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Job quality: conceptual and methodological challenges for comparative analysis

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Introduction

International development agencies such as the World Bank, the International Monetary Fund (IMF), the Organisation for Economic Co-operation and Development (OECD) and individual governments have traditionally been more concerned with the quantity of jobs – as measured by the rate of unemployment, or the rate of participation in the labour market – than the quality of available positions (Muñoz de Bustillo *et al.*, 2011; OECD, 2014; Sehnbruch, 2006). Much early psychological research on unemployment (e.g. Jahoda, 1982) tended to reinforce this simple model of a job being a good thing and unemployment a bad thing. But more recent research has taken a more nuanced approach, demonstrating that poor-quality jobs characterised, for instance, by high demands, low control over decision-making, high job insecurity or workplace bullying might have worse psychosocial effects on individuals than experiences of unemployment (Burchell, 1992; Butterworth *et al.*, 2011; Warr, 1987). One of Jill Rubery's most original and policy-orientated reports in recent years was Smith *et al.* (2013), in which she used, for the first time, the concept of job quality, in a holistic manner, to explore gender differences in working conditions. However, progress towards articulating job quality in public policy, in terms of not only overarching principles but also concrete actions, has been slow. One important impediment has been the conceptual confusion and the lack of a shared definition to inform both research and policy.

The variety of approaches led to multiple and relatively diffuse concepts developing in parallel, which limited their academic and political impact. The terminology used creates additional confusion; expressions such as 'quality

of working life' (predominantly linked to the subjective evaluations of one's job), 'job quality' or 'quality of work' (often focusing on the job content and work environment) and, finally, 'quality of employment' (usually also including a broader overview of labour relations, policies, participation or equality in income and job distributions) are often used interchangeably and without clear definitions. This inconsistency reflects the complexity of the whole issue of quality of work. There are not only multiple facets of jobs that should be taken into account, but also multiple levels on which jobs can be analysed, ranging from a subjective evaluation of a particular working environment to broad labour market systems in which jobs are performed. Furthermore, the definition of job quality and the selection of facets of employment via which to measure it depend on the perspective adopted. The meaning attributed to job quality will be different depending on whether it is viewed from the standpoint of individual workers, families, employers or from a societal perspective.

The lack of conceptual clarity crept into institutional initiatives in this area, which are rare and have not seen much success either. The International Labour Organization (ILO) has attempted to define the quality of work through its concept 'Decent Work', which was officially launched in 1999. Among those institutions influenced by the ILO's approach, the European Union (EU) institutions – such as Eurofound (see, e.g., Green and Mostafa, 2012) – and some European governments stand out. Another example is an initiative that originated in 2000 as a series of seminars launched by the joint United Nations Economic Commission for Europe (UNECE)/ILO/Eurostat task force, which after 15 long years published a statistical framework for measuring the quality of employment (UNECE, 2015). The framework, however, was developed as a complex statistical toolbox rather than an indicator suitable for evaluating and guiding policy. Moreover, the OECD contributed to the debate with its work on measuring social progress and quality of life – largely following the Stiglitz, Sen and Fitoussi (2009) report – and, more recently, has also made a very useful proposal for measuring and assessing job quality in its 2014 Employment Outlook.

However, the overall impact that the concepts 'job quality' and 'decent work' have had on both research and public policy is extremely limited compared to the influence achieved, for example, by the Human Development Index (HDI) over a similar period (see discussion in Burchell *et al.*, 2014 and Sehnbruch *et al.*, 2015). The HDI, published by the United Nations Development Programme, is a summary measure of life expectancy, education and standard of living (measured by gross national income per capita), which has made a substantial contribution towards shifting the policy focus from economic growth to people and their capabilities.

This chapter explores the reasons for little effective progress in the conceptualisation and measurement of job quality (or related terms, such as precarious work) through considering the conceptual frameworks used as a basis for analysing job quality, the institutional context that encourages or impedes research and the availability of data. In what follows, the first section summarises methodological considerations of measurement, including the shortcomings in existing measures of the quality of employment and their potential for international comparison. We further consider the contribution that psychology has made to understanding job quality. We draw parallels with the way in which the Five-Factor Model of personality evolved and contributed to the inclusion of personality measures in large data sets. This example illustrates that consensus can and should be achieved in defining and measuring highly complex phenomena. Against this background, in the section titled 'A multi-level model for the measurement of job quality' we propose a conceptual framework that aims at a better articulation of job quality by positioning it within macro drivers such as employment protection legislation, welfare regimes and labour market segmentation. Much in the spirit of the societal system approach for comparative analysis (Bosch *et al.*, 2007; Bosch *et al.*, 2009; see Chapters 1 and 3), we demonstrate how jobs can be positioned within complex systems of labour market organisation that vary across countries, yet allow for a common evaluation of their quality. We develop a metaphor of 'jobs as vehicles' to clarify levels of analysis and to establish what job quality actually should be measuring. Finally, in the Conclusions, we argue that only in Europe, where comparable indicators from harmonised surveys have now become the norm and constitute extremely valuable data for analysts, has significant progress been made in conceptualising and measuring the quality of employment. We conclude that it is essential that this process of data collection and methodological consolidation be extended to other regions in the world where the quality of employment remains neglected.

Towards a framework for the measurement of job quality: methodological considerations

One of the first ways in which the academic literature approached the question of what constitutes a 'good job' was by focusing on non-pecuniary aspects of work and on workers' subjective perceptions of their jobs (Staines and Quinn, 1979; Yoshida and Torihara, 1977). Seashore (1974) and Land (1975) defined good jobs as those possessing attributes or consequences which are valued by the worker and are thus conducive to job satisfaction. Wnuk-Lipinski (1977) subsequently argued that job satisfaction is a vital component of quality of life and thus

an end in itself. On the basis of the 'quality of life' perspective (Bauer, 1966), several criteria for assessing the quality of work were devised, encompassing both general measurements of job satisfaction and specific measurements of workers' contentment with an array of job facets (Kalleberg and Vaisey, 2005; Krueger *et al.*, 2002; Land, 1975; Staines and Quinn, 1979).

Over the years, a range of primarily psychological theories shifted the focus towards identifying a list of 'objective' job features linked to workers' well-being at work (Warr, 2007). For instance, a considerable amount of research on job quality conducted by occupational psychologists has focused on the determinants of subjective well-being and productivity at the level of task characteristics, such as variety, challenge, meaningful nature of the work performed, autonomy and teamwork (Hackman and Oldham, 1975). Karasek and Theorell (1990) focused on psychological stress and proposed a 'job-strain model' based on a balance between job control and demands. Nevertheless, no consensus has ever been reached on a way of organising a multitude of work dimensions into a coherent framework amenable to comparative research. The policy focus of most studies was firm-specific rather than comparative, aimed at achieving improvements in individual workplaces. In this section, we identify and discuss some of the key methodological and conceptual challenges faced by any attempt to define and measure job quality in comparative analysis.

Subjective and objective measurements

The development of a measurement of overall job quality based on subjective evaluation and job satisfaction proved problematic and was not without its critics for, depending on workers' preferences and expectations, similar job characteristics may indeed be valued quite differently (Taylor, 1977). Davis (1977) argued, in a similar vein, that the widely differing and contradictory meanings attributed to job quality by different groups of workers are to blame for the lack of agreement on how to define the quality of work. Agassi (1982) argued convincingly that the measure of job satisfaction is the relationship between the quality of an employee's current job and the same employee's notions of what might reasonably be expected of a job. Insofar as expectations vary considerably between countries, it often turns out that a developed country may have lower aggregate job satisfaction than a developing one. Analysis based on the International Social Survey Programme, for example, shows that a broad range of countries show remarkably homogeneous indicators of job satisfaction (Muñoz de Bustillo *et al.*, 2011, figure 2.1: 10)

Adaptive preferences may also explain why some less-advantaged groups of workers (e.g. women) display higher satisfaction levels than others enjoying

objectively better working conditions. More-advantaged workers might also expect more, in terms of personal satisfaction, from their jobs (see also Muñoz de Bustillo *et al.*, 2011), while those in less-favourable employment conditions may display a tendency to adapt to circumstances (Comin and Teschl, 2005; Nussbaum, 2000; Sen, 1999). While this is an interesting psychological phenomenon, it renders measurements of job satisfaction completely unsuitable for comparative research on job quality.

Furthermore, while indicators such as life expectancy and literacy can only really be improved by better health and education, there are, in principle, two ways to improve job satisfaction: either by changing employment conditions or by changing workers' perceptions of these conditions. Job satisfaction, in other words, can be increased either by improving jobs or by lowering employees' expectations. As the latter approach is likely to prove cheaper and easier than the former, job satisfaction measurements make poor policy levers.

It should be pointed out that there is considerable confusion with regard to the way in which the terms 'objective' and 'subjective' are applied, more generally, to debates concerning the quality of life and well-being and, more specifically, to job quality. 'Subjective' is usually taken to mean not only self-reported, but also pertaining to an attitude or psychological disposition towards an attribute – such as 'life satisfaction'. 'Objective' is taken to refer to the measurement of 'hard facts' (Veenhoven, 2002) such as weekly hours of work. Nevertheless, self-reporting is the method most frequently used and the basis of many survey items. Most would see self-report of objective measures (such as hours worked) as unproblematic, except for the fact that it may introduce some error and reporting bias, as respondents might misremember or exaggerate their hours of work. Self-reporting of subjective assessment (e.g. job satisfaction, work–life balance, perception of health and safety) is more problematic as it is shaped by adaptive preferences, societal norms and points of reference, which makes international comparisons particularly difficult. While in some cases such self-reported measurements of job quality can be compared with information from other sources – for instance, employees' perceptions of the safety of their jobs can be triangulated with national statistics on fatalities at work – many features of job quality can be realistically measured only by asking employees about their work. In assessing job quality we argue that there is a *prima facie* case that workers are experts on their own jobs, even if their reports are susceptible to bias and error.

However, we claim that a distinction that is more central to the development of job quality measurement is not whether we measure something by self-report or by other means, but rather whether we are interested in the reality and actual features of jobs, as opposed to individuals' attitudes, opinions or evaluations

concerning their jobs, such as their job satisfaction. This is similar to the distinction made between the types of questions used to measure 'subjective phenomena', based on their purpose in Turner and Martin's (1984) seminal book on survey questions.

When we, as social scientists, ask questions of individuals we do so for very different reasons, even though the questions may appear similar both syntactically and semantically. Consider the two questions to be answered on Likert-type scales:

- 1) How often do you work with radioactive materials? All of the time ... Sometimes ... Never.
- 2) How often do immigrants make a positive contribution to the labour market in the UK? All of the time ... Sometimes ... Never.

The reasoning behind asking these two questions is very different. The first question is asked because we are interested in estimating how often radioactive material is handled in different jobs, and we can calculate means which (we hope) represent the level of use of radioactivity across different occupations, industries and countries. The second question is asked because we are interested, instead, in how people think – their attitudes, beliefs and values. We would not usually claim that responses to the question reflect the real contribution of immigrants; more likely we would use the results as an indication of attitudes towards immigrants, or immigration, or perhaps as an indicator of racism. This distinction between psychological measures of individual differences and survey items measuring the qualities of entities such as jobs is critical to understanding the nature of job-quality measurement. Drawing a parallel with the literature on well-being, we are measuring 'objective well-being', that is, we are interested in the job itself – that is, the features of work and the various dimensions of working conditions – as opposed to what the employee thinks about the job, even though we are usually relying on employees' own reports.

Psychologists are most often interested in measuring people's internal states (e.g. beliefs, attitudes, values, mental abilities), such that we expect each individual to score differently on a measure of, for example, attitude or personality or intelligence. In contrast, in the case of job quality, we aim to achieve a situation whereby, if the measures are well constructed and well devised, several individuals doing the same job will have very similar scores for the attributes of that job.

Empirical progress

Apart from the issues surrounding the lack of a theoretical framework, as well as the conceptual confusions, the literature on the measurement of the quality of employment has had to tackle yet another significant problem: successful measurements require reliable, and preferably also comparable, sources of data.

The availability of comparable data across European countries has thus generated a virtuous circle in which empirical evidence has expanded the theoretical understanding of labour markets, which in turn has increased the efforts invested in data gathering. In developing countries, however, where comparable data are not available, both empirical and theoretical analysis has stagnated. The patchy availability of data has led to a host of studies on one or two aspects of the quality of employment or that only look at a single country, while the number of studies that have attempted to develop a comprehensive framework taking account of multiple job characteristics is limited. It is hardly surprising then that policy-relevant, cross-country comparative analysis should have taken so long to emerge. Where such studies have been carried out, they tend to be limited to groups of EU member states.

A good illustration of the role of empirical data in conceptual progress is a recent outcome of co-operation between academic researchers and Eurofound, fuelled by a large-scale data set on working conditions in 34 European countries: the European Working Conditions Survey (EWCS). Eurofound has so far commissioned several reports to compare particular features of work and employment. However, it was not until the 2010 survey that a report was explicitly commissioned to undertake a comparative overview of general job quality between EU member states (Green and Mostafa, 2012).

The job quality index developed by Green and Mostafa (2012) draws on literature in the fields of psychology, sociology and economics. The model incorporates four dimensions of job quality: earnings, job prospects, working-time quality and the intrinsic quality of the job. Intrinsic job quality is further divided into four subscales: social environment, physical environment, skill and discretion, and work intensity. These scales consist of questions designed to produce a score to measure 'objective' features of respondents' jobs. Questions on job satisfaction (or satisfaction with specific aspects of a job, such as work-life balance) are not included. A particular employee might well express a desire to work evenings and weekends, but this is not the central issue; the point is that existing scientific evidence links these sorts of working pattern with stress, poor physical health and negative effects on partners and children. The job-quality

indicator is constructed by assigning each respondent in the EWCS a score on each of its four main dimensions and four subdimensions, with higher scores indicating better job quality.

The public availability of the single data set from which the indices are derived allows researchers to embark on critical replications of the findings in an effort to refine and improve the model (e.g., for a gender critique, see Smith *et al.*, 2013). The success of this process is based on the simplicity and tractability achieved by a clear focus on the features of jobs as well as a synthetic indicator that is replicable across a broad range of countries.

It is precisely in the area of data gathering that the debate about the quality of employment can learn from other disciplines, in particular from the process through which psychologists developed the Five-Factor Model of Personality. It was developed to classify an endless set of personality traits, which could be combined in innumerable ways. In short, the discipline of psychology found a way to arrive at a consensus around the measurement through a synthetic indicator that is at least as complex and controversial as the quality of employment.

Lessons from the Five-Factor Model of personality

Reducing personality to the 'Big Five' broad dimensions defined as openness to experience, conscientiousness, extraversion, agreeableness and neuroticism, was in fact a largely data-driven process of building empirically based consensus that involved looking for patterns of association between hundreds or thousands of possible measures of personality traits. The journey from nearly 18,000 words describing personality found by Allport and Odbert (1936) in the Webster's dictionary, through 171 terms clustered into 35 and then 16 dimensions (Cattell, 1957), and then back and forth from more to less detailed lists of dimensions (Eysenck, 1991; Mershon and Gorsuch, 1988; Paunonen and Ashton, 2001), to the model with only five main personality dimensions (Costa and McCrae, 1992; Digman, 1997; Goldberg, 1993; Tupes and Christal, 1992) took several decades of academic research, driven by extensive collection of empirical data. The Big Five model is not without its critics, but it has probably come as close to achieving consensus as anything in psychology ever has. There are ongoing discussions, for instance, regarding the selection of survey items for measuring each dimension of personality (e.g. Gosling, Rentfrow, and Swann, 2003). Yet these are about details, not fundamentals; its success measured by the wide application in many fields is undeniable. The Big Five has been replicated by researchers worldwide and applied to a variety of different languages and cultures, including in Malaysia (Teh *et al.*, 2011), Turkey (Ozutku and Altindis, 2011), Iran (Erdle and Aghababaei, 2012;

Joshanloo and Afshari, 2011), Russia (Gindina *et al.*, 2011), China (Wang *et al.*, 2012) and Korea (Na and Marshall, 1999). Such is the widespread acceptance of the Big Five, it is now often included in large, general-purpose surveys, such as the British Household Panel Survey and the BBC's Lab UK project. This has made a major contribution to integrating psychological insights into interdisciplinary insights into sociological and economic analyses of individuals' working and family lives.

Achieving (near-) consensus within the discipline of psychology was clearly essential to the Big Five being adopted on such a wide scale. The field of job quality seems to be close to achieving a similar level of consensus. But there are most likely other features of the Big Five that are also essential in understanding why it has been used so widely, and perhaps the field of job quality can learn important lessons from the Big Five's success. For instance, not only has it been demonstrated that the Big Five can be measured with a high degree of validity and reliability, it can also be measured easily with just a small number of questionnaire items. While the feasibility of measuring job quality has also been demonstrated, more development work is needed to optimise the psychometric properties of the dimensions of job quality. In the literature on job quality, there has been little discussion of the most economical or 'short-form' way to measure it on a large scale.

Another prerequisite for such large-scale research is that one measurement tool is applicable to all individuals, whether 'normal' or 'abnormal'. If job-quality measures are to achieve anything like the ubiquity of the Big Five personality measures, this suggests that it is vital that one conceptual framework and one measurement tool are developed that can apply to all jobs, be they very good jobs or very bad jobs, or be they jobs in poor countries or rich countries. Such conceptual and methodological agreement was a major contributing factor to the success of the HDI: it applied to all countries, not just developing nations. The debate around the origins of the HDI emphasised from the beginning that public policies should involve planning at the global level to achieve international progress towards the narrowing of developmental gaps (Ul Haq, 1992). As a result, a composite statistic is calculated for each country to position it on a global map of development, recognising that better education, longer lives and more income are generally desirable in all contexts.

If recent publications are a guide of things to come, the success of the Five-Factor Model is such that it is starting to break into even bigger territories. Advances in big data and machine learning is seeing the emergence of a new literature based on social network sites (such as Facebook) where the Five-Factor Model of Personality test is administered and the test results, along with much other information that can be gleaned about users' online behaviour (or 'digital

footprint'), can be analysed using tens or hundreds of thousands of cases, at very little cost to researchers (e.g. Youyou *et al.*, 2015). With many researchers predicting that advances in machine learning mean that 'Big Data' will become as important as academic and official surveys in the near future, this again demonstrates the importance of having measures that are amenable to large-scale survey administration.

A multi-level model for the measurement of job quality

One of the unresolved issues in the literature on the quality of employment involves deciding what types of information should be included in measures of job quality. In particular, those efforts that have attempted to cover a greater number of employment characteristics to reconcile different constituents of the policy-making community have failed to distinguish between different levels of analysis that are relevant to the labour market. At the simplest and most individualistic level, some models only consider the attitudes of individuals (e.g. their job satisfaction) and ignore details of the job itself or the context of the job. At the other extreme, some models are concerned more with the macro-level context of jobs, such as the level of legal protection of workers provided by the State, types of welfare systems that reduce the costs of job loss, and the economic conditions that account for the risk of job loss and unemployment. Such approaches that preclude operationalisation at the individual worker or the job level have further consequences. Some interesting issues, such as gender gaps in job quality and the relative quality of employment of migrants, cannot be addressed straightforwardly. Finally, some approaches mix up characteristics of individual workers, jobs themselves, the regulatory environment and the labour market as a whole.

The most extreme case of methodology that mixes up different levels of analysis is the ILO's 'decent work' approach. Some aspects of decent work are aimed at the individual worker (e.g. child labour and forced labour), some at the work environment (e.g. health and safety) and some at the aggregate level (e.g. social protection). The ILO's 'Country Profiles', which analyse decent work, look at almost every imaginable employment-related variable. This is not only conceptually confusing, but also makes international comparison impossible as very few countries have information on such a broad range of variables, while ranking countries becomes too cumbersome.

To overcome these difficulties and limitations we propose to identify clearly relevant levels of analysis for comparative job-quality research. Conditions of work and employment are embedded in, and shaped by, institutional

arrangements and the social environment (Bosch *et al.* 2007; Bosch *et al.*, 2009). The outcomes will vary depending on not only the political and historical processes, the specialisation of countries or the macro-economic policy, but also the interactions between various rules and institutions. Such complexity prompted the development of various typologies (e.g. varieties of capitalism, welfare state regimes) to facilitate comparative analysis of social models. To allow for comparative analysis of job quality, we position jobs in the wider societal system (including the legal framework, welfare policy and structural features of the labour market), yet draw a line between the context in which a job is performed and the attributes of that job.

Different levels of job-quality analysis can be better understood and distinguished by using the metaphor of a vehicle for the quality of a job. For cars to be useful objects, they do not just need to be of good intrinsic quality (i.e. safe, comfortable and reliable); they also need to have good motorists, good roads, good services and be driven in a well-regulated setting. But if you ask somebody what constitutes a good car, it is unlikely that they would reply 'a qualified driver, comfortable seats, a powerful motor, safe roads and traffic laws that are complied with'. However, this is precisely what many methodologies measuring job quality have done. In what follows (see also Table 9.1), we discuss each level of analysis that applies to the labour market and, for clarity and illustrative purposes, draw a parallel with the car metaphor.

Workers (motorists)

In some measures of job quality much attention is paid to workers rather than jobs. This is manifest in two ways. The first issue pertains to the definition of workers and the conditions under which they are integrated into the labour market. Some people should not be working at all, such as young children or people forced to work against their will. The eradication of child and slave labour has been a priority for international development organisations such as the ILO. They are also quite correctly concerned about discrimination and segmentation in labour markets, which can exclude groups from jobs by virtue of their age, gender, sexual orientation or ethnic group. However, differentiation in employment terms and conditions not related to individual productivity is influenced by country-specific employment regimes, with their rules, institutions and employers' strategies (Rubery, 1978; 2007). This further complicates inclusion of worker characteristics in the evaluation of the quality of jobs.

Secondly, we might also be interested in workers' human capital, such as educational attainment, or their internal mental states, such as happiness

or job satisfaction. However, from the perspective of our analytical framework, these dimensions should be considered as an important but distinct set of factors that impinge on labour market outcomes. This is particularly relevant from a policy perspective, as a focus on the characteristics of workers rather than jobs has been used to push for supply-side actions and policies (e.g. promotion of employability) instead of addressing challenges of poor-quality jobs.

Jobs (vehicles)

Vehicles are at the heart of understanding a transport system, in the same way that jobs are at the core of our job-quality model. However, note that we are not interested in what the motorists think of the car. They might think that a car is of a high quality for sentimental reasons, or because of limited knowledge of alternatives. Thus the role of a job-quality measure is to ascertain the true or objective quality of a job, just as a mechanic or vehicle tester evaluates a car, bringing their expert knowledge to the judgement. However, as discussed in the section 'Towards a framework for the measurement of job quality: methodological considerations', this metaphor is complicated by the fact that the most feasible way we have to measure job quality is usually through self-report of the job holder, and of course self-report is subject to bias. However, the important thing is to ask about 'objective' job features, such as the ergonomic and ambient features of the working environment, not about how satisfied the job holder is with these elements. We might expect some correlation between the quality of a job and the job satisfaction of the holder, insofar as adaptive preferences or differences in expectations would allow, but ontologically they are distinct.

Legal framework (traffic laws)

In the same way that road traffic needs to be policed to operate efficiently and safely, the quality of employment is dependent on the national legal framework. Therefore, a comprehensive model of quality of employment needs to take account of legislation such as employment protection legislation (EPL), laws against gender and racial discrimination in hiring, and health and safety protection. National legal systems can achieve the same ends by very different means, thus it is inherently complex to make quantitative comparisons between legal systems. Nevertheless, indices of labour market legislation have been created for this purpose and are used in debates on the importance or otherwise of EPL in creating efficient and fair labour markets (for a critique,

see Rubery, 2011). Furthermore, without inspection and enforcement, labour market legislation is likely to be ineffectual. Thus the accessibility of legal redress to employees is also important. In some countries, the courts are the main enforcers of legislation; in others, enforcement might be carried out by trade unions or factory inspectors.

Welfare policy (road traffic safety)

With a traffic system, accidents will happen from time to time and systems are needed to minimise the damage, such as crash barriers and ambulances. The same is true of employment: when employees lose their jobs they need to be assisted in times of unemployment to give them an income that at least partially substitutes their lost wages. When they retire, they need a pension. Many countries operate active labour market policies to assist employees in getting back into work through mentoring and training. Some employees will also need welfare policies to help them retain jobs, such as parents of young children needing childcare provision to remain in work. In addition, welfare policies can be used to support low-income earners through such mechanisms as minimum wage-setting or earned income tax credits, and affordable childcare subsidised by the state can assist individuals and families through the life cycle. Yet the state is only one source of support; nuclear and extended families are more often providers rather than recipients of welfare and social provision (see House and Kahn, 1985).

Structural features of the labour market (roads)

In the same way that cars need roads to operate usefully and avoid traffic congestion and gridlock, we can situate jobs in the context of the supply and demand in a labour market through measures such as the rates of unemployment and participation rate and the pattern of job vacancies. Without the dynamic systems to generate continuously and allocate jobs, whole segments of the population can be excluded from access to good-quality jobs, or from the labour market altogether. Industrial organisation and labour market composition can impact the career structures of individuals, thus influencing access to good or bad jobs across the life course and according to fluctuations of the economy. The distribution of, and access to, good-quality jobs is crucial in describing the conditions of labour markets; this does not, however, affect the evaluation of certain features of jobs. A well-paid, secure job in a safe environment and without long or unsocial hours can be assessed positively irrespective of the wider socio-economic structure in which it is performed.

Table 9.1 Model for the measurement of job quality

Levels of analysis	Examples
Workers	Age, child labour, forced labour, gender, sexual orientation, ethnic origin, level of education
Jobs	Health and safety features, ergonomic and ambient features of the work environment, accident rates, employment contract, job security, autonomy, working hours, work intensity, adequate and fair remuneration
Legal framework	Right to unionisation, EPL, anti-discrimination legislation, equal opportunity legislation
Welfare policy	Pensions, unemployment and health insurance, family policies, active labour market policies
Structural features of the labour market	Unemployment and participation rates, transition rates between labour market statuses or employment contracts, vacancy rates, macroeconomic environment, efficient hiring mechanisms

The model sketched above and illustrated by drawing parallels between the labour market and a transport system, introduces a much-needed conceptual clarity to the debate about job quality and its measurement. By distinguishing a job from its holder and from a wider environment in which it is performed, including labour market policies, social provision and structural factors, we can arrive at a more focused study object. This way we can arrive at an indicator, or a concise set of indicators, that overcomes the difficulty of quantifying the contribution of a certain job to wider societal goals of equality, freedom and development.

Starting with the ‘vehicle’ or ‘car’ level of analysis and ignoring the other levels of analysis (motorists, roads and so on) has several clear advantages. Firstly, it is simpler – and once the analysis has been carried out adequately at that level, then other levels of analysis can be added, such as the welfare state and legal regulation of labour markets. Secondly, at this level of analysis, any groups can be compared, such as men and women or indigenous and migrant workers, whether locally, regionally or nationally. Thirdly, to analyse labour markets at this level requires only one type of data, easily collected by surveys of employees, making international comparisons relatively straightforward.

Like all metaphors, this model has its limitations. One shortcoming is that it treats the employee (or ‘motorist’) in a completely individualistic way, whereas, in reality, they are embedded within a context of a family and a community.

One could add the family as passengers in the car, but that might be pushing the metaphor too far! The important point is that, as the OECD's (2011) report emphasises, most aspects of job quality have direct implications for the family of the worker. For instance, if the worker has economic dependants, their freedom from poverty also depends on the income from the job, and their security and ability to plan for their future depends upon the worker's job security and prospects. But the most obvious way in which the job affects the quality of family life is through work–life balance, which becomes more difficult to achieve for low-quality jobs, for instance those involving unsocial and irregular hours or with little job security (Lyonette and Clark, 2009). And, as Giele (1996) points out, the relationship between employment and family is complex and contested, with the employer also benefiting from the support given to the employee by the family. A similar point could be made for the worker's community (Kamerade, 2009).

Another complicating factor for analysing job quality is where one person holds two jobs – typically one with a regular schedule of hours and the other non-standard hours, for instance evenings or a zero-hours contract (see Dunifon *et al.*, 2013). This emphasises the point that we need to be conceptually clear in the distinction between the motorist and the vehicle they are driving at that point in time.

Conclusions

This chapter has considered the challenges in conceptualisation and measurement of job quality in comparative analysis. Firstly, we considered the confusions that abound around how we measure job quality, the terms *subjective*, *objective* and *self-report*, and quality from whose perspective. Secondly, we examined how different levels of measurement in schemes of job quality, both academic and institutional, have been mixed together and we use the metaphor of cars, drivers and roads to clarify this confusion. We draw parallels with the Big Five personality scheme to show how the measurement of personality takes a long time to achieve consensus and conceptual clarity but, once this is achieved, it becomes feasible to include it in large surveys which facilitate progress and impact.

The review of academic research in this field is revealing. When little internationally comparable micro-level data in Europe existed, most research was single-firm or single-country focused. This limited the scope for conceptual progress in defining key and universal elements of job quality and thus no internationally relevant indicators of job quality were established at that time. This

situation changed dramatically in Europe when large-scale data-sets were made available, such as the EWCS, the European Social Survey and the European Labour Force Survey. Starting with the standardisation of various labour force surveys in the EU member states, there followed several initiatives that provided rich and dynamic data sources for researchers to explore ideas and test theories about labour markets. These data sets not only facilitate statistical comparisons of national labour markets, but they also provide a fertile environment for theoretical developments in the understanding of the drivers of job quality.

In this respect, the Five-Factor model for measuring personality provides some important lessons. There are two important steps that make this such an effective model: the decision of what to measure, and then how to measure it. In this chapter, we argue that the project of the measurement of job quality faltered at the first hurdle, as there was conceptual confusion over what to measure, spanning micro- and macroeconomic variables, demographic variables and attitudinal variables (including job satisfaction). As we argue here, this complexity can be dealt with by clearly focusing on the job as a unit of analysis. Then, the development of universally applicable measures with good reliability and validity can follow, focusing on asking incumbents about specific features of their jobs.

Thus we argue that measurement development with solid empirical basis is key in the process of building the conceptual and methodological agreement. What is needed is availability of comparable cross-national data and conceptual clarity in defining the study object and setting boundaries as to what job quality is and what it is not.

Only with advances on these two fronts can we anticipate the attention to the improvement of people's working lives that could parallel the attention that the HDI directed towards human development. This, together with an openness to international comparisons, can create fertile grounds for the exchange and dialogue between research on job quality and evidence-based public policy.

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