Work autonomy and employee involvement in the EU – A multi-level analysis

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Abstract

Work autonomy (WA) and employee involvement (EI) are often subsumed into a single construct in the literature. However, these two phenomena evolved in different directions in several countries in recent years, which calls for a closer examination of what actually drives involvement practices. We use the 2010 wave of the European Working Conditions Survey to build sound indicators of WA and EI and provide a picture of the level of both constructs in 31 European countries. We then analyse their determinants through multilevel regression models. Results support the assumption that WA and EI are partially distinct constructs and multilevel analyses show that differences are explained more by macro-level than individual-level factors. Whereas union density and generalized trust strongly influence EI, only generalized trust impacts WA. This suggests that the nature of WA and EI may differ across countries and that EI may be used to "manipulate" workers rather than have them participate in decision-making.

1. Introduction

The growing need for innovation and cost compression has given rise to the assumption that enhancing workers' participation in decision-making would not only improve their well-being but also foster their commitment to the organisations' goals. This optimistic perspective has been supported by both management studies (Bauer, 2004; Fahr, 2011) and economic theory (Akerlof and Kranton, 2008) as well as experimental evidence (Frey and Jegen, 2001; Falk and Kosfeld, 2006), all of which lead to the same policy suggestion: hierarchical constraint and control should be replaced by enhanced workers' participation so as to meet the competitive demands of innovation and product quality (Walton, 1985).

In most of the literature, work autonomy – i.e., the scope of influence a worker has on his/her work methods, schedules and content (Breaugh, 1985), and involvement in decision-making – i.e., the extent to which workers are consulted on work-related matters - are seldom distinguished because they are deemed to go hand in hand. Indeed, workers' participation in decisions concerning their jobs should enable them to broaden their scope of influence on job tasks and reduce supervisory control. In other words, employee involvement should positively influence work autonomy. Work autonomy and employee involvement are hence expected to be closely related and evolve in the same direction. However, there is evidence that these two phenomena have evolved in different directions in several countries in recent years. While work autonomy has declined in most EU countries since 1995 (Author A et al, forthcoming), involvement practices are becoming more common (Hyman and Mason, 1995; Gallie et al, 2004).

This discrepancy in the actual evolution of the two constructs casts doubts on the motives underlying involvement practices and their consequences for workers. Indeed, although direct participation at work was considered an essential element of democracy in the 1970s insofar as it allows democratic and civic skills to be developed (Pateman, 1970), it has since been denounced as having resulted in further exploitation and manipulation of workers (Ramsay, 1983; Hyman and Mason, 1995). While participation in decision-making is shown to have a positive influence on quality of work in Nordic countries and for certain self-managed teams, its impact is non-existent or negative in other countries and for most types of team work (Delbridge and Whitfield, 2001; Kalleberg et al., 2009; Gonzalez Menendez, 2011; Knudsen et al, 2011). These contrasting results call for a closer examination of what actually drives involvement practices.

The aims of the present paper are threefold. Firstly, we use the 2010 wave of the European Working Conditions Survey to build sound indicators of work autonomy and employee involvement and provide a picture of the relative level of both constructs in 31 European countries. As national averages may conceal important discrepancies between workers, our analysis distinguishes between four categories of occupational class and skill level.

Secondly, we examine the determinants of both variables through the estimation of multilevel regression models in order to shed light on the reasons for the differences in the levels of work autonomy and employee involvement across countries. Studying both phenomena simultaneously and separately is an innovative exercise since work autonomy and employee involvement are often subsumed into a single construct (Hyman and Mason, 1995). Moreover, contrary to the vast literature devoted to the impact of both constructs on the workers' well-being, research on their determinants is surprisingly scarce.

Work autonomy and employee involvement are shown to be influenced by individual-level features such as job skill, employment contract, establishment size, sector of activity, etc. (Gallie et al, 2004). The impact of country-level institutional variables e.g. skill specificity, union density and collective bargaining, is now also documented (Esser and Olsen, 2011; Gallie, 2007). In contrast, the effect on work autonomy and employee involvement of cultural traits like generalised trust has not, to our knowledge, been previously examined. Yet micro-level studies show that trust may take the place of supervision in organisational contexts and is hence associated to more autonomous forms of work. The present paper contributes to the literature by documenting the power of trust, as a macro-social trait, in influencing organisational choices.

Thirdly, we seek to understand whether employee involvement is initiated to enhance work autonomy or, alternatively, whether it intends to enhance commitment without increasing worker influence. Our expectations are that i) the association between work autonomy and employee involvement varies across skill levels and countries and ii) the two constructs have, at least in part, different determinants. Given the fact that logically work autonomy and employee involvement should be closely related, we assume that a loose association between both variables and dissimilar determinants suggest that employee involvement is sometimes used to "manipulate" workers since consultation does not translate into enhanced work autonomy.

The paper is structured as follows. We first define the notions of employee involvement and work autonomy and emphasise the role they may have for individual well-being and society as a whole. Indeed, autonomy at work is commonly assumed to

be beneficial for workers but the reasons why it is so valuable are seldom discussed. Section Three provides the theoretical arguments that ground our expectations and hypotheses. The data and empirical strategy are presented in Section Four, in which we also build the employee involvement and work autonomy indexes and examine their levels by skill group and country. Section Five conducts the multi-level econometric analyses and section Six discusses the results and concludes.

2. Work autonomy and employee involvement, and their role for individual and social well-being

Distinguishing between work autonomy and employee involvement

In industrial relations, work autonomy (WA) and employee involvement (EI) are often subsumed under a single construct (Knudsen et al, 2011; Busck et al, 2010; Hyman and Mason, 1995; Ramsay, 1983; Pateman, 1970). Following Hyman and Mason (1995), most industrial scholars reserve the term "employee participation" to refer to participatory schemes promoted by the state or workers to further the workers' interests[1]. Since participation practices mainly emanate from management nowadays, the preferred term is "employee involvement". Indeed, meaningful employee participation implies that workers are able to exert a significant influence over their work and working conditions; when workers are involved in decision-making with the aim of harnessing their commitment without any counterpart in terms of decision-making power, it may be said that they are *involved* but do not effectively *participate* in decision-making. Given these empirical discrepancies between WA and EI trends, and although we do not assume that the sole aim of involvement practices is always to foster organisational efficiency, we decided to use the term "involvement" by default. Moreover, our empirical analysis strives precisely to distinguish cases where employee involvement seems to effectively advance the workers' interests from those where it embodies "pseudo-participation".

[1] Industrial relations scholars generally agree that representative participation, in the form of committees or works councils involving trade-unions, promotes workers' interests most effectively. The present paper nonetheless concentrates on direct rather than representative participation.

Like Kalleberg et al. (2009) and Spector (1986), we rely on the existence or not of communication processes to distinguish between WA and EI. We assume that while work autonomy is designed into the job itself, employee involvement involves intensified communication and the creation of communication channels with management and/or co-workers.

We define work autonomy as the extent to which workers are able to exercise control and influence over their work activities and work organisation. It refers to the scope of the latitude to take decisions on the content, methods, scheduling and performance of work tasks (Breaugh, 1985). The degree of work autonomy is an outcome of the way in which work is organised and of the extent and forms in which it is controlled. Schemes such as job enlargement and job enrichment have greatly contributed to enhancing the discretion workers have in their work.

On the other hand, employee involvement refers to the degree to which workers are able to exert influence over their work activities - and also over organisational issues that go beyond their specific job - through communication processes. Academic debate on employee involvement mainly focuses on teamwork – quality circles, semi-autonomous groups, self-directed teams, etc. In the present paper, we are concerned with the extent of individual involvement as such, whether or not it stems from integration in work groups. In fact, old and recent evidence reveals that team work has contrasted influence on the individual workers' decision-making power (Gallie et al., 2012; Zoghi and Mohr, 2011; Frohlich and Peckruhl, 1996)[2]. We hence find it more relevant to examine the extent of involvement at the individual level. Unlike work autonomy, employee involvement is compatible with any form of work organisation.

The intensity of employee involvement may vary immensely. It may range from merely receiving information to making joint decisions with management. Similarly, a high degree of work autonomy implies being able to decide which tasks to do as well as how and when to do them, i.e. self-determination at work and freedom from technical or human control.

[2] Tests with our data confirm that questions related to group work form an orthogonal construct to those of work autonomy and employee involvement(available on request).

The (potential) beneficial effects of work autonomy and employee involvement

Whatever its scope and intensity, WA and EI may in theory have an extremely positive impact on workers in that they may enhance – or hinder - their self-esteem and personal growth. According to Self-Determination Theory (Deci and Ryan, 2000; Ryan and Deci, 2000), autonomy is a basic psychological need[3] whose satisfaction is necessary for personal growth and self-realisation. Satisfying the need for autonomy involves feeling internal assent regarding one's behaviour rather than feeling controlled or pressured to behave in a given way. Hundreds of studies in social psychology have shown autonomy to be related to well-being (both self-reported and medically assessed), enduring self-esteem, high performance and creativity, and high quality of personal relationships (Ryan and Deci, 2006).

Studies in experimental and behavioural economics also reveal that contingent rewards and tight control may crowd out intrinsic motivation (Falk and Kosfeld, 2006; Frey, 1997; Frey and Jegen, 2001). When the working context is excessively controlling or over-challenging, intrinsic motivation is supplanted by defensive or self-protective processes such as the tendency to withdraw concern for work and focus on oneself (Deci and Ryan, 2000). Oppressive social conditions remove the sense of self-confidence required for effective agency, and therefore threaten the ability to develop one's own system of values and goals. In brief, the extent of work autonomy would be unambiguously related to psycho-social benefits for workers[4].

In contrast to work autonomy, empirical findings are ambiguous on the effects of employee involvement on workers and their psycho-social well-being. While in some firms or countries and for some forms of teamwork, increased involvement is related to positive outcomes – this is often the case in Scandinavian countries (Busck et al, 2010), many studies point to increased work effort and stress levels (Godard, 2004; Frohlich and Peckruhl, 1996). There are also cases where employee involvement

[3] According to Self-Determination Theory, people have innate psychological needs, that is, universal necessities that are seen in humanity across time, gender and culture. These needs, i.e. for competence, relatedness and autonomy, form the basis for psychological well-being.

[4] However, though most studies find that a great majority of workers desire and support autonomous jobs, some workers prefer routine jobs without accountability. Social psychologists explain that the desire for autonomy depends on the *growth need strength* (Spector, 1986) – autonomous and enriched jobs only provide satisfaction to individuals high in growth need strength.

contributes to a simultaneous improvement and deterioration of job quality, depending on aspects of work (Kalleberg et al, 2009).

Along with benefits at the individual level, it is hypothesised that participation at work yields substantive benefits for society as a whole, namely by promoting more democratic societies. Following John Stuart Mill, Pateman (1970) argues that participative workplaces have strong implications for political participation and citizenship behaviour. Autonomy and direct participation educate workers to develop more democratic norms; it contributes to developing the qualities required for responsible public action (self-confidence, public-spiritedness, disposition to cooperate) and hence result in enhanced political and civic participation. The more control individuals exercise over their working life, the better equipped and inclined they are to participate in community life. Though this is a rather neglected issue, Pateman's thesis is supported by a number of empirical results (Author A et al., forthcoming; Godard, 2007; Schur, 2003).

It must be noted that most industrial relations scholars neglect the psychological and educative effect of participation practices. Instead, they concentrate on warning against the possible manipulative function of *soi-disant* participatory schemes, often aimed at persuading workers to accept decisions that have already been taken – what Pateman calls "pseudo-participation". Indeed, the educative function and benefits of participatory schemes depend on workers being treated with respect and taking their voice effectively into account. Otherwise, negative psychological effects ensue from such a patent lack of recognition. Ramsay (1983) may have been right in arguing that there is more ideological justification in participation than effective power-sharing - participatory practices may result in enhanced self-discipline (or self-exploitation) and work intensification rather than authentic influence on decisions.

To sum up, the available evidence tends to show that high levels of work autonomy are generally desirable and positive for workers while the effect of employee involvement is ambiguous.

Although WA and EI may be clearly distinguished in theory, they are undoubtedly quite intertwined in practice. As noted, they are expected to go hand in hand because it is what seems logical from a managerial point of view. Though the

relation between WA and EI is plausibly bi-directional – i) when workers enjoy high autonomy, there is the need for intensified upward and downward communication and ii) the more involved workers are in decisions, the more they can influence their decision latitude – we assume that the latter sense of causality is predominant. Indeed, in theory, involvement practices only make sense if managers actually wish to give workers more power on work-related matters. Examining the relative levels of WA and EI may therefore provide information about whether EI endowed workers with the possibility to exert influence in their jobs. Figure 1 illustrates and characterises all possible combinations.

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The upper-right cell refers to situations where high EI allows workers to positively influence the decision latitude they enjoy in their jobs; in contrast, the low EI level that characterises the lower-left cell provides no opportunity to exert any control. The lower-right cell refers to situations where EI might be aimed at inducing workers to adopt a positive attitude towards their job and employer while allowing them no effective influence. That is, managers in the latter case do not abdicate from any decision-making power; EI serves primarily to persuade workers to deliver higher levels of effort and boost their personal commitment towards the firm. If our analytical frame is right, in practice the High WA/Low EI combination does not make sense.

3. Empirical strategy, data and descriptive analysis of work autonomy and employee involvement across Europe

Now that our core notions are defined and the analytical framework established, the empirical analysis may begin. Our general expectation is that work autonomy and employee involvement are closely related and that any deviation must be scrutinised. The data analysis proceeds as follows. In a first step, we build indicators of WA and EI and examine their relative levels in 31 European countries. The second step (Section 4) is to analyse the determinants of WA and EI through multi-level regression models.

The analysis of WA and EI is based on the 2010 wave of the European Working Conditions Survey (EWCS, Eurofound, 2010), a cross-sectional dataset that provides unique and very detailed information on quality of work in Europe. The EWCS is questionnaire-based, administered using face to face interviews. The sample is representative of those aged 15 years and over who are in employment. In the 2010 EWCS sample, a multi-stage, stratified random sampling design was used in each country[5].

As the sole observation of national averages might conceal significant divergences between workers of different skill levels, we decided to discriminate between groups of workers in the descriptive analysis. For that purpose, we used the Eurofond's classification of occupational classes which places workers' jobs into four categories of skill level: High Skill Clerical – HSC; Low Skill Clerical – LSC; High Skill Manual – HSM; and Low Skill Manual – LSM (see Table 1A in the Appendix).

In our analysis, cases were weighted by means of the final country level weights provided in the EWCS data file. These combine design and post stratification weights in order to ensure that the results reflect the population of workers in each country (Eurofound, 2012).

Measurement of employee involvement

The EWCS data set has six variables proxying employee involvement (see Table 1A in the Appendix for a complete description of all variables). Three variables are Likert-type items[6] (distributions shown in table 1) and three are dichotomous (*Yes* response coded 1 - percentage of positive responses reported in first lines of table 1).

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[5] http://www.eurofound.europa.eu/surveys/ewcs/2010/sampling.htm. The standard sample size was 1,000. More specifically, it was 1,500 in France, Italy, Poland and the UK and 2,000 in Germany and Turkey. Some governments sponsored additional samples (3,000 in Belgium, 1,500 in France and 400 in Slovenia). Our analysis includes only employed persons, excluding self-employed.

[6] Categories were presented to respondents in decreasing order; we opted to revert the coding, so that higher values correspond to a more intensive involvement.

A brief look at Table 1 data reveals that high-skill clerical workers clearly benefit from higher levels of employee involvement, followed by low-skill clerical workers and then manual workers. While about 60% of HSC workers declare they are (usually or always) involved in all participatory schemes, only 20 to 50% of high-skill and low-skill manual workers - depending on the scheme – declare the same. The higher the potential influence of a given involvement scheme (q51d and q51o), the less manual workers are involved.

Given the volume and complexity of the information, it is necessary to identify a common underlying dimension. As the variables are in nominal and ordinal measurement scales, a Categorical Principal Components Analysis (CATPCA, Meulman et al, 2004, Linting *et al*, 2007) is the most appropriate. CATPCA extends principal components analysis (PCA) by allowing input variables in different measurement levels. This technique not only finds optimal quantifications that satisfy the measurement level of each variable, but also – like PCA – allows a representation of these relationships in a low-dimensional space. A generalised Cronbach's alpha coefficient is reported for each retained dimension (Meulman et al, 2004:55).

Applying CATPCA to the aforementioned variables resulted in a one-dimensional indicator with a Cronbach's alpha of 0.76. Positive values correspond to above average employee involvement whereas negative values denote below average employee involvement. The scores resulting from the CATPCA are used in the descriptive and econometric analyses below. The use of standardised indicators greatly facilitates cross-country comparisons.

Measurement of work autonomy

Nine EWCS variables can be used to measure work autonomy. Seven are dichotomous (percentage of positive responses shown in first lines of Table 2, note that q46e has reverted coding) and two are Likert-type[7] (distributions in last lines of Table 2).

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[7] Categories were presented to respondents in decreasing order; we opted to revert the coding so that higher values correspond to a higher autonomy.

Again, we observe that high-skill – followed in most cases by low-skill - clerical workers benefit from substantially higher levels of work autonomy than manual workers. The difference between HSC and manual workers is greatest in the items “learning new things” and “being able to apply own ideas” .

Applying CATPCA to these variables resulted in a one-dimensional indicator with a Cronbach’s alpha of 0.75. Positive values correspond to above average work autonomy whereas negative values denote below average work autonomy.

Figure 2 displays the employee involvement and work autonomy scores by skill level and country**.** The quite rounded shape of the HSC cloud and its compactness translate into a lower determination coefficient and indicate a much more homogeneous group.

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It is clear that high-skill clerical workers benefit from a markedly privileged situation when compared to other workers. Their WA and EI levels are substantially higher than those of other workers, which suggest that WA and EI interact in a positive way. They seem to be treated quite homogenously and fairly well in all countries.

In contrast, the condition of low-skill clerical and high-skill manual workers is highly differentiated across countries. In Cyprus, Macedonia, Kosovo and Ireland, low-skill clerical workers enjoy above average levels of EI but below average levels of WA (lower-right cell). The situation is the same for high-skill manual workers in Cyprus, Macedonia, Kosovo and Czech Republic. In other words, if our analytical frame is correct, LSC and HSM workers are likely to be the most “manipulated” groups: their involvement in decision-making does not translate into high discretion at work and may in fact be aimed at inducing them to adopt a positive attitude towards the organisation and provide high effort at work.

Manual workers in general and low-skill manual workers in particular suffer from substantially lower levels of WA and EI in all but Nordic countries. In this case, the interaction between both constructs converges to shape a negative condition: their

scope of decision-making at work is low and their lack of involvement in decisions does not allow them to reverse the situation.

Circumstances across countries differ widely in many respects (see Figure 1A in the Appendix). All workers in Nordic countries (Denmark, Finland, Norway, Sweden and the Netherlands) benefit from near or above average WA and EI levels, which is consistent with most empirical findings reporting generally positive outcomes of EI for workers in these countries. Results also denote much less discrimination among workers in these countries and hence more egalitarian work environments. By contrast, a substantial number of workers in Macedonia, Cyprus, Montenegro, Croatia and Slovakia face above average EI but markedly below average WA, which may indicate practices of "pseudo-participation".

As anticipated - with the exception of Malta for LSM workers – there are no instances of above average WA and below average EI, which would not make sense in managerial terms.

4. The micro and macro determinants of work autonomy and employee involvement – Expectations and results

We now turn to the analysis of the factors that may explain the WA and EI levels depicted above. As all economic decisions are influenced by the institutional and cultural context in which they take place, we assume that WA and EI are influenced by both individual-level (individual characteristics of workers and firms) and societal factors. The latter may condition WA and EI either directly or via their effect on managerial attitudes and choices. A third level of determination should therefore be considered, i.e., the firm, which directly defines WA and EI. Unfortunately, no data is available at the firm level.

Econometrical analysis aims to i) identify the determinants of WA and EI; ii) assess the explanatory power of individual versus country-level factors and iii) compare the amplitude of the regression coefficients for WA and EI.

Individual-level factors

Skill and education levels are the most obvious individual-level determinants of WA. Management has a strong incentive to decentralise decision-making in jobs requiring high skills since work autonomy is shown to promote performance and creativity in complex and knowledge-intensive jobs. In contrast, control devices have been found to yield superior short-term performance on dull and boring tasks (Gagné and Deci, 2005); that is, there seems to be no performance advantage to autonomous motivation for low-skill jobs. We hence expect WA and EI to be positively associated to the job skill level.

Other individual-level factors likely to affect both WA and EI are gender, age, tenure, working hours and contract status. As women and older individuals are generally more vulnerable workers, they are likely to benefit from less WA and EI. On the other hand, tenure, long working hours and permanent contracts are expected to be associated to higher levels of both variables. These features distinguish core workers from periphery workers who have fewer training opportunities and less job security. Such differences are likely to translate into differences in the responsibility and leeway given by employers (Gallie, 2007).

Some firm characteristics might also influence WA and EI. The effect of establishment size is indeterminate: larger establishments may need to institutionalise communication channels and rely more on workplace decision-making to reduce monitoring costs, but they may also implement more standardised forms of work and IT-based control devices. Whereas establishment size would be positively related to WA and EI in the first case, the relation would be negative in the second. WA and EI may also differ according to whether establishments are publicly or privately owned. The private sector would tend to confer workers less autonomy and involvement opportunities.

Lastly, the presence of employee or union representatives is expected to be associated with higher WA and EI (see below for further justification).

Country-level factors

Union density is the institutional factor robustly shown to positively affect WA (Esser and Olsen, 2012; Gallie 2007). We nonetheless expect union density to influence WA to a lesser extent than EI; as an indicator of the power of unions, it may directly impact

on the type and extent of involvement practices but its effect on WA is more indirect. Nevertheless, the power of unions may enable workers to constrain employers' decisions and induce them to enhance their discretion and reduce job control. As for EI, the effect is not straightforward. Indeed, while EI may be an instrument of counter power at the hands of workers – in which case the relation is positive – it may also be an instrument at the hands of managers to break workers' solidarity (Ramsay, 1983). Unions' attitude towards EI has hence been contrasted; some unions are suspicious and try to replace it by representative participation whenever possible (Hyman and Mason, 1995). Although there is no consensus over how to measure the strength of labour unions, union density and collective bargaining coverage are the most used.

We expect generalised trust to be the major determinant of country differences in WA and, to a lesser extent, EI. In organisations, management decisions on how much to monitor workers versus how much to give them leeway are largely based on trust. Trust may be defined as a trait that leads to a generalised expectation about the trustworthiness of others (Mayer et al, 1995). In countries and organisations where most people, including managers, expect others to be trustworthy and comply with commitments, trust may take the place of supervision. The prevalence of a generalised propensity to trust others leads managers to adopt more autonomous job design. In contrast, low trust leads to a greater amount of job prescriptions and monitoring of work progress. To the extent that they mitigate the risk of opportunistic behaviour and hence ensure high productivity without the need for monitoring, high levels of generalised trust are a cultural guarantee for the enhanced organisational performance associated in the literature with high work autonomy.

Though generalised trust is usually regarded as an individual level feature, it may also be defined as a property of communities or countries, i.e., a societal trait. The validity of the trust question present in most social surveys - "*Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?*" - is much debated (Nannestad, 2008). It nonetheless remains the most commonly used measure of generalised trust, that is, of trust in people one generally does not know.

Multilevel analysis procedure and results

We deployed a fixed effects multilevel analysis (using Mplus v.6; Muthén & Muthén, 2010) to analyse the factors that explain WA and EI levels both at individual and country level. Multilevel analysis is highly appropriate in situations where there are nested data structures with predictors at different levels of analysis (e.g., individual and country level; Snijders & Bosker, 1999). In the EWCS data set, respondents are nested in countries. Different predictors were used at individual and country level.

At the individual level, predictors were gender (coded 0 = female, 1 = male), age, contract status (0 = others, 1 = indefinite contract), tenure, working hours per week, skill level (0 = no, 1 = yes for low skilled clerical, high skill manual, low skill manual vs. high skilled clerical), sector of activity (public sector and other sectors – 0 = no, 1 = yes vs. private sector), number of employees in the establishment, and presence of employee representative (0 = no, 1 = yes). At the country level, predictors were trust, union density and collective bargaining coverage (see Table 2A in the Appendix for descriptive statistics and source of these macro-level variables).

Table 3 presents the results of the multilevel regression analyses for the two dependent variables EI and WA. A first inspection shows quite a similar set of predictors at the individual level but substantial differences at the country level. The last rows of Table 3 demonstrate that the use of a two-level model is advisable since the value of the intra-class correlation coefficient (ICC) for both EI and WA reveals that there is sufficient variation for an explanation at individual and country level (the more the ICC approaches zero, the less variance there is to be explained at the country level; on the contrary, the more it approaches one, the less variance is left to explain at the individual level). The explained variance for both dependent variables reaches acceptable levels at both the individual and country levels.

At the individual level, results are as expected: young males, high skill clerical workers, with indefinite contracts, working in the public and other sectors, for longer hours, with higher tenure, in smaller establishments and where there are employee representatives benefit from higher EI. A similar pattern of predictors emerges for WA with one notable difference: the presence of an employee representative is negative and no longer significant. Note that the individual-level predictors explain 13-14% of variance for both WA and EI (a result similar to Esser and Olsen, 2012) and that skill level has the highest explanatory power.

Turning now to country level, we can see that countries with higher levels of trust and union density tend to show higher levels of EI but only trust is significantly associated with WA. Countries where people trust each other more display higher levels of WA, while countries with higher union density are associated to higher levels of EI. This is further supported by the models' explained variance. At the country level, trust *per se* explains 61% of the variance of WA, while trust and union density together explain 50% of the variance of EI. This means that between country differences in WA are very well explained by differences in the levels of trust, while differences in EI are explained by variations in trust and union density. These results also suggest that employee involvement practices depend more on firms' human resources policies and strategies than autonomy at work, which is significantly influenced by societal traits, namely, generalised trust.

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5. Discussion and concluding remarks

Evidence supports our theoretical assumption that work autonomy and employee involvement are partially distinct constructs. The use of multi-level analysis allowed us to see that the differences between the two constructs are predominantly explained by macro-level societal and institutional factors. This suggests that the nature and substance of WA and EI may differ across countries.

Our first aim was to provide a picture of the relative levels of WA and EI by skill level across 31 European countries. Results of the descriptive analysis reveal an extremely diverse situation between skill levels and across countries. Indeed, workers of all skill levels enjoy above average WA and EI in Nordic countries while in Southern European and most Eastern European countries high skill clerical workers also benefit from high WA and EI but other workers do not. Most manual workers in the latter countries are not involved in practices like having a say in improving the work organisation or influencing important decisions, and low skill clerical workers are also much less involved than high skill clerical employees.

The overall close correlation between WA and EI suggests that involvement practices are, in general, not disconnected from actual levels of discretion at work, which suggests that involvement schemes endow workers with the possibility to exert influence on their jobs. But this is not the case for all countries and all skill levels. We observe that most LSC and/or HSM workers in Cyprus, Macedonia, Kosovo and Czech Republic declare they experience higher levels of EI than WA, which suggests that involvement practices may aim more at persuading these workers to deliver high effort levels than allowing them to exert effective influence on their jobs.

Our most original finding is that although the individual-level factors influencing WA and EI do not differ significantly – which may justify why both constructs are often subsumed in the literature -, the macro-level determinants differ markedly. As for micro-level determinants, higher than average WA and EI are experienced by men, in high skill clerical jobs, with permanent contracts, high tenure and longer working hours. These results are consistent with Esser and Olsen (2012) and Gallie et al (2004). By contrast and contrary to expectations, the presence of an employee representative significantly influences EI but not WA. Managers seem to be reluctant to decentralise decision-making in firms where trade unions are better implemented, an outcome already documented by Gallie et al (2004) who found union representation to be negatively associated to task discretion in the UK.

This last finding is directly related to what occurs at the macro-level: EI, but not WA, is positively associated to union density. Esser and Olsen (2012)'s result that WA is significantly impacted by union density may therefore be due to the fact that their indicator of WA includes involvement practices; when both constructs are distinguished, the effect disappears for WA. At both the micro and macro level, the power of unions does not seem to significantly affect WA but it does significantly influence EI. This suggests that involvement practices are affected by legislative dispositions or conventional prescriptions but that firms play a key role in adapting and interpreting such prescriptions. Under the pressure of unions and/or formal prescriptions, managers implement involvement schemes but the latter do not systematically translate into greater discretion at work. That is, although the declared goal of EI is for workers to contribute to managerial decision-making, managers may interpret employee voice in terms of organisational efficiency rather than workers'

rights (Dundon et al, 2004). When employee involvement is primarily adopted for efficiency reasons, it may not result in higher decision latitude at work, as shown by the discrepancies between WA and EI across countries.

Managers often implement contradictory practices since they simultaneously pursue the possibly contradictory aims of promoting commitment and reducing costs. Employee involvement is aimed at creating more cooperative relationships with workers and generating their commitment to the firms' goals of innovation, lower costs, higher productivity and higher quality. In exchange, workers expect to gain greater employment security and greater work autonomy. That is, for workers, EI would be the opportunity to strengthen their rights and dignity through limiting the management's power to unilaterally decide on matters that affect them at work. But the fact that EI does not systematically translate into greater WA might support unions' fear that EI is focused on finding ways to further business interests and, in so doing, divide and divert workers from supporting causes of broader concern for them (Drago and Wooden, 1991).

It is worth recalling that involvement practices that fail to enhance the employee's feelings of personal control, which is reported to happen not so infrequently (Godard, 2004), may have deleterious effects on the workers' self-esteem and well-being. Feeling manipulated or not being heard undermines all the beneficial individual and social effects of EI mentioned in Section two above. In such cases, the educative function and consequent effect on civic behavior supposedly fostered by participatory practices (Pateman, 1970) may have just the opposite result.

Our expectation that generalised trust would be more associated with WA than EI is supported by the evidence – the value of the coefficient for WA is more than double that for EI, which undeniably indicates that a prevailing high level of trust in a society influences managers' attitudes and organisational choices. Our results confirm micro-studies' findings showing that control and monitoring are less pervasive in workplaces characterised by high trust levels. Managers in high trust countries are less suspicious about opportunistic behaviors and therefore tend to design more autonomous work environments. They also tend to implement more involvement practices but the latter seem to be more significantly impacted by institutional traits, like union power, than by cultural traits like the prevalence of trust in a society.

Some limitations of the present study need to be mentioned. Firstly, the cross-sectional nature of the data does not permit the assessment of causality, even though it was difficult to avoid mentioning it when interpreting the results. Reverse causality is always possible. For example, autonomy-supportive workplaces may have a learning effect on trust in the long run that may extend to society as a whole, thus generating or nurturing societal traits like high generalised trust levels[8]. That is, life in society may be just as influenced by the way in which work life is organised as the other way round. Secondly, the type of analysis undertaken here cannot shed light on the ultimate purposes and consequences of EI, which can only be captured by qualitative research methods like case studies or specifically designed and well-delimited surveys. However, the fact that our empirical study is based i) on comparable, high quality and representative national surveys and ii) on particularly rich and reliable indicators of WA and EI when compared to what is usually found in the literature, gives considerable credibility to the results.

Our analysis shows that job quality is not solely a function of firm-level differences in strategy or human capital, but is also influenced by political, institutional and cultural factors outside the firm (Doellgast et al, 2009). High levels of WA and EI in Nordic countries stem from the strength of trade-unions - and the consequent extensive negotiating rights -, the public policy commitment to quality of working life (Gallie, 2007) and high levels of generalised trust (which are in turn closely associated to universalistic social policies). All factors converge to ensure workers good and egalitarian working conditions without undermining productivity and efficiency.

Whilst there is much that individual employers can do to improve working conditions, pressures from product and financial markets make it unlikely that the firms' goodwill can be relied upon to guarantee high quality of work. Workplace policy therefore needs to adopt a more interventionist stance. Only state policies and laws can promote positive-sum solutions – stronger rights for workers through practices that also enhance performance - to workplace dilemmas. Securing a meaningful voice and healthy psychosocial work environments should be assumed as a major public responsibility as their effects undoubtedly spill over to the whole society.

[8] This would be consistent with John Stuart Mill and Pateman's insights referred above.

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Table 1. Distribution of the employee involvement items, by skill level and total (all data pooled)

		HSC	LSC	HSM	LSM	Total
q58a. Your supervisor - provides you with feedback on your work	% "Yes"	81,3%	80,6%	81,1%	73,5%	79,4%
q58e. Your supervisor - encourages you to participate in important decisions	% "Yes"	80,4%	68,7%	63,4%	53,1%	67,5%
q64. Does management hold meetings (…)?	% "Yes"	78,1%	60,1%	47,5%	49,3%	60,2%
q51c. You are consulted before targets for your work are set	Never	9,0%	15,1%	18,0%	28,6%	16,9%
	Rarely	9,3%	13,2%	13,6%	14,6%	12,7%
	Sometimes	18,4%	21,3%	21,0%	19,3%	20,2%
	Most of the time	31,2%	26,8%	26,0%	18,8%	26,0%
	Always	32,1%	23,6%	21,4%	18,7%	24,2%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%
q51d. You are involved in improving the work organisation or work processes of your department or organisation	Never	6,6%	17,3%	26,7%	37,1%	20,1%
	Rarely	7,4%	12,9%	14,2%	16,2%	12,5%
	Sometimes	19,1%	22,5%	22,4%	18,4%	20,9%
	Most of the time	30,0%	25,4%	20,5%	15,2%	23,7%
	Always	36,8%	21,9%	16,2%	13,1%	22,7%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%
q51o. You can influence decisions that are important for your work	Never	6,1%	18,0%	22,9%	35,2%	19,5%
	Rarely	9,9%	17,5%	19,2%	19,5%	16,4%
	Sometimes	30,5%	31,4%	28,9%	24,0%	29,4%
	Most of the time	32,6%	22,3%	19,9%	13,5%	22,5%
	Always	20,9%	10,9%	9,1%	7,8%	12,3%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%

Table 2. Distribution of the work autonomy items, by skill level and total (all data pooled)

		HSC	LSC	HSM	LSM	Total
q46e Is your pace of work dependent on the direct control of your boss	% "Yes"	35,2%	40,2%	54,9%	49,0%	42,9%
q49b. Does your job involve assessing yourself the quality of your own work?	% "Yes"	83,0%	71,7%	76,1%	65,2%	73,5%
q49c. Does your job involve solving unforeseen problems on your own?	% "Yes"	92,2%	82,8%	78,4%	68,8%	81,5%
q49f. Does your main paid job involve learning new things?	% "Yes"	89,9%	74,2%	68,6%	46,9%	71,4%
q50a. Are you able to choose or change your order of tasks?	% "Yes"	82,6%	66,2%	52,3%	45,8%	63,8%
q50b. Are you able to choose or change your methods of work?	% "Yes"	83,3%	64,7%	58,4%	49,2%	64,8%
q50c. Are you able to choose or change your speed or rate of work?	% "Yes"	81,0%	69,4%	65,2%	58,7%	69,2%
q51e. You have a say in the choice of your working partners	Never	34,9%	51,3%	51,0%	63,6%	50,0%
	Rarely	12,0%	13,5%	14,1%	10,9%	12,7%
	Sometimes	17,0%	14,4%	13,7%	11,0%	14,2%
	Most of the time	16,2%	10,9%	10,8%	7,6%	11,4%
	Always	19,9%	9,9%	10,4%	6,9%	11,6%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%
q51i. You are able to apply your own ideas in your work	Never	2,9%	10,9%	13,9%	25,9%	12,5%
	Rarely	4,9%	12,4%	13,4%	16,1%	11,6%
	Sometimes	15,2%	23,8%	23,1%	20,7%	21,2%
	Most of the time	34,0%	26,1%	24,8%	17,7%	26,0%
	Always	43,0%	26,9%	24,7%	19,5%	28,7%
	Total	100,0%	100,0%	100,0%	100,0%	100,0%

Table 3: Determinants of Employee Involvement and Work Autonomy (multilevel regression)

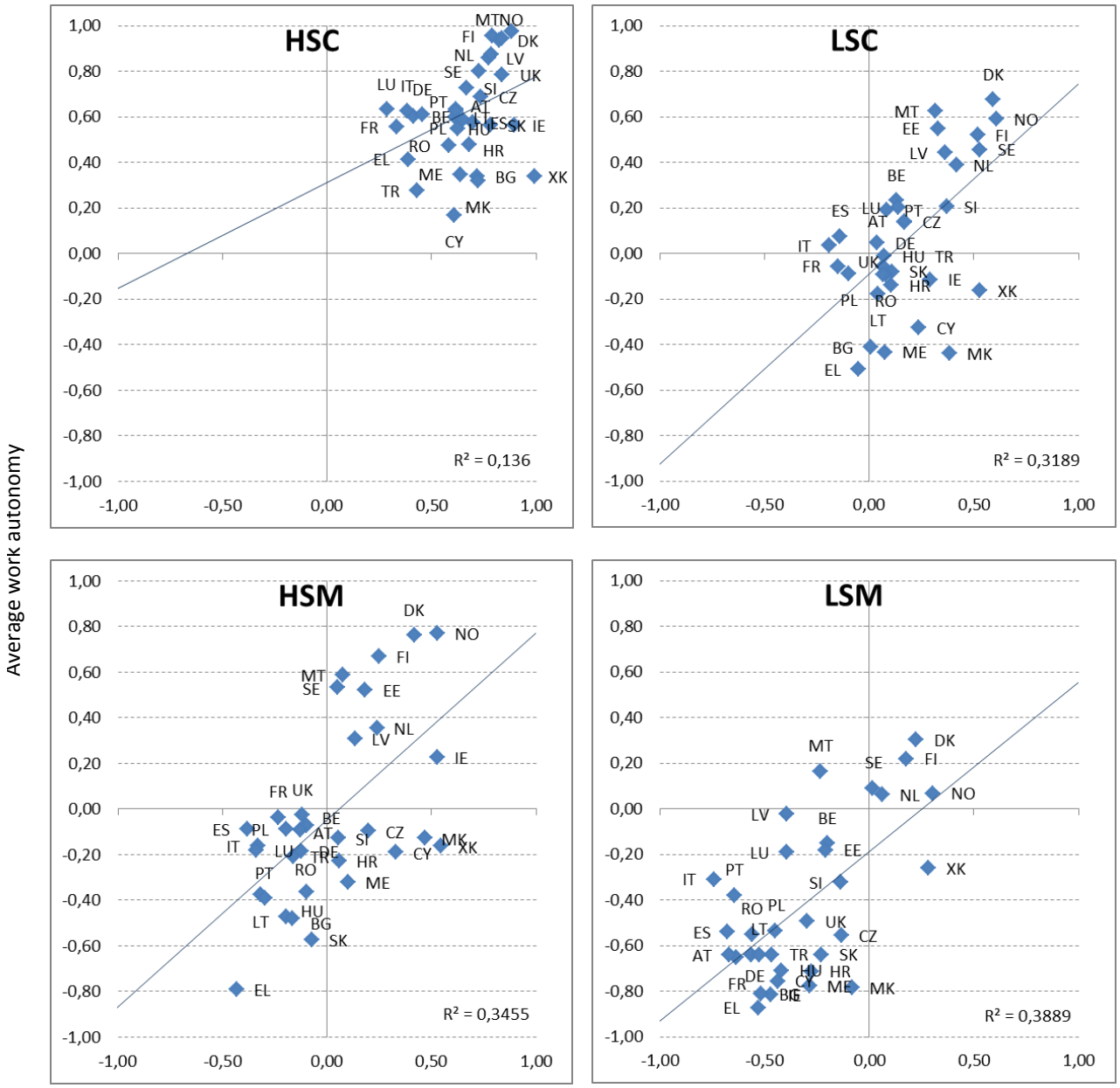
	Involvement (EI)		Autonomy (WA)	
Constant	-0.09	(0.50)	-0.31	(0.45)
Country-level variables				
Trust	0.31*	(0.14)	0.73***	(0.11)
Union Density	0.64***	(0.14)	0.23	(0.13)
Collective bargaining	-0.25	(0.17)	-0.23	(0.14)
Individual-level variables				
Gender	0.07***	(0.01)	0.05***	(0.01)
Age	-0.01	(0.01)	0.01	(0.01)
Indefinite contract	0.06***	(0.01)	0.05***	(0.01)
Public Sector	0.03**	(0.01)	0.03**	(0.01)
Other Sectors	0.03**	(0.01)	0.03**	(0.01)
Persons in workplace	-0.02*	(0.01)	-0.03**	(0.02)
Tenure	0.04***	(0.01)	0.04***	(0.01)
Hours per week	0.04***	(0.01)	0.04***	(0.01)
Employee representative	0.09***	(0.01)	-0.01	(0.01)
Low skill clerical	-0.22***	(0.01)	-0.28***	(0.01)
High skill manual	-0.23***	(0.01)	-0.24***	(0.01)
Low skill manual	-0.39***	(0.01)	-0.42***	(0.02)
ICC	0.04		0.08	
Number of cases	30843		30843	
var(Residual): *Individual level*	0.86		0.87	
var(Constant): *Country level*	0.50		0.39	
Explained variance intercept				
Individual level	0.14		0.13	
Country level	0.50		0.61	

Notes: Reported effects are standardised. Values in brackets are standard errors of the estimation; *** p < 0.000; ** p < 0.01; * p < 0.05.

Figure 1: Possible combinations of work autonomy and employee involvement

Work autonomy (WA)	Employee involvement (EI): Low	Employee involvement (EI): High
High		EI and WA positively influence each other
Low	EI and WA negatively influence each other	Possible manipulative use of EI – “pseudo-participation”

Fig. 2. Employee involvement and work autonomy, averages by skill level and country



Appendix

Table 1A. *Definition of Variables*

EI – Employee involvement	
q58a. In general, your immediate manager / supervisor - provides you with feedback on your work	1 – yes; 0 – no.
q58e. In general, your immediate manager / supervisor - encourages you to participate in important decisions	1 – yes; 0 – no.
q64. At your workplace, does management hold meetings in which you can express your views about what is happening in the organisation?	1 – yes; 0 – no.
q51c. Select the response which best describes your work situation -You are consulted before targets for your work are set.	1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Most of the time, 5 – Always
q51d. Select the response which best describes your work situation -You are involved in improving the work organisation or work processes of your department or organisation	1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Most of the time, 5 – Always
q51o. Select the response which best describes your work situation -You can influence decisions that are important for your work	1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Most of the time, 5 – Always
WA – Work Autonomy	
q46e. On the whole, is your pace of work dependent, or not, on the direct control of your boss	1 – no; 0 – yes.
q49b. Generally, does your main paid job involve assessing the quality of your own work yourself?	1 – yes; 0 – no.
q49c. Generally, does your main paid job involve solving unforeseen problems on your own?	1 – yes; 0 – no.
q49f. Generally, does your main paid job involve learning new things?	1 – yes; 0 – no.
q50a. Are you able to choose or change your order of tasks?	1 – yes; 0 – no.
q50b. Are you able to choose or change your methods of work?	1 – yes; 0 – no.
q50c. Are you able to choose or change your speed or rate of work?	1 – yes; 0 – no.
q51e. Select the response which best describes your work situation - You have a say in the choice of your working partners	1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Most of the time, 5 – Always
q51i. Select the response which best describes your work situation -You are able to apply your own ideas in your work	1 – Never, 2 – Rarely, 3 – Sometimes, 4 – Most of the time, 5 – Always
Classification of occupations into skill levels (Based on ISCO-88 classification)	
High-Skilled Clerical	Isco1 – Legislators, senior officials and managers
	Isco2 – Professionals
Low-Skilled Clerical	Isco3 – Technicians and associate professionals
	Isco4 – Clerks
	Isco5 – Service workers and shop and market sales workers
High-Skilled Manual	Isco6 – Skilled agricultural and fishery workers
	Isco7 – Craft and related trades workers
Low-Skilled Manual	Isco8 – Plant and machine operators and assemblers
	Isco9 – Elementary occupations

Other variables (Individual level)
Gender: 1 – male and 0 – female.
Age: age of the respondent in years.
Indefinite contract: 1 if the respondent has an indefinite term employment contract, 0 otherwise.
Hours per week: Number of hours the respondent works per week in his main paid job.
Tenure: q12. How many years have you been in your company or organisation? In years, 0 if less than one year.
Private Sector: 1 if the respondent works in the private sector, 0 otherwise (reference category).
Public Sector: 1 if the respondent works in the public sector, 0 otherwise.
Other Sector: 1 if the respondent works in other sectors, 0 otherwise. Other sector includes joint public-private organisation or companies, non-for-profit and NGO organisations and other not specified
Persons in workplace: Number of people working in the same workplace as the respondent. Original categories are: 1 (interviewee works alone), 2-4 persons, 5-9 persons, 10-49 persons, 50-99 persons, 100-249 persons, 250-499 persons and 500 and over persons. In order to use this as a numerical variable, categories were recoded into the middle point of the respective interval.
Employee representative: q63. At your workplace is there an employee acting as an employee representative? 1 – no; 0 – yes

Table 2A – *Country level variables: source and values.*

		Union Density (UD)		Collective bargaining coverage (CBC)		Trust[6]
ISO	Country	YearUD	UD	YearCBC	CBC	
BE	Belgium	2009[1]	52.0	2008[1]	96.0	35.90
CZ	Czech Republic	2009[1]	17.3	2009[1]	42.5	30.60
DK	Denmark	2009[1]	68.8	2007[1]	80.0	76.10
DE	Germany	2009[1]	18.8	2009[1]	62.0	40.40
EE	Estonia	2009[1]	6.7	2009[1]	19.0	32.30
EL	Greece	2008[1]	24.0	2008[1]	65.0	21.60
ES	Spain	2009[1]	15.9	2008[1]	84.5	34.50
FR	France	2008[1]	7.6	2008[1]	90.0	27.20
IE	Ireland	2009[1]	36.6	2008[1]	44.0	38.50
IT	Italy	2009[1]	34.7	2009[1]	80.0	30.90
CY	Cyprus	2008[1]	54.3	2008[1]	52.0	7.50
LV	Latvia	2008[1]	14.8	2008[1]	25.0	25.60
LT	Lithuania	2009[1]	9.5	2008[1]	15.0	29.80
LU	Luxembourg	2008[1]	37.3	2008[1]	58.0	33.00
HU	Hungary	2008[1]	16.8	2009[1]	33.5	21.00
MT	Malta	2009[1]	51.0	2008[1]	55.0	22.50
NL	Netherlands	2009[1]	19.0	2008[1]	82.3	62.90
AT	Austria	2009[1]	28.6	2009[1]	99.0	36.40
PL	Poland	2009[1]	15.1	2008[1]	38.0	27.80
PT	Portugal	2009[1]	20.1	2009[1]	45.0	19.70
SI	Slovenia	2008[1]	29.7	2009[1]	92.0	24.40
SK	Slovak Republic	2008[1]	17.2	2009[1]	40.0	12.80
FI	Finland	2009[1]	69.2	2007[1]	90.0	65.10
SE	Sweden	2008[1]	68.8	2008[1]	91.0	70.10
UK	United Kingdom	2009[1]	27.5	2009[1]	32.7	37.40
BG	Bulgaria	2009[1]	19.8	2009[1]	30.0	18.10
HR	Croatia	2010[2]	35.0	2010[2]	60.0	20.20
RO	Romania	2008[1]	32.8	2008[1]	70.0	17.70
TR	Turkey	2008[1]	5.8	2006[1]	25.0	11.30
NO	Norway	2009[1]	54.4	2008[1]	74.0	74.20
XK	Kosovo	2009[3]	90.0	2009[3]	100	10.90
ME	Montenegro	2009[4]	26.0	2009[4]	100	25.20
MK	FYROM (Macedonia)	2010[5]	27.95	2010[5]	100	19.40

(1) Source: Jelle Visser, ICTWSS: Database on Institutional Characteristics of Trade Unions, Wage Setting, State Intervention and Social Pacts in 34 countries between1960 and 2007, Amsterdam Institute for Advanced Labour Studies (AIAS), last accessed on 2013-04-23 at http://www.uva-aias.net/208

(2) EUROFOUND (2012a). Croatia: Industrial relations profile, last accessed on 2013-04-23 at http://www.eurofound.europa.eu/eiro/country/croatia.htm

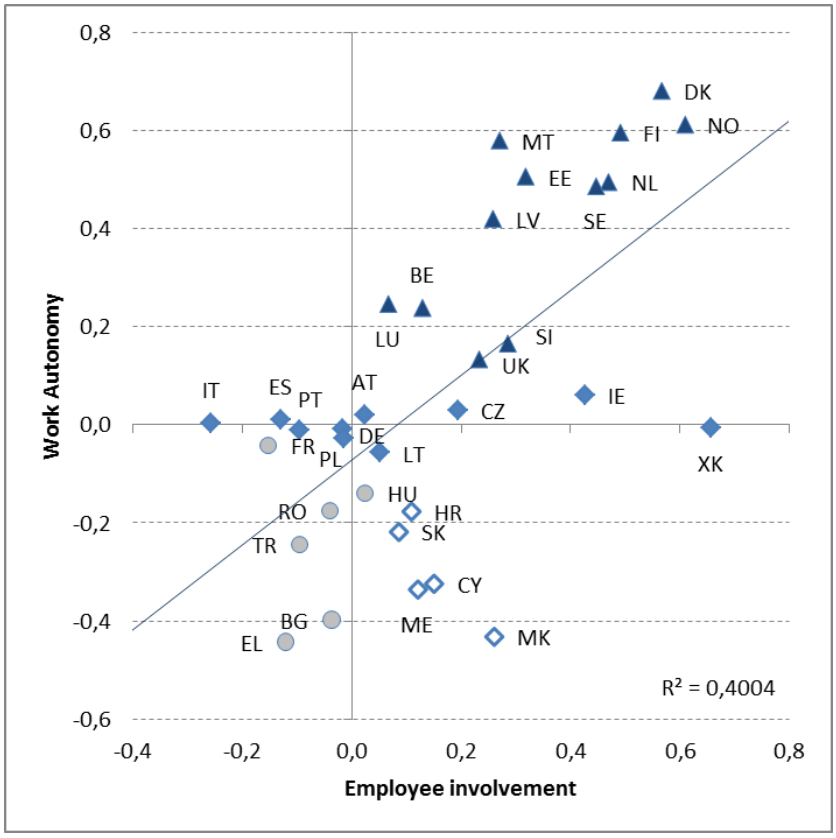
(3) EUROFOUND (2012b). Kosovo: Industrial relations profile, last accessed on 2013-04-23 at http://www.eurofound.europa.eu/eiro/country/kosovo_5.htm

(4) EUROFOUND (2012c). Montenegro: Industrial relations profile, last accessed on 2013-04-23 at http://www.eurofound.europa.eu/eiro/country/montenegro.htm

(5) EUROFOUND (2012d). Former Yugoslav Republic of Macedonia (FYROM): Industrial relations profile, last accessed on 2013-04-23 at http://www.eurofound.europa.eu/eiro/country/macedonia.htm

(6) Source: European Values Study, 2008. Values reported are the percentages by country of "people can be trusted" responses (question Q7 (v62): 1 – people can be trusted; 2 – can't be too careful)

Fig. 1A. Employee involvement and work autonomy, averages by country



Autonomy and involvement above the average

Autonomy near the average and involvement near or above the average

Autonomy below the average and involvement near or below the average

Autonomy below the average and involvement above the average