



The Human: Principles of Social Interaction

Core Body of Knowledge for the
Generalist OHS Professional



**Safety Institute
of Australia Ltd**



**Australian OHS Education
Accreditation Board**

Copyright notice and licence terms

First published in 2012 by the Safety Institute of Australia Ltd, Tullamarine, Victoria, Australia.

Bibliography.

ISBN 978-0-9808743-1-0

This work is copyright and has been published by the Safety Institute of Australia Ltd (SIA) under the auspices of HaSPA (Health and Safety Professionals Alliance). Except as may be expressly provided by law and subject to the conditions prescribed in the Copyright Act 1968 (Commonwealth of Australia), or as expressly permitted below, no part of the work may in any form or by any means (electronic, mechanical, microcopying, digital scanning, photocopying, recording or otherwise) be reproduced, stored in a retrieval system or transmitted without prior written permission of the SIA.

You are free to reproduce the material for reasonable personal, or in-house, non-commercial use for the purposes of workplace health and safety as long as you attribute the work using the citation guidelines below and do not charge fees directly or indirectly for use of the material. You must not change any part of the work or remove any part of this copyright notice, licence terms and disclaimer below.

A further licence will be required and may be granted by the SIA for use of the materials if you wish to:

- reproduce multiple copies of the work or any part of it
- charge others directly or indirectly for access to the materials
- include all or part of the materials in advertising of a product or services, or in a product for sale
- modify the materials in any form, or
- publish the materials.

Enquiries regarding the licence or further use of the works are welcome and should be addressed to:

Registrar, Australian OHS Education Accreditation Board
Safety Institute of Australia Ltd, PO Box 2078, Gladstone Park, Victoria, Australia, 3043
registrar@ohseducationaccreditation.org.au

Citation of the whole *Body of Knowledge* should be as:

HaSPA (Health and Safety Professionals Alliance).(2012). *The Core Body of Knowledge for Generalist OHS Professionals*. Tullamarine, VIC. Safety Institute of Australia.

Citation of individual chapters should be as, for example:

Pryor, P., Capra, M. (2012). Foundation Science. In HaSPA (Health and Safety Professionals Alliance), *The Core Body of Knowledge for Generalist OHS Professionals*. Tullamarine, VIC. Safety Institute of Australia.

Disclaimer

This material is supplied on the terms and understanding that HaSPA, the Safety Institute of Australia Ltd and their respective employees, officers and agents, the editor, or chapter authors and peer reviewers shall not be responsible or liable for any loss, damage, personal injury or death suffered by any person, howsoever caused and whether or not due to negligence, arising from the use of or reliance of any information, data or advice provided or referred to in this publication. Before relying on the material, users should carefully make their own assessment as to its accuracy, currency, completeness and relevance for their purposes, and should obtain any appropriate professional advice relevant to their particular circumstances.

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:



University of Ballarat
Learn to succeed



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

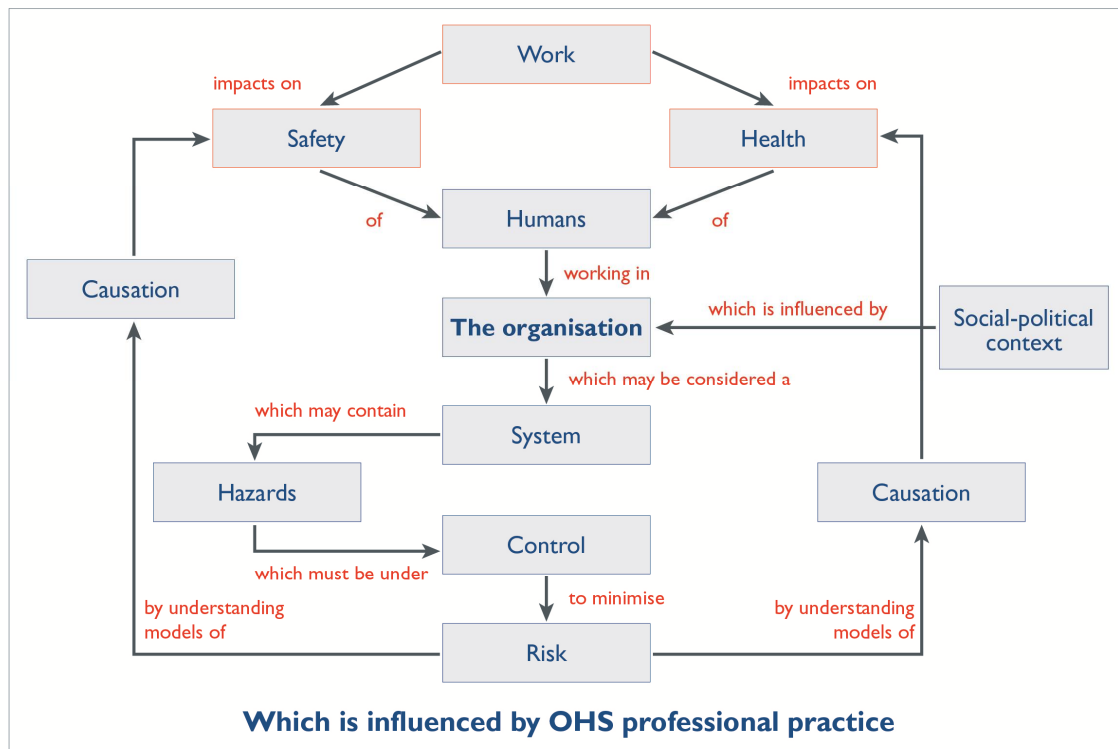
The process of developing and structuring the main content of this document was managed by a Technical Panel with representation from Victorian universities that teach OHS and from the Safety Institute of Australia, which is the main professional body for generalist OHS professionals in Australia. The 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.

The Human: Basic Principles of Social Interaction

Bill Pappas BBSc, BA, BEd, DipTeaching, MVocCouns

Organisational Psychologist

National Convenor,

Australian Psychological Society (APS) Occupational Health Psychology Interest Group

Email: ohpsychology@gmail.com

Bill has 26 years experience in organisational behaviour, organisational development, and occupational health, safety and wellbeing psychology. He has held positions as university lecturer, managing director of a psychological services consultancy, staff development manager, and with an OHS regulator. Bill is the Australian representative on the International Coordinating Group for Occupational Health Psychology and a member of the Safety Institute of Australia, the European Academy of Occupational Health Psychology, and the International Association of Applied Psychology. Also, he is affiliated with the American Psychological Society and the (American) Society for Occupational Health Psychology.

Carlo Caponecchia BA (Psych), PhD (Psychology)

Lecturer, School of Aviation, University of New South Wales

Email: carloc@unsw.edu.au

An expert on psychological hazards at work, Carlo teaches in the area of workplace safety and risk management. His research interests include human factors issues (fatigue, stress, bullying); risk perception, communication and behaviour; and error classification. Carlo has provided consultancy advice to several industries on safety-related projects and is involved in training, independent workplace investigations and organisational development. He is a member of the APS Occupational Health Psychology Interest Group and convenes the Risk Management Interest Group in the International Association for Workplace Bullying and Harassment.

Eleanor H. Wertheim MA, PhD, FAPS

Professor (Personal Chair), School of Psychological Science, La Trobe University

Email: e.wertheim@latrobe.edu.au

Eleanor teaches in the La Trobe University professional psychology program and conducts research on cooperative approaches to resolving conflict. She is first author of *Skills for Resolving Conflict*, and has provided professional development expertise to a wide range of professional groups, United Nations staff and international diplomats. Eleanor is a Fellow of the Australian Psychological Society (APS) a member of the national executive committee of the APS Occupational Health Psychology Interest Group.

**Core Body of
Knowledge for the
Generalist OHS
Professional**

Core Body of Knowledge for the Generalist OHS Professional

The Human: Basic Principles of Social Interaction

Abstract

Aspects of how humans interact with one another socially are important for Occupational Health and Safety (OHS) practice because all work tasks involve some kind of human element, whether in completing the tasks, being part of a workgroup or planning how to perform work. OHS can be affected by how we communicate with one another, treat one another in groups, and influence each other's behaviours and attitudes. These elements, along with how people obey commands, assume powerful roles and affect group decision-making, are considered in this chapter.

Keywords

group dynamics, leadership, group decision making, social identity theory, attribution theory, social comparison theory, group membership, social norms and group pressure to conform, performance, power, compliance, attitudes, conflict resolution, procedural and distributive justice

Contents

1	Introduction	1
2	Historical development of social psychology	2
3	Understanding social psychology in an OHS context	2
4	Perceiving individuals.....	3
4.1	Attribution theory	4
4.2	Biases in attributing causes to the actions of others	5
5	Self in relation to others: Social comparison theory.....	5
6	Group membership	6
6.1	Ingroups and outgroups.....	6
6.2	Social identity and self-categorisation theories	6
6.3	Stereotypes, prejudice and discrimination	7
6.4	The contact hypothesis.....	8
6.5	Changes in self-categorisation.....	9
7	Norms and group pressure to conform.....	9
8	Task performance	12
8.1	Decision-making biases	12
8.2	Group task performance	13
9	Power	14
9.1	Compliance.....	14
9.2	Sources of power	14
9.3	Obedience to authority ó the Milgram experiments	15
10	Attitudes and behaviour.....	16
10.1	The theory of planned behaviour	16
11	Attitude change	17
11.1	Cognitive dissonance theory.....	17
11.2	Persuasion theory	18
12	Understanding and resolving conflict.....	20
12.1	Competition and cooperation.....	20
12.2	Conflict management styles.....	21
12.3	Roles during conflict	21
12.4	Distributive and procedural justice	21
13	Implications for OHS practice	22
14	Summary.....	25
	Key thinkers and useful references.....	25
	References	25

1 Introduction

Social psychology is a discipline that uses scientific methods "to understand and explain how the thought, feeling, and behavior of individuals are influenced by the actual, imagined, or implied presence of other human beings" (Allport, 1954a, p. 5) and has contributed a large body of scientific evidence to inform our understanding of human interactions in a social context (Robbins et al., 2008). Social psychology research has been undertaken in the range of social settings in which humans interact, such as the family, society, educational institutions and of course the workplace, which is the focus of this chapter. Understanding the basic principles of social psychology is important for the Occupational Health and Safety (OHS) professional because:

- the social impacts of work can have positive or negative impacts on a person's wellbeing¹
- social interactions can directly or indirectly affect behaviours that impact safety and health
- social processes affect decision-making.

Work comprises a large proportion of people's lives; consequently, relationships that develop from social interactions within workplaces can be among the closest and most supportive relationships experienced by people. Of course the opposite also can be the case; when interactions go wrong at work it can have a significant impact on people's personal lives. Far from just providing a source of income, work fulfils a range of basic human social needs. People draw esteem from their achievements at work, and a sense of belonging and support from the relationships they build with workmates. They can develop a sense of contribution and life meaning and, overall, a sense of identity through the work they do and the groups they belong to.

Aspects of social interactions can directly or indirectly affect safety behaviours and outcomes. This chapter examines basic elements of social psychology that are most relevant for OHS professionals. It is the third in a series of three chapters² that examine the human as an individual from biological, psychological and social perspectives to facilitate understanding of the human response to hazards, work and relationships, how work-related injury and illness occur, and how to prevent or mitigate such outcomes. The chapter reviews key elements of the social relationship, including how humans perceive others, form impressions and attribute causes of behaviour, and how we form a self-concept through comparisons with others. It considers the importance of groups, social norms and pressures to fit in with certain groups, influences on task performance, the nature of power, and approaches to social influence based on attitude change and conflict

¹ See *OHS BoK Psychosocial Hazards and Stress*.

² Along with *OHS BoK The Human: As a Biological System*, and *BoK The Human: Basic Psychological Principles*.

resolution. Finally, two workplace scenarios provide examples of how the principles discussed in this chapter could be applied to OHS issues.

2 Historical development of social psychology

The origins of social psychology are often traced to Norman Triplett's 1897 experiments, which indicated that, as a result of competitive instinct, people expended more effort on a task when another person was present, but that individual effort decreased as group size increased (Baumeister & Bushman, 2001). By the 1960s, social psychology had emerged as a separate field from two polar opposites in psychology: Freudian psychoanalysis and behaviourism.³ While psychoanalysts studied introspection using limited controlled research methods, behaviourists viewed the only scientifically valid causes of behaviour as those observable aspects of the environment that reinforced or punished behaviour (Skinner, 1971).⁴ Social psychologists departed from both approaches by studying a combination of the social environment and internal experiences such as thoughts (cognitions) and feelings (affect) in predicting behaviour of individuals, while being strongly grounded in the scientific method. (Neisser, 1976)

Social psychology has been influenced by a wide range of theorists and researchers, including Gordon Allport, whose work focused on the importance of individuals' attitudes in areas such as prejudice and the transmission of rumours (Allport, 1954b) that have relevance for the modern workplace. Kurt Lewin (1948) strongly shaped the focus of social psychology by proposing that how an individual behaves in any specific situation is an interaction between what the person brings to the situation (attitudes, beliefs, feelings) and the (work) environment. Lewin's research into group dynamics (the study of interactions between individuals in groups) and development of force field analysis (a method for studying what helps or hinders group change) has been influential in organisational contexts. (See, for example, Milner, 2005)

A large amount of research has applied social psychology principles to organisational behaviour, such as leadership dynamics, decision-making and productivity in the workplace. However, the application of these principles to OHS has been limited and needs further development.

3 Understanding social psychology in an OHS context

Historically, social psychology research focused on testing theories through ensuring *internal validity* in research designs, which means controlling for as many extraneous factors as possible, with strong emphasis on random assignment to competing conditions. This approach led to the predominance of laboratory-based experimental research that may

³ See *BoK The Human: Basic Psychological Principles*.

⁴ See *BoK The Human Basic Psychological Principles*.

or may not be generalisable to the workplace. While field studies have been conducted in various contexts, more are needed in the field of OHS. Consequently, care should be taken when applying the following social psychology principles to workplace settings, because many of the theories have not been applied consistently in the workplace. Brief descriptions of some relevant concepts are given; further details should be sought before over-extending the application of these or trying to change safety practices on the basis of these ideas.

Obviously there are many notable OHS-relevant theories and research findings in the body of social psychology knowledge that are not covered in this review. Readers can refer to general texts on social psychology for an overview of the field (e.g. Baumeister & Bushman, 2011; Smith & Mackie, 2007) and applications in organisations (De Cremer & Van Dick, 2011; Thye & Lawler, 2006).

4 Perceiving individuals

A foundation of social relationships involves perceiving others (Smith & Mackie, 2007). *Impression formation* research examines how individuals use cues and selected information to make inferences about what other people are like, why they do things and what to expect from them. As soon as we meet someone new, we form a *first impression* based on initial nonverbal and verbal characteristics and behaviours. (Because impressions are based on incomplete information and cues, they may or may not be accurate.)

Several human biases affect inferences and impressions of others (Smith & Mackie, 2007). For example:

- *Attractiveness* ó physically attractive people are favoured
- *Familiarity* ó individuals feel more positive about people they encounter more frequently
- *Associations* ó nonverbal cues and behaviours lead to conclusions about the person based on associations with people encountered in the past who behaved similarly
- *Perseverance bias* ó first impressions tend to persist, despite contradictory evidence
- *Self-fulfilling prophecies* ó expectations of what others will be like may create self-fulfilling prophecies (e.g. because we expect a work colleague to be unpleasant, we smile at them less, which influences them to be less sociable towards us) (Smith & Mackie, 2007).

Inferences are not just made on first meeting people, but in daily interactions with others in the work environment and when making decisions.

4.1 Attribution theory

According to *attribution theory* (Abramson, Seligman & Teasdale, 1978; Kelley, 1973; Weiner, 1986) when an event occurs ó whether an accident or injury in the workplace, conflict, or failure to meet desired goals ó people make inferences about its cause. The theory assumes that people continually evaluate information in the world to explain what causes events, and that these explanations influence their behaviour.

Early attribution theorists (Heider, 1958; Kelley, 1967; 1973) proposed that individuals classify causes of events into three categories: person, entity or context. If a worker fails to meet workplace safety criteria, that worker, or their manager, will attempt to determine whether the unsatisfactory outcome was caused by:

- the worker (*person*)
- something about the difficulty or characteristics of the tasks involved in meeting the target (*entity*), and/or
- something about the circumstances leading to the outcome (*context*).

Several underlying dimensions of these types of causal attributions have been proposed:

- *Locus of causation* – The cause of an event or outcome can be attributed to something *internal* (e.g. the worker failed to act safely because of what he or she personally did or did not do) or *external* (e.g. others in the organisation failed to provide needed resources which affected the worker's ability to work safely)
- *Stability* ó Causes can be *stable* (e.g. due to the worker's personality which is unlikely to change) or *unstable* (e.g. the worker or others engaged in unsafe practices on this occasion or had unexpected, atypical difficulties)
- *Controllability* – Causes can be seen as *controllable* (e.g. the worker or others can readily change their approach to acting safely) or *uncontrollable* (e.g. the worker's actions or responses are constrained by factors over which they have no influence)
- *Globality* – The cause could affect a range of outcomes (e.g. the worker's general ability for the position is suboptimal) or the context could be limited (e.g. there was a specific issue that only affects this particular safety concern) (Abramson, Seligman & Teasdale, 1978; DeJoy, 1994; Weiner, 1986).

Building on Kelly (1967; 1973) and Weiner's (1985) attribution theory, DeJoy (1994, p. 3) identified causal attributions as integral to management of OHS because unexpected negative events are likely to elicit a spontaneous search for a cause: "In a very real sense, actions to manage safety derive more from attributions than from actual causes." Following a safety incident, OHS professionals and managers will assess the situation, and attempt to identify causes and rectify problems. They need to consider whether the accident occurred due to lack of knowledge or ability, fatigue, something inherent in the

work or a chance hazard, and whether this was the worker's typical effort, what incentive systems were in place to encourage safety behaviours, and associated actions of co-workers that may have caused the incident. Causes vary on locus of causality, stability and controllability dimensions. On the basis of the causal assessment, the manager decides whether it is necessary to change something about the worker, the task or the environment (DeJoy, 1994).

4.2 Biases in attributing causes to the actions of others

Attributions can involve systematic biases:

- *Self-serving biases* ó Successful outcomes tend to be viewed by people as due to their own internal characteristics (skill, motivation), whereas failures are more likely to be attributed to external causes (the fault of others or the situation) (Bradley, 1978).
- *Fundamental attribution error* ó When examining the cause of an event such as failure to meet targets or a workplace accident, individuals tend to make external, situational, unstable attributions regarding their own behaviour, while making internal, global and stable attributions about others' behaviour (Ross, 1977).

In the case of a workplace accident, the worker involved may attribute responsibility to inadequate training, pressure from management, work overload, co-worker faults or other external causes. In contrast, their supervisor may try to hold the worker personally responsible, attributing the cause to internal characteristics such as risky behaviour, carelessness, fatigue, attention lapses or misconduct (Gyekye, 2010). Understanding that these biases take place can potentially assist OHS professionals and decision-makers in giving more careful consideration to the full range of causes based on the evidence.⁵

5 Self in relation to others: Social comparison theory

In addition to forming impressions of other people and their actions, individuals form impressions of themselves, in the form of a *self-concept* (i.e. thoughts about the self). *Self-esteem* further involves one's positive or negative feelings about the self. Self-concept and self-esteem are shaped by the responses of other people. (See, for example, Baumeister & Bushman, 2011.)

An early description of the effect of social relations on self-concept was *social comparison theory* (Festinger, 1954), which states that individuals are prone to make comparisons with others. Comparisons can be *upward* (i.e. comparing oneself to a person(s) with greater amounts of a particular quality) or *downward* (i.e. comparing oneself to a person(s) with

⁵ See *OHS BoK Causation: Safety and Causation: Health Determinants* for a discussion on causation.

lesser amounts of that quality). Although upward comparisons can potentially enable an individual to aspire to higher outcomes, they can have negative effects on self-esteem. Downward comparisons may boost self-esteem. Comparisons with others who are more similar to the self are likely to result in stronger effects of this sort (Festinger, 1954).

6 Group membership

People belong to various groups, whether they choose to or not. Groups can be based on how people affiliate with others, or simply on the categories into which they fall (male compared to female, Christian compared to Islamic, etc.). Many aspects of group behaviour are relevant to OHS processes, including the importance of group cohesion, connectedness and belonging for promoting wellbeing in the workplace; the impact of how people are treated by others in the workplace; and in relation to decision making about actions that will promote health, safety and wellbeing.

6.1 Ingroups and outgroups

A core element of social group relationships involves one's perception of being a member of a particular group and others *not* belonging to that group. Allport (1954b) created the notion of *ingroups* which exist when members all use the term *we* with the same essential significance (p. 31) and *outgroups*, whose members can experience prejudice and rejection. Being part of an ingroup helps people to develop a sense of belonging and identity, and can promote wellbeing (Haslam, Jetten, Postmes & Haslam, 2009). Being perceived as an outgroup member, on the other hand, can potentially result in isolation, lack of support, and being harassed, bullied (directly or indirectly) or discriminated against due to characteristics such as race, religion, age, gender, nationality, sexual orientation or any characteristic perceived as 'different'.

6.2 Social identity and self-categorisation theories

Social identity theory (Tajfel & Turner, 1979) proposes that when people see themselves as members of a group, they identify with that group and associate themselves with its attributes and norms (accepted rules for behaviour). Social identity involves an awareness of belonging to a certain group(s) and valuing that group membership. That identity is maintained and enhanced through noticing differences between one's group and other groups (*differentiation*), and making comparisons that favour one's ingroup (Tajfel & Turner, 1979). The underlying motivation is seen as the need for a positive self-concept or self-esteem (Hogg & Terry, 2000).

Self-categorisation theory extended social identity theory to explain the process by which individuals perceive themselves as group members (Turner, 1985, Turner, Hogg, Oakes, Reicher, & Wetherell, 1987; see Hogg & Terry, 2000 for a review). Self-categorisation

theory suggests that people conceptualise a group according to some defining and stereotyped attributes that members of the group possess, which can be differentiated from the attributes of members of other groups. Demographic characteristics (e.g. gender, ethnicity), membership in a unit within an organisation (e.g. sales versus production) or membership of the organisation itself, can form possible bases for groups. When self-categorising into a group, a cluster of characteristics is termed a *prototype* and becomes thought of as defining group membership (see Hogg & Terry, 2000). Once self-categorisation into a group takes place, one's identity becomes being a member of that group, rather than being an individual. So thinking in terms of *we* replaces thinking in terms of *I*, which can promote cohesion, seeking to agree and self-esteem if the ingroup is indeed viewed as better than other groups (Haslam et al., 2009).

The groups into which individuals categorise themselves depend on the context, and change depending on current conversations and the social relationships with which one is engaged at any moment in time. Self-categorisation becomes more or less salient depending on the context. For example, in situations of uncertainty, social group membership becomes more important; greater favouritism towards ingroup members takes place and more stereotyping of others (Hogg & Terry, 2000).

The social identity and self-categorisation theories have been applied to general organisational contexts, attempting to explain their effects on groups, perceptions about leaders and leader behaviour (Hogg & Terry, 2000). Individuals perceived as failing to belong to a group can become isolated, suffer lack of support and have impaired health and wellbeing (Haslam et al., 2009). Workers from minority groups can be at greater risk. Self-categorisation theory also describes how, within an ingroup, those members who hold fewest of the valued characteristics of group members will be least favoured, and may too become isolated and perceived as deviants or 'black sheep' (Hogg & Terry, 2000).

The power of group identification to support people's wellbeing and build cohesion towards accomplishing important goals or, alternatively, to create stressors and conflict suggests that OHS professionals need to be cognisant of the existence of groups and address problems related to how groups are organised in a particular workplace.

6.3 Stereotypes, prejudice and discrimination

While there can be advantages to individuals perceiving themselves as part of a group, in terms of building esteem, promoting intra-group cooperation and buffering threats of uncertainty, there are associated potential negative effects on outgroup members or perceived deviants within an ingroup (Linville, 1980). Stereotyping, prejudice and discrimination are possible negative outcomes of viewing others as members of 'inferior' outgroups (Ryan & Bogart, 1997). Comments such as *all women are like X*, or *older people are all Y*, demonstrate the all or none nature of stereotypes, which ignore the fact

that, within groups, individuals are characterised by a wide range of characteristics and values. Prejudice includes a negative *value* placed on outgroups based on assumed outgroup characteristics. Discrimination involves disfavouring members of other groups through action. Prejudice and discrimination ó based on gender, age, religion, ethnicity, sexual orientation and other characteristics ó can reduce wellbeing in the workplace. For more detail, see the Australian Human Rights Commission's information for employers (AHRC, 2011).

6.4 The contact hypothesis

Theories involving the notion of ingroups and outgroups have led to interventions to break down prejudices regarding perceived outgroups. Perhaps the most well known of these approaches is based on Allport's (1954b) *contact hypothesis*, which suggests that prejudice towards other groups can be changed through contact with members of outgroups. The original theory posited that there are certain conditions under which the contact should take place, including:

- the groups have equal status
- the groups have a common goal(s)
- intergroup competition is removed and the two groups cooperate to achieve their common goal
- the process has the support of authorities, law or custom (Allport, 1954b).

A large body of research has examined the conditions under which contact with outgroup members can transform prejudice. In a meta-analysis of 515 studies, Pettigrew, Tropp, Wagner and Christ (2011) found that intergroup contact typically reduced prejudice to some extent, increased trust and forgiveness after past transgressions between groups, and reduced ingroup identification. Support was found for the conditions listed by Allport; however, these appeared to be *facilitating* as opposed to *necessary* conditions. Further conditions facilitating contact effects included *making group membership salient* and *ensuring the contact was not just superficial contact* (Pettigrew et al., 2011).

The meta-analysis also revealed that:

- Contact does not have to be directly with the outgroup; for example, vicarious contact through the media or having a friend who has an outgroup friend can assist in reducing prejudice
- Contact with members of an outgroup which resulted in reduced prejudice towards those members also generalised to others in the outgroup, with whom direct contact had not been made

- Contact reduces prejudice primarily through altering affective (emotional) responses to outgroup members
- Physiological measures of anxiety and perceived outgroup threat reduce after contact with the outgroup
- Positive contact leads to increased empathy towards outgroup members (Pettigrew et al., 2011).

These findings have potential implications for promoting psychological wellbeing in the workplace. They suggest that workplace leaders could develop planned opportunities for members of mainstream and minority groups (who are at risk of disfavour and prejudice) to work cooperatively towards common goals as equal partners for an extended period of time, with explicit support of management and where group membership is made salient.

It is important to note, however, that not all intergroup contact is positive (Pettigrew et al., 2011). Negative contact tends to involve situations in which participants feel threatened and did not choose to have the contact. These situations commonly take place in work environments with a competitive intergroup context and in situations involving current intergroup conflict (Pettigrew & Tropp, 2011). Therefore before initiating contact interventions in the workplace, it is important to ensure competition and conflict are eliminated and contact is voluntary.

6.5 Changes in self-categorisation

Contact with outgroups can result in cognitive changes that help reduce prejudice (Crisp & Abrams, 2009). According to self-categorisation theory, one of the effects of contact may be to change conceptions of ingroup and outgroup. For example, the concept of a *common ingroup identity* has been proposed, which suggests that people may be part of hierarchies of ingroups, such as when two departments within an organisation are seen as different groups, but both hold a common identity as members of the organisation itself (a superordinate ingroup). Developing a common ingroup identity recategorises groups from *us* versus *them* to *we* (Crisp & Abrams, 2009). From an organisational wellbeing perspective, OHS professionals can assess whether the nature of the groups within an organisation helps to promote cohesion and cooperation within those groups, good working relationships across groups and throughout the whole organisation, or interferes with health, safety and wellbeing.

7 Norms and group pressure to conform

Groups generally develop *social norms*, which are informally accepted ways of thinking, feeling or behaving that most people in a group agree on (see Sherif, 1936). Two types of

norms often described are: *injunctive norms* – what people believe *ought to be* done and *descriptive norms* – what most people actually *do* (Cialdini, Kallgren & Reno, 1991). Individuals tend to be influenced by norms either as information about ways to belong and feel mastery, or by feeling pressure to conform. Fugas, Meliá and Silva (2011) examined the role of these two types of norms on safety behaviours in the transport industry. They found that the descriptive norms related to what co-workers do predicted proactive safety behaviours a year later, particularly when a norm was generally held among co-workers. However, norms of supervisors and injunctive (what *should* be done) norms of co-workers were not predictive. The findings suggested that consistently observed co-worker behaviours influenced safety behaviours, such as workers feeling free to suggest ways to improve safety, to a greater extent than supervisory requirements or behaviour of supervisors (Fugas, et al., 2011).

7.1 Peer-pressure to conform

Research suggests that within groups individuals feel pressure to conform to group norms and opinions. As individuals we interact and respond to those around us, and are in turn influenced by, and influence, the feelings and behaviours of others. If a respected colleague informs us that a particular situation is safe, then we tend to accept their judgement. Most groups contain individuals whose opinions are rarely challenged or disputed, and the opinions of the larger group can be particularly influential.

An experiment by Asch (1956) tested the extent to which group members could be pressured, *against their own beliefs*, to conform. A group of participants seated in a room together were asked questions about the length of three lines. All participants, except one, were briefed before the experiment to always answer yes, regardless of whether the answer was right or not. Asch hypothesised that most people would eventually conform to decisions that were obviously wrong when surrounded by individuals giving incorrect answers. In the experiment, 75% of the unwitting subjects gave an incorrect answer to at least one question to conform to the rest of the group. A conclusion that can be extrapolated from Asch's (1956) experiment and Fugas and colleagues (2011) findings on group norms is that in an OHS situation, fitting into the immediate group context may be more important than following organisational guidelines or policy; consequently, group norms and dynamics are important to assess and, if necessary, change.

7.2 Groupthink

Social psychologist Irving Janis elucidated the phenomenon known as *groupthink* – "a mode of thinking that people engage in when they are deeply involved in a cohesive in-group, when the members' strivings for unanimity override their motivation to realistically appraise alternative courses of action" (Janis, 1982, p. 9). It is akin to a collective state of

mind where the group thinks that it cannot be wrong and that all contrary information should be rejected.

Janis proposed eight symptoms of groupthink grouped into three types:

Type I: Overestimations of the group – its power and morality

1. An **illusion of invulnerability**, shared by most or all the members, which creates excessive optimism and encourages taking extreme risks
2. An unquestioned **belief in the group's inherent morality**, inclining the members to ignore the ethical or moral consequences of their decisions

Type II: Closed-mindedness

3. Collective **efforts to rationalize** in order to discount warnings or other information that might lead the members to reconsider their assumptions before they recommit themselves to their past policy decisions
4. **Stereotyped views** of enemy leaders as too evil to warrant attempts to negotiate, or as too weak and stupid to counter whatever risky attempts are made to defeat their purposes

Type III: Pressures toward uniformity

5. **Self-censorship** of deviations from the apparent group consensus, reflecting each member's inclination to minimize to himself [sic] the importance of his [sic] doubts and counterarguments
6. A shared **illusion of unanimity** concerning judgments conforming to the majority view
7. Direct **pressure** on any member who expresses strong arguments against any of the group's stereotypes, illusions, or commitments, making clear that this type of dissent is contrary to what is expected of all loyal members
8. The emergence of self-appointed **mindguards** – members who protect the group from adverse information that might shatter their shared complacency about the effectiveness and morality of their decisions (Janis, 1982, pp. 174-175).

Groupthink occurs when there is a perception of high group cohesion and pressure to make high quality decisions. In this situation, the group member's ability to disagree or challenge the dominant view can be dismissed or ignored to maintain group cohesion and consensus.

A range of conditions can contribute to avoidance of group think:

- Group members are able to critically evaluate decisions without fear of ridicule, retribution, or isolation
- Dominant group members and leaders avoid stating preferences or expectations so that alternative or dissenting views are not discouraged
- Groups are divided for the initial discussions and are then brought together to discuss differences
- External expert opinions from non-group members are invited and encouraged with the aim of challenging members' views and opinions
- Individuals are encouraged to play the role of devil's advocate and question or contradict group opinions
- Possible groupthink warning signs are discussed and alternative options sought (Janis, 1972).

While groupthink has stimulated a body of research, it should be noted that not all findings have supported the expected effects (Kerr & Tindale, 2004). For example, good decisions can be made in the context of strong leadership and cohesive groups, and bad decisions can be made in less-cohesive groups with less strong leadership. It has been argued that the contributions of groupthink concepts lie largely in raising awareness that factors normally thought of as positive ó strong leadership and group cohesion ó may not always have intended results (Kerr & Tindale, 2004).

8 Task performance

Successful performance of tasks is dependent on making appropriate decisions about how to proceed and engaging in the task effectively.

8.1 Decision-making biases

A rational decision would be made by balancing how desirable each potential outcome is with the probability of each outcome. Theoretically, if one could obtain full and accurate data about these likely effects and probabilities, one could make the best decision (Tversky & Kahneman, 1974). However, particularly when under pressure, or under conditions of uncertainty, individuals take mental shortcuts ó *heuristics* ó to save effort and time (Choo, 2008; Tversky & Kahneman, 1974). These shortcuts can lead to a range of systematic biases associated with poor decisions as in risk-taking contexts such as the reported decision to launch the Challenger space shuttle despite advice to the contrary, resulting in an explosion that killed all seven crew members (Choo, 2008). Some examples of these biases (see Baumeister & Bushman, 2011) are:

- *Confirmation bias* ó people tend to search for and notice information that supports their expectations or beliefs, and to ignore non-supportive information; consequently, evidence of potential risk may be ignored if it is not expected
- *Over-reliance on easily retrievable information* ó people often judge the likelihood or frequency of an event by how easy it is to think of relevant instances of the event
- *False consensus effect* ó people tend to overestimate the number of other people who share their attitudes, values and beliefs.

Other biases result from people becoming entrapped in bad decisions, including risk-taking due to:

- *Sunk costs* ó When people have invested effort and resources into unsuccessfully achieving a goal, they may feel pressure to continue investing more, even when the odds of succeeding are low
- *Gambler's fallacy* ó a tendency to believe that a chance event is affected by previous events and that chance events will ÷even out÷ soon.

8.2 Group task performance

There are other effects that influence social interactions, some of which can be positive while others are problematic. For example:

- *Social facilitation effect* ó individuals tend to perform better when in the presence of others, particularly when the behaviour is something that is well learned and highly practiced (see Zajonc, 1965). In contrast, when the task is new, complex performance can deteriorate. Social facilitation has relevance for workplace health and safety, as it implies that an individual's performance does not rely solely on their knowledge and abilities, but also is affected by an imagined or real awareness of being evaluated.
- *Group polarization* ó Discussions in groups tend to intensify group opinion, and produce more extreme judgments than the individuals in the group would make on average (Deutsch & Gerard, 1955). This can result in what has been termed the *risky shift phenomenon*, which refers to the propensity for group members to make riskier decisions than they would as individuals (see Cartwright, 1973).

A range of group effects involve individuals standing back rather than taking personal responsibility:

- *Bystander effect* ó As the number of actors increases in a social situation, individuals become less likely to intervene in an incident. This effect can be extreme, with bystanders doing nothing while another person is having an epileptic seizure or being assaulted.
- *Diffusion of responsibility* ó The more people available, the less personal responsibility individuals feel for intervening. This tendency is a possible explanation for the bystander effect.
- *Social loafing* ó Many people tend to put less effort into a task when in a group than when alone. This effect is explained by a diminished sense of personal responsibility and fewer concerns about being evaluated when in a group.
- *Discussion bias* ó When in groups, members tend to discuss information the group members already know, rather than offering unique information. (Wang & Thompson, 2006)

Generally, these biases take place without awareness. They potentially result in managers and workers failing to notice signs of unsafe practices and, consequently, failing to act on them. By understanding and being aware of these human tendencies, OHS professionals can better recognise when they occur, point them out and take action to counter them.

9 Power

Along with social norms and group pressure, power is a source of social pressure in the workplace.

9.1 Compliance

While individual and organisational compliance with safety standards can be influenced by many variables (e.g. bad rules), social norms, implicit social rewards and social influence are important contributors. Compliance is typically distinguished from influence on the basis of compliance being transitory superficial change in attitudes or behaviour, whereas influence refers to a more genuine persuasion that has an internal effect (Vaughan & Hogg, 1998). Compliance and influence depend on many variables (including the context, and the content of the issue on which a person is being influenced), but perceived *social power* is an important aspect.

9.2 Sources of power

Power from hierarchical position is often assumed to be the main power differential in organisations. However, there are several different bases of power that may need to be considered when planning who should communicate particular information, conduct training, monitor performance or undertake other safety relevant activities:

- *Reward power* ó power based on the ability to give rewards for compliance
- *Coercive power* ó power based on the ability to threaten punishment for noncompliance
- *Informational power* ó power based on the belief that the more powerful individual has different or better information
- *Expert power* ó power based on the belief that the influencer has more experience or knowledge
- *Legitimate power* ó power based on the belief that the influencer is authorised by a power structure to make decisions or make demands
- *Referent power* ó power based on attraction to, or identification or affiliation with, the influencer (Raven, 1965).

Additional types of power base have been suggested, including:

- *Ecological power* ó power based on the ability to control the work environment either physically or culturally (e.g. through selection, retention, the use of employment contracts or performance management processes, the human resources unit may be able to control how people respond to the workplace) (Yukl, 2002)
- *Network power* ó power based on how well connected an individual is within the organisation or industry (Langford, 2000).

Different OHS professionals are likely to have different forms of power. While OHS consultants generally have little formal power in decision-making, they may have informational, expert, referent or network power. While an inspector from an OHS regulator may have coercive power, the extent that substantive changes are made in the workplace is likely to depend on many other factors. When working within an organisation, identifying and collaborating with leaders with legitimate, reward, referent and ecological power are likely to be crucial in ensuring suggested changes are implemented.

Power is often based on perception; it has to be perceived in order to be effective. For example, if someone is unaware that a particular individual is an expert in their field, then this power base is unlikely to affect them. Also, power is relative; for example, information-based power depends on who has, or who needs, particular information (Langford & Fitness, 2003). So the static view of power being held only by those in a higher position in the hierarchy can misrepresent the case.

9.3 Obedience to authority – the Milgram experiments

Some of the most interesting findings regarding compliance with commands came from Stanley Milgram's (1963, 1974) research on obedience. Influenced by Nazi officials' claims that they were 'just following orders', Milgram's experiment involved pairs of volunteers, randomly assigned to the role of either 'teacher' or 'learner'. The latter had to learn a list of paired words, while the teachers were instructed to administer an electric shock to the learners every time the learner got a word pair wrong. The shocks escalated in magnitude over the course of the trials. The teachers saw the learners being strapped to a chair, and heard feedback (such as screams) from them when they received a shock. Teachers were encouraged to continue administering shocks despite protests from the learners. The variable of interest was the degree of shock voltage that the teachers would administer. Experts predicted that very few people would go beyond the 'strong shock' of 135 volts. The surprising finding was that 65% of the teachers continued administering shocks to the very end of the scale (450 volts). Of course, no shocks were actually given to the learners; responses were tape recorded, and the experimenters' instructions to continue were highly scripted. Various factors were manipulated in further experiments, such as the proximity of teacher and learner. When teachers were closer to the learner in proximity, obedience reduced. Also, the original experiments were conducted by people wearing lab coats at Yale University. When the experiments were not conducted on a university campus, obedience reduced (Milgram, 1963; 1974). These experiments were key in establishing that people will often obey authority figures even when they know that something is wrong. This finding has implications for explaining people's actions, and empowering people to make decisions in safety-critical environments.

9.4 Social roles and wielding power – the Stanford prison experiment

Another famous experiment regarding obedience to authority and the potential people have to inflict pain and suffering was the Stanford prison experiment (Zimbardo, 2007). In 1971, a mock prison was constructed on the campus of Stanford University and psychologically stable student volunteers were randomly assigned roles as either prisoners or guards. The planned two-week experiment was abandoned after six days because the guards were wielding their arbitrarily assigned power over the prisoners by humiliating, harassing and intimidating them, with some guards behaving in a brutal and sadistic manner.⁶

The point of referring to this experiment here is not to reflect on how humans can be evil, but to highlight how the context in which people find themselves can grossly influence their behaviour, including evoking a propensity to use power. The guards behaved as they did apparently because they were assigned the power over others. This kind of argument was used in defence of soldiers involved in torture at Abu Grahیب prison. Zimbardo (2007) gave evidence in defence of the soldiers, and emphasised that the system in which they operated had to take some blame for what happened. The atrocities that were committed were not just about the personality of the individuals involved. This has been labelled the bad apple versus bad barrel argument (Shermer, 2007; Zimbardo, 2007).

Studies demonstrating the strong influence of social context have important implications for both psychological and physical workplace safety issues. They suggest that how we organise social work environments can affect people's health and wellbeing through the roles that people are encouraged to adopt.

10 Attitudes and behaviour

Attitudes form the core of many social psychology theories. Research has identified a range of attitudinal factors affecting behaviour that could have implications for how to structure organisational processes and health and safety communications aiming to influence behaviour.

10.1 The theory of planned behaviour

The *theory of planned behaviour* (Ajzen, 1991; Ajzen & Fishbein, 1980) was developed to predict how individuals will act when a range of possible choices exist. In this theory, attitudes refer to individuals' beliefs about what the *outcomes* of a particular behaviour will be, combined with an evaluation of how *important* those outcomes would be. For example, if an employee is considering whether to report to management instances of workplace bullying, consideration will be given to the likely outcomes of reporting (e.g. expectations

⁶ Information and footage from this experiment can be found at <http://www.prisonexp.org/>

that the bullying will stop, how stressful the process will be) and the relative importance of each consequence.

The theory includes the concept of *subjective norms* (similar to *social norms*); that is, expectations of how the majority of significant others in one's social environment would respond if one behaved in the way being considered, combined with whether or not the individual takes these responses into consideration when acting. If it is perceived that most managers and co-workers would disapprove of reporting the bullying incidents, then the bullying is less likely to be reported. The fact that the perceived norms are subjective implies that any workplace norms, such as organisational value statements, would need to be associated with clear demonstrations that those values and norms are adhered to in practice. The theory encompasses the concept of *perceived behavioural control*, which reflects individuals' perceptions of how much control they actually exert in regard to behaving in a particular way (Ajzen, 1991). Therefore, if a worker considering reporting bullying fears being unable to make a convincing case, he or she may decide not to pursue it.

Theoretically, attitudes, social norms and perceived control predict the worker's *intention* to report the bullying, which in turn predicts behaviour. The theory of planned behaviour has successfully predicted a range of health and safety promoting behaviours, such as engaging in sun protection measures, wearing a helmet, quitting smoking and, sometimes, exercise behaviours (Webb & Sheeran, 2006). However, applications specific to the workplace have been less common. Attitudes and perceived control generally have predict intention to a greater extent than social norms (as defined by this theory). In turn, intention to act in a particular way or to change behaviour has been found in many studies to predict behaviour moderately well (Webb & Sheeran, 2006).

11 Attitude change

Given the role that attitudes play in behaviour, an important question is how one goes about changing attitudes to promote better OHS decisions and behaviours. A major role of OHS professionals, for example, is to facilitate change in organisational behaviours through working with management, and suggesting resources and changes in policy and practice. When considering structural or procedural changes to address workplace OHS issues, managers and OHS professionals need to convince workers that a new approach will be superior to the existing one and to encourage workers to adopt the new health and safety behaviours.

11.1 Cognitive dissonance theory

A well-accepted theory of attitude change is Festinger's (1957) *cognitive dissonance theory*. When individuals become aware of an inconsistency in their attitudes, thoughts and

behaviours, they enter an uncomfortable state of tension labelled *cognitive dissonance*. Often the trigger involves behaving in a way that does not match one's attitudes, such as taking risks when one believes one should maintain safety standards. Surprisingly, instead of changing behaviours to match their attitudes, individuals often change their attitudes to match the new behaviour. In this case, a worker may try to justify risk-taking behaviour by minimising the importance of the guidelines or the likelihood of being injured, and this new attitude will persist. For this effect to take place, four conditions must be met:

1. The individual perceives that the action is inconsistent with the attitude
2. The individual takes personal responsibility for the action (which cannot be seen as coerced or due to strong situational pressures)
3. The individual experiences uncomfortable physiological arousal
4. The individual attributes the arousal to the inconsistency between the attitude and the action (see Petty & Wegener, 1998).

To reduce the unpleasant tension, individuals will change their attitude to match their behaviour. While the example above involved a worker modifying his or her attitude to safety in a negative manner, the potential exists for OHS professionals to effect positive attitude change by encouraging individuals to voluntarily behave in health and safety *promoting* ways.

11.2 Persuasion theory

Perhaps the most influential model of social persuasion through communication is the *elaboration likelihood model* (ELM) of persuasion. This model predicts conditions under which persuasive communications will be accepted by recipients and persist over time and in the face of contrary arguments (Petty & Cacioppo, 1986). The theory offers a synthesised framework for how communication can change attitudes. At the core is the idea that presented messages are processed and, if successful, shift a recipient toward the advocated position of the persuader, hopefully then changing behaviour.

The ELM states that the degree of cognitive consideration of arguments, or *elaboration*, that a recipient undertakes following a persuasive message influences how much persuasion takes place. Messages can be processed in one of two ways:

- *Superficial processing*: Persuasion based on superficial processing of information tends to focus on cues and associations that make a message attractive, but are peripheral to the core message; strategies include associating the message with positive images, or popular or attractive people
- *Systematic processing*: Systematic or deeper processing of persuasive communications involves creating opportunities and encouragement for listeners to

actively consider, think about and *elaborate* upon a message; greater elaboration is related to greater and more persistent attitude and associated behaviour change (Petty & Cacioppo, 1986).

At least three major components of a message can be identified: message *content*, message *source* and characteristics of the message *recipient* (Pritchard, 1986). Message content varies in the degree to which it represents a logically convincing, data-based argument, how much it encourages reflection on that argument and cognitive elaboration, and whether it includes and addresses counterarguments. For example, if one is persuading workers to follow safety guidelines, a persuasive message might include the advantages of doing so and the disadvantages of ignoring the guidelines. In addition, counterarguments to following safety guidelines (e.g. it takes too much effort) could be acknowledged and flaws in the counterarguments pointed out (e.g. it gets easier with practice and is worth the effort). Furthermore, recipients can be encouraged to find the flaws themselves (involving greater elaboration). *Inoculation approaches* are similar to medical inoculation in concept, in that recipients are exposed to weakened versions of possible counterarguments in order to assist the recipient to resist later exposure to those counterarguments (McGuire, 1964).

The ELM suggests that two key recipient characteristics influence how motivated individuals are to think about and elaborate upon a persuasive message: *need for cognition* and perceived *relevance* of the message (Petty & Cacioppo, 1986). Need for cognition reflects an individual's tendency and preference to think through and elaborate upon arguments. The ideal combination for successful persuasion involves individuals who are willing to carefully process persuasive messages elaborating on the arguments, resulting in considered and lasting changes. By contrast, individuals who tend not to think arguments through tend to be influenced by peripheral cues such as source attractiveness; resultant attitude change may be short-term as subsequent peripheral cues are likely to once again influence attitudes. Regarding perceived relevance, if recipients do not see the message as applicable to them personally they will be likely to ignore it. Recipient characteristics, such as personality, motivations and attitudes, are important to consider when designing messages. Matching messages to the recipient type can result in more persuasion (Petty & Briñol, 2008).

Characteristics of a message source also influence the persuasiveness of a message (e.g. McGuire, 1985; Petty & Cacioppo, 1986). For example, sources perceived to be expert will usually be more persuasive. However, if the expert has too much credibility, the recipient may not think as elaborately about the arguments, suggesting that for individuals motivated to think carefully, a moderately expert source will encourage greater elaboration, consistent with lasting change (Petty and Briñol, 2008). Sources perceived as similar to the recipient may be more persuasive (Petty & Cacioppo, 1986). However, some research has indicated that although it may take longer for the attitudes of members of majority groups

to change when members of minority factions offer a persuasive argument, the change will last longer when it does happen (Crano & Prislin, 2006).

Most of the effects described can vary depending on specific circumstances or context; for example, the effects of informing recipients about the expertise of the message source may differ depending on whether the information is presented at the start or end of the message (Petty & Briñol, 2008). Consequently, close inspection of the literature on persuasion and associated heuristics is important prior to designing and delivering specific messages.

In general, persuasion theories have potential relevance for presenting OHS messages and influencing decision-making in various contexts. OHS professionals may first persuade management of the need for certain organisational changes and then assist management to encourage workers to make those changes in practice.

12 Understanding and resolving conflict

Because individuals have different opinions, preferences, needs, values and goals, disputes and conflict are an expected part of relating with others. If handled badly, conflict between individuals and groups can be a substantial risk to wellbeing in the workplace.

Alternatively, conflict can be handled in constructive ways and result in positive change.

12.1 Competition and cooperation

Based on substantial research, Morton Deutsch (1973) proposed a *theory of cooperation and competition*, which states that individuals approach conflict from one of two orientations: competitively or cooperatively. His *crude law of social behaviour* suggests that whichever form of social behaviour a person engages in, it will tend to be mirrored by others in the social interaction. Therefore, if one party approaches a negotiation competitively, the other will tend to compete in return. Similarly, cooperative behaviours tend to produce cooperative responses. This law has powerful implications since it means that by initiating cooperation, one can often foster cooperation in others.

More recently, Deutsch (2006) linked his theory of cooperation and competition to ideas of *interdependence* in relationships. In workplace and social relationships, people often depend on each other to achieve their goals. Deutsch (2006) argued that conflict, by definition, involves an interdependence of goals, such that attainment of one party's goal will influence attainment of another's goal. With *negative goal interdependence*, the more one party gains (or is likely to gain), the less the other party gains; for example, where two salesmen in a company compete over a list of leads to make the most sales. With *positive goal interdependence*, the achievement of one party's goals helps the other to achieve their goals; for example, instead of arguing over the list of leads, the two salesmen join together to create new possibilities for sales beyond the existing list. By reframing the conflict as a

mutual problem with the possibility of win-win solutions, parties are more likely to cooperate. Instead of making demands and concessions (*distributive bargaining*), the problem is transformed to finding creative ways to meet everyone's needs. Although most conflicts can be resolved to all parties' satisfaction, win-win solutions are missed if parties do not think to look for them. (Deutsch, 2006)

12.2 Conflict management styles

Generally, five main conflict styles are described (Blake & Mouton, 1964; Pruitt & Rubin, 1986; Wertheim, 2011), including contending (fighting to get one's own way), yielding, avoiding, compromising and integrative (or cooperative) problem solving. While each style can be appropriate in certain circumstances, over-reliance on one style to the exclusion of others can be problematic, particularly if it involves contending, avoiding or yielding. In cross-cultural research, other conflict styles have been mapped in relation to levels of emotional expressiveness and directness of discussion (high- versus low-context communication) (Hammer, 2005). Cultural differences are important to be aware of since conflict may arise through misunderstanding behaviours of others and attributing actions to negative intentions or personal characteristics.

12.3 Roles during conflict

Conflict and differences can be resolved not only through direct negotiation, but also through the assistance of a third party, and OHS professionals may play such a role at times. Third party roles include that of an expert consultant, who provides information that allows managers to make informed decisions; an arbitrator, who listens to parties' views and decides the resolution; a conciliator, who listens to parties' views and makes a recommendation; a mediator or facilitator, who assists the parties to come to a decision or resolution; or a coach, who provides guidance about how the parties could constructively manage a dispute or dilemma. Third parties need to clarify their role with the other parties, so there are no misunderstandings about roles.

12.4 Distributive and procedural justice

Decisions about workplace changes and solutions to problems will be evaluated by those involved as to their perceived fairness. Two forms of justice influence this perception. *Distributive justice* involves ensuring that where resources (such as budget or rewards) need to be divided, fair guidelines determine their allocation. Perhaps even more important is *procedural justice*, in that individuals need to feel that fair processes have taken place (Lind & Tyler, 1988; Thibaut & Walker, 1975).

Research suggests that the same resolution or decision will be more acceptable if the procedure was considered fair. Perceptions of fairness are often affected by whether the

parties had an opportunity to have a say, or a *voice*, in the decision and when leaders treat group members with respect, are unbiased and show concern for members' views (Lind & Tyler, 1988; Thibaut & Walker, 1975). Also, decision-makers being seen as having legitimate authority is important (Clay-Warner, 2006). OHS professionals should be aware of fair processes because, no matter how excellent a new policy or practice is, if the people who will be affected by it do not feel they had an opportunity to have a say and have their concerns addressed, the changes may be rejected. These are important principles for effective consultation.

13 Implications for OHS practice

Aspects of social psychology are relevant to many OHS situations, and may explain or describe interactions, or provide ways of changing attitudes, behaviours and outcomes. The following scenarios demonstrate some of the ways in which knowledge of social psychology could be applicable to workplace safety.

Influencing decisions impacting on OHS

Scenario:

An OHS consultant has been called in by the CEO of a medium-sized organisation to assist in implementing a new strategic plan that includes outsourcing some functions. The consultant's role is to ensure that the contractual arrangements and selection of the contractors address OHS requirements. The accountant and the procurement officer see the OHS consultant as encroaching on their 'turf' and form a 'coalition;' they make it difficult for the OHS consultant by withholding documents and being 'too busy' to make appointments. While not part of the 'coalition,' the operations manager is unhappy as he sees his power-base being eroded. The consultant does not want to directly involve the CEO unless absolutely necessary as she would like to gain support rather than have the CEO intervene.

Social identity and self-categorisation theories. The OHS consultant assesses the perceived groups within the organisation (i.e. who belongs to them and what they mean to those in them), understanding that in times of perceived threat ingroup identities become more salient and outgroups are disfavoured. Finding ingroup members with influence who may be more amenable to cooperation could be productive, as well as framing arguments in terms of benefits for the perceived ingroups and considering how to develop a greater common ingroup identity as an organisation.

Theory of planned behaviour. An analysis of the workers' behaviour considers what outcomes they see as likely of withholding versus providing help to the OHS consultant. Ways to change these perceptions are considered.

Conflict and its resolution theory. The officers appear to see the context as competitive; this is resulting in use of avoidance strategies instead of cooperative problem solving. The OHS consultant assesses the needs and fears of the different officers and workers. She makes an effort to develop a cooperative perspective, explaining that the aim is to address all parties' concerns. The facilitative role of the OHS consultant in this process is clarified.

Theories of power. The role and legitimacy of the OHS consultant and extent and sources of her power are clarified, where helpful, with those involved. She finds ways for workers to understand her legitimate position working with the organisation, and how her expertise, experience and ability to recommend resources and processes to the CEO could be helpful in addressing any officer/worker concerns. The need of the operation manager and others to maintain power in satisfying and influential roles is addressed.

Persuasion theory. The OHS consultant considers design of persuasive messages targeting different types of people to best communicate the need for changes. This process includes consideration of who would deliver the message (the CEO, senior managers, consultant, others), how it should be delivered (written, oral, directly, through internal media) and how to encourage recipients to think through the arguments.

Procedural and distributive justice. Methods for ensuring officers and others see the decisions as fair are important, including ensuring they have voice and input into the process. The OHS consultant considers when the CEO/senior management might need to be involved in two-way communications with officers and workers about the change process.

Implementing a new procedure that requires a change in practice

Scenario:

A new procedure for completing a task is to be introduced following the investigation of a safety incident. This procedure requires operators to change what they are currently doing and they perceive that the changes will make the task longer. The change is not negotiable as the old practices are now seen as high risk. The area manager thinks that the operators are being difficult and resisting change as a matter of course. The OHS professional has to consider the best way to effectively implement the changed practice.

Attribution theory and biases: The OHS professional tactfully evaluates what attributions were made about the serious incident, how the new procedure was decided, and whether the proposed solution is indeed the best or only viable one. He explores the attributions operators are making about the cause of the incident and about the changes to see how these may be affecting their concerns.

Identity theory and self-categorisation: The OHS professional notes whether certain subgroups of operators are particularly resistant to the changes, or if it is all the operators. He realises that threatened uncertainty may be making the operator group more cohesive and less receptive to management directives. He considers whether there are particular leaders within the operator group/s who might be helpful or could be invited to be part in the change process.

Social norms: The OHS professional considers how to change descriptive norms so that the new system becomes standard practice.

Power: The OHS professional considers whether any forms of power might be of use, including rewards for using the new system, and tries to avoid depending on punishment and penalties to force compliance. The OHS professional uses expert or network power to assess whether the procedure really is the best one to address the causes of the serious incident, and considers getting experts in to explain the system and its advantages. He notes who among the operators seems to have most power to persuade the others, since they may be able to become allies.

Conflict resolution theory: The OHS professional clarifies his role with management, such as discussing whether he will be suggesting to management ways to deal with the problem, or facilitating discussions between operators and management. A consultative process takes place where workers are asked their views and to explain their concerns about the new procedures. Managers explain their views and the concerns they are trying to address. Creative ways to meet everyone's concerns are considered, including addressing possible operator fears of negative workplace consequences if the task takes longer. Management stays open to the possibility that there may be ways of fine-tuning the procedure or workload expectations that may solve the problem. A win-win solution is sought.

Persuasion theory: The OHS professional works with management to consider who would be the best people to explain the changes (experts? an operator with experience with this sort of system? one of the operators themselves? a manager?), and how the message can be explained most persuasively, including considering how to address counterarguments, and ways to help operators think through the logic and advantages of the new system. The possibility that different workers may be influenced by different sorts of messages is considered.

Cognitive dissonance: Some of the more influential workers are invited to be on the change committee or to voluntarily give a talk explaining how the new system would work, or operators are invited to try out easy parts of the new system just to see what it involves. When they act in these ways voluntarily it may sway their attitudes.

Procedural justice: The OHS professional recommends that the change process is carefully considered, keeping in mind worker concerns and ensuring they have opportunities to have a say. The process of making the decision is carefully considered and explained to operators to ensure it is seen as legitimate and fair.

14 Summary

This chapter has reviewed a range of social psychological theories and research contributions with potential or demonstrated relevance to the role of the generalist OHS professional. The aim has been to provide a starting point for considering those contributions. Further research is needed examining outcomes of applying these theories and findings, which have arisen from a combination of laboratory and field research, to specific OHS contexts.

Key thinkers and useful references

- Geller, E. S. (2001). *The psychology of safety handbook*. Boca Raton, FL: Lewis Publishing.
- Katz, D., & Kahn, R. L. (1966). *The social psychology of organizations*. New York, NY: Wiley.
- Thyne, S. R., & Lawler, E. J. (Eds). (2006). *Social psychology of the workplace*. San Fransico, CA: Elsevier.

References

- Abramson, L. Y., Seligman, M. E., Teasdale, J. D. (1978). Learned helplessness in humans: Critique and reformulation. *Journal of Abnormal Psychology*, 87(1), 49–74.
- AHRC (Australian Human Rights Commission). (2011). Information for employers. Retrieved from http://www.hreoc.gov.au/info_for_employers/order.html
- Ajzen, I. (1991). The theory of planned behaviour. *Organizational Behavior & Human Decision Processes*, 50, 179–211.
- Ajzen, I., Fishbein, M. (1980). *Understanding attitudes and predicting social behaviour*. Englewood Cliffs, NJ: Prentice Hall.
- Allport, G. W. (1954a). The historical background of modern social psychology. In G. Lindzey (Ed.), *Handbook of social psychology* (Vol. 1) (pp. 3656). Reading, MA: Addison-Wesley.
- Allport, G. W. (1954b). *The nature of prejudice*. Reading, MA: Addison-Wesley.
- Arkes, H., Blumer, C. (1985). The psychology of sunk cost. *Organizational Behavior and Human Decision Process*, 35, 1246140.
- Asch, S. E. (1956). Studies of independence and conformity: A minority of one against a unanimous majority. *Psychological Monographs*, 70 (Whole no. 416).

- Baumeister, R. F., Bushman, B. J. (Eds.). (2011). *Social psychology and human nature* (2nd ed.). Belmont, CA: Wadsworth.
- Blake, R., Mouton, J. (1964). *The managerial grid: The key to leadership excellence*. Houston, TX: Gulf Publishing.
- Bradley, G. W. (1978). Self-serving biases in the attribution process: A reexamination of the fact or fiction question. *Journal of Personality & Social Psychology*, 36(1), 56–71.
- Cartwright, D. (1973). Determinants of scientific progress: The case of research on the risky shift. *American Psychologist*, 28(3), 222-23.
- Choo, C. W. (2008). Organizational disasters: Why they happen and how they may be prevented. *Management Decision*, 46(1), 32–45.
- Cialdini, R. B., Kallgren, C. A., Reno, R. (1991). A focus theory of normative conduct: A theoretical refinement and reevaluation of the role of norms in human behavior. *Advances in Experimental Social Psychology*, 24, 201–234.
- Clay-Warner, J. (2006). Procedural justice and legitimacy: Predicting negative emotional reactions to workplace injustice. In S. R. Thye & E. J. Lawler (Eds.), *Social psychology of the workplace: Advances in group processes* (Vol. 23) (pp. 207–227). Amsterdam: Elsevier.
- Crano, W. D., Prislin, R. (2006). Attitudes and persuasion. *Annual Review of Psychology*, 57, 345-374.
- Crisp, R. J., Abrams, D. (2009). Improving intergroup attitudes and reducing stereotype threat: An integrated contact model. *European Review of Social Psychology*, 19(1), 242–284.
- De Cremer, D., Van Dick, R. (2011). *Social psychology and organizations*. New York, NY: Taylor & Francis.
- DeJoy, D. M. (1994). Managing safety in the workplace: An attribution theory analysis and model. *Journal of Safety Research*, 25(1), 3–17.
- Deutsch, M. (1973). *The resolution of conflict*. New Haven, CT: Yale University Press.
- Deutsch, M. (2006). Cooperation and competition. In M. Deutsch, P. Coleman & E. Marcus (Eds.), *The handbook of conflict resolution: Theory and practice* (pp. 23–42). San Francisco, CA: Jossey-Bass.
- Deutsch, M., Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *Journal of Abnormal & Social Psychology*, 51(3), 629–636.
- Festinger, L. (1954). A theory of social comparison processes. *Human Relations*, 7(2), 117–140.
- Festinger, L. (1957). *A theory of cognitive dissonance*. Stanford, CA: Stanford University Press.

- Fugas, C. S., Meliá, J. L., Silva, S. A. (2011). The öisö and the öoughtö: How do perceived social norms influence safety behaviors at work? *Journal of Occupational Health Psychology, 16*(1), 67–79.
- Geller, E. S. (2005). Behavior-based safety and occupational risk management. *Behavior Modification, 29*(3), 539–561.
- Gilbert, D. T., Fiske, S. T., Lindzey, G. (Eds.). (1998). *The handbook of social psychology* (4th ed.) (Vol. 1). Boston, MA: McGraw-Hill.
- Gyekye, S. (2010). Occupational safety management: The role of causal attribution. *International Journal of Psychology, 45*(6), 4056416.
- Hammer, M. R. (2005). The intercultural conflict style inventory: A conceptual framework and measure of intercultural conflict resolution approaches. *International Journal of Intercultural Relations, 29*(6), 6756695.
- Haslam, S. A., Jetten, J., Postmes, T., Haslam, C. (2009). Social identity, health and well-being: An emerging agenda for applied psychology. *Applied Psychology: An International Review, 58*(1), 1623.
- Heider, F. (1958). *The psychology of interpersonal relations*. New York, NY: Wiley.
- Hogg, M. A., Terry, D. J. (2000). Social identity and self-categorization processes in organizational contexts. *Academy of Management Review, 25*(1), 121–140.
- Janis, I. L. (1972). *Victims of groupthink*. Boston, MA: Houghton Mifflin.
- Janis, I. L. (1982). *Groupthink: Psychological studies of social behaviour decisions and fiascos* (2nd ed.). Boston, MA: Houghton Mifflin.
- Kelley, H. H. (1967). Attribution theory in social psychology. In D. Levine (Ed.), *Nebraska symposium on motivation* (Vol. 15). Lincoln, NE: University of Nebraska.
- Kelley, H. H. (1973). The process of causal attribution. *American Psychologist, 28*(2), 107–128.
- Kerr, N. L., Tindale, R. S. (2004). Group performance and decision making. *Annual Review of Psychology, 55*, 623–655.
- Kramer, R. C., Jaska, J. A. (1987). *The Space Shuttle Disaster: Ethical Issues in Organizational Decision-making*. Western Michigan University. Retrieved from <http://www.eric.ed.gov/PDFS/ED283224.pdf>
- Langford, P. H. (2000). Importance of relationship management for the career success of Australian managers. *Australian Journal of Psychology, 52*(3), 163–169.
- Langford, P. H., Fitness, J. (2003). Leadership, power and influence. In M. O'Driscoll, P. Taylor & T. Kalliath (Eds.), *Organisational psychology in Australia & New Zealand* (pp. 279–301). Oxford: Oxford University Press.

- Lewin, K. (1948). *Resolving social conflicts: Selected papers on group dynamics* (G. W. Lewin, Ed.). New York, NY: Harper & Row.
- Lind, E. A., Tyler, T. R. (1988). *The social psychology of procedural justice*. New York, NY: Plenum.
- Linville, P. W. (1980). Polarized appraisals of out-group members. *Journal of Personality & Social Psychology*, 38(5), 689–703.
- McGuire, W. J. (1964). Inducing resistance to persuasion: Some contemporary approaches. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 1). New York, NY: Academic Press.
- McGuire, W. J. (1985). Attitudes and attitude change. In G. Lindzey & E. Aronson (Eds.), *Handbook of social psychology* (3rd ed., Vol. 2) (pp. 233–346). New York, NY: Random House.
- Milgram, S. (1963). Behavioural study of obedience. *Journal of Abnormal & Social Psychology*, 67, 371–78.
- Milgram, S. (1974). *Obedience to authority*. London: Tavistock.
- Miner, J. B. (2005). *Organizational Behavior: Behavior I: Essential Theories of Motivation and Leadership*. Armonk NY: M.E. Sharpe.
- Neisser, U (1976) *Cognition and reality: principles and implications of cognitive psychology*. San Francisco: W H Freeman
- Pettigrew, T. F., Tropp, L. R. (2011). *When groups meet: The dynamics of intergroup contact*. Philadelphia, PA: Psychology Press.
- Pettigrew, T. F, Tropp, L. R., Wagner, U., & Christ, O. (2011). Recent advances in intergroup contact theory. *International Journal of Intercultural Relations*, 35(3), 271–280.
- Petty, R., Briñol, P. (2008). Psychological processes underlying persuasion: A social psychological approach. *Diogenes*, 217, 526–67.
- Petty, R. E., Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. New York, NY: Springer-Verlag.
- Petty, R. E., Wegener, D. T. Attitude change: Multiple roles for persuasion variables. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.) *The handbook of social psychology* (4th ed.) (pp. 323-390). Boston, MA: McGraw-Hill.
- Pritchard, M. J. (1986). *Medicine and the behavioural sciences: An introduction for students of health and allied professions*. London: Edward Arnold.
- Pruitt, D. G., Rubin, J. Z (1986). *Social conflict: Escalation, stalemate and settlement*. New York, NY: Random House.

- Raven, B. H. (1965). Social influence and power. In I. D. Steiner & M. Fishbein (Eds), *Current studies in social psychology* (pp. 371-382). New York, NY: Holt, Rinehart & Winston.
- Robbins, S. P., Judge, T. A., Millett, B., Waters-Marsh, T. (2008). *Organisational behaviour* (5th ed.). Frenchs Forest, NSW: Pearson Prentice Hall.
- Ross, L. (1977). The intuitive psychologist and his shortcomings: Distortions in the attribution process. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 10). New York, NY: Academic Press.
- Ryan, C. S., Bogart, L. M. (1997). Development of new group members' in-group and out-group stereotypes: Changes in perceived variability and ethnocentrism. *Journal of Personality & Social Psychology*, 73(4), 719-732.
- Sherif, M. (1936). *The psychology of social norms*. Oxford: Harper.
- Shermer, M. (2007, August). Bad apples and bad barrels: Lessons in evil from Stanford to Abu Ghraib. *Scientific American*. Retrieved from <http://www.scientificamerican.com/article.cfm?id=bad-apples-and-bad-barrels>
- Skinner, B. F. (1971). *Beyond freedom and dignity*. New York, NY: Alfred A. Knopf.
- Smith, E. R., Mackie, D. M. (2007). *Social psychology* (3rd ed.). New York, NY: Psychology Press.
- Tajfel, H., Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33-48). Monterey, CA: Brooks Cole.
- Thibaut, J., Walker, H. L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Erlbaum.
- Thye, S. R., Lawler, E. J. (Eds.) (2006). *Social psychology of the workplace: Advances in group processes* (Vol. 23). Amsterdam: Elsevier.
- Turner, J. C. (1985). Social categorisation and the self-concept: A social cognitive theory of group behaviour. In E. J. Lawler (Ed.) *Advances in group processes: Theory and research*. (Vol 2) (pp. 77-122). Greenwich, CT: JAI Press.
- Turner, J. C., Hogg, M. A., Oakes, P. J., Reicher, S. D., Wetherell, M. S. (1987). *Rediscovering the social group: A self-categorization theory*. Oxford, UK: Blackwell.
- Tversky, A., Kahneman, D. (1974). Judgment under uncertainty: Heuristics and biases. *Science*, 185(4157), 1124-1131.
- Vaughan, G. M., Hogg, M. A. (1998). *Introduction to social psychology* (2nd ed.). Sydney, NSW: Prentice Hall.
- Wang, C. S., Thompson, L. L. (2006). The negative and positive psychology of leadership and group research. In S. R. Thye & E. J. Lawler (Eds.), *Social psychology of the*

workplace: Advances in group processes (Vol. 23) (pp. 31–61). Amsterdam: Elsevier.

Webb, T. L., Sheeran, P. (2006). Does changing behavioral intentions engender behavior change? A meta-analysis of the experimental evidence. *Psychological Bulletin*, 132(2), 249–268.

Weiner, B. (1986). *An attributional theory of motivation and emotion*. New York, NY: Springer-Verlag.

Wertheim, E. H. (2011). Conflict management styles. In D. J. Christie (Ed.) *Encyclopedia of peace psychology*. (Vol. 1) (pp. 214-218). Maldon, MA: Wiley-Blackwell.

Yukl, G. A. (2002). *Leadership in organisations* (5th ed). Englewood Cliffs, NJ: Prentice Hall.

Zajonc, R. B. (1965). Social facilitation. *Science*, 149(3681), 269–274.

Zimbardo, P. G. (2007). *The Lucifer effect: Understanding how good people turn evil*. New York, NY: Random House.