

Title: Structural and Intermediary Determinants of Social Inequalities in the Subjective Well-being of the European Working Population. A Relational Approach.

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ABSTRACT

Objective: No consensus exist about the socioeconomic patterning of subjective well-being (SWB) in the European working population: some studies report a worse well-being for employees in lower socioeconomic positions, while others report signs of reverse associations or insignificant results. One of the reasons for contradictory findings might be the way researchers conceptualize social inequalities in SWB without underpinning their choice of socioeconomic measure with an explicit theoretical framework (Christophe Vanroelen, 2009). In empirical social epidemiological research socioeconomic position is commonly measured by social stratification such as income or years of education (C. Muntaner, Borrell, Benach, Pasarin, & Fernandez, 2003). However, these measures do not reveal the social mechanisms that explain how individuals come to accumulate different levels of material and psychosocial resources (C. Muntaner, Ng, Vanroelen, Christ, & Eaton, 2013). Unlike measures of social stratification, relational social class indicators are able to uncover the relational mechanisms that are associated with health inequalities. Therefore, in this article, relational social class indicators will be used to examine the socioeconomic patterning in SWB. Unequal social relations are generated by structural positions in the labour process, thus it might be assumed that these unequal relations are at the core of work-related health inequalities. Another reason for contradictory findings might be the limited adequacy of a gradient-approach in social inequality research. According to Wright's hypothesis of contradictory class location lower classified workers might enjoy better health outcomes compared to higher classified supervisors due to the special relational position of supervisors (C. Muntaner et al., 2003; Wright, 1997). Supervisors are subjected both to the pressure of upper management and of subordinate workers, while exerting little influence over company policy, exposing them to high demands and low control at work (C. Muntaner et al., 2003). Therefore, supervisors are more likely to present poorer mental health than lower classified workers. Using descriptive, gradient-wise socioeconomic status indicators may 'hide' less favourable health outcomes of higher classified groups (Carles Muntaner et al., 2010).

In this study Wright's relational social class indicators accounted for the structural mechanisms of inequalities in SWB. However, work and employment are important intermediary determinants of health inequalities (Solar & Irwin, 2010). Therefore the quality of work and employment may be involved in explaining social inequalities in SWB. We subsequently examined whether social inequalities can be found in SWB in a representative sample of European employees (Hypothesis 1) and whether the psychosocial work environment (Hypothesis 2), employment conditions (Hypothesis 3) or employment relations (Hypothesis 4) can explain social inequalities in SWB.

Methods: Data from the European Social Survey (ESS) Round 2 (2004/5) and 5 (2010) is analysed. In these rounds the questionnaire contained a supplementary module on family, work and well-being. Data from 19 European countries (Belgium, France, Switzerland, Czech Republic, Denmark, Germany, Spain, Finland, Norway, Greece, Ireland, Netherlands, Poland, Slovakia, Hungary, Estonia, Slovenia, Sweden and United Kingdom) was analysed (15,030 male and 14,683 female employees). SWB is

assessed by means of the WHO Well-being Index. Indicators of Wright's class position were obtained through the combination of the International Standard Classification of Occupations (ISCO), the International Standard Classification of Education (ISCED) and a question whether the employee is responsible for supervising other employees. Nine categories are created: unskilled workers, semi-skilled workers, expert workers, unskilled supervisors, semi-skilled supervisors, expert supervisors, unskilled managers, semi-skilled managers and expert managers. The quality of work and employment is measured by a broad and theory-driven set of indicators.

We first described all the categorical variables included (number of cases and percentages) and determined the mean on the poor SWB scale for each category, for male and female employees separately. The mean value of each category on the poor SWB scale and the statistical differences between the categories were tested with a series of one-way analysis of variance tests (ANOVA). Pearson's correlations were calculated between the continuous variables, including the dependent variable poor SWB, for male and female employees separately. Throughout the descriptive analyses, data have been weighted by population weights that correct for population size and design weights that correct for unequal selection chances. The descriptive analyses have been performed using SPSS version 22.

In the multivariate analyses three-level multilevel models are applied to statistically account for the clustering of the sampled employees within research years and countries. Individual employees at level-1 are nested within research years at level-2 and research years are nested within European countries at level-3. First, a three-level random intercepts model was estimated as a reference model, including the individual background variable age. Second, indicators of social class were included in the reference model in order to estimate the distribution of poor SWB across social classes (model 1). In models 2, 3 and 4, the previous model is extended respectively by indicators for the psychosocial work environment, the employment conditions and employment relations. All continuous scales, except the poor SWB scale, are grand mean centered. At all steps, parameter effects of the covariates in relation with poor SWB are presented as beta estimates, with their related standard errors. Multivariate analyses have been performed in a gender-stratified way and using Stata version 12.

Results: *Description of the population.* The largest part of the population belonged to the skilled workers social class (35.3% for females and 31.3% for males). We found marked gender differences in social classes (10.6% of men belonged to the managers social class compared to only 5.6% of women). The mean score on poor SWB was highest among unskilled workers for women and among expert supervisors for men. Having no contract, an unfavourable income situation, holding an involuntary part-time job (for women), having a lack of training (for men) and a lack of co-workers support implied higher mean values on the poor SWB scale. The psychosocial work environment was also related to poor SWB. Low skill discretion, low autonomy and high psychological demands were significantly and positively related to the poor SWB scale. The correlation between irregular and/or unsocial working hours and the poor SWB scale was also significant and positive.

Multilevel analyses for women. In model 1 where social class was included with the age variable, expert managers reported the lowest mean poor SWB scores and supervisors hold an intermediary position. However, experts supervisors (β -0.182; S.E. 0.71) have a mean poor SWB score that is higher compared to unskilled and semi-skilled supervisors (β -0.252; S.E. 0.067).

When the indicators for the psychosocial work environment are included to model 1, all significant associations between social class and SWB disappeared. Low skill discretion (β 0.095; S.E. 0.008), low autonomy (β 0.033; S.E. 0.007) and high psychological demands (β 0.069; S.E. 0.006) were positively associated with poor SWB. Including the indicators for employment conditions to model 1, also discarded all significant associations of SWB and social class, except between unskilled and semi-skilled supervisors and poor SWB. Female employees with no contract reported a mean poor SWB score that is 0.175 points (S.E. 0.051) higher compared to female employees holding a permanent contract. Considering the association between income and SWB, having an insufficient household income while being a main (β 0.785; S.E. 0.070) or contributory earner (β 0.891; S.E. 0.050) was positively associated with poor SWB. Female employees working involuntary part-time reported a mean poor SWB score that is 0.162 points (S.E. 0.071) higher compared to full-time workers. Furthermore, poor SWB increased as the degree of irregular and/or unsocial working hours increased (β 0.058; S.E. 0.035). When the indicator for employment relations was included to model 1, all previous significant associations between poor SWB and social class hold. A lack of co-workers support was positively associated with poor SWB (β 0.490; S.E. 0.071).

Multilevel analysis for men. The social class indicators added to the reference model, showed that unskilled and semi-skilled managers reported the lowest mean poor SWB scores, while supervisors hold an intermediary position. Male expert supervisors (β -0.147; S.E. 0.065) had a mean poor well-being score that was higher compared to unskilled and semi-skilled supervisors (β -0.185; S.E. 0.059). When the indicators for the psychosocial work environment were added to model 1, all significant associations between poor SWB and the social class indicators disappeared, while the insignificant negative relation between expert workers and poor SWB became positive and significant (β 0.127; S.E. 0.062). Low skill discretion (β 0.090; S.E. 0.008), low autonomy (β 0.034; S.E. 0.007) and high psychological demands (β 0.087; S.E. 0.006) were positively associated with poor SWB. The indicators for employment conditions added to model 1, discarded all but one significant associations of SWB and social class, the insignificant negative relation between expert workers and poor SWB became positive and significant (β 0.144; S.E. 0.062). Considering the association between income and SWB, having an insufficient household income while being a main (β 0.619; S.E. 0.104) or contributory earner (β 0.817; S.E. 0.046) was positively associated with poor SWB. Furthermore, poor SWB increased as the degree of irregular and/or unsocial working hours increased (β 0.039; S.E. 0.007). When the indicator for employment relation was added to model 1, all significant associations between poor SWB and the social class indicators disappeared, except the negative relation between unskilled and semi-skilled supervisors and poor SWB on the one hand and between unskilled and semi-skilled managers and poor SWB on the other hand remained negative and significant. A lack of co-workers support was positively associated with poor SWB (β 0.536; S.E. 0.077).

Conclusions: We found evidence to support our first hypothesis by showing a nonlinear relation between social class and SWB. In accordance with previous studies, managers reported better SWB than supervisors and workers (C Muntaner, Eaton, Diala, Kessler, & Sorlie, 1998). Supervisors reported worse SWB compared to managers, but not compared to workers. This finding contradicts the results of a previous study (C. Muntaner et al., 2003). Unskilled workers (for both men and women) and expert workers (for men) reported the lowest poor SWB.

In contrast to what would be expected we did not always find a better SWB for experts than non-experts. These findings were consistent with a previous study that found higher odds ratios for emotional problems in expert supervisors compared to low skilled supervisors (C. Vanroelen, Levecque, & Louckx, 2010). Experts occupy a privileged position with respect to the process of exploitation. As controllers of knowledge and of a scarce form of labour power they are able to make significant claims on a portion of the social surplus (i.e. the part of the socially produced product left over after all the inputs have been paid for) (Wright, 1997). Consequently they receive a wage above the cost of producing and reproducing their labour power and are less exploited compared to other employees (Wright, 1997). Nevertheless managers and supervisors also occupy contradictory locations within class relations; while they dominate subordinates, they can still experience events of domination, for example be disciplined for poor work by employers. Major distress is caused by events that upset expected sequence (Mirowsky & Ross, 1986). The prevalence of events of domination might be scarce for expert supervisors and managers, therefore they might be more unusual and unexpected and thus the less the personal preparation for it (Mirowsky & Ross, 1986). In other words, although experts supervisors and managers, are least exploited compared to other employees, the few external sanctions they experience have a larger impact on their well-being. As expectations modify the impacts of events (Mirowsky & Ross, 1986), it might be that holding a high skill level magnifies the relation between poor SWB and a contradictory location within class relations. The finding that occupying an expert location is not always protective of SWB, emphasises Wright's indicators of skills/credentials as a measure of social class, rather than social stratification.

Our study also sheds some light on the mechanisms that mediate the relationship between social class and poor SWB among men and women. In accordance with previous research on other health indicators (Borrell, Muntaner, Benach, & Artazcoz, 2004), explaining the associations between social class and SWB involved different mediating factors for men and women. The results showed that an unfavourable psychosocial work environment and low quality employment conditions mediate the relation between social class and SWB for both men and women. However, the strength of the relation between social class and SWB is only substantially weakened if the effect of employment relations on SWB is being controlled in the male sample. The experience of low quality employment relations might be linked with social roles and the meaning of employment relations, which is related to the role-identity domain in which they occur (Thoits, 1995). When interpersonal relations become problematic and inharmonious, they can produce considerable stress (Pearlin, 1989). Typically the interpersonal relation between the employer and the employee is of considerable importance to men, more so than to women (Thoits, 1995). The lack of decent employment relations can convey as a symbol of low status and worth for men, which can adversely affect their self-esteem and dignity. These internalized feelings may lead to poor SWB (Brooker & Eakin, 2001).

These results underscore the importance of the psychosocial work environment, employment conditions and relations if we want to improve the SWB of the European employees. From a policy perspective better employee SWB could be achieved by a shift in power and social relations among social classes. Regular meeting between representatives of employers and of different groups of employees might address social inequalities at the work place.

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