

## CONTINUING PROFESSIONAL EDUCATION

# A glossary for the social epidemiology of work organisation: Part 1, Terms from social psychology

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Work is the means by which most human beings provide for their daily sustenance. Although many theorists suggest that work occupies a central place in human life, more recently some have questioned the centrality of work, arguing that we are now in a postindustrial, consumer-oriented society where consumption has replaced work as a source of health and disease in our societies.<sup>1 2</sup>

Nevertheless, even in wealthy countries most adults still spend most of their waking hours engaged in work. People work in or out of their homes, with or without labour contracts, and in safe or hazardous working conditions. These and other features of work organisation have a great effect on workers' health.<sup>3</sup> Furthermore, work exists in a historical context, deeply influenced by several institutions and social relationships.

Concepts used in the epidemiology of work organisation have been drawn from diverse disciplines, as researchers have pragmatically adapted concepts from adjacent disciplines such as sociology or psychology.

Although this pragmatic approach has produced a strong body of empirical evidence, it has left us with concepts that are nearly impossible to integrate into a broad theoretical framework. Therefore, this glossary does not exist within any overarching theoretical framework. Instead, we have chosen to split the content into three parts, according to each term's origin in the social sciences. Terms appear under one of three headings: Social Psychology, the Sociology of Work and Organisations and the Sociology of Labour Markets.

Our criteria for selecting and including terms in the glossary include both objective and subjective components. Substantial effort has been devoted to refining terms that are often used in Medline references but which, nonetheless, remain ambiguous or undefined (see terms under Social Psychology). We have also tackled areas in need of conceptual clarity (see terms under the Sociology of Work and Organisations). Finally, we have looked at how language is being used to describe emerging new forms of work organisation (see terms under the Sociology of Labour Markets). Whenever possible, we have provided information on the origin of each term, its definition and, in a few specific cases, information on measurement issues.

We believe our glossary complements two others: firstly, Nancy Krieger's glossary of terms in social epidemiology and, secondly, a glossary by Mel Bartley and Jeanne Ferrie that defines terms in the areas of unemployment, job

insecurity and health (previously published in the *Journal of Epidemiology and Community Health*<sup>4 5</sup>) with concepts that are difficult to integrate into any overarching theoretical framework.

### PART 1: TERMS FROM SOCIAL PSYCHOLOGY

The discipline of social psychology looks at social behaviour and the psychological experiences of people in the work context.<sup>6</sup> The boundaries of this subdiscipline overlap with other social and behavioural sciences. Some view the discipline of social psychology of work as occupying a distinct substantive field of knowledge located between the sociology of work and work psychology. The "social psychology of work" area includes studying relationships and behaviour at work, both in groups and among individuals; it also explores social influence processes and conflict, work roles, the connections between work and individual expectations, and how these affect work motivation, attitudes and well-being.

#### Bullying

No consensus exists regarding this term, which has been defined in multiple ways. Bullying usually refers to workplace situations where someone is subjected to social isolation, where his or her work is devalued, or to other forms of physical and psychological intimidation. These include professional humiliation, teasing, pressure to produce and destabilisation such as changing tasks or "goal posts".<sup>7</sup> Although physical bullying is also possible, it is rarely reported.

Bullying at the workplace has been related to low job satisfaction levels, high levels of stress, anxiety and depression, sickness absence and intention to leave the job.<sup>8 9</sup> Some research suggests that bullying negatively affects not only the victims but also those who witness bullying incidents.<sup>10</sup>

#### Effort-reward imbalance

The model of effort-reward imbalance links chronic stressful experiences at work with adverse long-term health effects.<sup>11-13</sup> It also examines the individual's "fit" with the environment.

The model defines two different sources of effort: extrinsic (situational) effort, which is the individual's response to demands and obligations on the job, and intrinsic (personal) effort, which is the personal motivation of the worker to achieve or compete, to control the work situation, or to be approved or esteemed. Reward embraces

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financial rewards, esteem and occupational status control. In the model, a lack of reciprocity between costs and gains (ie high-effort or low-reward conditions) creates a state of emotional distress with special propensity to autonomic arousal and strain reactions.

The effort–reward imbalance model applies to a wide range of occupational settings, often to groups that suffer from a growing segmentation of the labour market or to those exposed to structural unemployment and rapid socioeconomic change. Effort–reward imbalance is common among low-status industrial workers, service occupations or professions, particularly those dealing with clients.

### Emotional labour

Learning to manage emotion is essential to forming a mature personality, and is part of all working relationships. The term emotional labour describes jobs that require workers to induce or suppress feelings to sustain the outward countenance that produces the proper state of mind in others.<sup>14</sup> For example, airline stewards are responsible for managing situations with customers to create a favourable experience for the customer.<sup>14</sup> Other human service jobs that require personal involvement with clients require workers to cede considerable control to patients or clients.

Not only has the number of jobs requiring emotional control increased markedly in recent years, but Hochschild<sup>14</sup> has also identified the growing extent to which emotion is actually engineered and managed in these jobs.

### Job control

This refers to employees' sense of control over their tasks and performance during the workday.<sup>15</sup> Job control is also called "decision latitude," which is defined as the combination of decision-making authority and the worker's opportunity to use and develop skills on the job. This concept is closely related to autonomy. The "job strain" model predicts that when high job demands are present with low job decision latitudes, there are negative physical health outcomes.

### Job discrimination

This term describes what happens when work-related decisions are based on ascribed characteristics, such as sex, age, race, ethnicity or social class, rather than on individual merit, qualifications or performance. Social epidemiological analyses of discrimination require conceptualising and operationalising diverse expressions of exposure, susceptibility and resistance to discrimination. Clearly, individuals and social groups can be subjected simultaneously to multiple—and interacting—types of discrimination.<sup>16</sup>

### Job strain

Karasek<sup>17</sup> developed the job strain concept and model, also known as the demand–control model. Job strain results "not from a single aspect of the work environment, but from the joint effects of the demands of a work situation and the range of decision-making freedom (discretion) available to the worker facing those demands. Job strain occurs when job demands are high and job decision latitude is low."<sup>17</sup>

People in high-strain jobs are at increased risk for negative health outcomes such as hypertension, heart disease, fatigue, anxiety, depression and illness.<sup>15 18</sup> More recently, a third major job characteristic—workplace social support—was added to Karasek's model. The combination of job strain and low social support has since been labelled "iso-strain" or "isolated high-strain" work.<sup>19</sup> Low social support has been associated with increased job strain to mortality risk ratios.<sup>20</sup>

### Job stress

Most definitions can be placed within two theoretical perspectives. The first considers job stress as an organism

response, following the tradition started by Cannon and Selye.<sup>21</sup> This is the most accepted and common conception of stress.<sup>22</sup> Within this perspective, job stress refers to "the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources, or needs of the worker."<sup>23</sup> Job stress may result in physical and mental illness, such as cardiovascular disease or depression. This concept is extremely broad, including not only "job strain" but also situations where there is a poor fit between workers' personalities or abilities and job requirements, where workers are confronted with role conflicts, where the amount or pace of work required exceeds the capacity of workers, or where the intensity or duration of work interferes with workers' family or personal lives.

The second perspective conceptualises stress as those features of the work environment that pose a threat to the individual's health and well-being.<sup>21 24</sup> The term "stressor" is an offspring of this second notion of stress.

### Person–environment fit

The "person–environment fit" model of occupational stress was developed at the University of Michigan in the early '70s.<sup>25 26</sup> The model states that stress develops when the work environment fails to match the motives of the person, or when the person's abilities fail to meet the job demands.<sup>27 28</sup> The model emphasises the "perceived" fit versus the "objective" fit. Research using this model has been critically examined,<sup>28</sup> and its predictive power seems lower when compared with the predictive strength of either the effort–reward or the demand–control model.<sup>29 30</sup>

### Psychological contract

Psychological contract, a term conceptualised by Cavanagh,<sup>31</sup> refers to the expectations and rules that constitute the basis for the continuing commitment of an employee to his or her employer. Psychological contract refers to the unwritten contract about the relationship between an employer and an employee. It includes form (ie the way of the exchange agreement between employer and employee), content (ie the beliefs of the individual about the terms and conditions of the exchange agreement) and process (ie the negotiation interplay between demands and offers of both the employee and the employer) of the employment relationship.<sup>32</sup>

### Psychological demands

Psychological demands are part of the demands in the demand–control model and part of the effort in the effort–reward imbalance model. Demands refer to the psychological stressors associated with accomplishing work, unexpected tasks and job-related personal conflict. Typical questions about psychological demands measure the pressure of output on the job: "Does your job require you to work very fast, hard, or to accomplish large amounts of work? Are you short of time?"<sup>17</sup> Over time the content of this concept has expanded: the core of the concept is the work load and the sense that one has to work hard and under time pressure. But the concept also includes stress induced by role conflicts and by the challenges of emotional labour.<sup>33</sup>

### Role conflict

This refers to conflict that occurs when individuals engage in incompatible multiple roles at the same time.<sup>34</sup> Role conflict can occur between roles within the same life area or between different areas (eg work and family roles). Role conflict often involves reciprocal processes. For example, work can interfere with family and family can interfere with work. Three main types of role conflict<sup>35</sup> are time-based conflict, strain-based conflict and behaviour-based conflict. Two hypotheses dominate the role conflict research field: (1) the scarcity hypothesis, which suggests that individuals' time and

physical and mental energy available are a finite resource and have to be distributed between the different roles; and (2) the enhancement hypothesis,<sup>36</sup> which suggests that the person's energy is expandable, so that multiple roles can provide additional sources of support and well-being. Research has shown that several outcomes—poor health, dissatisfaction and absenteeism—are affected by role conflict.

### Social support

This refers to help received from others with whom one has social relationships. For epidemiological analyses, several distinctions may be drawn about the sources of social support and the benefits derived. Firstly, social support might protect health by moderating the effects of work situations: integration into a work group might reduce feelings of alienation in a routine job; information sharing might facilitate problem solving and reduce stress on a time-pressed project. Secondly, support might moderate the health effects by increasing workers' capacity to adapt in the following ways: participating with others in leisure time activities may reduce feelings of stress; discussing problems with others might facilitate access to appropriate healthcare. Distinctions can also be drawn about the type of benefit—emotional, instrumental, appraisal, and informational—to be derived. Finally, distinctions can be made about the nature of social support relationships (ie are the ties close or intimate? do they exist between equals?).<sup>37</sup>

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## CONTINUING PROFESSIONAL EDUCATION

# A glossary for the social epidemiology of work organisation: part 2 Terms from the sociology of work and organisations

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This is the second part of a three-part glossary of terms from the social epidemiology of work organization. The first part presented terms related to the social psychology of work.<sup>1</sup> The third part will describe terms from the sociology of labour markets.<sup>2</sup> The concepts in this glossary have been drawn mainly from the sociology of organisations, business and management literatures. Most of the concepts deal with how work organisations are structured and the consequences such structures pose to the health of workers.

### Alienation

The term “alienation” is derived from the Marxian concept that work is central to the well-being of all people. When Marx perceived that, under the conditions of nascent capitalism, workers were being de-skilled and psychologically disinvested in their work, he described them as being alienated.<sup>3</sup>

In the narrowest sense, the term describes the relationship between the worker and her work. However, the concept may more broadly be applied to the self and others.

Two elements are pertinent to the definition of alienation from work. Firstly, there is a structural condition where the identity of workers is submerged in the overall division of labour and the individual is deprived of autonomy and opportunity. The second element involves workers’ individual and collective responses to such conditions. Workers can internalise their alienation and develop various forms of mental and physical suffering. In investigating this response, Seeman<sup>4</sup> developed scales to measure individual feelings of alienation along the dimensions of powerlessness, meaninglessness, normlessness, isolation and self-estrangement. But workers can also express their disaffection through various forms of resistance, protest or withdrawal, and work alienation can be moderated or ameliorated through several strategies both at work and in outside activities.<sup>5</sup>

### Autonomy

Autonomy refers to personal liberty that allows people to determine their own courses of action. The degree of autonomy experienced by workers varies according to the technologies and management systems that exist in the workplace. High-level managers or business owners generally have a great deal of autonomy in deciding what they will do, when they will do it and how they will do it. Lower-level workers generally have less autonomy.

In a classic study, Blauner<sup>6</sup> showed that workers in assembly line manufacturing systems had less autonomy than workers in continuous process plants. More recent authors have focused on the implications of alternative and high-performance innovations in the organisation of work.<sup>7–9</sup> At the simplest level, autonomy can be indexed by measuring workers’ ability to control certain aspects of their workday—for example, setting the time for starting and leaving work and being able to take a break at their own discretion. At higher levels, autonomy can be indexed by closeness of supervision and performance standards versus process standards of evaluation.

### Dignity

Dignity refers to the ability to establish a sense of self-worth and self-respect and to possess a social presence that is worthy of respect from others. Positively, dignity is attained through noble action, steadfast loyalty to one’s group, or enduring great suffering.<sup>10–11</sup> Dignity is often connected to issues of class and ethnic identity. It is also rooted in pride in one’s daily work or in one’s ability to support a family and participate in the community.

The idea of dignity has two different meanings—the first is that people have a certain inherent dignity as a consequence of being human; the second is that people earn dignity through their actions.<sup>12–13</sup> In the workplace, dignity can be violated by mismanagement or by managerial abuse; it can be protected by acts of resistance.

### Employee turnover

Employee turnover occurs when workers leave their positions in organisations.<sup>14</sup> Their reasons for leaving jobs are a measure of employee morale.<sup>15</sup> The rate of employee turnover is one measure of the commitment of employees to organisational goals. Turnover is determined partly by organisational policy and management through factors such as salary, benefits, promotions, training and work schedules, and partly by personal factors that are largely beyond employers’ control—for example, an employee’s desire to relocate. Temporal trends in the importance workers place on various reasons for leaving are useful, as they provide indirect evidence of organisational changes in the workplace.<sup>16</sup>

### Exploitation

Although there are several definitions of exploitation (eg, Saint-Simonian, liberal), exploitation is a key concept in the Marxian tradition.

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In the Marxian view, exploitation refers to the social mechanism underlying social class inequality. Exploitation is a characteristic of employment systems where unpaid labour is systematically forced out of one class and put at the disposal of another.

According to a traditional view of exploitation, workers are exploited if they work longer hours than the number of labour hours employed in the goods they consume.<sup>17</sup> Recent definitions incorporate authority in the workplace into the process of exploitation. Capitalist production always entails an apparatus of domination including surveillance, positive and negative sanctions, and varying forms of hierarchy. Managers and supervisors exercise delegated capitalist class powers as they practise domination in production. The higher an employee rises in the authority hierarchy, the greater the weight of capitalist interests in this class location. The strategic position of managers in the organisation of production enables them to make considerable claims on a portion of the social surplus—the part of production left over after all inputs have been paid for—in the form of relatively high earnings.<sup>18</sup>

Several studies in the past decade have shown associations between exploitation, in particular its domination aspects, and health outcomes in general population samples.<sup>19–20</sup>

### Occupational class

Many commonly used measures labelled as “occupational class” are in fact measures of occupational stratification; they serve to roughly rank workers on a hierarchical dimension. Such measures of occupational class are frequently grouped with other measures of stratification as alternative measure of social class. However, the concept of occupational class has developed within a theoretical tradition generally characterised as “Marxian”.

In this tradition, occupational class is defined by relationships of ownership or control over productive resources (ie, physical, financial or organisational resources). Occupational class has important systematic consequences for the lives of people: the extent of a person’s legal right and power to control productive assets determines the strategies and practices devoted to acquire income and, as a result, determines a person’s standard of living.<sup>21</sup>

The composition and importance of occupational class systems vary internationally, but in developed economies, the most important classes are capitalists, self-employed and small business owners, workers and those with contradictory positions (eg, managers and supervisors who are workers, but who represent the interests of owners in their work).<sup>22</sup>

### Organisational culture

Organisational culture is a pattern of basic assumptions that develops as the members of an organisation learn to cope with problems of external adaptation and internal integration. These basic assumptions are expressed as values and behavioural norms in organisations.<sup>23</sup>

Importantly for public health, these values and norms determine how members of organisations behave with respect to workplace safety, workplace justice, discrimination in promotions, hiring and work assignment, sexual discrimination or harassment, and other workplace issues such as managing demands, burnout and stress.

In organisations, the culture is usually implicit in daily routines. But when an organisation has to change, understanding the old culture, interpreting lessons learnt from new experience, and making employees throughout the organisation aware of new practices and encouraging them to follow these practices become a responsibility of leadership. Culture change becomes a part of organisational change that can be led and managed.<sup>23–25</sup> (Other terms with meanings

overlapping organisational culture are organisational climate and workplace environment.)

### Organisational justice and fairness

Organisational justice refers to whether or not decision-making procedures are consistently applied, correctable, ethical, and include input from affected parties (procedural justice). It also refers to respectful, considerate and fair treatment of people by supervisors (relational justice).<sup>26</sup>

Organisational justice research has been developed from equity theory,<sup>27</sup> which considers the ratio of input and output, and compares that proportion with those of referent others. If this comparison leads a worker to believe that his or her situation is inequitable, the worker is motivated to reduce that inequity by reducing input, increasing output or changing the referent others.

These personal assessments are reinforced by strong social norms about fairness. Research has shown that perceived justice is associated with people’s feelings and behaviours in social interactions, and that low organisational justice is an important psychosocial predictor of employees’ health in modern workplaces.<sup>28</sup> For example, evaluations of low justice have been related to negative emotional reactions,<sup>29</sup> which in turn have been associated with unhealthy patterns of cardiovascular and immunological responses and certain health problems.<sup>30</sup>

### Outsourcing

Outsourcing is a strategic switch to using external suppliers to carry out activities previously handled by internal staff and resources. Outsourcing may include the creation of durable partnerships and the organisation of supply chains. This process can be especially sensitive for workers and their communities when it entails moving production from developed to developing countries. Outsourced work may also go to independent contractors, self-employed or home workers. Displaced and outsourced workers may be faced with reduced wages, longer working hours, problems in work-site management, inability to organise or protect themselves, failure of established regulatory procedures and the shifting of work to unregulated firms or sites.<sup>31</sup>

### Power and authority

Power is the ability to make what one wants happen, even over the resistance or opposition of others. There are numerous sources of power, but they are often associated with having control over generalised resources such as money, organisations, political parties and communications media. Some of the sources of power are situation specific—for example, having access to information networks, having a particular position in an organisation or possessing control over particular natural resources. Other sources of power, such as charisma, are personal.

Power is manifest through the political processes in government policy, in the actions of organisations, and in the definition of agendas and issues whenever present or future possibilities are contested.<sup>32</sup> Questions of on-the-job autonomy, skill discretion and decision latitude are largely questions of the decentralisation of power in organisations. Position and the capacities that come with a position to make decisions or take action mean having control over resources and decision-making power regarding the allocation of resources. Power also means having the ability to define the scope and limits of action, to set standards of performance, to evaluate performance and to distribute rewards.

The authority associated with different positions in organisations varies according to several factors—for example, authority varies in scope due to the function of the position in the organisation. In most positions, workers have

only limited authority over themselves; those in other positions have the authority to define the division of labour for others, to decide the overall objectives of the organisation and to delineate the content of the organisational culture.<sup>31</sup>

### Restructuring work organisations

There have been numerous attempts among managers in recent decades to reorganise work in search of a formula for “high-performance work organisation”.<sup>33</sup> The main forces behind these movements have been advances in information processing technology and expanded global competition. Some approaches to restructuring work have held possibilities for both improved productivity and reduced alienation; others have focused on cost-cutting and work intensification.<sup>10</sup>

Although there are many names for work restructuring—total quality management, process re-engineering, lean production and flexible specialisation are some of the more common—these management initiatives share several common characteristics. They organise workers in teams, use tactics such as job rotation and emphasise the development of skills in the workforce. They also have many common consequences. Downsizing or redundancy programmes reduce costs by reducing the number of people employed in an organisation.

After restructuring, organisations are left with fewer employees who are expected to give their best in a manner that enhances organisational efficiency and productivity, while at the same time the human capital is reduced and organisational memory is disrupted.<sup>34 35</sup> Work restructuring carried out in healthcare institutions has consequences both for healthcare workers and for people receiving care.<sup>36 37</sup> Restructuring brings changes in staff mix, work flows, job responsibilities and production design.<sup>38 39</sup>

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## CONTINUING PROFESSIONAL EDUCATION

# A glossary for the social epidemiology of work organisation: Part 3, Terms from the sociology of labour markets

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This is part 3 of a three-part glossary on the social epidemiology of work organisation. The first two parts deal with the social psychology of work and with organisations.<sup>1 2</sup> This concluding part presents concepts related to labour markets. These concepts are drawn from economics, business and sociology. They relate both to traditional interests in these disciplines and to contemporary ideas on post-industrialisation and globalisation,<sup>3</sup> particularly the growth of employment in service industries, the development of a 24-h economy, increased participation of the female labour force and the perceived needs of employers in emerging high-tech economies.<sup>4 5</sup> These changes are of particular interest because they are linked to increasing inequality in earnings and changes in social relationships in employment.<sup>6</sup> These concepts have the potential to elucidate the pathways through which health is affected by conditions of work as an underlying cause.<sup>7 8</sup>

### Contingent employment

Contingent employment refers to work with unpredictable hours or of limited duration.<sup>9 10</sup> Work may be unpredictable because jobs are structured to be of short term or temporary, or because the hours vary in unpredictable ways. The US Bureau of Labour Statistics has adopted the first part of this definition, short-term or temporary work contracts, as its definition of contingent employment, and has considered the second part, unpredictably variable hours, as an alternative employment arrangement, a strategy for increasing the flexibility of work assignments.<sup>11</sup> Workers are in contingent employment when they are working on limited-duration contracts, working through temporary work agencies or on call. One form of particular interest is the development of firms specialising in the placement of temporary workers. This industry has grown dramatically in recent years and was a substantial proportion of job growth in the US in the 1990s.<sup>12</sup> Some self-employed workers may be considered to have contingent employment because their hours or term of work may be unpredictable. Part-time jobs are not included in this definition because they are not necessarily limited in time, nor do the hours vary. Several reasons exist for public health to be concerned with contingent employment relations.<sup>13</sup> Contingent workers are often marginalised at work, they have fewer training and promotion opportunities, less predictable and lower incomes, fewer pension benefits and, in countries such as the US where health insurance is primarily derived from work, they are less likely to have health insurance.<sup>12 14</sup> Also, in a variety of ways, contingent

work is less well covered by government regulations over workplace safety and social safety nets.<sup>10 15</sup> Nevertheless, some workers may seek temporary work to satisfy personal needs for flexibility, and for some workers temping may provide a transition from unemployment to employment with a standard work contract, although many temporary workers would prefer more regular work schedules.<sup>10 12</sup>

### Downsizing<sup>2 16</sup> Informal economy

A sizeable proportion of economic activity, although one that undoubtedly varies from country to country, takes place in an informal economy. What makes these activities informal is that they are not reported to government authorities that measure and regulate the formal economy. Exchange in the informal economy is either for cash or barter, because cash and barter do not create records that can be tracked by authorities. Some activity in the informal economy may be illegal even if the income or the transactions were reported. Work in the informal economy poses considerable health risks because the working conditions are unregulated and workers do not get benefits. The informal economy undermines social welfare systems because production in the informal economy is untaxed. Synonyms for the informal economy include underground, hidden or irregular economy.<sup>17</sup>

### Job security or insecurity<sup>16</sup>

#### Non-standard work contract

Non-standard work contract is defined relative to an employment standard. Standards are usually set nationally and define what it means to be in fulltime, year-round, permanent employment with benefits. Non-standard employment fails to meet the standards on any dimension. Examples of non-standard employment are any part-time, seasonal, home-based, contingent or informal work. Non-standard work is typically characterised by reduced job security, lower compensation and impaired work conditions.<sup>18</sup>

### Occupation

The meaning of occupation is usually taken for granted, but the relevance of occupation varies from place to place. Occupation is a social role, a set of expectations with respect to the knowledge, skills and experience of workers. Occupations group skills together into sets. These sets become known to employers and workers, and serve to organise labour markets; they become, for instance, categories in job vacancy advertisements.<sup>19</sup> They facilitate the training

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of workers by providing goals and standards for training, and expectations as to employment prospects for employers, teachers and trainees, which motivate long-term commitments to the transmission and acquisition of skills. Countries differ in the strength of occupational definitions. In the US, for instance, the boundaries of occupations are generally much more flexible and the importance of occupation in employment systems is much less than that in Germany.<sup>20 21</sup> Survey respondents' occupation may be coded and the codes used to classify respondents according to occupational characteristics or exposures.<sup>22</sup> A century ago, Durkheim<sup>23</sup> suggested that, as the division of labour advanced, occupational associations could become a major force in maintaining social solidarity. Recently this idea has been revisited; it has been speculated that strengthening occupational definitions and institutions might be one response to the insecurity created by trends toward precarious and contingent employment.

### Precarious employment

This term has been used to signal that new work forms might reduce social security and stability for workers.<sup>13 24</sup> Flexible, contingent, non-standard, temporary work contracts do not necessarily provide an inferior status as far as economic welfare is concerned. Precarious employment forms are located on a continuum, with the standard of social security provided by a standard (full-time, year-round, unlimited-duration, with benefits) employment contract at one end and a high degree of precariousness at the other. Precarious employment might also be considered to be a multidimensional construct defined according to dimensions such as temporality, powerlessness, lack of benefits and low income.<sup>25 26</sup> Historically, precarious employment was once common but declined in the now-developed economies with increased government regulation and political influence of labour, and with changes in technology that favour more stable work relationships. Currently, precarious employment is becoming more common in developed economies and is widespread in developing economies.<sup>15 24</sup>

### Project work

Project work is a special case of temporary work where the duration is determined by the production of a specified product or service. Project work is a traditional form of work organisation in the construction industry,<sup>27</sup> and is also common in various forms of creative work.<sup>28</sup> In these industries, unions and strong systems of occupations provide an alternative to bureaucratic control. Sometimes occupational organisations provide job placement services, training, pensions and health benefits. In many situations, social networks are important because project teams are assembled on the basis of reputation and prior associations. In other industries, project work is becoming more important with the increasing use of subcontracting and outsourcing.

### Unions

Unions are organisations that represent the interests of workers with employers. The size of unions and the scope of union activities vary widely across countries and have also evolved over time.<sup>29 30</sup> High rates of union membership and strong unions are associated with stronger social safety nets, active state labour-market policies and greater employment protections for workers. Yet, even in countries such as the US where union membership is relatively low, unions make a positive contribution to the welfare of workers by raising wages, improving benefits, giving workers a public or political voice, educating workers, and monitoring work safety and labour relationships.<sup>31</sup>

### Work–family conflict

Work–family conflict is a form of inter-role conflict in which the role pressures from the work and family domains are mutually incompatible in some respect, causing considerable personal and organisational problems.<sup>32</sup> Two main hypotheses regarding gender differences in domain sources conflict have been suggested: domain flexibility and domain salience. The domain flexibility hypothesis predicts that the work domain is a greater source of conflict than the family domain for both women and men. The domain salience hypothesis predicts that the family domain is a greater source of conflict for women than the work domain, and the work domain is a greater source of conflict for men than the family domain. Women may experience more role conflict as a result of simultaneity of their multiple roles.<sup>33</sup> Along with gender, some family domain pressures, such as the presence of young children and spouse time in paid work, and work domain pressures, such as number of hours worked per week, are associated with work–family conflict. Although the influence of multiple roles as employee, spouse and mother on women's health has been examined, results are not consistent. The contradictory findings in the role literature may be attributable to the number or the type of roles occupied, and also to the nature of particular roles. Thus, the exposures related to the job may differ by employment, social class and marital status, as well as by the family demands associated to these roles,<sup>34</sup> and the degree of control that people have to negotiate in stressful situations seems to be critical.<sup>35</sup>

### Work schedule

Standard work schedules are defined with reference to tradition, employment contracts, and employment laws and regulations. Although the standard work schedule might vary from country to country or place to place, standard work schedules generally prescribe Monday to Friday daytime hours for work. Shift work refers to work schedules outside the normal daytime hours, typically evening and night shifts. Some shift workers rotate shifts, cycling work times from day to evening to night and back to day. Another non-standard work schedule is weekend work, working Saturday or Sunday. Working shifts or weekends can be physiologically stressful, leading to reduced performance, injury and sleep disturbances.<sup>36 37</sup> Other forms of non-standard work schedules include part-time and overtime work, and a variety of programmes under which workers are granted some control over which hours they work, including programmes for job sharing and flexible work schedules setting daily start and end times for work. The significance of non-standard and flexible work scheduling is growing; in the US in 1997 only 29% of employed people worked a standard schedule, defined as 35–40 fixed daytime hours from Monday to Friday.<sup>3</sup> Flexible work schedules may have positive consequences for workers who can use them to accommodate work to family and social life.<sup>38 35</sup>

### CONCLUDING REMARKS

The labour market concepts presented in this glossary represent attempts to conceptualise terms of employment in ways that relate employment to other institutional structures that may be the subject of policy making—structures such as family, work organisation and occupation, and social safety nets. The terms of employment may influence health by determining uncertainty and stress, concepts dealt with in part 1 of this glossary,<sup>1</sup> or income and social support, which have consequences for security and general well-being.

Overall, concepts used in the social epidemiology of work organisation (parts 1–3) have been drawn from diverse disciplines. Each discipline has its own set of intellectual problems and theoretical perspectives with which to consider complex and ever-changing practical work-related hazards. In

epidemiology, researchers have pragmatically adapted the concepts and developed measures to fit the occupational health needs that they have confronted. Although this has facilitated building a body of empirical evidence, it has left the field with concepts that are sometimes difficult to integrate theoretically and with conflicting empirical findings that are sometimes difficult to reconcile. Although some problems have already received a great deal of attention, there are also significant problems that have received insufficient attention, partly because they are related to emerging changes in the economy, labour markets and work organisations, and partly because progress requires additional work developing conceptual clarity and practical measures. The establishment of a glossary that encompasses this broad interdisciplinary field of enquiry within social epidemiology is a step in this direction.

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