Socio-Political Context: Business, Technological and Industrial Imperatives

Core Body of Knowledge for the Generalist OHS Professional

Safety Institute of Australia Ltd

Australian OHS Education Accreditation Board

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Disclaimer

The OHS Body of Knowledge for Generalist OHS Professionals has been developed under the auspices of the **Health and Safety Professionals Alliance**

The Technical Panel established by the Health and Safety Professionals Alliance (HaSPA) was responsible for developing the conceptual framework of the OHS Body of Knowledge and for selecting contributing authors and peer-reviewers. The Technical Panel comprised representatives from:

The Safety Institute of Australia supported the development of the OHS Body of Knowledge and will be providing ongoing support for the dissemination of the OHS Body of Knowledge and for the maintenance and further development of the Body of Knowledge through the Australian OHS Education Accreditation Board which is auspiced by the Safety Institute of Australia.

Synopsis of the OHS Body of Knowledge

Background

A defined body of knowledge is required as a basis for professional certification and for accreditation of education programs giving entry to a profession. The lack of such a body of knowledge for OHS professionals was identified in reviews of OHS legislation and OHS education in Australia. After a 2009 scoping study, WorkSafe Victoria provided funding to support a national project to develop and implement a core body of knowledge for generalist OHS professionals in Australia.

Development

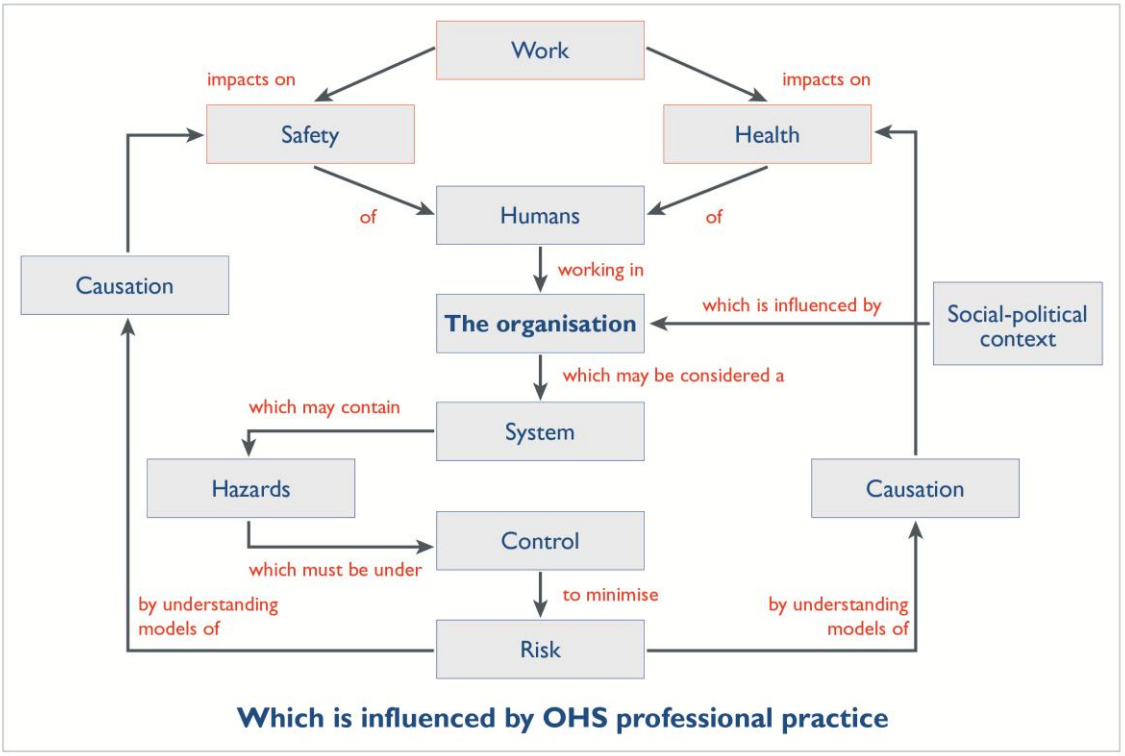
The process of developing and structuring the main content of this document was managed by a Technical Panel with representation from Victorian universities that teach OHS and from the Safety Institute of Australia, which is the main professional body for generalist OHS professionals in Australia. The Panel developed an initial conceptual framework which was then amended in accord with feedback received from OHS tertiary-level educators throughout Australia and the wider OHS profession. Specialist authors were invited to contribute chapters, which were then subjected to peer review and editing. It is anticipated that the resultant OHS Body of Knowledge will in future be regularly amended and updated as people use it and as the evidence base expands.

Conceptual structure

The OHS Body of Knowledge takes a 'conceptual' approach. As concepts are abstract, the OHS professional needs to organise the concepts into a framework in order to solve a problem. The overall framework used to structure the OHS Body of Knowledge is that:

> **Work** impacts on the **safety** and **health** of humans who work in **organisations**. Organisations are influenced by the **socio-political context**. Organisations may be considered a **system** which may contain **hazards** which must be under control to minimise **risk**. This can be achieved by understanding **models causation** for safety and for health which will result in improvement in the safety and health of people at work. The OHS professional applies **professional practice** to influence the organisation to being about this improvement.

This can be represented as:



Audience

The OHS Body of Knowledge provides a basis for accreditation of OHS professional education programs and certification of individual OHS professionals. It provides guidance for OHS educators in course development, and for OHS professionals and professional bodies in developing continuing professional development activities. Also, OHS regulators, employers and recruiters may find it useful for benchmarking OHS professional practice.

Application

Importantly, the OHS Body of Knowledge is neither a textbook nor a curriculum; rather it describes the key concepts, core theories and related evidence that should be shared by Australian generalist OHS professionals. This knowledge will be gained through a combination of education and experience.

Accessing and using the OHS Body of Knowledge for generalist OHS professionals

The OHS Body of Knowledge is published electronically. Each chapter can be downloaded separately. However users are advised to read the Introduction, which provides background to the information in individual chapters. They should also note the copyright requirements and the disclaimer before using or acting on the information.

Socio-Political Context: Business, Technological and Industrial Imperatives

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Abstract

Organisations make decisions within a socio-political context that encompasses business, technology and industrial relations imperatives. Such decisions have impacts, often latent, on Occupational Health and Safety (OHS) risks within the workplace. The OHS professional needs to understand the organisation within which they consult, either internally or externally, so that they can influence the decision to minimise adverse OHS outcomes from decisions related to these imperatives. A socio-technical systems framework is used to discuss these issues.

Key words

industrial law, socio-technical systems, technology, unions

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1 Introduction

All organisations, whether public or private, operate within a socio-political context, which impacts the way they develop their organizational strategies, operating technologies and structures. Organisations are open systems in that they react with the external socio-political system, which includes the macroeconomic environment, legislation, and societal values and expectations. Decisions made by organisations as they implement their strategies inevitably have some impact on occupational health and safety (OHS) and it is important that OHS professionals understand this context as it will affect development and implementation of OHS systems and initiatives within the organisations.

This chapter discusses business, technology and industrial relations imperatives that may operate within an organisation and impact on how OHS is considered and managed by the organisation. The chapter is one of two chapters[1] examining the socio-political context of organisations and OHS. The effective OHS professional will not only be aware of the socio-political context but be able to work within it; taking account of their role, obligations and ethical practice.

The approach taken in this chapter is based on socio-technical systems theory, which links the organisation's technology with the people in the organisation, and looks at those parameters that help or hinder the business's success.

2 Socio-technical systems

The socio-technical concept arose from investigations by researchers from the Tavistock Institute into the productivity of the British coal mining industry after the Second World War (Trist, 1981). The productivity improvements expected of longwall mining mechanization had not come up to expectations. Subsequent investigations showed that the technology was introduced without a concurrent understanding of how the machines affected social relations within the workforce (Trist & Bamforth, 1951). The reorganisation following mechanisation led to disruption of prior close-knit working groups and a simplification in the types and number of tasks that each miner undertook. This in turn led to lower morale and poor industrial relations, thus lowering productivity.

The lessons from this field research were that technological changes that appeared quite rational from a business or engineering perspective have the potential to disrupt the existing social systems so as to greatly reduce the anticipated benefits of the new technology (Appelbaum, 1997). There is an inter-linkage between the technical system and the social system within organisations, and attempts to change one must be mindful of any effects on the other. This has significant impact on the concept of job redesign.

[1] See *OHS BoK*: Socio Political Context: OHS Law and Regulation in Australia

Socio-technical systems theory states that both the human and nonhuman systems need to be considered if both are to be optimised and organisational objectives achieved (Trist & Bamforth, 1951). Some of the key socio-technical principles that have relevance to this chapter include:

- Multi-skilling – each person should be skilled in more than one function so that the work system is more flexible and adaptable.
- Information flow – information systems should be designed primarily to provide information at the point of action and problem solving, rather than in hierarchical channels.
- Support congruence – the social system should be designed to reinforce the behaviours intended by the organizational strategy. Rewards, hiring practices, structures, training, etc., need to be congruent with the basic work design.
- Design and human values – the design should provide for a high quality of work life that satisfies the individuals' needs. (Appelbaum, 1997)

The overall system is optimised by reducing 'key variances" which are technical or organisational weak spots and disturbances in and between work systems, and to control them by participative processes with workers (Moldasch and Weber, 1998).

Socio-technical systems theory was a departure from the prevailing technical-bureaucratic management forms that had developed from the pioneering work of FW Taylor. By breaking jobs down to fundamental tasks and defining the most efficient way to carry out that task, Taylor developed a management approach that allowed industrialization to flourish further in the early part of the 20th century (eg through Henry Ford's production line manufacturing) and undoubtedly increased the standard of living in industrialized countries. However, the downside of this system was alienation by the workers from their jobs and the organisation. A comparison of the perspectives in these two approaches to work is given in Table 1.

Table 1: Taylorist and Socio-technical Perspectives (adapted from Trist, 1981)

Taylorist Perspectives	Socio-technical Perspectives
The technological imperative	Joint optimization of technology and people
Workers as extensions of machines	Workers as complementary to machines
Workers as expendable spare parts	Workers as resources to be developed
Maximum task breakdown, simple narrow skills	Optimum task grouping, multiple broad skills
External controls (supervisors, specialists, etc)	Internal controls (self-regulating sub-systems)
Tall organizational chart, autocratic style	Flat organizational chart, participative style
Competition, gamesmanship	Collaboration, collegiality
Organisation's purposes only	Stakeholders and society's purposes also
Alienation	Commitment

If workers are alienated from their work, either as a result of technology, or from the outcomes of business decisions, the probability of industrial disputation increases. Table 1 provides two extremes and many lessons have been understood and changes implemented to improve organisations over the past 50 years. Organizational restructure in the 1980s and 1990s has flattened organization charts, increased multi-skilling and most organizations are at least aware of their corporate social responsibilities. Industrial law and OHS law, together with the role of unions have modified some of the excesses of Taylorism noted above. However the concept of workers as expendable spare parts is still applicable within some industry, as will be discussed below, and collaboration is not widely practiced within organizations. Undoubtedly, there are organizations promoting high performance work systems that adopt approaches consistent with socio-technical systems theory (eg, see Becker and Huselid, 1998), but it is suggested that this is not the majority of firms.

3 Business imperatives

Organisations generally have a primary objective of surviving and prospering, and will develop strategies to achieve these objectives. All organisations produce either goods or services, and are normally constrained by resources. Managers make decisions on how budgets are structured and develop strategies to reduce operating costs, which may include restructuring, downsizing and outsourcing. Often, such actions are undertaken without thought to the direct OHS effects (e.g. leaving insufficient competent staff to work safely), or the indirect OHS effects (e.g. degrading industrial relations through job losses).

The degree of OHS involvement in organisational decision making, both strategic and operational, will depend on an organisation's safety culture.[2] An organisation with a poor safety culture will either not consider the possibility or injury, or risk possible employee

[2] See *OHS BoK* The Organisation.

injuries and prosecution by the regulator. Conversely, an organisation with a strong safety culture will actively include workers' concerns and OHS impacts within their decision-making processes.

Legislation, industrial agreements and social expectations should inform management decision making for optimal organisational outcomes. However, these factors do not always prevent negative outcomes as organizations pursue internal operational efficiencies. An example can be given on how businesses structure their workforce, where seemingly rational economic decisions made by individual organizations had negative industrial and OHS consequences for workers.

In the restructuring of Australian industry in the latter decades of the 20th century, many organisations outsourced aspects of their business not considered core. Frequently, outsourced services, including cleaning, maintenance, etc., were tendered on a cost basis by smaller organisations that did not have the technology, human resources expertise or economic strength of the original organisation. Employees in these smaller organisations tended to be hired under less favourable employment conditions and were themselves either contractors or casual workers.

In addition, an overall reduction in staff numbers within larger organisations meant that during peak activity times, additional labour was sought in the form of casual, contract or labour-hire employees. The result of these restructuring changes is that about one-quarter of employed persons in Australia are not in permanent employment; this is a high proportion by developed world standards (Watson, Buchanan, Campbell & Briggs, 2003). An OHS impact of these changes is that these so-called contingent workers have a higher rate of workers' compensation claims than permanent employees; however, this may also relate to the different risk profiles of the jobs they undertake. In 2001 in Victoria, labour-hire claims per $1m of remuneration were 15% higher than non-labour-hire claims (Underhill, 2002). Moreover, contingent employees are generally excluded from continuing training within the workplace, and from workplace consultation processes (South Australian WorkCover Corporation, 2001). Both these situations can result in higher OHS risk for contingent employees.

The alternative perspective for organisations is to view employees as the source of competitive advantage, rather than a cost that requires minimisation. One company that has a fundamentally different approach is Google, which believes that good ideas can, and should, come from anywhere within the organisation. The founders insist that all engineers in the company have one day a week to work on their own pet projects and this has been fundamental to Google's phenomenal success (Elgin, 2005). The antithesis of cost cutting also holds in what are termed high reliability organisations. These organisations work with complex technologies (eg nuclear power stations), but have identified that the complexity requires considerable efforts and complex systems to control. They put much emphasis on

analysis. They socialise their workforce to notice more and employ people to explore and to double check on competency and success (Hopkins, 2009). Taylorist organisations would regard such people as costly redundancies.

The decisions that managers make depends on their own and the organisational perspective, which in turn depends on the culture and values within the organisation. The OHS professional needs to understand these so that their initiatives are consistent with that culture and values. In addition they should seek to influence the decision makers within the organisation on the benefits of seeing employees as valuable assets, rather than costs to be minimised.

4 Technological imperatives

Adoption of new technology often introduces hazards and risks that may not become fully understood for some time. New technology nearly always causes some concerns in parts of the general and organisational population, in that it disrupts the established order, jobs and the state of knowledge. However, beyond this direct effect, technology also has impacts on the organizational structure and strategy. As technological complexity increases, the responses of the organization have to be proportionate. This section will review some of the historical impacts of technology and its effect on organisational structure and OHS.

4.1 The Industrial Revolution and OHS

The Industrial Revolution of the mid-1700s to the mid-1800s wrought great changes in the nature of work in Britain. Along with great benefits, there was an exodus of people from the country to the cities where there were generally appalling work conditions in factories. Industrialisation was not welcomed by everyone; for example, members of the Luddite movement protested the introduction of new textile-industry machines by conducting machine-breaking raids. The de-humanising excesses of the time, including working children as young as five in mines and cotton mills, led to a range of laws that have cumulated in the current OHS and industrial laws within Australia.

British labour and OHS laws commenced with the Health and Morals of Apprentices Act 1802 that forbade night shifts for apprentices in textile mills and required good ventilation to be provided (Hunter, 1957). The Cotton Mills and Factory Act 1819 stipulated nine years as the minimum age for employment of children, and increased demands for investigations into labour abuses within cotton mills. A system of voluntary factory inspections was set up in Britain under the 1819 Act, which also prohibited the cleaning of machinery while it was in motion. A Royal Commission on the Employment of Children in Factories led to the Factory Act 1933 (Geo. V) which prohibited night work for those aged under 18 and restricted their hours to 12 per day and 69 per week. The Factories Act 1844 provided for medical

practitioners to act as certifying surgeons for the purpose of examining the health of young persons and ensuring conformance with the Act.

In 1842, the Royal Commission on the Employment of Children in Mines shocked Britain with documentation of abuses of children working in mines. This included haulage of underground trucks by harnessed children crawling on all fours, children standing ankle-deep in water for 12 hours per day while working pumps, and six-year-old girls carrying 25 kg baskets of coal up ladders. The subsequent Mines Act 1842 prohibited underground employment of females and boys under 10, and stipulated a minimum age of 15 for winding enginemen (Hunter, 1957).

The Factories and Workshops Act 1867 brought many previously unregulated industries under its control. It prohibited children aged under 11 from grinding metal and was the forerunner of the Factories Acts in the various British colonies that have survived in some countries to this day. The Factories (Prevention of Lead Poisoning) Act 1883 was the first act directed against a specific occupational disease and marked "the opening of the modern era in legislation aimed at protecting the workers in all dangerous trades" (Hunter, 1957, p. 125).

4.2 Technology and organisational systems

Technology determines the social organisation of an enterprise, its organisation of work and workers, and the pattern of change within an industry (Deery & Plowman, 1985). Organizations that adapt to changes in technology successfully do so by adapting their organizational structures to cater for that technology. Where the environment is highly turbulent, eg, due to fast market or technology changes, organic structures that are able to adapt quickly are likely to be more successful than bureaucratic structures (Burns and Stalker, 1961).

Perrow (1967) examined the effect of technology on two parameters of task variability and problem analysability. Technologies that provide routine jobs (such as in a McDonald's restaurant) can be adequately catered for through bureaucratic organizations with defined procedures and task simplification. However, more complex technologies will require workers to have a much higher level of knowledge which, together with experience and analytical reasoning, allows them to successfully resolve problems arising from the technology. Under these circumstances, the role of procedures, for example, is very different from that of simple technology organisations. Hayes (2010) examines how operators in high technology activities such as occur in petrochemical complexes use procedures as a starting point for problem solving, as distinct from explicitly being told what to do.

The more technology increases complexity within the operation, the bigger impact this has on the OHS system and the more the organisation has to adapt. Perrow (1994) finally came to the conclusion in his Normal Accident Theory that major disasters are inevitable in highly

complex technologies such as nuclear power stations. Clearly there have been disasters at Three-Mile Island, Chernobyl and Fukushima. However, it has been argued by proponents of High Reliability Theory that changes since Three-Mile Island to the organizational culture and development of collective mindfulness of danger has allowed continuing safe operations of highly complex technologies such as these[3]. To operate successfully and safely, organisations having complex technologies need to implement commensurate complex safety systems[4].

Those involved in the conceptualisation, design and/or importation of new technology need to keep in mind that its introduction may involve hazards that should be controlled as part of the design. Apart from the machinery itself, new technology has the propensity to change work systems. For example, high capital costs for machinery may require shift work to justify its use. Resultant changes in work practices may cause health effects or raise safety issues that need to be understood by the OHS professional.

Business imperatives combined with complexity in technology can cause disasters. The 1998 Longford gas plant accident in South Gippsland, Victoria, provides a harrowing example of how cost cutting can undermine operators' understanding of complex technologies. Prior to the incident, in which two Esso employees were killed and eight were injured, Esso relocated engineers from the plant to Melbourne as a cost-cutting exercise. The operators lacked a fundamental understanding of how the plant components functioned. The Longford Royal Commission found that the resultant reduction in the amount and quality of supervision of operators was probably a contributing factor to the explosion (Hopkins, 2005).

Another example in relation to complex technologies is that, without detailed and continuing understanding of how the technology operates (compared to just knowing how to operate it) will tend to see a degradation of the safety associated with that technology. When Worksafe Victoria introduced the Safety Case as a requirement for an operating license for major hazards facilities, the organisations running these facilities were obliged to return to basics in understanding the chemistry and engineering of their operations. In doing so, they were able to improve operations significantly. Prior to Safety Case requirements, the level of understanding had deteriorated over time, compounded by modifications and staff turnover. Unless organisations actively maintain their knowledge systems through continuous renewal, understanding of the rationale for procedures is lost, and changes creep in that depart from the specifications and generally normalise the increased level of risk.

[3] See *OHS BoK* The Organisation.
[4] See discussion on requisite variety in *OHS BoK*: Control: Prevention and Intervention

4.3 Emerging technology issues

Today, many people are concerned about the potential safety and environmental problems posed by new technologies, such as nanoparticles, genetically modified crops and nuclear power.

A Google search in March 2011 using the words 'technology' and 'OHS' provided some 2.3 million references. Using Google Scholar reduced this to more than 14 000 references. One outcome of the information technology revolution is that the OHS professional is confronted with a tsunami of published research and commentary. Not all the available information is underpinned by good science and not all will be relevant. While scientists can publish material in respected peer-reviewed journals on issues including safety, individuals are free to web-publish their views and personal experiences. Such views may not be scientifically valid or statistically significant, but they may be believed by many people who do not read or understand the scientific subtleties of risk or uncertainty. Various new technologies such as nanoparticles are discussed in other chapters, and will not be discussed further here. Suffice to say that the OHS professional needs to keep up to date with information relevant to risks associated with new technology. One of the most important skills required by OHS professionals in the 21st century is the ability to apply critical thinking to the mass of available information so as to extract what is necessary and appropriate for making quality decisions.

At the organisational level, OHS professionals need apply this knowledge about emerging technologies and become involved in the decision-making processes associated with the introduction of new technologies in the workplace. The model Work Health and Safety Act (WHSA ss 20-25) imposes responsibilities on designers, manufacturers, suppliers and importers to control risks associated with technology. There is also a role for OHS professionals in ensuring safe implementation of such technology, embracing issues such as job and work design, training and supervision.

In summary, changes to technology have to be accompanied by commensurate changes to work structures and human capabilities. Socio-technical systems theory places the individual worker at the centre of discussion on organisational change. Issues related to how the individual works in the organisation (culture, management practices, leadership style, communications, behaviours and safety needs) are as critical as technological issues (technology type, physical settings, materials, systems of work, resourcing). As technologies increase in complexity, there has to be parallel changes to the culture, management practices and levels of competence that apply if the operations are to be maintained in an efficient and safe manner.

5 Industrial relations imperatives

Jobs have extrinsic and intrinsic properties (Trist, 1981) and often different functions within the organization deal with different sets of these properties. For example, the extrinsic properties of fair and adequate pay, job security, benefits, due process and conditions of employment are seen as 'industrial relations'. The intrinsic properties of variety and challenge, continuous learning, autonomy, recognition and other psychosocial features are the territory of human resource management. The extrinsic property of OHS is separate again.

Taking a socio-technical approach, there should not be such differentiation as the job or work requires appropriate levels of both extrinsic and intrinsic properties. Organisations that achieve this integration in application will generally develop trust with their employees and will be more effective. Conversely, neglect of these properties will result in conflict. Industrial relations disputes generally revolve around the extrinsic properties noted above. Generally it is not possible to quarantine distrust arising from industrial disputations from poisoning OHS issues. The OHS professional needs to understand how industrial relations work within the organization and how they can impact on OHS systems and initiatives.

5.1 History of industrial relations in Australia

While colonial Australia inherited the British 'master and servant' laws and practices, a uniquely Australian system of industrial relations developed after Federation.

The wave of immigrants entering Australia during the 19th century gold rushes provided a population sympathetic to unionism, and the prosperity of the 1850s gave employees bargaining power. Skilled workers were the first to organise with engineers, stonemasons, carpenters and printers all forming unions by 1855, followed by plasterers, bricklayers and so on. For unskilled labourers it was a longer journey to organisation. Rural prosperity from wool allowed unionisation of unskilled workers such as waterside workers (in 1882) and shearers (in 1886).

Australia's first unions were militant and class conscious in outlook. One reason for this was that the labour laws prevailing in the colonies at the time, based on the various British Masters and Servants Acts were largely pro-employer and provided very few rights and safeguards to employees. Workers needed to unionise for security and to counteract the power of the employers and state establishment. Part of the role of unions was related to safety in the workplace; however, this often manifested as extraction of 'danger money' from the employer for high-risk jobs, an approach that continued into more recent times. In 1957, for example, asbestos mill workers at Wittenoom were given an extra sixpence per hour for working in excessive dust.

The union movement was damaged during the 1890s Depression, when there were widespread strikes in Australia, and the resulting unemployment destroyed many of the

benefits that employees had obtained during the preceding 50 years. Unions identified the necessity for better political representation and the Australian Labor Party was founded. By 1910, the party had a balance of power positions in many of the state Parliaments in Australia.

Federation's founding fathers deplored the industrial havoc caused by the strikes of the 1890s, and terms were negotiated between government, unions and employers to regulate industry in such a way as to avoid those problems. Now referred to as the 'Australian Settlement' (Kelly, 1992), this agreement laid the groundwork for:

- High tariffs to nurture local industry, protect manufacturing jobs, and encourage employers to offer good wages and working conditions under the Exercise Tariff Act 1906 (Clth)
- National wage fixation through a system of compulsory conciliation and arbitration to foster industrial harmony and set wages and conditions nationally under the Conciliation and Arbitration Act 1904 (Clth)
- An approach to immigration referred to as the 'White Australia Policy' that sought to limit low wage competition, particularly from Asian immigrants, commencing with the Immigration Restriction Act 1901 (Clth).

Aspects of this 'Australian Settlement' lasted until the complete labour deregulation of the 1980s, by which stage they had outlived their usefulness and it was apparent that the highly regulated industrial environment behind high tariff walls was adversely affecting Australia's competitiveness and standard of living. From 1973, tariffs were progressively reduced. Centralised wage fixation was dismantled with the introduction of the Industrial Relations Act 1988 (Clth). The White Australia Policy was gradually eliminated through the effects of the Migration Act 1958 (Clth) and the Racial Discrimination Act 1975 (Clth).

Under the shelter of compulsory arbitration and tariffs which protected industry, unionism peaked in the 1960s with about 60% of the Australian workforce unionised. Since then, rates of unionism have steadily declined to 18% of the workforce in 2010 (ABS, 2011). Reasons for this include the failure of the union movement to adapt to an evolving workforce that is less concentrated in declining traditional industries, such as manufacturing, and more concentrated in service industries. Union structures are not adept at unionising small and medium enterprises which account for a majority of employed persons, and their traditional male-dominated power structures have not appealed to female workers. However, the influence of the union movement remains embedded in the philosophies of the Australian Labor Party. Moreover, the historical struggles of Australian unionism still drive the collective memories and strategies of some unions.

Although unionisation has declined, union influence remains strong in specific industries. Because of the lack of international competition, militant unionism is still very strong in the

construction industry, particularly in Victoria and Western Australia. Such militancy may be attributable to the fact that some employers in that industry have previously engaged in behaviour contrary to prevailing labour, taxation and OHS laws (Cole, 2002). It should be noted that the presence or absence of unions in a workplace does not in itself positively or negatively affect industrial relations. What is more important is how employees are treated by management.

5.2 Industrial law

The Workplace Relations (WorkChoices) Amendment Act 2005 (Cth) resulted in a fundamental change in industrial relations law and practice in Australia. The Commonwealth used the corporations' power (s51(xx)) of the Constitution to legislate industrial relations for an estimated 85% of Australian workers. Although challenged by a number of States and unions, the High Court held the Act to be constitutional. Subsequently, this resulted in all states except Western Australia ceding their industrial relations powers to the Commonwealth. Western Australia, while not ceding their powers, agreed to use harmonized legislation, but even so can only legislate for employees outside statutory corporations in the state. For all intents and purposes, Australia has a unitary industrial relations system. Prior to 1995, there were 8 industrial jurisdictions (Victoria had previously ceded its powers to the Commonwealth under the Kennett Government).

The Fair Work Act 2009 (Cth) and associated regulations currently govern industrial relations for nearly all Australian workers. This legislation is administered by Fair Work Australia which replaced the Australian Industrial Relations Commission and a number of other bodies in 2010. Some of the key duties of Fair Work Australia are administering the safety net National Employment Standards, setting minimum wages, approving modern awards and enterprise agreement and resolving disputes between employers, employees and their representatives.

The national employment standards and modern awards provide minimum conditions of employment for nearly all employees except for those earning more than regulated amounts. Employees in medium to large organizations will generally have their conditions of employment governed by an enterprise agreement, which is negotiated between employers and employees and their representatives. Enterprise agreements cannot provide conditions of employment less than the National Employment Standards or modern awards but can include whatever can be negotiated, provided this relates to the contract of employment between employer and employee. In seeking to improve employee benefits, unions or employees (as a collective) will bargain for changes to conditions including employment status and benefits. Such bargaining can result in disputation or conflict that can develop into strikes and lockouts. Such industrial action is legal if undertaken as part of the authorised bargaining process; however, it may be terminated by Fair Work Australia if the safety of industry, the

public or individuals is threatened. Strike action at any other time, or for any reason other than negotiating an enterprise agreement, is illegal in Australia.

Organisations that have a Taylorist view of their workforce can see employees as costs to be controlled. Under these circumstances an organisation and its employees can have conflicting goals. For example, organisations may seek maximum flexibility in managing staff numbers and work schedules to minimise costs, while employees generally value good remuneration and long-term security so that they can plan mortgages, schooling and so on. Some industrial relations theorists suggest that conflict between the objectives of the organisation and those of employees is so fundamental to organisational life that it can be readily described within a Marxist framework, which places industrial conflict within a broader social conflict concerning ownership of productive resources and the distribution of wealth (Deery & Plowman, 1985).

Industrial law and OHS law apply differently to different classifications of workers within an organization. The model Work Health and Safety Act (WHA) (Safe Work Australia, 2011) (WHSA s 19) places a duty of care on the person in control of the business or undertaking (PCBU) in relation to *all* persons carrying out work in any capacity for the business or undertaking (and to *others* which means that people who do not fall within the definition of *worker* also are protected). However, this universality is not the case within industrial law, which differentiates between employees and non-employees such as contractors or labour hire. Under WHS legislation, *workers* include employees (permanent and casual), contractors and subcontractors and their employees, labour-hire personnel, outworkers, apprentices and volunteers. Under industrial law, only *employees* are covered by industrial agreements; for example, while employees under an enterprise agreement may be entitled to study leave or training, this would not be available to contractors or labour-hire personnel in the same organisation. As another example, it is not required that workers' compensation insurance be paid by an employer for contractors. Workers' compensation authorities (eg WorkSafe Victoria) have tests to determine whether a contractor is bona fide or deemed to be an employee for the purposes of premium payments.

Co-existence of multiple forms of employment (e.g. permanent employees, casuals, contractors, labour hire) that exist within organisations results from management decisions on how to best structure the organisation to deal with input factors of production. These decisions increase the complexity of supervision (e.g. with labour hire or contractors), and can cause resentment as different categories of worker, perhaps doing similar work, receive different levels of benefit. In addition, while labour-hire workers can be readily supervised as if they were permanent employees, it is difficult to develop comprehensive contracts with contractors that achieve all organisational objectives, and then to efficiently supervise those contracts. For example, an objective to focus on safety by contractors by rewarding reduction in injury rates may have the adverse effect of under-reporting of injuries (see Ritter, 2004).

5.3 Industrial relations and OHS

One of the underlying principles of OHS law in Australia is consultation between employers and employees on OHS matters. This was part of the original Robens' framework developed in the early 1970s in the UK. At that time, there was a high level of unionisation within large organizations. Currently in Australia the level of unionisation is 18% and the majority of organisations have no union presence. Consultation is an essential principle within socio-technical systems theory so it should be effectively applied in those organizations adopting that approach. Organisations with a Taylorist perspective would only see OHS consultation as a legislated requirement. When unionisation was at a higher level, the union representative may have helped those organizations meet these legislated requirements.

In reviewing the literature on consultation, Walters (2003, 2010) identified the following improved outcomes:

- In the UK in 1995, it was found that injury rates considerably improved in workplaces where joint arrangements were in place and especially where trade unions were involved (Reilly, Paci & Holl, 1995). While subsequent investigations of the same data set produced less convincing and ambiguous findings (e.g. Hillage, Kersley, Bates & Rick, 2000), more recent interrogation of the data set using different statistical techniques confirmed the original conclusion that the involvement of trade unions in organisational OHS arrangements resulted in fewer injuries (Nichols, Walters & Tasiran, 2007).
- In Canada, reduced lost-time injuries were associated with the presence of joint health and safety committees (Lewchuk, Robb & Walters, 1996). 'Empowerment of the workforce' was suggested as one of several organisational factors that related to lower injury rates (Shannon, Mayr & Haines, 1997); however, such empowerment meant the presence of unions and union support for worker members of OHS committees. Havlovic and McShane (1997) found joint safety committees to be a factor (others included training, enforcement and changed managerial practices) associated with improved fatality rates among Canadian loggers.
- In Norway, improvements in sickness absences were greatest where firms had adopted a participatory approach and where trade union representatives were active (Anderson as cited in Johnstone, Quinlan & Walters, 2004).
- In Australia, the introduction of representative arrangements led to major changes in workplace practices and attitudes (Biggins, Phillips & O'Sullivan, 1991). The incidence of sprains and strains in industrial workplaces decreased following implementation of a participatory ergonomics program (Dale, 2005).

Walters (2003) observed that the features that promote effective consultation in Australia include: adequate training and information; opportunities to investigate and communicate with other workers; and channels for dialogue with management on existing problems and

planned changes. In the UK, Walters et al. (2005) found that the preconditions for effectiveness of worker representation included a strong legislative direction with an effective inspectorate, demonstrable senior management commitment to OHS and consultation, competent risk evaluation and control, effective autonomous worker representation at the workplace and external trade union support. To this list, Walters (2010) added consultation and communication between worker representatives and their constituencies. The role of the legislation is important as it provides health and safety representatives (HSRs) with specific enforcement rights. Australia's model Work Health and Safety Bill (Revised draft, 2010) provides for the use of provisional improvements notices by HSRs, which require managers to correct issues involving continuing breaches of legislation.[5]

From the above, it can be seen that there is substantial evidence that associates improvements from consultation with union activity, rather than with consultation per se. Evidence for the effectiveness of such direct participation is limited (Walters, 2010). Indeed, a Norwegian study found the operation of direct OHS participation to be dependent on the broader pattern of employer-employee relationships within which they take place (Karlsen et al. as cited in Gustavsen & Hunnius, 1981).

Overall, it can be concluded that consultation works where there is a management commitment to participative arrangements for health and safety in supporting the actions of HSRs (Walters, 2010). This is consistent with socio-technical systems theory. With the decline in union membership in Australia, and with the lessening of a union presence in workplaces, it rests with managers to take the initiative to actively consult with workers on OHS, consistent with legislated requirements.

This participative approach between management and workers will in general, lessen conflict. Decisions by organizations to pursue industrial objectives unilaterally can result in poisoning of relationships and deteriorating safety performance. In the late 1980s, for example, Conzinc RioTinto of Australia "embraced the management theories of Dr Elliot Jacques, with their strong focus on individual employee choice and managerial prerogative" (Mackinnon as cited in Fetter, 2002, p. 5); in subsequent decades this led to a push for individual employment contracts, initially (unsuccessfully) at Weipa and then (successfully) in the Pilbara (Fetter, 2002). However, in the late 1990s when another large mining organisation in the Pilbara tried to follow this example to improve productivity and sought to force its employees onto individual employment contracts, it caused tremendous resentment in the workforce, which soured relations between management and workers for many years. This subsequently resulted in OHS initiatives being adversely viewed by the workforce as merely management attempts to improve productivity, regardless of their OHS effectiveness (Ritter, 2004).

[5] See *OHS BoK* : Socio-Political Context - OHS Law and Regulation in Australia

6 Implications for OHS practice

The practice of OHS is not simply an application of technical knowledge to resolve safety-related issues. Decisions about OHS are made within socio-political and organisational contexts. Strategic business decisions that can impact on OHS are often taken by other parts of organisations, including operations, human resources (HR) or finance. OHS professionals cannot divorce themselves from such decisions and should promote their involvement in them (Broberg & Hermund, 2004). If they are not privy to the actual decision-making process, they need to foster close links with those who are, such as operations or HR executives. Also, they need to develop and maintain good working relationships with employees and, as appropriate, relevant union organisers. There is an obvious role for OHS professionals in reviewing the OHS impacts of new technology, preferably prior to its introduction. Safe design of equipment and work, consistent with occupational ergonomics principles will reduce the risks associated with that technology and the potential for future injuries in the workplace.

OHS and industrial relations impact on conditions of employment. In a review of Victorian OHS legislation, Maxwell (2004, p. 192), summarised the conjunction correctly: "Occupational health and safety is, by definition, an industrial issue, since it is necessarily concerned with the conditions of work." Technology also impacts on the conditions of employment through its impact on organizational structure and job and work design. To achieve the best productivity and safety outcome, organizations need to optimize both technology and social sub-systems,

7 Summary

Before undertaking a risk assessment, the OHS professional needs to establish the context within which the assessment is to proceed (Standards Australia, 2009). This embraces the external social, regulatory and economic context, as well as internal factors such as technology and industrial relations, that influence the way an organisation manages risk. This chapter complements the chapter on OHS law and regulation in Australia that covers the social and regulatory imperatives, by examining the business, technological and industrial imperatives of an organisation's socio-political context. It is of concern that managers continuously make strategic and operational decisions often without considering OHS implications.

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