Business Psychology and Organizational Behaviour

Business Psychology and Organizational Behaviour introduces principles and concepts in psychology and organizational behaviour with emphasis on relevance and applications. Well organized and clearly written, it draws on a sound theoretical and applied base, and utilizes real-life examples, theories, and research findings of relevance to the world of business and work.

The new edition of this best-selling textbook has been revised and updated with expanded and new material, including: proactive personality and situational theory in personality; theory of purposeful work behaviour; emotional and social anxiety in communication; decision biases and errors; and right-brain activity and creativity, to name a few. There are numerous helpful features such as learning outcomes, chapter summaries, review questions, a glossary, and a comprehensive bibliography. Illustrations of practice and relevant theory and research also take the reader through individual, group, and organizational perspectives.

This is an essential textbook for undergraduates and postgraduates studying psychology and organizational behaviour. What is more, it can be profitably used on degree, diploma, professional, and short courses. It’s also likely to be of interest to the reflective practitioner in work organizations.

Dr Eugene McKenna is Professor Emeritus, University of East London, a Chartered and Registered Occupational Psychologist, Fellow of the British Psychological Society, and Fellow of the Royal Society of Medicine.
“This new edition of Business Psychology and Organizational Behaviour is outstanding. Not only does it cover thoroughly and up-to-date all the areas of business psychology and OB, but also develops new ones as well (e.g., business ethics). The standout for me are the international case studies, and particularly practitioner perspectives. A must-buy textbook in the field of OB by a renowned author and scholar.”

Professor Sir Cary Cooper, CBE, 50th Anniversary Professor of Organizational Psychology & Health at the ALLIANCE Manchester Business School, University of Manchester, UK

“This new up-to-date edition of Professor Eugene McKenna’s highly respected textbook exceeds expectations. It is my book of choice both for teaching and for reference on business psychology and organizational behavior. It brings together relevant insights from past and present research, and it clarifies how the contributions of psychology relate to those of other disciplines. What may appear to be a formidably comprehensive book is actually easy to read due to its clear style and the many summaries and examples provided.”

Professor John Child, D.Sc., FBA, Professor of Commerce, Birmingham Business School, University of Birmingham, UK

Praise for the Fifth Edition:
“The content of the book covers all the usual areas of business psychology. McKenna’s approach is scholarly, presenting research evidence for and against controversial topics before arriving at well-considered conclusions. A text such as this earns its place on the bookshelf of psychology undergraduates as a comprehensive core text.”

Anne Kearns, Chartered Occupational Psychologist, from “The Psychologist”
Business Psychology and Organizational Behaviour

Sixth Edition

Eugene McKenna
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A major objective has been to produce a text that would introduce the basic concepts and principles of psychology and organizational behaviour clearly with the emphasis on relevance and applications, but at the same time would not over-popularize the subject. Therefore, every effort was made to write the book in a style likely to engage the interest of the student, drawing on numerous real-life examples and research studies relevant to the world of business. The book takes the reader through individual, group, and organizational perspectives, while at the same time offering an appreciation of their historical development and methodological issues. The text requires no previous study of psychology or the behavioural sciences. Despite its suitability for use on degree, diploma, professional, and short courses, it can profitably be used as a reference book by reflective practitioners.

Learning outcomes, chapter summaries, review questions, pointers to additional reading, a glossary, and a comprehensive bibliography are features of the text. Although each chapter is self-contained, the reader will find within individual chapters numerous cross-references. For lecturers who adopt the book, there are online teaching resources, including a companion website, chapter-by-chapter PowerPoint lecture slides, and a multiple-choice test bank. Please visit www.routledge.com/9781138182646

Particular illustrations of practice and relevant research evidence are contained in numerous panelled items dispersed throughout the book; some of these could be used as mini-cases or vignettes. When important terms are introduced in the text, they are highlighted to indicate their inclusion in the Glossary section at the end of the book.

The number of chapters in the new edition is sixteen, having been reduced by three, namely, ‘Communication’, ‘Selection/Appraisal’, and ‘Rewards/Training’, and this has resulted in removing Chapters 6, 18, and 19, which appeared in the fifth edition. There has also been a significant readjustment of the contents of Chapters 2 and 3. Salient and pertinent material from the removed chapters is incorporated in an appropriate part or slot in the book because of its applied perspective. The recipient chapters are 3, 4, 5, and 6 in the sixth edition. The entire book has been updated following a comprehensive review of the relevant literature.

The book has been revised and updated with expanded and new material, including the following: proactive personality and situational theory in personality; theory of purposeful work behaviour; suggested integration of Big Five theory (personality) and features of the job characteristics motivational model; emotional and social anxiety in
communication; web learning, talent management (extended); decision biases and errors; right-brain activity and creativity; generational differences in work values; multi-team systems, mental models and teams, Team X; leadership and emotional intelligence; ethics and charismatic leadership, authentic and servant leadership; trust and leadership, and derailment of leaders (extended); organizational micro-specialization; positive organizational culture, toxic organizational culture; personal resilience and stress, mindfulness as a preventative measure, stress and dual-career households, workaholism and stress in senior management, cross-national culture and stress.

Finally, it has been a long journey, but I hope I have realized my objective in writing this new edition, and I hope the reader finds reading it a pleasant and rewarding learning experience.

Eugene McKenna, 2020
This book has benefited from several positive influences. My thanks to the academics who reviewed the fifth edition and made valuable comments and suggestions, which were seriously taken on board, as well as to those who reviewed the draft manuscript of the sixth edition, and to the editorial staff of Routledge, who were very helpful.
PART I

PERSPECTIVES AND ENQUIRY
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CHAPTER ONE

HISTORICAL INFLUENCES AND RESEARCH METHODOLOGY

LEARNING OUTCOMES

After studying this chapter you should be able to:

• Assess the role played by psychology in the analysis and solution of organizational problems.
• Draw a distinction between the different traditions or schools of thought in psychology and assess their significance.
• Explain what is meant by the multidisciplinary nature of organizational behaviour, and comment on the standing of psychology as a contributory discipline.
• Examine the different approaches used by theorists and practitioners in the study of organizational behaviour over time.
• Assess the changes in the external environment that have brought about fundamental changes to organizational functioning in recent years.
• Identify the role of research in the social sciences and examine the significance of the scientific method.
• Examine the different techniques available to the researcher when investigating issues or problems in organizations, and acknowledge the significance of ethics.

INTRODUCTION

This opening chapter sets out initially to explain the nature of both the psychological and organizational behaviour perspectives. Subsequently, as we reflect on the application of concepts from psychology and organizational behaviour, a historical view will be taken. The final section is devoted to research methodology, which reflects the need to be rigorous and systematic in the way evidence relating to behaviour is collected. Therefore, the discussion will unfold as follows: (1) nature of psychological perspective; (2) nature of organizational behaviour; (3) historical perspective; (4) contemporary issues; and (5) research methodology.
NATURE OF PSYCHOLOGICAL PERSPECTIVE

The study of psychology provides valuable knowledge and insights that help us to understand the behaviour of people in business organizations and settings. As a consequence, the manager is provided with pertinent information about human behaviour when faced with human problems in a business and management context. The contribution that psychology has made to the solution of many human problems encountered in business is significant. It has resulted in better management of human resources; improved methods of personnel selection, appraisal, and training; improved morale and efficiency of operations; a reduction in accident rates; and better working conditions.

Despite these claims to success, it should be stated that psychology is not a panacea for all the human problems associated with business. For example, there are occasions when the outcome of the application of personnel selection techniques is less than perfect. Likewise, a programme to raise the level of morale in a company may, for a variety of reasons, fail to meet the expectations of the management, even though the results provide grounds for optimism.

In the study of human behaviour the psychologist is concerned with a repertoire of behaviour that is both observable (e.g. walking and talking) and unobservable (e.g. feeling and thinking). Animal behaviour has also captured the interest of psychologists.

Different approaches

The development of psychological thought has been influenced by the different traditions associated with the study of behaviour. These traditions are often referred to as “perspectives” or “models of man”. The major perspectives can be classified as: (1) the psychoanalytical approach; (2) the behaviourist approach; (3) the phenomenological approach; and (4) the cognitive approach.

Psychoanalysis

The psychoanalytical approach, initiated by Freud, ignores or shows little interest in certain areas of contemporary psychology (e.g. attitudes, perception, learning) because of a prime preoccupation with providing help for neurotic patients. This approach, which is discussed in Chapter 2, gave a major impetus to the early development of modern psychology.

In psychoanalysis, the therapist takes note of what the patient has to say, and perceives emotional reactions and signs of resistance to the treatment. In a discussion with the patient the therapist interprets the information obtained from the analysis session. The central thrust of this approach is that people’s behaviour can be investigated in a non-experimental way, that behaviour is determined by some unconscious force, and that behavioural difficulties or abnormalities in adult life spring from childhood. In work situations it is not uncommon to find that one individual reacts differently from another in deep emotional terms in response to a given stimulus and this could be attributable to different complex experiences embedded in the unconscious (Fotaki, Long, & Schwartz, 2012). For example, apart from rational economic and financial justifications underpinning a takeover bid by one company for another, one can envisage a situation developing whereby unconscious forces in the minds of key players emerge and are related to mastery, control, and dependency on the part of the predator and the takeover target.

Behaviourism

Behaviourism is the approach to psychology that is confined to what is objective, observable, and measurable. This approach, which featured prominently in psychology until the 1950s, advocated a scientific means of
studying behaviour in carefully controlled conditions. The use of animals in many behaviourist experiments may be influenced partly by the fact that they are less complicated than humans, with a lower propensity to rely on previous experience when faced with a stimulus. Behaviourism, which is discussed in connection with learning in Chapter 6, provided psychology with a number of valuable experimental methods.

However, the preoccupation with behaviour that can be observed and measured objectively has obvious weaknesses. These are primarily associated with the neglect of the processing capacity of the human brain. Factors such as subjective feelings, expectations, plans, and thought processes are ruled out because they do not lend themselves to scientific analysis in the same way that observable behaviour does. In a sense, behaviourism may be seen as a mechanistic view of people, with the emphasis on the inputs and outputs from the “machine” but with little regard to the functioning of the internal mechanics.

**Phenomenology**

The phenomenological approach amounts to a humanistic reaction to behaviourism. An example is the view that individuals strive for personal growth, and an illustration of this is Maslow’s self-actualization as the ultimate level in his hierarchy of needs discussed in connection with motivation in Chapter 4. The emphasis of the phenomenological approach is essentially on people’s experience rather than their behaviour. For instance, even though on occasions we all share common experiences, each person perceives the world in his or her own distinctive way. Our unique perceptions – and action strategies based on them – tend to determine what we are and how we react. In the process the individual utilizes previous experience, needs, expectations, and attitudes. Finally, in the phenomenological approach, unlike the psychoanalytical approach, unconscious processes are not systematically explored, but it is reasonably effective in treating the less severe mental disorders (Eysenck, 2009).

**Cognitive**

The cognitive approach, which focuses on the internal mental states and processes of the individual (e.g. perception, learning, memory, and reasoning), has been dominant in psychology since the 1970s and is recognized as a major school of thought. This approach to psychology, which has a fair amount in common with the phenomenological approach, is adopted throughout the book, where a cognitive view is acknowledged (e.g. perception and decision making). It seeks to explain features of human behaviour that are not directly observable.

Cognitive psychologists have made a major contribution to the development of the growing field of neuro-psychology and cognitive neuroscience. Over the last decade there has been a significant amount of activity in cognitive neuroscience. This is the area of cognitive psychology in which brain imagery is used in conjunction with behavioural measures in order to increase our understanding of the cognitive processes associated with doing a particular task (Eysenck, 2014). Cognitive psychology has also made a very useful contribution to the development of cognitive therapy. The latter addresses thought processes connected with anxiety and depression and, when combined with behaviour therapy, forms cognitive behavioural therapy (CBT), discussed in Chapter 16 with respect to stress reduction strategies.

Research carried out into the prominence of widely recognized schools in psychology detected the following trends (Robins, Gosling, & Craik, 1999):

- Psychoanalytical research has been initially ignored by mainstream scientific psychology over the past several decades.
• Behavioural psychology has declined in prominence and it gave way to the ascension of cognitive psychology during the 1970s.
• Cognitive psychology has sustained a steady upward trajectory and continues to be the most prominent school.

**NATURE OF ORGANIZATIONAL BEHAVIOUR**

A number of the concepts examined in this book fall within the boundaries of **organizational behaviour**, a subject that refers to the study of human behaviour in organizations. It is a field of study that endeavours to understand, explain, predict, and change human behaviour as it occurs in the organizational context (Wagner & Hollenbeck, 2014). Apart from the focus on the individual, organizational behaviour is also concerned with the relationship between the individual and the group, and how both interact with the organization. The organization is also subjected to analysis, as is the relationship between the organization and its environment.

The primary goal of organizational behaviour is to describe rather than prescribe – that is, it describes relationships between variables (e.g. motivation and job performance), rather than predicting that certain changes will lead to particular outcomes. An example of a prediction is that the redesign of a job (e.g. job enrichment) in a particular way will lead to an increase in job satisfaction and motivation to work, which in turn will give rise to better performance on the job.

Organizational behaviour, as a social science rather than a natural science, encounters difficulties when identifying, defining, measuring, and predicting relationships between concepts because it deals with phenomena (e.g. the human condition) that are more complex than phenomena that constitute the physical world. It adopts a multidisciplinary perspective, but it should be said that psychology as a discipline makes the greatest contribution (Miner, 2003). The multidisciplinary perspectives are outlined in Table 1.1. The development of organizational behaviour has been associated with the growth of large organizations over the past century, although a preoccupation with issues related to organization and management has been around for centuries.

The way organizational behaviour is handled by writers of textbooks in this field can differ. Organizational behaviour enjoys a controversial relationship with management practice (Buchanan & Huczynski, 2017) and some books,
such as this one, show a tendency to emphasize the practical application of theory while others adopt a managerial perspective. However, the dividing line between the two perspectives is not so clear-cut when viewed across the board.

**HISTORICAL PERSPECTIVE**

The following are key landmarks in the development of organizational psychology and organizational behaviour: (1) scientific management; (2) classical bureaucracy; (3) principles of organization; (4) industrial psychology; (5) human relations movement; (6) neo-human relations; (7) systems approach; and (8) contingency approach.

**Scientific management**

In the earlier part of the twentieth century a school of thought, known as scientific management, emerged. This major development – initiated by Taylor, Gilbreths, and Gantt – placed emphasis on efficiency and productivity, with the spotlight on the interaction between the person and the job. Frederick Winslow Taylor was the main instigator of this school of thought. He was not a theorist but worked as an engineer in the iron and steel industry. In his time it was normal for workers in this industry to organize their own work. Work gang leaders hired their own crew who worked at their own pace, used their own tools, and knew more about the work than did their supervisors. Taylor felt that workers tended to ease off because they were lazy or they would deliberately restrict output to protect their jobs and maintain generous staffing levels. It was apparent he did not trust workers. He felt the solution to this problem lay in scientific management (Grey, 2009).

The main features of scientific management are as follows:

- Study jobs systematically with a view to improving the way tasks are performed.
- Select the best employees for the various jobs.
- Train the employees in the most efficient methods and the most economical movements to deploy in the jobs.
- Offer incentives (e.g. higher wages) to the most able employees, and use piece rates to encourage greater effort. The piece-rate system of payment provides greater reward for greater effort.
- Use rest pauses to combat fatigue.
- Entrust to supervisors the task of ensuring that employees are using the prescribed methods.
- Subscribe to the notion of job specialization and mass production.

In scientific management managers are expected to manage (i.e. to plan, organize, and supervise) and workers are expected to perform the specified operative tasks. In this approach monetary rewards are considered to have a major motivational impact, although the main exponent of scientific management (Taylor, 1947) believed that his system benefited both employers and employees. He felt his system incorporated an impersonal fairness; that is, a fair wage for a fair day’s work. Workers would no longer be dependent upon the patronage of a work gang leader and his system could also create a safer workplace. At that time industrial injuries were a problem and it was felt that if a well-conceived standard way of working was followed it would not only be productive but reduce accidents, and that would appeal to the workers (Grey, 2009). The workers and the embryonic trade unions resisted Taylorism and considered it a form of exploitation.

Other notable exponents of scientific management are the Gilbreths and Gantt. The husband and wife team Frank and Lilian Gilbreth are best known for their invention of motion study, a procedure in which jobs are reduced to their most basic movements. Using
a clock – called the micro chronometer – analysts could use time and motion studies to establish the time required to perform each movement associated with the job. Henry Gantt developed a task and bonus wage plan that paid workers a bonus on top of their standard wages if they completed the job within a set time. Gantt also invented the Gantt chart, a bar chart used by managers to compare actual with planned performance. Contemporary work scheduling methods, such as PERT (Programme Evaluation and Review Technique), are based on Gantt’s invention (Wagner & Hollenbeck, 2014).

Critics felt that scientific management contributed to the de-skilling or degradation of work and a substantial transfer of power from workers to managers. Braverman (1974), a critic of Taylorism, viewed the scientific management approach as capitalist profit-seeking and certainly not fair. With reference to the work of Braverman in this context, the following criticism of Taylorism has been made (Needle, 2004):

The extensive division of labour means that work becomes fragmented, the machine becomes more important than the worker, and control shifts from the skilled worker firmly into the hands of management, whose position is strengthened by their virtual monopoly of knowledge of the work process.

There is further reference to scientific management in the section on job design in Chapter 4. An illustration of Taylor’s approach appears in Panel 1.1.

**Classical bureaucracy**

The classical theorists, inspired to some extent by the work of the German sociologist Weber

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**Panel 1.1 Taylor and scientific management**

The principles of scientific management were tested in an experiment in the Bethlehem Steel Company in the USA in the 1920s, where Taylor was a Consulting Engineer in Management. Taylor observed the work of 75 labourers who were each loading 12 tons of pig iron a day on to railway trucks. Having observed the operation, Taylor was convinced that a really efficient worker could handle between 47 and 48 tons a day. Management disagreed and felt that a more likely output figure would be somewhere in the region of 18 to 25 tons a day under normal circumstances.

To validate his beliefs Taylor conducted an experiment using a Dutchman who was noted to be strong, industrious, and thrifty with his wages, and asked him whether he wished to earn more money. The worker said yes, and Taylor instructed him to do as he was told, and he would be paid according to the amount of work done. He was to give no backchat, neither was he to use initiative. When told to walk, he was to walk; when told to put the iron down, he was to do so; when told to rest, he was to rest. After following this routine, the Dutch worker’s level of output was 47 tons per day, and for the three years he was under observation he continued to load this amount and was paid a rate 60 per cent higher than his former wage. The other workers were trained in a similar fashion, but only 9 out of a gang of 75 were capable of meeting the target of 47 tons a day; however, everybody’s output rose appreciably.

(Brown, 1954)
on the ideal bureaucracy, came forward with a blueprint for organizational design. Here the concern was with how to organize effectively large numbers of employees into an overall structure. Weber’s model was referred to as legal-rational or bureaucratic organization, and was considered to be technically efficient. The notion of efficiency is still alive in the modern world where emphasis is given to devising the best means to achieve particular ends (Grey, 2009).

The concept of bureaucracy put forward by Weber (1947) is as follows:

- A hierarchy of authority, in which the power to act flows from the apex of the organization to the lowest levels. Office holders react to orders issued by those above them to whom they report.
- Rights and duties are attached to the various positions within the hierarchy, so that employees know what is expected of them.
- Division of labour, in which activity is categorized by function (production, finance, etc.) and specialization.
- Rules and procedures, which inform employees about the correct way to process information and run the organization, obviating the necessity to exercise judgement and choice (discretion) in the execution of tasks.
- Documentation, in which information is recorded in written form and committed to the organization’s memory.
- Technical competence, which amounts to recruiting and promoting individuals who possess the requisite qualifications.
- Separation of ownership from control, whereby those who manage the organization are not those who own it.

Du Gay (2000) supports what he refers to as formal rational bureaucracy and believes an important ethic is ingrained in it. Obtaining a job or being promoted does not depend on having attended the same school as your boss or on the colour of your skin. Likewise, personal prejudice should not influence the service the customer or client receives from an official. What has just been said in the last two sentences may be an over-simplification; but what must be recognized is that the potential for the prevalence of bias and prejudice is ever present.

There have been criticisms of Weber’s concept of bureaucracy along the following lines. It is felt that the bureaucracy (the means) becomes more important than the ends (that which the bureaucracy sets out to achieve), that division of labour breeds rigidity, and that there is alienation because people are expected to perform highly specialized tasks without being able to use much discretion. Also, it is said that classical bureaucracy ignores the significance of the informal organization, lacks a human face, and is slow to adapt to change. There is further discussion of bureaucracy in Chapter 13.

**Principles of organization**

The principles of organization were expounded by practitioners such as Fayol and Urwick. Fayol (1949) considered his principles of organization, listed below, as flexible and adaptable and was of the view that managers could use intuition and exercise discretion in the way the principles were used. Urwick (1947) adopted Fayol’s principles to guide managerial planning and control (Wagner & Hollenbeck, 2014).

- **Purpose** or **objective** of the organization.
- **Hierarchy**, which amounts to the layers of management within the organization.
- **Span of control**, which is the number of subordinates reporting to supervisors and managers.
- **Division of labour** and **specialization**, whereby the organization is compartmentalized by function or activity and this allows
members to specialize in very specific activities (buyer, accountant, etc.).

- **Authority** and **responsibility**, which in the case of authority means the power to act and in the case of responsibility means being accountable for the consequences of one's actions as a member of the organization.

- **Unity of command and direction**, which signifies that direction and control spring ultimately from one source (e.g. the chief executive).

- **Communication**, which is the medium through which information flows up and down the organization and constitutes the lifeblood of the system.

- **Chain of command**, which is the pathway through which superiors issue instructions and advice and subordinates provide feedback on activities for which they are responsible.

- **Coordination**, which is a process aimed at ensuring that the different segments of the organization are pulling together to achieve common objectives.

- **Centralization** and **decentralization**, which relate to the level at which major decisions are taken (i.e. at the top or further down the organization).

- **Definition**, which relates to important issues such as defining duties, responsibilities, and authority relationships within the organization.

- **Balance**, which means getting the balance right between the different parts of the organization.

- **Continuity**, which implies that the organization subscribes to the processes of adjustment and reorganization on a continuous basis.

The criticism levelled at the principles of organization is that they tend to play down the importance of the individual's personality in influencing events internally, as well as the impact of the external environment. There is further discussion of the principles of organization in Chapter 13.

**Industrial psychology in the UK**

In the early 1920s **industrial psychology** was established to a greater extent in the UK than in the USA, with notable achievements at both the theoretical and empirical levels (Shimmin & Wallis, 1994). A number of developments are worthy of note. Around 1915 there was an investigation by the Health of Munitions Workers Committee into the poor conditions in munitions factories, which resulted in low productivity and increased accidents and absenteeism. A recommendation by the Committee led to a reduction in the hours of work and improvements in heating and ventilation, more canteen and washing facilities, and better health and welfare provision.

Following the success of this initiative, the Industrial Fatigue Research Board (later renamed the Industrial Health Research Board) was established to investigate industrial fatigue and other factors, such as boredom, monotony, and physical conditions of work, that were likely to affect the health and efficiency of workers. By the 1930s the Industrial Health Research Board had a wide remit in its investigations, and activity with a physiological and environmental bias characterized much of its work. For example, projects embraced the following themes: posture and physique; vision and lighting; hours of work; time and motion study; work methods; manual dexterity; rest pauses; impact of noise; atmospheric conditions; effects of the menstrual cycle on performance; staff turnover; accidents; and selection and management training.

In 1921 the National Institute of Industrial Psychology (NIIP) was founded “to promote and encourage the practical application of the sciences of psychology and physiology to commerce and industry by any means that may be found practicable” (Shimmin & Wallis, 1994).
It conducted a wide range of investigations. The projects undertaken by the NIIP were as diverse as those undertaken by the Industrial Health Research Board, but vocational guidance was a particular speciality. By the 1940s the NIIP was conducting assignments on job analysis, interviewing, psychometric testing, personnel selection, and, of course, vocational guidance, and enjoyed high status (Kwiatkowski, Duncan, & Shimmin, 2006).

By the late 1930s industrial psychology tended to be viewed by workers with suspicion and fear because it was felt to resemble scientific management due to its interest in motion study to bring about improved working methods. Timing of the performance of workers, using a stopwatch, is necessary in motion study, perhaps conjuring up images of Taylor’s approach in his scientific management investigations. But it would be a mistake to attribute Taylorism to the work of the early psychologists.

During the Second World War (1939–1945) there were other initiatives closely connected with the war effort. The Tavistock Clinic – a psychotherapy centre – was involved in the assessment and selection of armed forces personnel, and this type of work enhanced the image of industrial psychology among influential people. According to Shimmin and Wallis (1994), a very important psychological innovation in wartime was the introduction of a new style of officer selection by the War Office Selection Boards in 1942, which firmly laid the foundation for modern-day Assessment Centres.

Another worthy event in the development of industrial psychology was the creation of the Applied Psychology Research Unit at the University of Cambridge. This unit was backed by the Medical Research Council and made good use of its accumulated research findings on human skills and performance when called on to analyse tasks related to the military. After the outbreak of the Second World War, the unit, drawing on its expertise in human skills and performance, engaged in analysis and measurement of unfamiliar tasks such as gun laying, radar surveillance, and the role of pilots in aircraft. This type of work was invaluable in providing a solid basis for future developments, such as work on skills acquisition and man–machine interactions.

**More recent developments**

Some commentators do not perceive any real difficulty as far as the standing and application of work or occupational psychology are concerned. But over the past decade industrial, work and occupational psychology, despite its popularity, has been at the receiving end of some critical comment (see Panel 1.2).

It has been accused of not embracing current developments in mainstream psychology and of showing a preoccupation with techniques (e.g. psychometric tests) without sufficient awareness of wider organizational issues. The matters raised, which work and organizational psychology should address, are the following (Anderson & Prutton, 1993; Hirsh, 2009; Johns, 1993; Lewis, Cook, Cooper, & Busby, 2009; Offermann & Gowing, 1990; Ridgeway, 1998):

- Be appreciative of the strategic issues and organizational design in business.
- Develop greater sensitivity to critical human resource management considerations and be receptive to a wide range of ideas, including the legal implications of managerial behaviour and what managers feel is expected of them.
- Understand to a greater extent than hitherto the social and political currents within the organization.
- Be more proficient at speaking the language of business and communicating with a wide range of people.
- Be better able to sell project proposals that have intrinsic appeal to the client.
Panel 1.2  Is occupational psychology fit for purpose?

One of the influential members of the occupational psychology fraternity of old, the late and much-respected Professor Sylvia Shimmin, is reported as saying: one great tradition in occupational psychology was “to give it all away”. Services more likely to be delivered by in-house or external occupational psychologists 40 years ago are now delivered by a vast army of non-psychologists. The demand for work/occupational psychology is there and has grown. It is as though chartered/registered occupational psychologists “do not appear to have capitalised from this development, and we do not appear to possess one of the hallmarks of a successful profession, which is a monopoly of competence” (Rhodes, 2010).

It is said that there is an increasing divide and tension between good, pragmatic, evidence-based psychology, and the popular psychology (high in relevance, but low in rigour) that the business community finds so seductive (Anderson, Herriot, & Hodgkinson, 2001). According to Rhodes (2010), this tension is visible in the lack of critical detachment evident in much of current occupational psychology. There seems to be a willingness on the part of occupational psychologists, along with non-psychologists delivering the same services, to promote fads, products and approaches that have very little scientific support. Perhaps in failing to differentiate ourselves we have lost our distinctiveness and our right to respect.

The debate continues and here is a flavour of it from the expression of opinions in The Psychologist (2010). Rob Briner is of the view that occupational psychology appears to have limited regard for scientific evidence; its dwindling number of academic occupational psychologists produce narrow and hard to apply research, and it is an area of study whose values and identity are in need of renewal.

By contrast, Ivan Robertson is of the opinion that occupational psychology provides an unbeatable combination of relevance and challenge to make a practical evidence-based contribution, and has made a significant impact on many people’s working lives, and is capable of making contributions of relevance to the wider discipline of psychology. (The Psychologist, 2010)

A complementary view was expressed by Neil Anderson. Taking an international perspective, he says that:

British occupational psychology is held in high esteem, and its historical roots and contributions are well respected. . . . Practice and science in occupational psychology, but especially the science, have become complex, multi-level, multi-faceted,
theoretically driven and globalised in recent years. Notable advances in occupational psychology have been made in numerous areas of applied psychology to organisations.

(The Psychologist, 2010)

- Undertake research and consultancy activity in a highly professional way within the ethical guidelines mentioned later.
- Endeavour to influence legislation on issues of professional interest.
- Publish good ideas and practice through a medium accessed by managers.
- Because of reservations expressed about the efficacy of classical psychometric assessment, there is a call for a paradigm shift in what we are really measuring. This point is elaborated in Chapter 3.

**Human relations movement**

The human relations movement arose as a reaction to the earlier approaches (such as scientific management) with their individualistic and over-rational emphasis, and their tendency to explain the behaviour of workers as a response to an environment defined largely in material terms. It was initiated by Elton Mayo, a social scientist from Harvard University, with a series of investigations conducted at the Hawthorne works of the Western Electric Company in Chicago, between 1927 and 1932. Mayo (1949) thought highly of this company and described it as an organization committed to justice and humanity in its dealings with workers, where morale was of a high order. In recent years there are still reflections on the importance and significance of the Hawthorne studies (Hassard, 2012). The first experiment started with an assessment of the influence of illumination on work. For the purpose of this experiment, two groups of workers were chosen. In one group, called the control group, the illumination remained unchanged throughout the experiment, while in the other group, the test group, there was an increase in the intensity of the illumination.

As had been expected, output in the test group showed an improvement, but what was not expected was that output in the control group also went up. This puzzled the investigators, so they went ahead and reduced the level of illumination for the test group; as a result, output went up once more. Obviously, some factor was at work that affected output regardless of whether illumination was increased or reduced. Further experiments became necessary to identify the unknown factor influencing the results. The experiments relating to the happenings in the Relay Assembly Room are briefly stated in Panel 1.3.

Even though the improvements in working conditions in the Relay Assembly Room were taken away, the legacy of good human relations practice ensured that productivity would not be adversely affected. Some significant points with reference to the workers’ response to their employment situation are as follows:

- The workers collaborated with management in the introduction of the various changes, and good relationships were established with supervisors, with an absence of suspicion between workers and management.
- The workers found the experiment interesting, they approved of what was going on, and welcomed being consulted by management. By being involved in the various deliberations, they experienced an improvement in their status.
Panel 1.3  Hawthorne experiments: Relay Assembly Room

The researchers selected a small group of competent female workers who were engaged in assembling telephone relays. A researcher observed their behaviour and maintained a friendly atmosphere in the group. The workers were fully briefed on the purpose of the experiment, which was stated as to contribute to employee satisfaction and effective work and were told to work at their normal pace. They were consulted at each phase of the experiment and any changes would only take place in collaboration with them.

Before the start of the experiment the basic rate of production was recorded. Subsequently, output was recorded as and when changes in conditions were introduced. Throughout the series of experiments, which lasted over a period of five years, an observer sat with the girls in the workshop, noting all that went on, keeping them informed about the experiment, asking for advice or information, and listening to their complaints.

The following is a brief summary of the changes introduced each for a period of 4 to 12 weeks, and the results:

- When normal conditions applied (i.e. a 48-hour week) including Saturdays and no rest pauses, the workers produced 2400 relays a week.
- Piecework was introduced and output went up.
- Two five-minute rest pauses, morning and afternoon for a period of five weeks, were introduced and output went up once more.
- Rest pauses, up to ten minutes, were introduced and output went up sharply.
- Six five-minute rest pauses were introduced, and output fell slightly as the workers complained that their work rhythm was broken by the frequent pauses.
- There was a return to two rest pauses, and a hot meal was provided by the company free of charge after the first rest pause; output increased.
- Work finished at 4.30 p.m. instead of 5.00 p.m. and output increased.
- Work finished at 4.00 p.m., and output remained the same.
- Finally, all the improvements in working conditions were taken away, with a reversion to a 48-hour week, no rest pauses, no piecework, and no free meal. This state of affairs lasted for 12 weeks, and output was the highest ever recorded, at 3000 relays a week.

(Brown, 1954)

- Supervisors were viewed as helpful and interested in the workers’ suggestions. This type of supervisory behaviour had the effect of promoting self-respect and the use of initiative on the part of the workers.
- Social activity within the work group developed and manifested itself in a number of ways. For example, natural leaders evolved, people related well to each other, there was a noticeable increase in socialized conversation, and internal discipline became a group rather than a management activity. Also, the need to consider feelings and attitudes was underlined when it was noted that individuals had preferences for seating
arrangements (i.e. who to sit next to). The significance of informal organization was endorsed.

• The motivational effect of social needs and the importance of the social environment were recognized, and a link between satisfaction and productivity was suggested.

• Interviewing and counselling were used to solicit information from the workers and provide support to them. In particular, non-directive interviewing, where interviewees were free to speak about all sorts of things that interested them or troubled them, instead of responding to a direct question, was considered effective. This technique was adopted after using the directive approach initially.

• The notion of the “Hawthorne effect” entered the vocabulary. This signifies that changes in workers’ behaviour can be brought about by the mere fact that they are being observed.

In order to study informal norms more thoroughly, the next experiment focused attention on male workers (wiremen, solder-men, and inspectors) in the Bank Wiring Room, where equipment was wired and soldered before it was checked by the inspector. These workers were not as compliant as the female workers in the Relay Assembly Room. What was noticeable was the solidarity of the men in the face of management action, and this contributed to an informal norm to restrict output, an opposite outcome to that reported earlier. (There is an elaboration of this conclusion in a discussion of group norms in social comparison in Chapter 9.)

Other findings with respect to the bank wiring group were as follows: (1) managers further up the hierarchy were treated with greater respect than the supervisors further down; and (2) the group divided itself into subgroups or cliques and membership of the subgroup had a material influence on the workers’ behaviour.

There has been criticism of the human relations movement along the lines that the research methodology lacked scientific rigour (Wagner & Hollenbeck, 2014), and a lack of concern with broader organizational and environmental issues because of the narrow focus of the research. Also, it was felt that there was a tendency to view the organization in unitarist terms, where superiors and subordinates share a common outlook, free of disruptive tension and conflict, as opposed to a pluralist view manifested in competing factions with conflict ever present. The latter probably reflects the reality of many organizations. If there was organizational friction, advocates of the human relations approach were likely to suggest basic remedies in the form of involving people, treating them with respect, and improving communication.

Critics are likely to challenge the alleged causal link between employee participation and job satisfaction and between the latter and productivity. They would also take issue with the position of the human relations theorists who maintained that the formal and informal organizations were separate and distinct entities, and that the goals of the formal and informal organization were often irreconcilable.

Finally, note an interesting observation by Hollway (1991) on the nature of the human relations movement:

The Hawthorne studies combined two radical departures from previous industrial psychology. The first involved a shift from the psycho-physiological model of the worker to a socio-emotional one. The second was a change in method from an experimental one whose object was the body (or the interface between the body and the job), to one whose object was attitudes as the intervening variable between the situation (working conditions) and response (output).
Neo-human relations

The advent of the neo-human relations approach in the early 1950s heralded a more scientific analysis of organizational functioning. It is epitomized in the human resource theory (not human resource management) propounded by Miles (1965) and is briefly illustrated in Panel 1.4. There is a recognition that employees have great potential to perform, and they should not be treated as submissive, compliant creatures. Studies covering a range of perspectives in neo-human relations were conducted by various researchers. For example, Argyris examined the relationship between personality and leadership (see Chapter 11); Likert was concerned with groups and management systems (see Chapters 9 and 11); Lewin focused on group dynamics (see Chapter 9); and Jacques analysed roles and management at the Glacier Metal Company in the UK around the beginning of the 1950s. Drawing on his psychoanalytical work at the Tavistock Institute of Human Relations, Jacques came forward with interesting ideas about the nature of organizations.

Herzberg, influenced to some extent by Maslow, studied work motivation (see Chapter 4). The findings from the studies conducted by Herzberg related to factors giving rise to job satisfaction and motivation. This work aroused much interest in the late 1960s and early 1970s, and had a part to play in the 1972 creation of the Work Research Unit in the UK Department of Employment. It was disbanded in 1992, a period of harsh economic conditions. The objectives of the Work Research Unit were to “promote applicable research, and to encourage the application of organizational principles and working practices that would enhance both industrial efficiency and the quality of working life” (Shimmin & Wallis, 1994). In its heyday this unit was influential in promoting

Panel 1.4  Human resource theory propounded by Miles (1965)

Although people naturally want to receive fair extrinsic rewards (e.g. adequate remuneration) for their effort at work, and they derive benefit from interacting with others in the performance of their duties, other issues are important, such as the following:

- People need to feel that they are making a useful contribution, and that the job offers them the opportunity to be innovative and creative, where they feel a sense of autonomy and receive feedback on their performance. In such circumstances people can be highly motivated.
- Superiors approve of the idea of setting goals or objectives with the assistance of subordinates (i.e. mutual goals) because of a belief that by doing so there will be a greater commitment by subordinates to the achievement of organizational objectives.
- Superiors invite subordinates to join in the various problem-solving activities (i.e. joint problem solving).
- Communication assumes many forms – vertical (up and down) and horizontal – in order to lubricate fully the organizational system.
- People are important resources of the organization (i.e. human assets) and must be nurtured, hence the importance of training and development.
the quality of working life (QWL) principles and practices in British industry. The principles of QWL, still valid today, embrace:

- Adequate and fair remuneration.
- Safe and healthy work environments.
- Work routines that minimize disruption to leisure and the needs of families.
- Jobs that develop human capacities.
- Opportunities for personal growth and security.
- A social environment that promotes personal identity, escape from prejudice, a sense of community, and upward mobility.
- A right to personal privacy and a right to dissent.
- Organizations that are socially responsible.

**Systems approach**

Before examining this approach, it is appropriate to define a system. A system, consisting of inputs, a transformation process, outputs, and feedback from the environment, is an organized unit consisting of two or more interdependent parts or subsystems, and can be distinguished from its environment by some identifiable boundary. An organization can be viewed as an open system, as it is continually adapting to and influencing its external environment (the economy, regulators, suppliers, customers, etc.).

An important contribution to our understanding of the **systems approach** can be found in the studies conducted by the Tavistock Institute of Human Relations in the late 1940s and early 1950s. A well-known study, using ideas from psychology, psychoanalysis, and open systems in biology, was an investigation of how changes in the application of technology to production influenced social systems (such as work groups) in the coalmining industry. Out of this study came the notion of the organization as an open system comprising technical and social elements (i.e. a socio-technical system), as well as the idea of organizations as adaptive systems. A major finding was that a change from the old technology to the new technology of that time, and that the change affected the way groups functioned in the coalmines. This was reflected as a lack of cooperation, tension, and a failure to meet output expectations (Trist & Bamforth, 1951). There is a discussion of socio-technical systems in Chapter 13 on organizations.

**Contingency approach**

This approach challenged the view that there are universal answers to organizational questions. Earlier in the chapter the classical theorists of organization put forward a universal solution to the problem of structuring organizations by advocating the principles of organization. However, in the **contingency approach** there is an acceptance of the view that, for example, the structure of the organization is dependent upon the contingencies of the situation in which each organization finds itself. Therefore, there is no optimum way to structure the organization. Instead, one should look critically at the situation in terms of the tasks to be carried out and the environmental influences when considering the most appropriate structure to achieve organizational objectives.

Examples of major contingency perspectives examined later in this book are the contingency theories of organization (e.g. Woodward; see Chapter 13) and contingency theories of leadership (e.g. Fiedler; see the “Contingency theories” section in Chapter 11).

**CONTEMPORARY ISSUES**

In recent years there have been pronouncements by management gurus, evidence from researchers, and guidelines from relevant professional bodies on the nature of developing trends in organization and management. These will be examined in the appropriate parts of this
book, in particular the chapters on groups and teams (Chapters 9 and 10), leadership (Chapter 11), and organization (Chapter 13). In this section the approach adopted is that of an overview.

Organizations cannot be insulated from changes occurring in their external environment. We have witnessed rapid economic growth in countries without a strong industrial tradition (such as parts of Asia) up until recent times, and slow economic growth in the more mature economies, and this has occurred at a time of greater global competition and the easing of restrictions on international trade. As a result, there is a significant increase in competition globally and this has a direct impact on the way companies are structured and managed. For example, employees are expected to be more flexible and to develop a capacity to cope with rapid change. It is no longer the case that technology used in production and administration is available only to countries with an industrial heritage; in fact, it is more readily available now in many other parts of the world.

Customers are more demanding when it comes to the quality and price of goods and services they purchase, and people generally are more conscious of the effects of industrial waste and pollution on their local environment. There is an ageing population, and that has implications for the nature of the composition of the workforce. Multinational companies striving for greater critical mass are crossing national boundaries to merge with other companies or to enter into joint ventures with foreign partners. In the European Union the mobility of labour is a reality, and this calls for sensitivity to other nations’ cultures. Though it must be said that mobility of labour was an important factor that may have influenced many UK voters to vote in favour of exiting the EU in the 2016 referendum.

In recent years organizations are responding to the challenges posed by the changes highlighted above in a variety of ways, such as those mentioned in Panel 1.5.

**Panel 1.5 Organizational responses to internal and external influences**

- Continual reorganization of divisions, particularly within larger organizations, and selling off businesses that are not performing well.
- Subcontracting non-core services and operations (e.g. security) to other organizations.
- Outsourcing and offshoring key or core activities.
- Developing good relationships with key constituencies (e.g. suppliers, shareholders, customers).
- Streamlining and rationalizing processes, eliminating waste, cutting costs, introducing more efficient methods, reducing stock levels, downsizing, and relying where appropriate on techniques such as **business process re-engineering** (i.e. the critical examination of everything the organization does in order to improve processes) or equivalent rationalization exercises.
- Subscribing to continuous improvement of processes, products, and services in order to be more responsive to customers’ needs; adhering to the dictum of “getting it
right first time,” and using techniques such as total quality management (i.e. satisfying consumer needs and promoting worker satisfaction through the continuous improvement of all organizational processes).

• Creating flatter structures in place of the more hierarchical system of organization referred to earlier, with improved integration of communication and management systems within the organization, and pushing decision making further down the organization so that workers are free to make choices about how best to arrange and execute various tasks.

• Creating more teamwork, given the growth of project-based activities within and between functions in the organization.

• Developing core competencies – skills that are crucial for the efficient execution of organizational tasks – and encouraging employees to embrace continuous learning as normal (for managers operating in a global context that would mean the development of the mindset and skills necessary to manage in different cultures and to relate to colleagues in other countries, which is crucial).

• Recognizing that differences between people is not something that applies only to individuals in a global setting; it can also apply to differences between people within different countries (this is called workforce diversity). There is a recognition that organizations are becoming more heterogeneous in terms of gender, sexual orientation, race, disability, ethnicity, country of origin, and so on; therefore, managers should develop skills to deal effectively with the values and lifestyle preferences of those working for them.

• Creating a flexible workforce so that it is more versatile and can easily adapt to the changing conditions (the flexible workforce consists of full-time, part-time, and temporary workers, as well as subcontractors, and it is important that the non full-time workers are well integrated into the organization if the company is to function as a cohesive entity).

• Acknowledging the end of the era of the “secure job” and the traditional path to a career within the organization.

• Departing from the traditional system of managerial directives or commands and moving to a position of “empowering” workers, and then cultivating self-management as applied to individuals and teams. Managers are expected to sacrifice control to empowered workers, who must now assume more responsibility for the making of decisions, and self-managed teams are expected to function without the normal intervention from a manager.

• Promoting the concept of the manager who is more likely to be a facilitator and coordinator, who is fair-minded and employee-centred, and is well equipped with appropriate interpersonal and leadership skills.

• Recognizing the ramifications of the drive for continuous improvement, referred to earlier, in terms of frequent changes to the tasks performed by employees. This signals a need for employees to continually update their knowledge and skills (e.g. computer literacy, linguistic skills, and skills as team players) so that they can operate effectively; also, job descriptions need to be more flexible to cope with the turbulent conditions.
Finally, in a world where people in organizations must live with the effects of the credit crunch and ensuing world recession of 2008/9 and the subsequent era of austerity, one can expect constant pruning of expenditure, a minimum level of resources, job insecurity, more exacting output targets, and highly competitive conditions in the marketplace. Although employees may be motivated by a desire to hold on to their jobs, it would not be surprising if the loyalty of the employees to the organization vanishes and occupational stress becomes a real problem. Also, in these conditions there may be a tendency to bend the rules and engage in behaviour that is not ethical. The issue of ethics is likely to feature more prominently in the future. Finally, an unknown factor is the economic and social impact of Brexit and it will take some time for both the positives and negatives of such a major development to be expressed in more explicit form.

**RESEARCH METHODOLOGY**

Knowledge about human behaviour can be obtained in part through experience, and it is possible to derive some useful insights by this means. However, insight into human behaviour derived from experience has its limitations, simply because our perceptions of the behaviour of others are not always reliable, partly due to the influence exerted by our attitudes and values. In addition, our observations may be based on a limited and possibly unrepresentative sample that does not provide an adequate basis for generalization about human behaviour.

By contrast, research provides an approach for obtaining information about many dimensions of behaviour that cannot be acquired through experience alone. When psychologists conduct research into various aspects of behaviour they try to apply the scientific method. Scientific enquiry assumes that events and phenomena are *caused*. So a major objective of psychological research is to determine what factors cause people to behave in a particular way. However, achieving this objective is extraordinarily difficult because psychologists, unlike physical scientists, have to deal with unpredictable material. Subjects lie, lack self-insight, give socially approved responses, and try to satisfy the needs of the experimenter as they see them.

In reality, a great deal of psychological research at the empirical level is concerned with identifying relationships between events and phenomena, and the question of why people behave in a given manner often remains unanswered. However, identification of relationships can be productive in increasing our knowledge and insight. For instance, a strong relationship between management style and a low level of morale among subordinates might not tell us what particular aspects of management style cause the problems, but it does allow us to focus more clearly on the source of the difficulties.

Research psychologists during their work evaluate claims, impressions, ideas, and theories, and search for real and valid evidence to test and generate ideas about relationships between circumstances and behaviour. As more empirical information about behaviour is accumulated, hypotheses or speculations about certain aspects of behaviour are developed. This can be done in a systematic and controlled way, and the aim is to discover general explanations or theories. In building theories, the researcher is engaged in explaining, understanding, and predicting phenomena.

Explaining and understanding are concerned with describing and interpreting what has been observed or discovered. Certain inferences can be drawn from observing a situation (e.g. A causes B or A is associated with B). Also, reliance can be placed on self-reporting by subjects: for example, subjects tell the researcher why they feel dissatisfied with their present job. In this situation the researcher is relying
on the meaning people attribute to events in their lives, but we must be wary that the interpretation is not a misrepresentation of reality.

Prediction is concerned with stating that there is a certain probability that, for example, a proposed reorganization of the company will lead to a particular outcome. Even if the predictive power of social science were impressive, which it is not, predictions could become self-fulfilling prophesies (i.e. the mere act of saying that something will happen increases the likelihood that it will), or alternatively the prediction may no longer be relevant because people have acted to prevent the predicted outcome from materializing. By contrast, the natural scientist’s prediction is not subjected to the influences just described.

As research data accumulate and theories are confirmed, laws and principles are put forward. Although in certain areas of psychology it has been possible to create an impressive collection of empirical evidence that has some theoretical credibility (or a resemblance to the ingredients of a cause and effect relationship), much of the research in business/occupational psychology and organizational behaviour is at the empirical stage, with modest developments in the theoretical sphere.

**Characteristics of the scientific method**

In order to ensure that the findings of psychological research are as objective, reliable, and quantifiable as possible, the characteristics of the scientific method are adopted. These include: (1) definition and control of the variables used in the research study; (2) data analysis; (3) replication; and (4) hypothesis testing.

Variables used in research are referred to as “independent” and “dependent” variables. The independent variable is the factor that is varied and controlled by the researcher: for example, the level of illumination in a particular task is physically controlled by the experimenter. This could then be related to a dependent variable (which changes because of the experiment) and can be measured, such as counting the number of units of production. In other circumstances the dependent variable could be classified rather than measured. For example, the subject’s behaviour (dependent variable) in response to a variation in experimental conditions to stress (independent variable) might be classified as belonging to one of the following categories: (1) remains calm; (2) loses composure; (3) loses self-control. Such classifications should be made in a reliable manner, sometimes by more than one observer.

Apart from control of the independent variable by the experimenter, it is also necessary to control extraneous variables to prevent a contaminating effect. For instance, in assessing the significance of training techniques on employee performance, it would be necessary to ensure that factors other than training methods did not significantly influence the results. Contaminating factors in this case could be educational background, intelligence, age, and experience. In some cases extraneous variables cannot be foreseen, but it must be recognized that they can have a contaminating effect on results, leading to incorrect conclusions.

The requirement to come forward with operational definitions of variables or phenomena that can be subjected to empirical testing is prompted by the desire to bring precision into the meaning of concepts used in research. Ambiguities could otherwise arise. In experimental conditions raw data, often in quantitative form, are collected and summarized, and usually subjected to statistical analysis.

**Descriptive statistics**, as the term implies, are concerned with describing phenomena in statistical terms (e.g. a key characteristic of a sample of managers, such as the average weekly hours spent at work). **Inferential statistics** are concerned with drawing inferences from the analysis of the data.
In measuring the strength of the association between two variables, the question of statistical significance arises. Is the relationship significant or not significant, or is it due to chance? The psychologist uses inferential statistics to make inferences about general events or populations from observations of samples, and to convey to us some idea of the confidence we should have in those inferences.

Replication arises when an experiment is repeated. We expect to come up with the same result if the study is repeated, otherwise our explanations and descriptions are unreliable. The notion of reliability and validity is discussed in the “Attitude measurement” section in Chapter 8, and in relation to selection and appraisal in Chapter 3.

A final characteristic of the scientific method is hypothesis testing. The research starts with the formulation of hypotheses, which are predictions or “hunches”, preceded by a search of the literature. (An example of a hypothesis used in a psychological research project is “Personnel decision situations are more likely to be associated with a consultative or participative style of decision-making behaviour”.) Research evidence is then related to the hypotheses, resulting in their acceptance or rejection. Karl Popper is of the view that science proceeds by refuting hypotheses. The researcher then comes up with new observations that challenge new hypotheses.

**Techniques and settings**

Different branches of psychology use different techniques when applying the scientific method. For instance, in certain branches of social psychology (e.g. attitudes) questionnaires are used. Reinforcement schedules, referred to in Chapter 6, can be used in operant conditioning (part of learning theory). Electrodes that stimulate the brain are the preserve of physiological psychology. The important thing to bear in mind is that the technique used should be appropriate to the research problem in hand. Different settings are used to carry out psychological research, as detailed in the following subsections.

**Laboratory experiments**

An experiment can be carried out under controlled conditions in a laboratory or work situation where the independent variable is under the control of the experimenter. For example, in Chapter 6 there is an account of the systematic manipulation of the independent variable to demonstrate a causal effect on the dependent variable in the discussion of operant conditioning. In Skinner’s experiment on operant conditioning the frequency of the dispensation of food pellets to the pigeon (the independent variable) is varied because the experimenter thinks this will cause changes in behaviour (the dependent variable) (Skinner, 1951).

In the laboratory experiment the researcher can control the conditions under which the experiment is conducted and therefore there is a greater likelihood of placing confidence in the conclusions drawn about the relationship between the independent and dependent variables. The findings from laboratory experiments are of limited value in the real world if the situation in the laboratory is too artificial: for example, the subjects are students without work experience and the experiment is concerned with work motivation.

**Field experiments**

A field experiment is designed with a view to applying the laboratory method to a real-life situation and this could be considered a strength. Use is made of experimental and control groups, as was the case with the Hawthorne experiments (discussed earlier) where the field experiment approach was used but with less rigour. Conditions within the experimental group are manipulated or changed, but no such intervention occurs within the control group. For example, the experimental group is
subjected to a new system of management and the effects of this change on morale are noted. Later the level of morale within the experimental group is compared with the level of morale in the control group where no such change has taken place. Where experimental and control groups are used it is proper to ensure that the two groups are uniform in a number of critical respects, otherwise variations in outcomes (e.g. morale) could be due to some group characteristic or experience (expertise, interest, etc.), and not entirely due to the change that was introduced (the new system of management). In practice it is difficult to create groups that are identical in relevant characteristics, such as age, gender, skill, experience, and so forth.

Generally, field experiments are less rigorous than laboratory experiments because outside the laboratory there are many factors that the researcher cannot control, which are likely to affect outcomes of the research. In field experiments one must accept the likelihood of subjects altering their behaviour simply because they realize they are participating in an experiment. This is referred to as the Hawthorne effect, and effort should be made to minimize its impact. Finally, it may be difficult to gain access to an organization to conduct this type of research, not to mention the difficulty of putting into practice the basic principles one should adhere to in conducting this type of research.

**Field study**

The field study is conducted in a real-life setting and is principally concerned with survey research methods based on the questionnaire, interview, observation, and the analysis of documents. When various attributes (such as age, qualifications, occupation, and seniority) of a population are collected, this is referred to as a “descriptive” survey. When causal relationships or associations (e.g. the relationship between systems of executive reward and motivation) are explored, surveys are “explanatory” in nature. The two types of survey can be interrelated. In the “Attitude measurement” section in Chapter 8 there is a discussion of scales used in attitude surveys. A derivative of this method is the survey feedback technique in organizational development discussed in Chapter 15.

The major advantage of surveys is that comparable data from many respondents can be obtained, and patterns in the data can be explored. The major disadvantages are that we may over-simplify behaviour and by placing such a heavy reliance on the subjects’ verbal reports the research is exposed to certain weaknesses. These could include shortcomings in the memory of the subject as well as biased viewpoints. In addition, the subject is free to withhold critical information.

**Questionnaires**

To obtain data all respondents are asked the same questions in the same sequence irrespective of whether the questionnaire or interview is used. Where large numbers of subjects are involved, questionnaires are normally sent to a random sample of the group surveyed (i.e. a section of the total population) in order to reduce costs and time, and they can be completed in a relatively short period of time. Response rates (i.e. the proportion of questionnaires returned) are modest for mailed questionnaires. If the response rate is very low, or the sample chosen is small, the number who respond may not constitute a representative sample.

If a valid and reliable questionnaire is used, it can provide useful information. However, there are commentators who question the suitability of questionnaires for research purposes. There is a view that distortions can creep into the data because vague or ambiguous questions are asked of respondents, and that data obtained following the analysis of responses are superficial.

Questions are also asked about the validity of questionnaires. There are two types of validity: external and internal. **External validity** is concerned with the extent to which the
findings of a piece of research can be generalized beyond the specific confines of the setting in which the study took place. Where **internal validity** exists, we are able to conclude that the independent variable (e.g. participation in decision making) really does affect the dependent variable (e.g. productivity). If the researcher can control the variables, which would be difficult with survey methods, this will promote internal validity. Normally, there are limitations attached to the external validity of the findings because of the difficulty of applying them in different settings. (Validity is discussed in Chapters 2 and 8.)

There are basically two formats for the questionnaire. One is where the respondent chooses the appropriate response from those listed, and this facilitates the processing of the completed questionnaires using statistical methods and computer processing. A drawback of this format is that respondents are deprived of the opportunity to explain their responses.

The other format allows for the presentation of a series of questions, but in this case the respondents reply in their own words. For example, when focusing on rewards there could be a question along the following lines: “What do you think of the performance-related pay scheme in your organization?” This format has the advantage of obtaining information not available in the other type of questionnaire. A disadvantage is that respondents take more time to complete the questionnaire, and likewise it is time-consuming for the researcher to analyse and interpret the answers. Of course, it would be possible to design a questionnaire with elements from both formats.

Psychological tests, examined in Chapter 3, follow the format of the structured questionnaire and the questions are presented on paper or on the computer screen.

**Interviews**
The interview is popular and well established as a means of collecting research data. In the interview, questions are asked of the interviewee, and the answers can be used to supplement the data collected by other means (e.g. the questionnaire). There are two types of interview: one is structured, where a predetermined sequence of questions is asked of the interviewee; the other is unstructured, with no established sequence of questions but the interviewee is given the opportunity to address general themes.

The interview could be a valuable tool for the researcher seeking certain types of information (e.g. the reasons why absenteeism is so high), or when researchers are clarifying their thoughts about the relevance of the selected variables at an exploratory stage in the research process. Although useful information on the interviewee’s values, outlook, and experience can be obtained in this way, interviews can be time-consuming and expensive to run with a large number of subjects.

The research interview is a delicate social process. The parties to it are normally strangers and certain social conventions regulate the operation of the process. Both parties (the interviewer and interviewee) have an interest in presenting themselves in a favourable light and have expectations of the other in conditions where the interviewee passes on sensitive and confidential information. Normally the interviewee would expect the interviewer to maintain confidentiality and to be curious, friendly, and objective. The expectations of the interviewer could be that the interviewee is truthful, honest, but nervous, and wishes to cooperate in what is seen as an interesting form of social exchange.

**Observation**
Memories, thoughts, and feelings (non-observable data) can be inferred from observing behaviour, although sometimes it may be difficult to infer what causes particular behaviour. For example, what is motivating people to engage in disruptive behaviour or sabotage
at work? Sometimes the psychologist uses observation to corroborate the evidence in a self-report. For example, the subject’s statements about his or her active involvement in the life of the organization could be validated by observing the nature and extent of that involvement.

Where the researcher observes the behaviour of workers on the factory floor, with or without their knowledge, as part of a research study, this could be referred to as “naturalistic” observation. In this setting the researcher is collecting information but there is no attempt to influence the respondent. Observation could be unobtrusive, where the observer does not come into contact with people and the latter are unaware that they are being watched (e.g. the use of a surveillance camera to detect unsafe behaviour in a factory).

The observational method can be used for investigation in a variety of ways. It lends itself to the development of insights that could subsequently lead to hypothesis formation, and it may facilitate the interpretation of data obtained by other techniques. It can be used where subjects (e.g. infants or animals) cannot provide verbal reports. Likewise, it could be suitable where people do not like being interviewed or having to fill in questionnaire forms, or where they might distort the answers.

The psychologist engaged in observation can record the behaviour of individuals and groups as it occurs, although the recording of observations during the actual process of observation can prove difficult. If keeping a record follows the act of observation, the question to ask is how soon after the event does one make the record. Without the benefit of an action playback facility, it is difficult to check the accuracy of one’s perceptions. Not all behaviour can be observed, because of the subject’s need for privacy in certain circumstances, and it is important to acknowledge the possibility that people may alter their behaviour if they know they are being watched. The observer must guard against bias stemming from personal prejudice, and must try to maintain objectivity when relationships develop between the observer and other members of the group. In light of these considerations it is imperative that an observation episode is planned and executed in a systematic and rigorous way. Observation can be structured or unstructured, and it is helpful if there are two or more observers so that they can compare notes and check bias.

Unstructured observation often takes the form of participant observation and is frequently used in exploratory investigations. A participant observer could be knowingly a member of the group he or she is observing. Participant observation can also be carried out in secret (e.g. an experimenter may pose as a convert in a religious sect). A participant observer involved in the life of a group is better placed strategically to understand the complexities and subtleties of behaviour and its meaning than the psychologist who applies standardized questionnaires or creates artificial and restrictive laboratory situations. However, field work is a time-consuming exercise.

In structured observation, the observer knows in advance what behaviour is relevant to the research objectives. A specific plan can be devised to collect and record observations with the opportunity to exercise more precision and control. Although the well-trained observer may produce very reliable results, some of the subtleties detected in unstructured observation may be lost in structured observation.

Analysing documents
The usefulness of the analysis of documents can be seen when critical events in the life of the organization can be gleaned from the written word. This would have particular significance if it amounted to a confirmation of what was said previously to the researcher in the course of an interview in the order in which it was told. If written information is in quantitative form (like numerical data on absenteeism),
it lends itself to statistical analysis, whereas non-quantitative data (e.g. qualitative information, such as an account of the way a complex contract was negotiated) could be classified by theme or event.

The documents read and analysed by the researcher are called secondary sources and include diaries, letters, reports, minutes of meetings, output statistics, and published work. One must be careful when it comes to the interpretation of this type of data in case the reported events are generalized when in fact they are applicable to a section of the organization but not to the entire organization (e.g. productivity gains apply to a function but not to the total organization). Other secondary sources are industry reports, research reports from external bodies, and so on. In the analysis it should be noted that trends within the industry may not necessarily apply to the organization surveyed. For example, the organization may not have suffered to the same extent as the industry at large in terms of a decline in productivity, if this was the case.

**Case studies**

Case studies probe in some detail the activities or behaviour of individuals or groups within an organization. The main purpose of this approach is to record in the correct order the way events unfold. If case study activity extends over an appreciable length of time we enter the realm of “longitudinal” studies. This approach can help to explain what causes a particular outcome. A case study can be undertaken for different purposes. Where there is a lack of information on a particular topic or event, a case study can be used to create insights for further exploration, but one should recognize that it could produce valuable discoveries in its own right. A case study could be particularly useful where the researcher is interested in the impact of a major management technique, such as total quality management. The introduction of this critical event in the life of the organization is noted and then subsequent developments are recorded.

**Action research**

Action research can be defined as the application of the scientific method of fact-finding and experimentation to practical problems awaiting solutions. Since this approach to research is problem-centred, it necessitates a close attachment to the organization and requires delicate negotiation of the role played by the researcher. It requires cooperation and collaboration between the action researcher and members of the organization. The preferred outcomes of action research are solutions to immediate problems and a contribution to scientific knowledge and theory. Action researchers are normally outsiders and, unlike change agents who are charged with bringing about specific change, they carry out organizational research (Coghlan & Coughlan, 2005).

The research process involves meticulous fact-finding using interviews and the examination of documentation that could result in the identification of problems and their causes. Participative observation could also be used (Meyer, 2001). The information collected will be analysed and synthesized, and action plans to improve the situation will be produced. Next, there is the provision of feedback – that is, sharing with those involved in the change process the nature of the problem and the possible action to be taken – followed by implementation of the necessary action to solve the problem. Overall, this has the effect of giving the recipients of the results of action research the opportunity to analyse solutions better, gain insight, and develop and implement their own solutions to problems.

Using appropriate data at their disposal, action researchers are well placed to evaluate the effects on the organization of the implementation of action plans. Both researchers and the organization benefit from the insight and understanding gained of the effects of
organizational change (Shani & Pasmore, 1985). A difficulty arises if the organization does not wish to adopt the researcher’s solution to the problem.

Finally, action research has potential in another setting; it has been favourably viewed as a respectable form of qualitative research by academics in the field of management (Eden & Huxham, 1996). It normally takes the form whereby a limited number of respondents provide the researcher with detailed interpretations of the organizational landscape and processes they encounter in their work life. It can provide a rich pool of research data, but it is time-consuming and demanding as the researcher is faced with the difficult task of editing and interpreting a large amount of data (Arnold and Randall et al., 2016).

**Ethical issues**

Those who conduct research in organizations ought to be sensitive to potential ethical issues. In this respect the following matters should be considered. A person’s right to privacy should be respected. Violation of this principle is evident when subjects are observed without their knowledge, when highly personal questions are asked of them or, without their knowledge or that of their colleagues, when a participant observer parades himself or herself as, for example, a worker, thereby concealing his or her true identity.

In addition, subjects should be free to decide whether or not to participate in a research study, and should be given the opportunity to obtain detailed information about the study prior to making a commitment to take part, or be informed of the nature of the experiment after it has taken place. Also, subjects should be informed of their right to withdraw from the research project at any time. In the experiment on the effects of obedience to authority conducted by Milgram (see Chapter 10), the subjects did not know about the true nature of the experiment. They thought that they were assisting the researcher in gaining an insight into the effects of punishment on learning. In the view of the researcher, it was felt necessary to mislead the subjects, at least at the outset, in order to achieve the goals of the research project. As a general principle, deception should not be condoned and should be avoided in projects that cause distress. It is also necessary to protect subjects from mental and physical harm during the investigation.

Researchers have a moral obligation to maintain the confidentiality of the data. In this respect the anonymity of the respondent is crucial and should be respected, particularly when a statement to this effect is made by the researchers prior to the collection of the data. A number of these suggestions are contained in a code of practice (British Psychological Society, 2018). Finally, we should stress the positive aspects of an ethical policy (Francis, 1999): it provides a set of reference points that help the less experienced psychologist to make sensible social judgements; it promotes collegiality; it provides a neutral forum for the discussion of values in intercultural settings; and it invites us to think of creative solutions to ethical dilemmas. In connection with the latter, it is well to recognize that there is no perfect solution.

**FRAMEWORK AND ISSUES**

Before moving on to Chapter 2 it seems appropriate to state briefly the framework of the book and the topics covered. The primary emphasis in Part I is to provide an overview and to explain methods of enquiry (Chapter 1); Part II (Chapters 2–8) focuses on the individual; Part III (Chapters 9–12) focuses on the group; and Part IV (Chapters 13–16) looks at the organization broadly conceived. Among the main issues discussed in the book are:

- historical influences;
- research methodology;
PART I: PERSPECTIVES AND ENQUIRY

• personality and intelligence, psychometrics
• employee selection/appraisal;
• motivation and job design, rewards
• perception and communication;
• learning, memory, and training;
• decision making and creativity;
• employee attitudes, job satisfaction, and commitment;
• social interactions of people in groups, and teamwork;
• supervision and leadership;
• power, politics, and conflict;
• organizational design, culture, and change;
• pressure and stress at work;
• the impact of modern technology.

Explanations of these and other issues dealt with in the book come from the different perspectives identified earlier. As the various chapters draw heavily on empirical or research evidence in occupational psychology, organizational behaviour and management, it was appropriate to comment above on the methods used in psychological enquiry.

CHAPTER SUMMARY

• Psychology has a useful part to play in increasing our understanding of human behaviour and of how organizations function.
• The major perspectives in psychology associated with the study of behaviour are the psychoanalytical, behaviourist, phenomenological, and cognitive approaches.
• Organizational behaviour takes on board a wider range of issues than that normally associated with applied psychology in organizations, although it could be argued that psychology is by far the most influential discipline in the analysis of behaviour in organizations.
• The landmark developments in the evolution of organizational behaviour and organizational psychology include scientific management, human relations, neo-human relations, occupational/industrial psychology, classical bureaucracy, principles of organization, contingency theory, and systems theory.
• Contemporary developments related to modifications to organizational structures and management practices have become pronounced because of the nature and scale of change in recent years.
• Researchers, using the scientific method, gather information on a variety of behavioural issues affecting life in organizations. The scientific method includes definition and control of the variables used, data analysis, replication, and hypothesis testing. The research methods used depend upon the nature of the problem. For example, certain problems lend themselves to scientific investigation in a laboratory or field setting, whereas others are more easily examined using surveys, such as questionnaires or interviews.
• Those who conduct research in organizations ought to be sensitive to potential ethical issues.
QUESTIONS

(1) What is the difference between behaviourism and psychoanalysis?
(2) Identify the disciplines that contribute to organizational behaviour and assess the significance of psychology as a contributory discipline.
(3) How influential was early industrial psychology in increasing our knowledge of the behaviour of people in organizations?
(4) Discuss major theoretical or empirical developments in the evolution of organizational behaviour.
(5) Examine the major issues affecting contemporary organizations.
(6) Explain the rationale for the different branches of psychology using different techniques when applying the scientific method.
(7) Consider the most appropriate research methodology to use when conducting a study of the motivation of sales representatives.
(8) In what way does adherence to an ethical code influence the approach of the organizational psychologist?

FURTHER READING

Historical Influences and Research Methodology

Personality and Intelligence

Psychological Testing, Selection, and Appraisal
Hirsh, J.B. (2009). Choosing the right tools to find the right people. The Psychologist, Sept., 752-D5.
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Motivation, Job Design, and Extrinsic Rewards

Perception and Communication

Learning, Memory, and Training
Individual Decision Making and Creativity


Attitudes, Values, Job Satisfaction, and Commitment


Groups


Teambuilding


Leadership and Management Style

Power, Politics, and Conflict

Organizational Structure and Design

Organizational Culture

Organizational Change and Development

Health and Work: Stress
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