074	0.021	0.048	0.014	0.074	0.021	0.117	0.033
CL-Gender Slope Variance	0.019	0.007	0.015	0.006	0.008	0.004	0.007	0.004	0.013	0.005
<i>Model 2</i>										
IL-Variance	0.821	0.009	0.874	0.010	0.895	0.010	0.870	0.010	0.899	0.010
CL-Intercept Variance	0.060	0.017	0.059	0.017	0.020	0.006	0.027	0.008	0.026	0.008
CL-Gender Slope Variance	0.016	0.006	0.014	0.005	0.009	0.004	0.007	0.003	0.006	0.003

*** = $p < .01$, ** = $p < .05$, * = $p < .10$

Table 2: Multi-level linear regressions of job characteristics

Fixed Effects	Participation		Work Pressure (rev)		Co-worker support		Safety		Unsocial Hours (rev)	
	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE
<i>Model 1</i>										
Constant	-0.022	0.067	0.061	0.043	0.072**	0.036	-0.123**	0.061	0.126***	0.037
Female	-0.055**	0.023	-0.026	0.024	-0.048**	0.023	0.315***	0.036	0.301***	0.021
<i>Model 2</i>										
Nordic	0.286*	0.142	0.080	0.139	0.106	0.078	-0.067	0.081	-0.230**	0.090
Liberal	-0.022	0.161	0.027	0.157	0.066	0.087	0.312***	0.085	-0.009	0.099
South	-0.007	0.139	-0.064	0.136	-0.270***	0.076	0.177**	0.081	0.229**	0.088
East	-0.256**	0.124	0.173	0.121	-0.128*	0.068	-0.020	0.071	-0.068	0.078
Egalitarianism (ESS)	0.141*	0.082	-0.063	0.080	0.036	0.046	0.279***	0.066	0.073	0.055
Egalitarianism (ESS) X Female	-0.021	0.029	-0.041	0.029	0.032	0.029	-0.131***	0.031	-0.074***	0.024
<i>Model 3</i>										
GEM	0.248*	0.141	-0.160	0.135	-0.073	0.072	0.291***	0.098	0.037	0.090
GEM X Female	0.012	0.040	-0.093**	0.038	0.047	0.042	-0.135***	0.046	-0.070*	0.038
<i>Model 4</i>										
Egalitarianism (WVS)	0.192***	0.054	-0.112**	0.046	0.019	0.035	0.225***	0.061	0.117**	0.044
Egalitarianism (WVS) X Female	-0.061**	0.030	0.000	0.031	0.034	0.035	-0.111***	0.033	-0.051*	0.029
Random Effects										
<i>Model 1</i>										
IL-Variance	0.858	0.010	0.897	0.010	0.881	0.010	0.825	0.009	0.899	0.010
CL-Intercept Variance	0.120	0.033	0.046	0.014	0.033	0.010	0.097	0.027	0.033	0.010
CL-Gender Slope Variance	0.008	0.004	0.009	0.004	0.008	0.004	0.028	0.009	0.006	0.003
<i>Model 2</i>										
IL-Variance	0.852	0.009	0.897	0.010	0.875	0.010	0.821	0.009	0.896	0.010
CL-Intercept Variance	0.040	0.012	0.036	0.011	0.010	0.004	0.050	0.014	0.020	0.006
CL-Gender Slope Variance	0.008	0.004	0.008	0.004	0.008	0.004	0.010	0.004	0.003	0.002

*** = $p < .01$, ** = $p < .05$, * = $p < .10$

Models 2 to 4 are different specifications that are needed to evaluate the support for the second hypothesis, that gender differences with regard to the quality of work and employment are less pronounced in countries with higher gender egalitarianism. Model 2 augments Model 1 by adding gender ideology and the product term between the gender dummy and gender ideology at the individual level and a set of country cluster

dummies, the variable ‘gender egalitarianism’ on the basis of ESS2 variables and the cross-level interaction term between the gender dummy and the country-level variable *gender egalitarianism (ESS)*. The individual-level variable ‘gender ideology’ is centered around the country means, i.e. explains only within-country differences. In Model 3, *gender egalitarianism (ESS2)* is substituted by the gender empowerment measure of 2004 at the country level (*GEM*). This regression includes only 25 countries as the GEM is missing for the Ukraine and no separate estimates are available for East and West Germany. In Model 4, *gender egalitarianism (ESS2)* is substituted by the gender egalitarianism measure based on the fifth wave of the World Value Survey, *gender egalitarianism (WVS)*. This regression is restricted to the 15 countries (including East and West Germany) for which the latest edition of the World Value Survey is available. All continuous country level variables are centered around the grand mean. The estimates for co-variables and variance components are only reported for Model 2.

The main effects of the country-level measures for gender egalitarianism indicate whether men have better jobs in countries with higher gender equality, the estimates for the interaction term between gender and measures of egalitarianism pertains to the differential effect of the macro-context on men and women and the sum of the main and interaction effect describes how a gender egalitarian culture affects the job attributes of women. For the dependent variable *training* and *job complexity*, the estimates for the country-level measures of *gender egalitarianism* are positive but negative for the empowerment index and hence somewhat inconclusive. All estimates for the interaction effects with the gender dummy on *training*, however, are negative, significantly so for Egalitarianism (ESS) and Egalitarianism (WVS). Contrary to expectations, the gap in training requirements between jobs of men and jobs of women does not narrow, but widens with increasing strength of the gender egalitarian culture in the country. For *job complexity*, the estimates for the product terms with the gender dummy vary in size and direction providing scant support for the hypothesis of a narrowing gender gap. With regard to *autonomy* and *participation*, the main effects are all positive, most often significantly so. The interaction effects with the gender dummy are negative and significant in the case of *autonomy*, again describing a widening gender gap for gender egalitarian societies. For *participation*, the data yield a significantly negative estimate for the interaction effect with *egalitarianism (WVS)* and estimates close to zero for the other two. The data are again more in support of a widening than a narrowing gap in gender egalitarian societies. Neither finds the hypothesis support that gender equality at the societal level goes along with a narrowing gender gap for promotion opportunities: For the variable *advancement*, all main effects are close to zero and the interaction effects with the gender dummy vary but are insignificant. While there is no consistent main effect for *job security*, the interaction effects with the gender dummy are all positive, significantly so in the case of *Egalitarianism (ESS)*. In gender egalitarian societies women have substantially higher job security than men. For *work pressure*, the main effects are all negative, significantly so for *Egalitarianism (WVS)*. Men appear to experience higher work pressure in more gender egalitarian societies. The estimates for the product terms are negative or zero, significantly negative for the product term with *GEM*. If any, women experience relatively higher work pressure than men in gender egalitarian societies. Strictly speaking, however, neither the situation for *job se-*

curity nor for *work pressure* describes a narrowing gender gap, as little difference between men and women in the average has been found in Models 1. For *Co-worker support*, all main and interaction effects are close to zero. The main effects for regressions on the variables *Safety* and *Antisocial hours* are all positive and mostly significant. Men in gender egalitarian societies are less exposed to health and safety risk and are less involved in work during the weekends, evenings, nights or unscheduled overtime. The interaction effects with the gender dummy are all negative and mostly significant confirming for these two variables the hypotheses of a narrowing gender gap: The improvements with regard to safety and working time that are experienced by men in gender egalitarian societies are not shared to the same degree by women in these societies.

To sum up: The hypothesis that the gendered profiles of work attributes will be less pronounced in more gender egalitarian societies finds no support in the data. The data show a narrowing gap only for two attributes associated with gender egalitarianism at the societal level: for exposure to safety risks and for antisocial hours. In both cases, gender egalitarianism erodes the ‘privilege’ of women to be relatively more protected from safety risks and less obliged to work inconvenient working times. For some of the other job attributes, the data indicate that gender egalitarianism goes along with a widening gender gap. This appears to be clearly the case for *training* requirements and for *autonomy*, and to a lesser degree for *participation*. The situation of women in gender egalitarian societies appears also to be relatively worse in terms of experienced *work pressure*. No relationship could be found for job *complexity*, *advancement* and *co-worker support*. There is only one of the ten job attributes examined for which the situation of women is relatively better in gender egalitarian societies than in societies where traditional gender roles prevail, *job security*. Thus the pattern evidenced by this study points in a very different direction than had been anticipated: With an increasing salience of gender egalitarian norms in a society, the use of female labour is less restricted relative to the use of male labour. In these societies, the position of women with regard to safety and health risk, work pressure and working times deteriorates relative to that of men. However, this is not mirrored by an enhanced relative position of female workers in the work process: Relative to men, women do not have more complex jobs or more promotion opportunities in gender egalitarian societies. Quite the opposite: Women enjoy relatively less autonomy and influence in organizational decisions than men and their jobs require relatively less skilling and training the more the society is committed to norms of gender equality.

Conclusion

This paper examined the ‘gendering’ of job quality using micro-data about a wide range of attributes relevant for the perceived quality of work and employment from 26 European countries. The study revealed pronounced gender differences with regard to most of the attributes that largely corresponds to traditional gender roles. Men hold jobs that require full employment and career commitment: Jobs that require continuous training and are complex, but provide room for discretion and participation and offer good promotion opportunities. Women in contrast hold jobs that are compatible with combining the work role with domestic roles as mother and homemaker. This

limited involvement materializes in jobs that pose fewer health and safety risks and fewer demands to work antisocial hours. The paper further examined how these job profiles would co-vary with the degree that gender egalitarian norms are institutionalized in a society. The hypothesis that the jobs of the average men and women are more similar in more gender-egalitarian societies found scant support by the data. Nevertheless, the data showed a clear pattern: The data revealed that demands toward women are less restrictive in gender-egalitarian societies. Women are, relative to men, more exposed to work pressure and health and safety hazards and less protected from having to work at weekends or nights and evenings in gender-egalitarian societies. But this is not accompanied by an improvement of the relative position in the work process: In gender-egalitarian societies, women's jobs are not more complex and do not provide more opportunities for advancement; they appear to require less skill and training and provide less room for autonomy and participation relative to men's jobs.

How can this surprising and counter-intuitive pattern be understood? How can it be that gender-egalitarian norms do not lead to a situation that the responsible autonomy of women increases relative to men? Two mechanisms come to mind which may contribute to an explanation of this finding: The first is that gender egalitarian societies have a higher employment rate for women than less egalitarian societies. In part, this appears to be due to social norms of continuous employment for women, in part due to policies that encourage continuous employment of women such as independent taxation, subsidies for child care and maternity leave arrangements. While employment rates of university educated women do not vary much between societies, it is mainly the less educated that are mobilized by changing norms and supportive policies. Studies have shown that increasing employment rates for women are, *ceteris paribus*, associated with a larger gender gap in wages (Blau & Kahn, 2003). The female workforce is less strictly selected and women take jobs they would have rejected in a less employment-supportive normative and policy environment. Increasing employment participation of women may therefore, other things being equal, lead to a decrease of training requirements, autonomy and participation and so on of the average female worker relative to the average male worker. Some studies have further advanced the hypothesis, that women in gender egalitarian environments with supportive policies have more difficulties to permeate high end jobs than women in less supportive environments. A combination of higher incentives of employers for statistical discrimination and of lower incentives for women and lower aspirations of women to enter the race for these positions has been invoked to account for these phenomena (Mandel & Semyonov, 2005; 2006). Such processes would thin out the tail at the higher end of the job distribution instead of thickening the lower tail as participation increased, but both would lower the average quality of work and employment for women relative to men.

Further research is clearly warranted to describe the pattern evidenced in this study more clearly and to explore whether the suggested explanations can be substantiated or to uncover alternative mechanisms.

References

- Alasoini, T. (2006). In Search of Generative Results: A New Generation of Programmes to Develop Work Organization. *Economic and Industrial Democracy*, 27, 9-37.
- Arundel, A., Lorenz, E., Lundvall, B.-A., & Valev, A. (2007). How Europe's Economies Learn: A Comparison of Work Organization and Innovation Mode for the EU-15. *Industrial and Corporate Change*, 16, 1175-1210
- Bertrand, M., Chugh, D., & Mullainathan, S. (2005). Implicit Discrimination. *American Economic Review Paper and Proceedings*, 95, 94-98.
- Bielby, W.T., & Bielby, D.D. (1992). I Will Follow Him: Family Ties, Gender-role Beliefs and Reluctance to Relocate for a Better Job. *American Journal of Sociology*, 97, 1241-1267.
- Blackburn, R.M., Jarman, J., & Brooks, B. (2000). The Puzzle of Gender Segregation: A Cross-national Analysis. *European Sociological Review*, 16, 119-135.
- Blau, F.D., & Kahn, L.M. (2003). Understanding International Differences in the Gender Wage Gap. *Journal of Labor Economics*, 21, 106-144.
- Burchell, B., Fagan, C., O'Brien, C., & Smith, M. (2007). *Working conditions in the European Union: The Gender Perspective*. Luxembourg: Office for Official Publications of the European Communities.
- Cerdeira, M., & Kovács, I. (2008). Job Quality in Europe: the North-South Divide. *Enterprise and Work Innovation Studies*, 4, Monte de Caparica, IET, 21-47.
- Charles, M. (2003). Deciphering Sex Segregation. Vertical and Horizontal Inequalities in Ten National Labor Markets. *Acta Sociologica*, 46, 267-287.
- Charles, M. (2005). National Skill Regimes, Postindustrialism, and Sex Segregation. *Social Politics*, 12(2), 289-316.
- Charles, M., & Bradley, K. (2002). Equal but Separate? A Cross-national Study of Sex Segregation in Higher Education. *American Sociological Review*, 67, 572-599.
- Cejka, M.A., & Eagly, A.H. (1999). Gender-Stereotypic Images of Occupations Corresponds to the Sex Segregation of Employment. *Personality and Social Psychology Bulletin*, 25, 413-423.
- Corrigan, E.A., & Konrad, A.M. (2007). Gender Role Attitudes and Careers: A Longitudinal Study. *Sex Roles*, 56, 847-855.
- Davis, S.N., & Greenstein, T.N. (2009). Gender Ideology: Components, Predictors and Consequences. *Annual Review of Sociology*, 35, 87-105.
- Davoine, L., Erhel, C., & Guergoat-Larivière, M. (2008). *A Taxonomy of European Labour Markets Using Quality Indicators*. Noisy-Le-Grand Cedex: Centre D'Etudes de Emploi.
- Dobbin, F., & Boychuck, T. (1999). National Employment Systems and Job Autonomy. Why Job Autonomy is High in the Nordic Countries and Low in the United States, Canada and Australia. *Organization Studies*, 20, 257-291.
- Eagly, A.H., & Steffen, V.I. (1984). Gender Stereotypes Stem from the Distribution of Women and Men into Social Roles. *Journal of Personality and Social Psychology*, 46, 735-754.
- England, P., Herbert, M.S., Kilbourne, B.S., Reid, L.L., & Megdal, L.M. (1994). The Gendered Valuation of Occupations and Skills: Earnings in 1980 census occupations. *Social Forces*, 73, 65-99.
- Esping-Anderen, G. (1990). *Three Worlds of Welfare Capitalism*. Oxford: Oxford University Press.
- Estévez-Abe, M. (2005). Gender Bias in Skills and Social Policies: The Varieties of Capitalism Perspective on Sex Segregation. *Social Politics*, 12, 180-205.
- Estévez-Abe, M. (2006). Gendering the Varieties of Capitalism: A Study of Occupational Segregation by Sex in Advanced Industrial Societies. *World Politics*, 59, 142-175.
- Estévez-Abe, M., Iversen, T., & Soskice, D. (2001). Social Protection and the Formation of Skills: A Reinterpretation of the Welfare State. In P.A. Hall & D. Soskice (Eds.), *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press, 145-183.
- European Commission (2001). *Employment and Social Affairs: A Framework for Investing in Quality*. COM(2001) 313 final, Brussels, 20 June 2001.

- European Foundation (2007). *Fourth European Working Conditions Survey*. Luxembourg: Office for Official Publications of the European Communities.
- Fortin, N.M. (2005). Gender Role Attitudes and the Labour-Market Outcomes of Women across OECD Countries. *Oxford Review of Economic Policy*, 21, 416-438.
- Fuwa, M. (2004). Macro-level Gender Inequality and the Division of Household Labor in 22 countries. *American Sociological Review*, 69, 751-767.
- Gallie, D. (2003). The Quality of Working Life: Is Scandinavia Different? *European Sociological Review*, 19, 61-79.
- Gallie, D. (ed.) (2007). *Employment Regimes and the Quality of Work*. Oxford: Oxford University Press.
- Gallie, D. (2007a). Production Regimes, Employment Regimes and the Quality of Work. In D. Gallie (ed.), *Employment Regimes and the Quality of Work* (pp. 1-33). Oxford: Oxford University Press.
- Gallie, D. (2007b). Production Regimes and the Quality of Employment in Europe. *Annual Review of Sociology*, 33, 85-104.
- Gallie, D. (2009). Institutional Regimes and Employee Influence at Work: A European Comparison. *Cambridge Journal of Regions, Economy and Society* 2009, 1-15, (doi:10.1093/cjres/rsp010).
- Gaunt, R. (2006). Biological Essentialism, Gender Ideologies, and Role Attitudes: What Determines Parents' Involvement in Child Care. *Sex Roles*, 55, 523-533.
- Ghai, D. (2003). Decent work: Concept and Indicators. *International Labour Review*, 142, 113-145.
- Green, F. (2005). *Demanding Work. The Paradox of Job Quality in the Affluent Economy*. Princeton University Press.
- Gustavsen, B. (2007). Work Organization and 'the Scandinavian Model'. *Economic and Industrial Democracy*, 28, 650-671.
- Hall, P.A., & Soskice, D. (eds.) (2001). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage*. Oxford: Oxford University Press.
- Jaumotte, F. (2003). Female Labour Force Participation: Past Trends and Main Determinants in OECD countries. *OECD Economics Department Working Paper*, 376.
- Johnston, M.K. (2005). Family Roles and Work Values: Processes of Selection and Change. *Journal of Marriage and Family*, 57, 352-369.
- Leeth, J.D., & Ruser, J. (2006). Safety Segregation: The Importance of Gender, Race, and Ethnicity on Workplace Risk. *Journal of Economic Inequality*, 4, 123-152.
- Lopez-Claros, A., & Zahidi, S. (2005). *Women's Empowerment: Measuring the Global Gender Gap*. World Economic Forum, Geneva.
- McDaniel, A. E. (2008). Measuring Gender Egalitarianism. *International Journal of Sociology*, 38, 58-80.
- Mandel, H., & Semyonov, M. (2005). Family Policies, Wage Structures and Gender Gaps: Sources of Earnings Inequality in 20 Countries. *American Sociological Review*, 70, 949-967.
- Mandel, H., & Semyonov, M. (2006). A Welfare State Paradox: State Intervention and Women's Employment Opportunities in 22 Countries. *American Journal of Sociology*, 111, 1910-1949.
- Marini, M.M., Fan, P.-L., Finley, E., & Beutel, A.M. (1996). Gender and Job Values. *Sociology of Education*, 69, 49-65.
- Marini, M.M., & Fan, P.-L. (1997). The Gender Gap in Earnings at Career Entry. *American Sociological Review*, 62, 488-604.
- Mincer, J. & Polachek, S. (1974). Family Investments in Human Capital: Earnings of Women. *Journal of Political Economy*, 82, 76-108.
- Muñoz de Bustillo, R., Fernandez-Macias, E., Antón, J.-I., & Esteve, F. (2009). *E Pluribus Unum? A Critical Review of Job Quality Indicators*. International Labor Organisation, Geneva.
- Nordenmark, M. (2004). Does Gender Ideology Explain Differences between Countries Regarding the Involvement of Women and of Men in Paid and Unpaid Work? *International Journal of Social Welfare*, 13, 233-243.
- Payne, J., & Keep, E. (2003). Re-visiting the Nordic Approaches to Work Re-organisation and Job Redesign: Lessons for UK Skills Policy. *Policy Studies* 24, 205-225.

- Polachek, S. (1981). Occupational Self-selection: A Human Capital Approach to Sex Differences in Occupational Structure. *Review of Economics and Statistics*, 63(1), 60-69.
- Pollart, A., & Fodor, E. (2005). *Working Conditions and Gender in an Enlarged Europe*. Luxembourg: Office for Official Publications of the European Communities.
- Smith, M., Burchell, B., Fagan, C., & O'Brien, C. (2008). Job Quality in Europe. *Industrial Relations Journal*, 39, 586-603.
- Stickney, L.T., & Konrad, A.M. (2007): Gender-role Attitudes and Earnings: A Multinational Study of Married Women and Men. *Sex Roles*, 57, 801-811.
- Vella, F. (1994): Gender Roles and Human Capital Investment: The Relationship between Traditional Attitudes and Female Labour Market Performance. *Economica*, 61, 191-211.
- Weichselbaumer, D., & Winter-Ebmer, R. (2007). The Effects of Competition and Equal Treatment Laws on Gender Wage Differentials. *Economic Policy*, 22, 236-287.