

EMPLOY State-of-the-art Report

The Quality of Job Tasks

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The quality of job tasks with respect to task discretion, intrinsic job interest and work pressure have been repeatedly confirmed by research in different countries as critical for work motivation and job satisfaction (Caplan et al. 1980; French et al. 1982; Johnson and Johansson 1991; Warr 1987). They were the job characteristics that formed the central focus of the ‘quality of working life’ movement from the 1960s.

The long-term trends in job control and job interest, and their determinants, have been the subject of sustained debate in economic sociology. For many decades there were strongly contrasting perspectives in the literature about the long-term perspectives of change with respect to task discretion and job variety. The first, premised on a trend of skill upgrading, predicted that the quality of job tasks was likely to improve over time (Blauner 1964; Piore and Sabel 1984; Zuboff 1988). The second, premised on a trend to deskilling, predicted that the quality of job tasks would deteriorate, with tighter control over work performance and more fragmented work tasks (Braverman 1974; Friedmann 1946; Wright and Singelmann 1982). As has been seen in the last section, there has been an increasing convergence of research results from different countries that upskilling has been the predominant process. Hence in the light of the existing literature the principal expectation would be that individual job control and job interest would have risen in the 1990s.

There has been less disagreement about the trends with respect to work pressure. Proponents of both upskilling and deskilling theses have argued that work pressure is rising with corresponding increases in work strain. For those from the upskilling perspective, the need to learn new skills, the increased complexity of jobs

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and increased responsibility accentuate the pressure of work (Capelli et al. 1997; Gallie et al. 1998). For those from the deskilling perspective, simplified tasks and tighter control are designed to allow management to speed up work pace (Braverman 1974; Crompton and Jones 1984). The major expectation then is that there has been a sustained growth of work pressure.

Task Discretion

Task Discretion and Work Quality

Task discretion has long been acknowledged by analysts from very diverse theoretical perspectives as critical for the individual's capacity for self-realisation in work, for their personal satisfaction with working life, for their work motivation and for their commitment to or alienation from their employer. It is generally regarded as one of the most central, if not the most central, factors for the wider quality of working life.

The arguments for its importance for employees have appealed to quite different underlying explanations. The capacity for self-realisation in work can be seen as a natural outcome of processes of childhood and adolescent socialization that encourage people towards autonomy in decision-making (Argyris 1964). It can also be seen as reinforced by the wider normative structure of liberal-democratic Western societies which encourage people to see themselves as equal citizens in the diverse social structural contexts in which they live out their lives (Marshall 1964), a view that is likely to encourage a belief that employees at work should actively participate rather than be passively subject to managerial authority. The neo-Marxian argument sees individual control over the work task as an essential condition for self-realisation, since it provides the conditions for creativity and self-development (Braverman 1974). Finally, more recently, social psychologists have stressed the consequences of task discretion or 'decision latitude' for psychological and physical health. In particular, the 'psychosocial' school has argued that, because of its capacity to mediate work pressure, it reduces risks of psychological stress, high blood pressure and even cardiovascular disease (Johnson and Johansson 1991; Karesek and Theorell 1990; Theorell 1998; Theorell and Karesek 1996).

There is much less consensus however in predictions of change in task discretion. Theories of trends have been generally closely tied to theories of skill development. There is a general consensus in the literature that those with higher

levels of skill tend to have greater initiative in the way they carry out their jobs compared to those lower in the skill hierarchy. By the same token, changes in task discretion are thought to reflect to a considerable extent trends in the development of skills. For those with a generally optimistic view of the evolution of skills, in which the principal scenario is one of steadily rising skills in an ever more complex and technologically sophisticated economy, the expectation is that job quality also would improve significantly over time with greater say for individual employees over the work process. Very similar assumptions informed more recent theories of the emergence of a new knowledge-based society. Conversely, neo-Marxian theorists, who have a pessimistic view on skill evolution, envisage a long term decline in job control for those in lower skilled work resulting in growing polarization in job quality.

There have been similar differences between those who have focused on the significance of sectoral change for the nature of work, in particular the growth of the service sector. For some, service sector work can be seen as offering a release from the constraints of manufacturing industry, in particular the mechanical pacing of work embodied in the Fordian assembly line. Instead work becomes primarily customer-orientated and as such has to allow greater discretion to employees to handle the wide range and low predictability of individual demands and personalities. Others have pointed to the high relative labour costs of service production, the seasonal nature of much work and the dispersion of service workers across a large number of relatively small worksites, to draw a picture of a highly vulnerable sector of the workforce. Such arguments particularly point to the poor work conditions that are thought to prevail in lower skilled private services such as retail and hotels.

Scenarios of change in managerial philosophies of workforce control as a result of product market change also have important implications for task discretion. An optimistic perspective about trends in task discretion has been reinforced by theories of the growth of new forms of managerial philosophy that emphasise the need to replace constraint with commitment, in order to meet the higher demands that modern competitive economies place on product quality (Walton 1985a; Walton 1985b). Increased task discretion is introduced as part of a broader bundle of measures designed to enhance employee job involvement and organizational commitment. However, counter to this, has been the view that employers are increasingly adopting strategies that involve dividing the workforce into 'core' and 'periphery' sectors with very different work conditions, in order to handle the greater volatility of market

conditions. The division between core and periphery is seen to be crystallised in the distinction between those with standard and those with non-standard contracts. Those in the core have good training opportunities and high levels of job protection, while those in the periphery have few opportunities for skill development and low job security. By extension differences in contract status would be likely to involve differences in the responsibility and initiative that employers would allow to different employees.

Problems of Conceptualisation and Measurement

Task discretion (or ‘autonomy’ or ‘decision latitude’ in some of the literature) is very vaguely conceptualised and quite different indicators are used in different studies. One issue is which aspects of the job should be the focus of attention. Some indicators that have been used are rather broad in formulation so that it is not clear either what aspects of the work they refer to or the form of employee involvement; presumably they may mean quite different things to different respondents. This is the case for instance with those who have used the indicators drawn from the US Quality of Working Life Surveys, which ask how true it is that people ‘have a say over what happens at work’ or ‘take part in making decisions that affect their work’ (Karesek and Theorell 1990; Quinn and Staines 1979) .

As Kiggundu (1983) and Breugh (1985) pointed out some time ago the notion of autonomy has been particularly slippery, referring not only to ‘discretion’ but also the notion of working ‘independently’. This has led to a lack of clarity in some of the most commonly used measures, for instance those derived from the ‘job diagnostic survey’ developed by Hackman and Oldham (1975)². Among those who have focused on discretion, there have been differences in the aspects of work that have been of central concern. Some research has focused more specifically on the ability to exercise initiative in carrying out the job itself, whether with respect to effort, planning of the work or quality standards (Gallie et al. 1998); others, for instance Jonsson (1998), have been more concerned with the extent to which the individual is tied to the workplace (ie punctuality, ability to leave for short periods on private

² Hackman and Oldham define autonomy as ‘the degree to which the job provides substantial freedom, independence and discretion to the individual in scheduling the work and in determining the procedures to be used in carrying it out’ (Hackman and Oldham 1975). This notably differed from another very influential early study (Turner and Lawrence 1965), where autonomy is defined as ‘the amount of discretion the worker is expected to exercise in carrying out assigned work activities’.

errands, receive private visits, choose hours of work). There is also much variation in response sets used, in particular whether people are obliged to make dichotomous choices, as is the case with the measures adopted by Marshall et al (1988), or are given more nuanced response sets. The view taken here is that good indicators should be reasonably precise in reference and provide several levels of response.

Evidence on Trends

The main theories of job task quality have been universalistic in their assumptions. The key processes that underlie changes in skill and job quality – whether these be market competition or technological change - are held to evolve in broadly similar ways across the advanced societies. But there has been a growing interest in the implications for employee discretion of differences between societies in forms of production organization, partly stimulated by the literature on ‘varieties of capitalism’ (Hall and Soskice 2001; Soskice 1999).

There is trend data from national studies, with large samples, for Britain, France, Germany and Sweden. For Britain, the best data in terms of the quality of both indicators and surveys are those from three surveys : the Employment in Britain Survey, carried out in 1992 (Gallie et al. 1998); and the 1997 and 2001 Skills Surveys (Ashton et al. 1999; Felstead et al. 2002). A measure of task discretion was derived from four questions asking people to assess how much personal influence they thought they had over specific aspects of their work: how hard they worked, deciding what tasks they were to do, how the task was done, and the quality standards to which they worked.

The British data revealed substantial differences in the discretion that employees could exercise over different aspects of their work (Gallie et al. 2004). At each of the dates a high degree of employee discretion was most frequently reported with respect to work effort and quality standards. Employee influence was substantially lower over decisions about what tasks were to be done and especially over decisions about how to do the task.

Examining the trend over time, there has been not an increase but a reduction in employee task discretion over the period. Between 1992 and 2001 there was a decline in employees’ perception of their influence over each of the specific aspects of the work task. For instance, the proportion reporting that they had a great deal of influence over how hard they worked fell from 71% in 1992 to 64% in 1997 to only

51% in 2001. Those with a great deal of influence over choice of task fell from 42% to 31%. The decline was equally sharp with respect to decisions about how to do the task and the quality of work. The overall summary index score for task discretion declined from 2.43 in 1992 to 2.25 in 1997 to 2.18 in 2001. The pattern was virtually identical for men and women.

French evidence on task discretion is drawn from successive *Enquetes Conditions de travail* and from the *Enquete Techniques et organisation du travail*. These provide a time span of just over a decade – from 1987 to 1998. Changes over time have been analysed by Serge Paugam (Paugam 2000). In sharp contrast to the British data, Paugam concludes that task discretion rose between the late 1980s and the late 1990s. He uses three main indicators of ‘autonomy’; whether people say they have to ‘strictly carry out orders’; whether most of the time they personally sort out problems in their work and whether they are free to make arrangements directly with colleagues to exchange work. The first two of these indicators provide the strongest indication of change over the period. However, it is notable that most of this occurred over the period 1987 to 1993. There was little discernible change between 1993 and 1998. Further, although not labelled as indicators of autonomy, there are other indicators that seem to qualify the picture. For instance the proportion of people whose pace of work was imposed by permanent hierarchical control increased over the same period, and similarly people were more likely to have to respect quality norms in carrying out their work.

For Germany, there is data over time from the Surveys on Educational and Vocational Attainment and Careers (BIBB/IAB). For the former West Germany there are comparable indicators for 1979, 1986/6, 1991/92 and 1998/99. For combined Germany, it is possible to compare from 1991/2 to 1998/99. The main indicator of job control that is available on a repeated basis at different time points is a question asking people whether the performance of their work is ‘highly regulated in every detail’. This shows that in the former West Germany, there was little change in the proportion with low discretion between the late 1970s and the mid-1980s (although there was a marked decline in those with very high discretion); task discretion dropped further between the mid-1980s and the early 1990s, but rose again across the 1990s returning to the level of the mid-1980s. The all-German figures for the 1990s show a similar (though less marked trend for increased task discretion). The long term picture is of little change over the two decades in the proportion with low discretion

and some decline in the proportion with high discretion, but the trend over the 1990s was for some increase in discretion³.

For Sweden, we have three sources for trends: the Level of Living Survey, data from Statistics Sweden, and the Work Environment Survey. They differ in their coverage. The former provides a longer-term data series from 1968 to 2001, while the Work Environment Survey gives evidence for the more recent period.

Jonsson's (1998) analysis of the Level of Living Surveys, using indicators of autonomy in terms of 'ability to take time away from the job' concludes that: 'Lack of autonomy is a problem which became less severe for men and women in most social classes. The exception is female manual workers for whom no change at all is detectable. Overall class differences in autonomy did not change very much for men during the time-period under study. For women there was some divergence because females in middle-class positions improved their positions most. Class differences were in fact very small among female employees in 1968 (Jonsson, 1988: 615)

It is also possible to make relatively long-term comparisons of those who thought they had no influence on the planning of their own work and on their pace of work, based on data from Statistics Sweden (Statistics Sweden 1998; Statistics Sweden 2002). This provides evidence spanning the period 1975 to 1999. It reveals a decline over the overall period, both for employees as a whole and for blue-collar and white-collar workers separately, in the proportion that had no influence on the planning of their work. However, it is notable that the increase in employee discretion reached its peak in 1996/7, after which there is evidence of some decline in control, although staying well above the levels of the mid-1980s. With respect to influence on work pace, there was a small overall decline from 11.3% with no influence in 1975 to 7.7% in 1996/7, but the major part of the change took place between 1975 and 1986/7. Again, in the second half of the 1990s, the evidence points to some decline in discretion. The same holds for the separate analysis for blue-collar workers. Among white-collar workers a small increase in influence between 1975 and the mid-1980s, also was reversed in the subsequent decade. Moreover, by 1999 a higher proportion of white-collar workers reported no influence than at the earliest reference date in 1975.

³ Self-reported evidence in the 1998/99 survey suggests an increase over the previous two years in the proportion who thought they had the possibility 'to organise/ arrange' their own work': 20% thought this had increased, 7% that it had decreased and 66% that there had been no change (7% inapplicable).

Overall, there is little evidence of a general increase in task discretion from the mid-1990s, as would be expected from the trend of rising skill levels. On the basis of the strongest (national) data sets, there is evidence of a marked decline in Britain, a small decline in Sweden, little change in France and an increase in Germany.

Intrinsic Job Interest

Intrinsic job interest, often proxied by measures of the perceived variety, monotony or repetitiveness of a job, has usually been seen as integrally linked to skill trends. Rising skill has been thought to enhance job variety, while declining skill undercuts it and creates monotony.

The core focus of much of the literature has been with the deleterious effects of assembly line or machine controlled production for job interest (Beynon 1973; Durand 1978; Friedmann 1946; Linhart 1978). The assembly line was seen as the culmination of Taylorist and Fordist methods of production. At least until the 1980s it was widely viewed as prototypical of the future direction of work. Research evidence on the frequency of machine controlled jobs suggests that analysts may have been over-preoccupied with a particular sector of production that was not necessarily typical of the wider pattern. French data covering the period 1984 to 1998 show that the proportion of people whose work effort was subject to the type of assembly line or machine-controlled conditions that were central to so much of the literature was actually very small, involving less than 10% of employees (Paugam 2000). This is very similar to the picture that emerged from British research (Gallie et al. 1998). However, whereas in Britain the proportion was very stable from the mid-1980s to 1992 (7% and 6%) respectively, in France there was some evidence that machine control was increasing (from 7% in 1984 to 9% in 1991 and 10% in 1998).

Research in the 1990s casts some doubt on the assumption that there would be a tendency for job interest to increase. For instance, Michael Handel's analysis of the US General Social Survey found little change between 1989 and 1998 in the proportion of American employees who found their job interesting. There was a small but non-significant decline in the proportion agreeing their work was interesting.

Jonsson (1998), analysing the Swedish Level of Living Survey data found that a trend to upskilling was not accompanied by any sharp decline in job monotony. Whereas 18.4% of men reported that their work was monotonous in 1968, the

proportion was still 18.0% in 1991. For women, there was a somewhat greater decline in monotonous work from 22.5% in 1968 to 18.3% in 1991. The situation of those in unskilled working class jobs, who were the most likely to experience monotonous work, had become worse between 1974 and 1991. The data for the most recent wave of the Level of Living Survey suggests that even the small overall improvement in job monotony reported by Jonsson had disappeared by the turn of the century. The overall proportion in monotonous jobs had risen to 19.5%. The proportion among men was even higher than in 1968 (20.3%), with the proportion among women (18.6%) virtually the same as in 1991. The deterioration in the 1990s in intrinsic job interest was evident for both blue-collar and white-collar workers.

In France, the study of trends in job interest has been a central component of the *Enquetes sur les conditions de travail* (Dares 1999; Dussert et al. 1999; Paugam 2000). These surveys show an increase between 1984 and 1998 in the proportion of employees who find their work repetitive (from 20% to 29%), although no change in those subject to the most most repetitive work cycles (in which each set of movements lasts less than a minute).

The German BIBB/IAB Survey shows that the proportion of West Germans who 'had to perform the same task over and over again' either 'practically always' or 'often' remained virtually unchanged between 1979 and 1998/9 (44% and 45%), while there was some decline (37% to 32%) in those who were relatively free of repetitive work ('practically never' or 'sometimes'). Finally, British national data suggest little change between 1997 and 2001 in the proportion of people who reported that their work always or often involved 'carrying out short, repetitive tasks'. In 1997 this was the case for 45%, in 2001 for 46% (Skills Surveys 1997 and 2001).

Work Pressure

The view that there has been a marked tendency towards the intensification of work was one of the principal themes of neo-Marxist critiques of Scientific Management and 'Fordism' (Braverman 1974; Friedmann 1946). The reduction of the skill content of work tasks and an ever finer division of labour, it was argued, were designed to allow an intensification of work through more precise measurement of task activities, a tighter linking of financial incentives to output and a reduction in the capacity of resistance of the workforce due to easier substitutability. This was reinforced by the

implementation of assembly line technologies that made possible the machine pacing of work and mechanical control of work rhythms. A wide range of studies (using diverse methodologies) pointed to the enhanced pressure that characterised assembly line work (Beynon 1973; Durand 1978; Friedmann 1946; Linhart 1978).

However, especially from the mid-1980s, the focus of attention shifted to the possibility that new production technologies (in particular related to the rapid spread of computerisation) and the increased emphasis on quality in both production and service delivery placed a higher premium on skill and team work thereby reversing the historic process of an ever greater division of labour⁴. An early version of this argument was advanced by Robert Blauner (1964). For studies in the 1980s and early 1990s that had considerable influence in the 1980s, see especially (de Terssac 1992; Kern and Schumann 1987; Zuboff 1988).

If deskilling had been a crucial factor accelerating the intensification of work, it might have been expected that a reversal of these tendencies would have alleviated work pressures and reduced levels of work stress. Certainly, the evidence pointed to the fact that these new developments increased the satisfaction of employees with their work and their involvement in their work task. However, a number of analyses suggested that this was at a cost, leading to higher levels of work pressure and work strain (Capelli et al. 1997; Gallie et al. 1998).

In addition to this, a number of studies in the late 1990s pointed to the increased pace of technological change as an important factor underlying increased work intensity and psychological strain (Green 2006; Green and McIntosh 2001). In particular, this was related to the spread of computer-based technologies. While these may have contributed to the process of upskilling, at the same time they provided ways of increasing the efficiency of work flows, thereby removing much of the 'idle' time associated with traditional manufacturing technologies. At the same time, at least in certain types of work, they allowed for more systematic electronic monitoring of performance, with the potential for greater continuity and precision than traditional forms of performance control.

Finally, it could be argued that employers' capacity to increase the intensity of work increased sharply in many European countries in the 1990s. This was for two

⁴ Other researchers, however, remained deeply sceptical about the supposed decline of Taylorism, see for instance (Boyer and Durand 1998)

reasons, both linked to the issue of security. The first was the decline of trade union strength and the shift from collective representation to forms of more direct participation (Gallie et al. 1998; Green and McIntosh 2001). In this respect, however, the severity of the decline of organised labour varied considerably between countries, with the implication that there could be substantial differences in trends between one country and another. The second was the widely assumed decrease in job security resulting partly from periods of relatively high unemployment and partly from the growth of non-standard contracts, which provided lower levels of employment protection. Arguably employees who were both less protected by collective organisation and more insecure in terms of their labour market position would be in a much weaker position to offer resistance to management drives to 'rationalise' workplace organisation and increase work effort.

Much of the evidence for developments in work intensity until the end of the 1980s had been drawn from individual case studies. It was not until the 1990s that the first representative survey data became available that allowed for comparison over time between countries. A significant development in this respect was the European Survey on Work Conditions, which was conducted initially in 1991 and then repeated in 1996 and 2000. The first major analysis of these surveys for the specific issue of work pressure was carried out by Green and McIntosh (2001), focusing on the period 1991 to 1996. They concluded that there was clear evidence of an increase in work intensity in the early 1990s. They found major differences between countries, with the increase in work pressure particularly marked in Great Britain, but significantly less severe in Denmark, Germany, Greece and Spain. Further they found confirmation for the importance of both computer technologies and trade union strength as determinants of the level of work pressure.

British, French and Swedish national studies confirm the view that over at least part of the 1990s there was an increase in work pressure. British studies give us a comparison between 1992 and 2001. Green (2006) has shown that these confirm that there was a substantial rise in 'required effort' over the period 1992 to 1997, with workers operating to high speeds and to tight deadlines. However, there were no further increases in work effort over the 1997 to 2001 period. This was accompanied by an increase in the number of factors inducing hard work, in particular a growing importance of pressure from colleagues.

The French *Enquetes sur les conditions de travail* also point to a rise work pressures. There was a small rise (23% to 25%) between 1991 and 1998 in the proportion of people who reported that they could not carry out their work correctly because of lack of time. There was a rather more striking increase between 1984 and 1998 (from 16% to 32%) in the proportion who said that they could not take their eyes of their work (Paugam 2000).

In Germany, BIBB/IAB Surveys show that the proportion of West German employees reporting that they were under strong pressure to perform or meet deadlines ‘practically always’ or ‘very often’ rose sharply from 41% in 1979 to 49% in 1989/9 and there was a corresponding decline in those who were ‘rarely’ or ‘practically never’ under such pressures. It is notable however that this rise in work pressure was primarily over the period 1979 to 1991/2, and that work pressure declined in the 1990s (although remaining higher than in the mid-1980s).

Evidence from the Swedish Work Environment Surveys (Statistics Sweden 1998; Statistics Sweden 2002) for the period 1989 to 2001 suggests that there may have been some increase in work pressure between the early and late 1990s, although the trend then reversed between 1999 and 2001. There are three indicators that are available for the full period: ‘has too much work to do’, ‘tasks are too difficult’ and ‘Work is mentally stressful’. The first shows the level of work pressure higher in 2001 than in had been in 1989, whereas the other two show no change over the period. People were more likely to say that they had too much to do, but there had been no change in the proportions who felt their tasks were too difficult or that work was mentally stressful.

A central focus of Swedish research over the 1980s and 1990s was with the way in which task discretion might mediate the implications of work pressure for health. There was a substantial convergence on the view that the jobs that posed the greatest threat both for self-reported stress and for vulnerability to cardiac illness were those that combined high levels of work pressure with low levels of job control (Johnson and Johansson 1991; Karesek and Theorell 1990; Theorell 1998; Theorell and Karesek 1996). Laboratory experiments showed that such work conditions also affected the change in stress hormones in ways that were consistent with this argument (Frankenhaeuser 1991). There was some indication that the implications of the high demand/low control syndrome were stronger for manual than for non-manual employees. The Swedish level of living survey permits the construction of a ‘job

strain' score which is based upon the mental demands of the job combined with small decision latitude. This shows a rise in those in high job strain jobs from 1981 to 2000 (from 12.8% of all employees to 21.9%). The pattern was broadly similar for men and women and for blue-collar and white-collar workers.

Finally, Eurobarometer of 1996 and 2001 provide a number of indicators of work pressure. This data suggests that earlier trends to higher work pressure levelled off in the later 1990s (Gallie 2005). There was no evidence that work pressure increased between 1996 and 2001. In all countries other than Germany (where work pressure declined) there was no statistically significant change over the period. Reported levels of work pressure did however vary substantially between countries, with Britain and Sweden having exceptionally high levels of pressure and the Southern European countries (with the exception of Greece) and Netherlands and Belgium having distinctively low levels.

Analysis of the factors affecting work pressure in the European data confirmed that higher skill levels, within career skill upgrading and greater job control were strongly associated with higher levels of work pressure. Similarly the evidence was consistent with the view that those who worked with new technologies experienced greater pressure. However, the impact of such factors was offset by a decline over the period by a general decline in working hours.

Conclusions

The evidence on skill trends generally points to an increase in skill levels over time. Previous research indicated that this would be associated with higher levels of task discretion for employees and greater job interest but possibly also with greater work pressure. However, none of these predictions appear to be correct. There is no consistent evidence (with the exception of Germany) that task discretion increased in the second half of the 1990s and indeed it may have declined. Job interest either remained unchanged or decreased. Work pressure increased during the early and mid 1990s, albeit this trend levelled off in the second half of the decade. In short, taking the 1990s as a whole, rising skills have not been associated with the anticipated improvements in what have been frequently seen as the key aspects of task quality.

The existing theoretical literature offers us little guidance as to why it should be the case that increasing skills have not been accompanied by any overall improvement

in the quality of tasks. An important avenue to explore is how far it may be accounted for by rising expectations. The evidence for job quality is based on employee reports and these are likely to be affected both by the salience of specific issues and by the reference criteria. If job control, for instance, comes to be regarded as more important, then people may be more sensitive to its absence, leading to an increase of reports of low control. One factor that might drive such shifts in issue importance is the rise in levels of general education described in the first section of the report. It also would be important to explore the implications of rising skill mismatch on perceptions of job quality. The increase in work pressure noted in many countries in the early and mid 1990s also may have been a factor contributing to the decline in task quality. Skill development may have been partly related to a concern by management to cut the numbers employed, with the result that it was accompanied by an intensification of work that undercut the expected improvement in work conditions. But such an explanation would be less satisfactory in accounting for more recent declines in task discretion, since the increase in work pressure appears to have levelled off in the later 1990s.

Analyses of job quality may also have been limited by their tendency to focus primarily on the intra-organizational environment – in particular the implications of managerial systems of performance control and of new types of technology. In so far as the wider environment has been considered, this has been largely in terms of some postulated general dynamics of capitalist or advanced industrial societies. There remains the possibility that job quality is affected by macro-structural factors of a different type. For instance, the key state and industrial actors have adopted rather different policies in different European countries with respect to work conditions and more systematic research is needed into whether this has led to different outcomes for instance in the prevalence of particular principles of job design (Gallie 2003). We also know very little about the implications of the economic environment on the experience of work, for instance in terms of the level of competitive pressure or the phase of the business cycle. It is plausible, for instance, that these types of factor might be as important as shifts in types of technology in accounting for changes in the level of work pressure in jobs.

In order to address such issues, good quality comparable data sets are required that provide measures at regular intervals. A review of the evidence currently available shows that there are several national data sets of high quality but that allow

little possibility of direct comparison. There are also a few poorer quality but comparable European data sets. In general, there has been remarkably little attempt to validate or standardise key measures. We are then very far from possessing the type of data resources that are needed for rigorous exploration of the determinants of the quality of working life.

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