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Job quality patterns in Europe

Egidio Riva, Mario Lucchini, Serafino Negrelli
Università degli Studi di Milano – Bicocca, Italy

Introduction

- Concept of job quality (Munoz de Bustillo et al., 2011). Aspects of a job that have a clear and direct impact on workers' well-being:
 - the characteristics of the work performed and its environment and the contractual conditions (including pay, stability, career opportunities)
 - other issues, e.g. psychological states, social support outside work, labour market conditions (Oecd, EU), are not included
- Relevant concerns in current research on job quality:
 - develop an agreed and comprehensive measure
 - impact of economic, institutional context and changes

Measurement

- Much debate about what variables and dimensions should be included in the analyses. Different traditions of research:
 - economists: pay as a satisfactory measure of job quality
 - sociologists: attention to intrinsic aspects of work (e.g. Gallie)
 - psychologists: demand/control/support (Johnson & Hall 1988; Karasek & Theorell 1990)
- More recently, a wide range of monetary and non-monetary indicators of job quality have been included in a single framework (e.g. Eurofound 2017; Holman 2013)

Research propositions

1. Build an empirically sound typology of jobs in Europe (data clustering)
2. Validate the typology of jobs, i.e. estimate the influence that different work and employment conditions have on employees in terms of health, strain, work enjoyment and job satisfaction

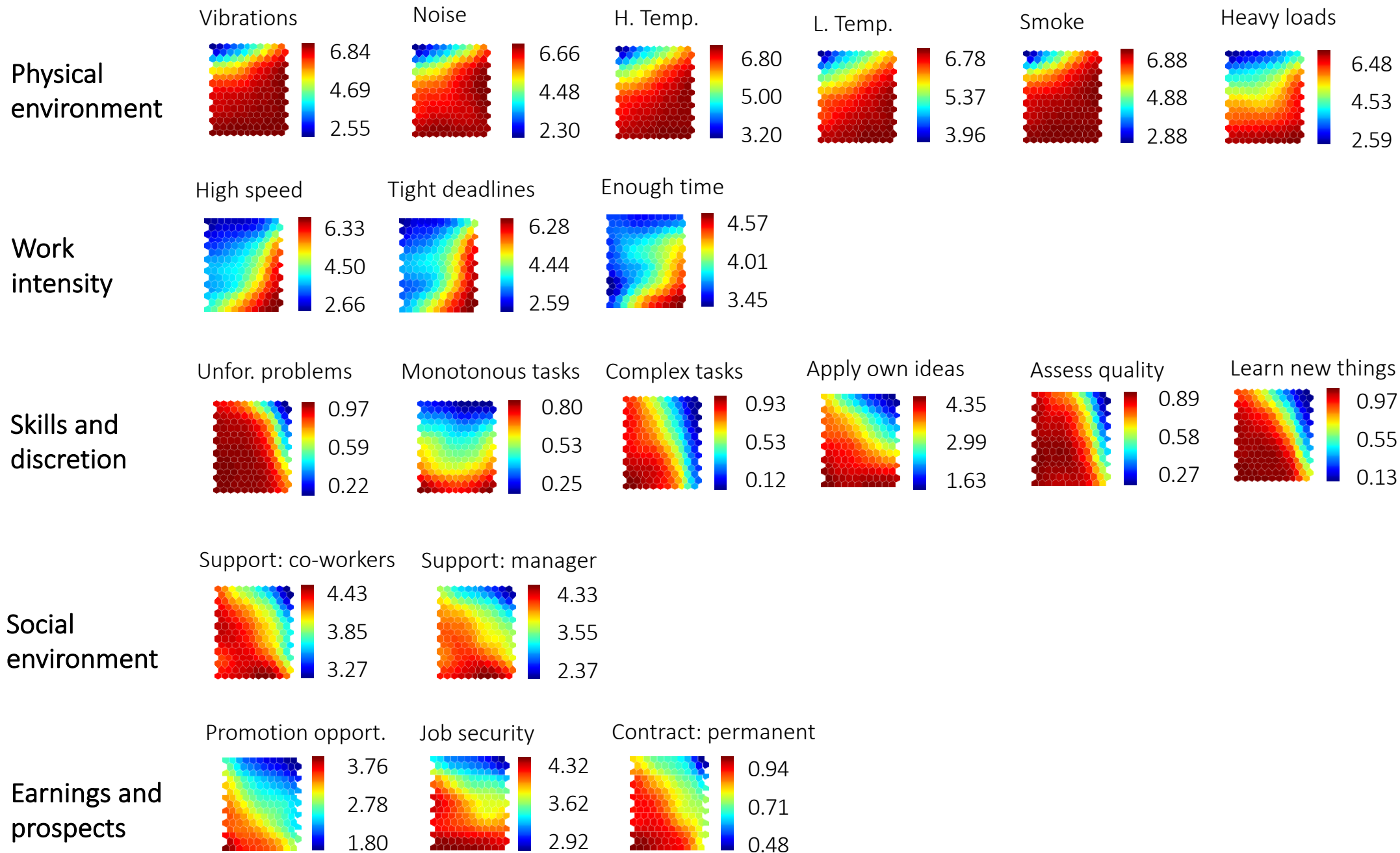
Data: sample and selected items

- Analyses draw on the latest three waves (2005, 2010, 2015) of the European Working Conditions Survey (EWCS)
- We selected 54 questions measuring salient aspects of a job that affect employee and wellbeing in the following dimensions: 1) physical environment, 2) work intensity, 3) working time quality, 4) social environment, 5) skills and discretion, 6) earnings and prospects
- Observations with missing values on any of the selected items were eliminated from the dataset. The resulting sample consists of N=59,839 employees in 30 countries

Data clustering: typology of jobs

- In order to reduce data complexity and develop a visual display of the underlying data structure, we used Self Organising Map (SOM) (Kohonen, 1982; 1995), which is a powerful clustering and visualization tool
- SOM projects high-dimensional data onto a two-dimensional grid (48 nodes), in which individuals having similar characteristics in the nature of their work and employment situations are mapped on neighbouring regions of the grid
- The original 48 nodes of the grid were grouped (based on the Euclidean distance as similarity or dissimilarity measure) into **7 clusters**, including employees with similar work and employment situations

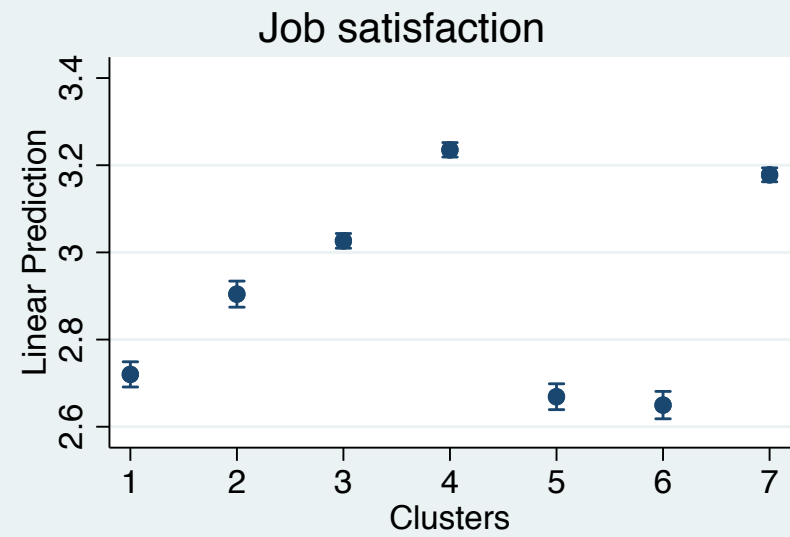
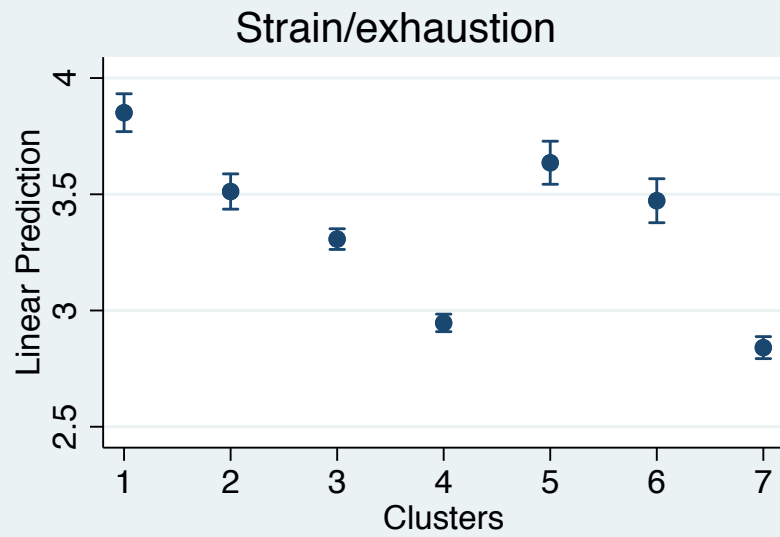
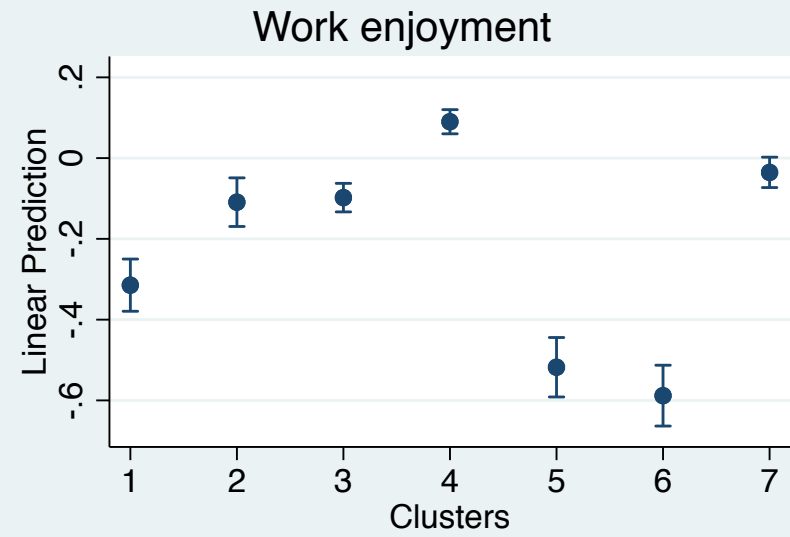
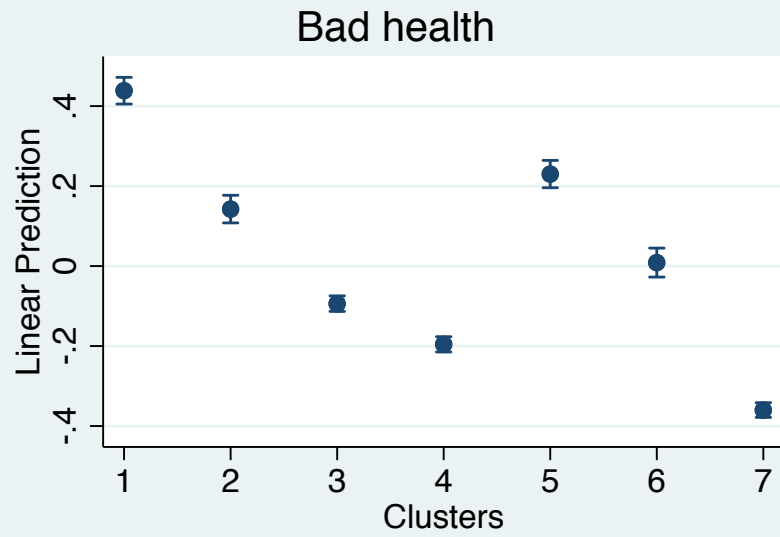
The SOM clustering: data visualization



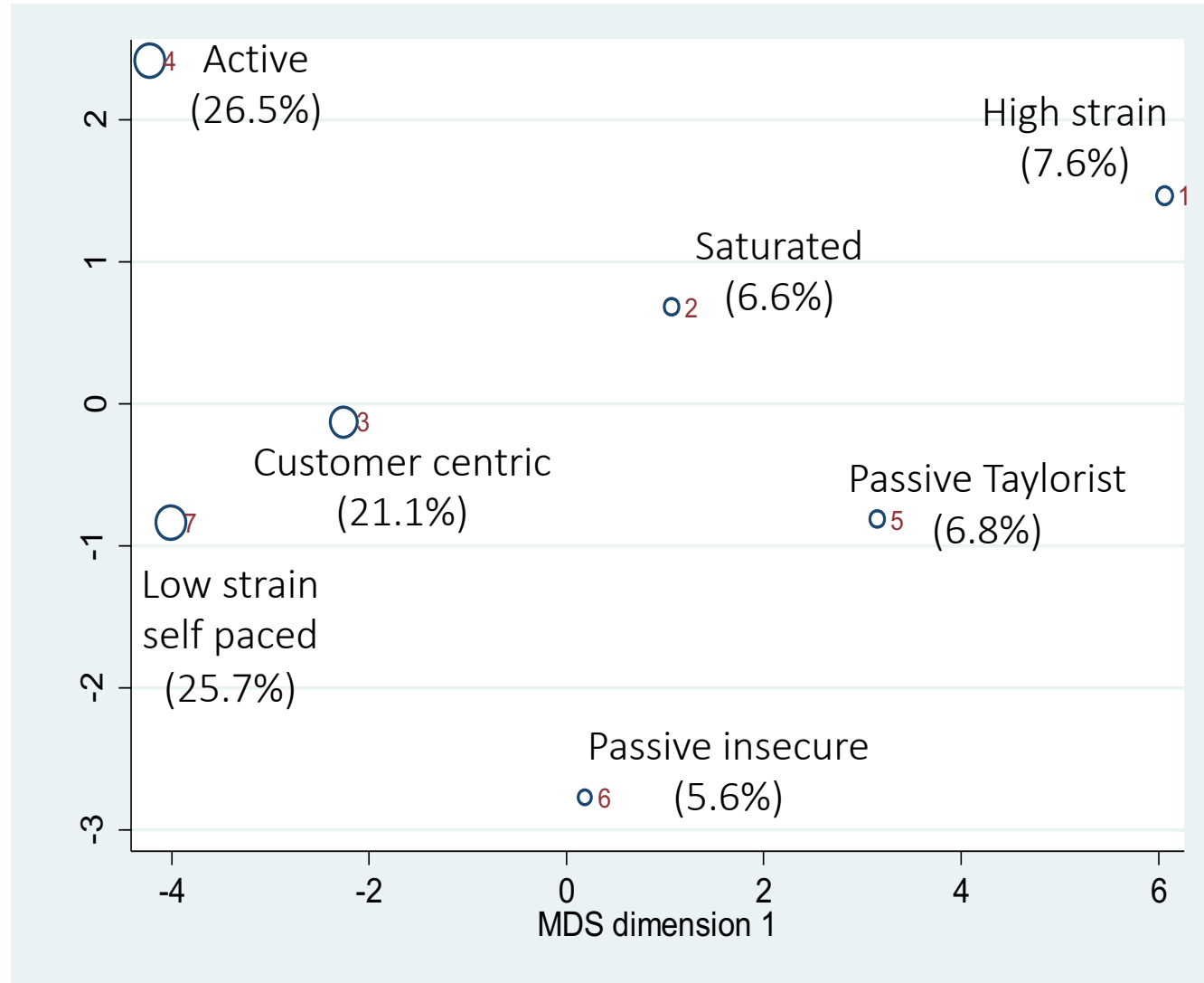
Validation

- We run weighted regressions to validate the typology of job types, i.e. to predict responses of employees in distinct clusters to different work and employment conditions in terms of health (9 items) exhaustion, work enjoyment (3 items) and job satisfaction
- analyses were adjusted for the following control variables: sex, age, country of birth of the employee; establishment size and public or private ownership of the company; economic activity (NACE)

Validation



Validated typology of jobs



Conclusion

- Different job profiles (clusters):
 - each characterized by a distinct combination of work and employment conditions (job quality as a multidimensional construct)
 - any of the identified clusters properly fitted within the demand/control conceptual framework
 - most resemble clusters identified by previous studies, but some had not been described in previous empirical studies

Thank you for your attention!

Egidio Riva (egidio.riva@unimib.it)

Mario Lucchini (mario.lucchini@unimib.it)

Serafino Negrelli (serafino.negrelli@unimib.it)

Università degli Studi di Milano – Bicocca, Italy