

:SOCIAL PSYCHOLOGY

Australian & New Zealand Edition

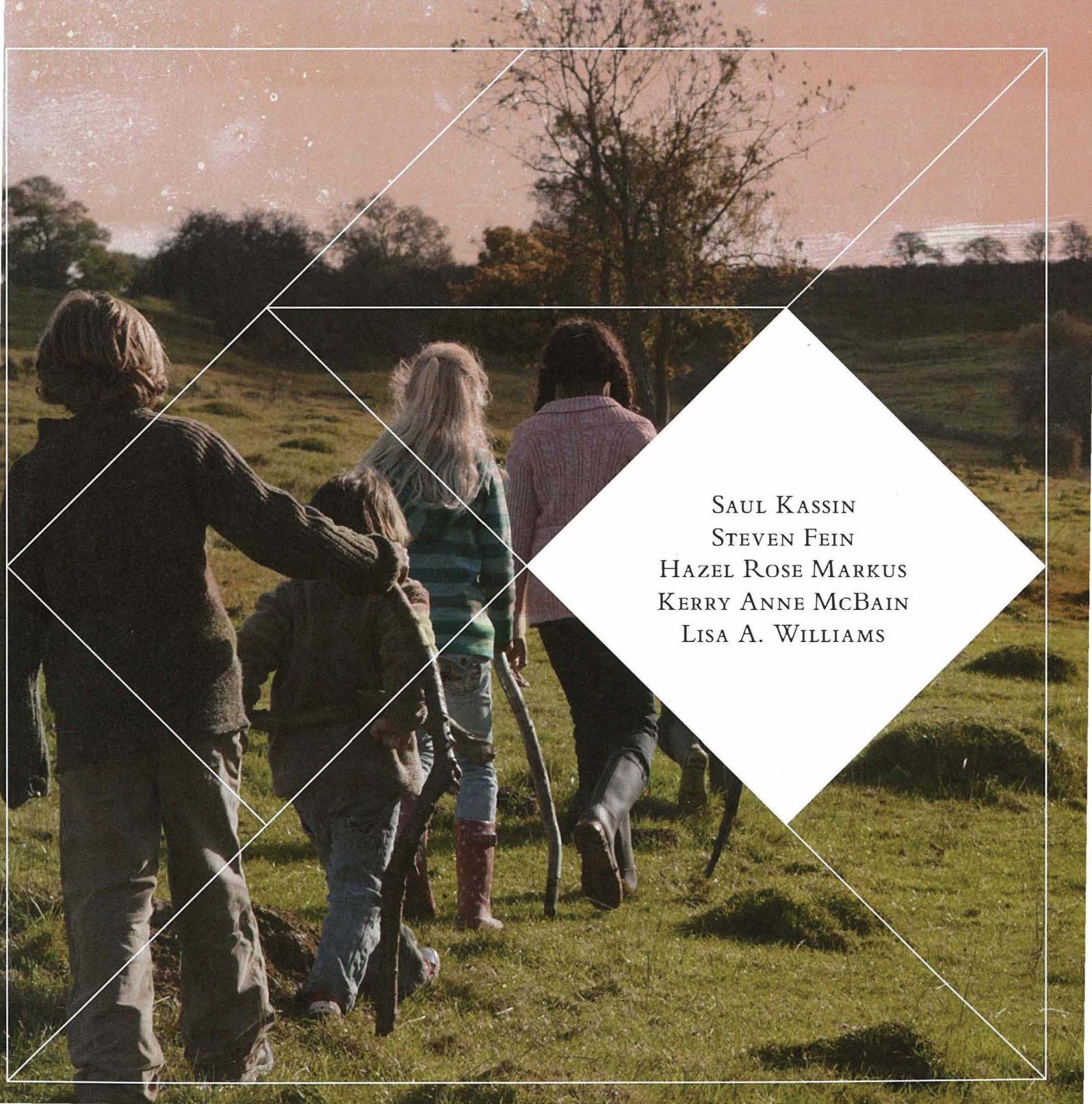


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STEVEN FEIN
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LISA A. WILLIAMS

**SOCIAL
PSYCHOLOGY**

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Australian & New Zealand First Edition



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Social Psychology: Australian and New Zealand edition

1st Edition

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PREFACE

The world of the twenty-first century is an exciting and tumultuous place right now. On the one hand, thanks to Twitter, Skype, YouTube and other social media, it has never been easier to talk or share information, opinions, pictures, music and footage of live events as they occur with people from all corners of the world. On the other hand, deep social and political divisions, religious and ethnic conflicts all over the world, economic turmoil and an ever-present threat of terrorism surround us. As Charles Dickens (1859) said in *A Tale of Two Cities*, 'It was the best of times, it was the worst of times.'

Encircled by its place in science and by current world events, social psychological theories, research methods and basic findings have never been more relevant or more important. Social psychology has no 'critical' experiments, no single study can 'prove' a theory, and no single theory can fully explain the complexities of human social behaviour; however, the process of revising this textbook always seems to show us how complex, dynamic and responsive our field can be. As the world around us rapidly changes socially, politically and technologically, so too does social psychology.

At the same time, social psychology recently has been rocked by scandal and controversy, including accusations of falsification of data, questionable methods and statistical analyses, and bias due to political ideology. As a result of these recent events, the discipline is now undergoing a process of self-examination. Noting that crisis can beget opportunity, the Society of Personality and Social Psychology has initiated new workshops, policies and standards of responsible conduct, all designed to prevent future instances of intentional and unintentional bias.

GOALS FOR THIS EDITION

We had three main goals for this edition, which includes both revision and adaptation to the Australia and New Zealand region.

- 1 Our first goal was to present the most important and exciting perspectives in the field as a whole. To communicate the breadth and depth of social psychology, we have self-consciously expanded our coverage to include not only the classics but also the most recent developments in the field – developments that capture new thinking about social neuroscience, embodied cognition, evolutionary theory, implicit processes and cultural influences. We sought to determine if the findings from such other diverse fields were consistent with research within the realm of social psychology.
- 2 We want this book to serve as a good teacher outside the classroom. While speaking the student's language, we always want to connect social psychology to current events in politics, sport, business, law, entertainment, the use of social networking sites and other life domains.
- 3 Our third goal was to make this book relevant to students and instructors in the Australia and New Zealand region. From current events examples to local research, societal trends to our *Research spotlight* series, we have made every attempt to regionalise the content to Australasia. It is important to be aware that social psychology has strong historical roots in the United States, so there may be some sections that seem quite focused on that region. In these cases, we urge students to make their own connections to personal, local or global experience.

WHAT'S IN THIS EDITION

We have tried to capture some subtle but important shifts within the field so that the reader can feel the pulse of social psychology *today* in each and every page of this textbook.

The content

Comprehensive, up-to-date scholarship

This text offers a broad, balanced, mainstream look at social psychology. Thus, it includes detailed descriptions of classic studies from social psychology's historical warehouse as well as the latest research

findings from hundreds of new references from Australia, New Zealand and throughout the world. We have zeroed in on developments within five important domains: social neuroscience, embodied cognition, evolutionary theory, implicit processes and cultural perspectives.

Connections with current events

To cover social psychology is one thing, but to use its principles to explain events in the real world is quite another. More than a decade ago, the events of 9/11 changed the world. In different ways not fully discernible, so did the global financial crisis; the election of Australia's first female prime minister, Julia Gillard; the changes that have swept through the Arab world; and the increasing ease with which people meet and interact through online social networking sites. We are convinced that connecting theory to real life is the best way to heighten student interest and involvement. Accordingly, almost every page includes a passage, a quote, a figure, a table or a photo that refers to people, places, events, social trends and issues that are prominent in contemporary culture.

Cultural perspectives

This text embraces current research on cultural influences in social behaviour. Social psychologists have long been fascinated by similarity and difference among cultural groups and between racial and ethnic groups within cultures. As social psychology is now a truly international discipline, this book also includes many citations to research conducted throughout Australia, New Zealand, the United States, Europe, Asia and other parts of the world. We believe that the study of human diversity from the perspectives of researchers who themselves are a diverse lot can help students become better informed about social relations as well as about ethics and values.

Social psychology and common sense

Building on a discussion in Chapter 1 about the links (and lack thereof) between social psychology and common sense, each substantive chapter opens with *Putting common sense to the test*, a set of true–false questions designed to assess the student's intuitive beliefs about material later contained in that chapter. The answers to these questions are revealed in a marginal box after the topic is presented in the text. These answers are then explained at the end of each chapter. These exercises will enable students, as they read, to check their intuitive beliefs against the findings of social psychology and to notice the discrepancies that exist.

Social neuroscience

Social neuroscience and the fMRI brain-imaging studies are poised to enlighten our understanding of the human social experience. Social neuroscience has not fully arrived, and researchers are still raising questions about how to interpret the newly observed links between brain activity and self-referential thoughts, social perceptions, motives, emotions and behaviour. While we acknowledge the current limitations, we also want to provide students with a glimpse of this exciting new fusion of social psychology and neuroscience.

Embodied cognition

More and more, social psychologists are finding that human thought is 'embodied' – that the way we view ourselves and others is influenced by the physical position, orientation, sensations and movements of our bodies. By varying whether people nod or shake their heads, stretch their arms inward or outward, stand on a surface that is hard or soft, or hold an object that is hot or cold, a number of new studies illustrate embodiment effects in self and other perceptions, beliefs, evaluations and attitudes.

Evolutionary theory

We present various evolutionary perspectives on human nature, at the heart of which is the notion that we humans, like other species, have an ancestral past that predisposes us, albeit flexibly, to behave in ways that are adapted to promote survival and reproduction. Evolutionary psychologists today seek to explain a wide range of social phenomena such as snap judgments in social perception, prejudice, helping, aggression, beauty, mate selection and romantic jealousy. To some extent, this perspective is somewhat controversial, but it has become part of the mainstream, with respected journals filled with studies and critiques of evolutionary psychology. This edition fully integrates the approach, its findings and its limitations with the rest of social psychology.

Implicit processes

More and more, social psychologists across a range of research areas are finding it informative to use both implicit and explicit processes, especially for the purpose of supplementing self-report measures of beliefs and preferences. After some resistance, social psychologists have also come to realise the value of the conscious–unconscious distinction in the study of self-esteem, priming, stereotyping, prejudice, attitudes, ambivalence, social influence, attraction and other core topics. Hence, we describe recent work involving the Implicit Association Test, or IAT, and the ongoing debate about what it measures, what it means and what behaviours it predicts.

The organisation

Of all the challenges faced by teachers and textbooks, perhaps the greatest is to put information together in a way that is both accurate and easy to understand. A strong organisational framework helps in meeting this challenge. Informing our thoughts for this edition is the view that social psychology is a dynamic discipline – one that embraces feelings, thoughts, behaviours, the contexts in which they occur across the lifespan, and the fact that each of these elements shapes and is shaped by the social environment in which we interact. Hence we have taken a social ecological approach, loosely guided by the work of Urie Bronfenbrenner (1974) who suggested that in order to understand a person you must consider the entire ecological system in which they develop. Accordingly the model we have chosen emphasises multiple levels or spheres of influence emanating from: (1) the intra-individual level that considers the characteristics of the individual; (2) the interpersonal networks – the people that they share their lives with and those they interact with; (3) the environments in which they live, work and interact, and the systems which govern and guide them; (4) the institutional patterns of culture (such as customary practices and beliefs) that help to define them and their behaviours; and (5) the socio-historical context in which they live. The book opens with an introductory chapter on the history, subject matter and research methods of social psychology, which orients readers to the socio-historical context and the environment in which the discipline has evolved (Part I). We then move to an intra-individual focus on social perception (Part II), followed by a shift outward to the interpersonal networks with which a person interacts – focusing on social influence (Part III) and Social Relations (Part IV). We conclude with social psychology and real world applications, which embeds research and practice in social psychology into some of the environments in which it is commonly applied (Part V). Each chapter in this text talks about issues of relevance to an individual's 'as lived' experience, incorporating research that embraces the human journey with all of its uniqueness and its similarities.

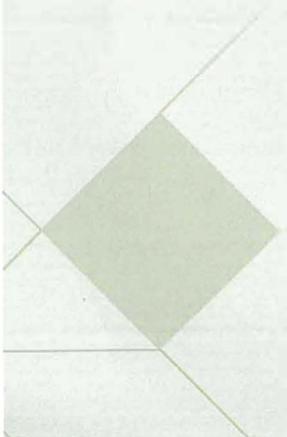
We realise that some instructors like to reshuffle the deck to develop a chapter order that better fits their own approach. There is no problem in doing this. Each chapter stands on its own and does not require that others be read first.

The presentation

Even when the content of a textbook is accurate and up to date, and even when its organisation is sound, there is still the matter of presentation. As the 'teacher outside the classroom', a good textbook should facilitate learning. Thus, every chapter contains the following pedagogical features:

- ◆ A narrative preview highlights aspects of material covered in the chapter, which is followed up with a *Topical reflection* box at the end of the chapter.
- ◆ Learning objectives are located at the beginning of each chapter, along with a *Putting common sense to the test* quiz.
- ◆ *Key terms* highlighted in the text, defined in the margin, listed at the end of the chapter and reprinted in an alphabetised glossary at the end of the book. The list provides page numbers for easy location of each term.
- ◆ Numerous bar graphs, line graphs, tables, sketches, photographs and flowcharts illustrate, extend, enhance and enliven material in the text. Some of these depict classic images and studies from social psychology's history; others are contemporary and often 'newsy'.
- ◆ Dotted throughout each chapter there are a number of *Critical thinking activities* that have been designed to get students thinking about concepts and issues of relevance to social psychology.
- ◆ Also interspersed are *Cultural diversity* boxes, which highlight global and regional themes of relevance to the chapter content. These boxes serve to highlight both the similarities and differences that exist in social psychological processes around the world.

- ◆ At the end of each chapter, a comprehensive bulleted *Review* summarises the major sections and points.
- ◆ Also at the end of each chapter there is a quick *Review quiz* to test your understanding, some interesting websites relevant to the material covered and some *Psychology SearchMe!* activities to get you thinking about research.
- ◆ A *Research spotlight* feature highlighting the research of contemporary Australian and New Zealand researchers has been included in each chapter beginning with Chapter 2.

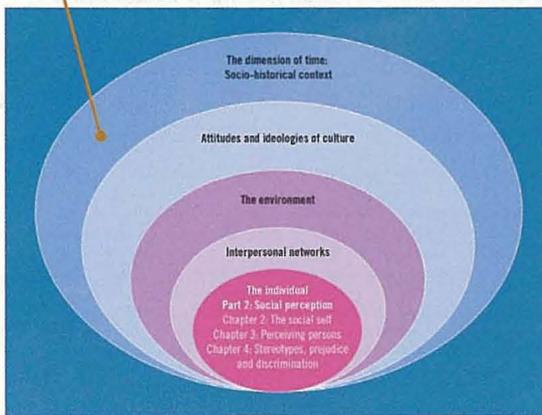


RESOURCES GUIDE

For the Student

As you read this text you will find a number of features in every chapter to enhance your study of social psychology and help you understand how the theory is applied in the real world.

An **organisational model** included at the beginning of each Part introduces the chapters and how they relate to each other to give you an overview of the content ahead.



An opening **vignette** introduces and illustrates the chapter topics in a real-world context. This example is revisited in the **Topical Reflection** at the end of the chapter to connect your understanding of the theory back to the real world.

Learning Objectives give you a clear sense of what each chapter will cover and what you should be able to do after reading the chapter.

The screenshot shows the first page of the textbook chapter. At the top, it says 'CHAPTER 1 WHAT IS SOCIAL PSYCHOLOGY?'. Below this, there are several sections:

- What is social psychology? (4)**: A brief history of social psychology (8); Social psychology in a new century: what is trending today? (11); Research methods: what and why (15); Developing ideas: beginning the research process (18); Refining ideas: defining and measuring social psychological variables (17); Testing ideas: research designs (26); Ethics and values in social psychology (31).
- Learning objectives**:
 - 1 define social psychology and identify the kinds of questions that social psychologists try to answer
 - 2 explain how social psychology differs from sociology and other fields of psychology
 - 3 assess the limitations of the following statement: 'All social psychological findings are simply common sense'
 - 4 describe the process of generating research ideas in social psychology, searching the relevant literature and developing hypotheses
 - 5 understand the differences between applied and basic research
 - 6 discuss the function of ethics in social psychological research, including the use of deception and confederates.
- Vignette**: A photograph of a crowd of people at a festival, with a text box asking: 'How many times in the last 24 hours have you stopped to wonder why a person reacted to a situation the way they did, or considered your own reactions in an attempt to understand your thoughts, feelings and behaviours? Ask the people around you the same questions and you will see a common trend. As social beings living in a social world, we cannot escape the complexities of our interactions with others or our isolation from them. The history of social psychology has been paired with questions of social behaviours, with questions and ideas from inquiring minds just like yours providing the paving stones. Hundreds of thousands of studies and experiments have formed the cement that holds the pavers together, and the questions that these studies have generated have provided the complexity in the direction of the paths they have created. Not only will you learn interesting and relevant details of research findings throughout the book, but you also will learn how social psychologists have discovered this evidence. It is an exciting process and one that we are enthusiastic about sharing with you. The purpose of this first chapter is to provide you with a broad overview of the field of social psychology and to introduce you to some of the methodologies we use to carry out the scientific investigations in this field. By the time you finish it, you should be ready and (we hope) eager for what lies ahead – your path is a work in progress.'

The screenshot shows the 'TOPICAL REFLECTION' section at the end of the chapter. It includes a sub-section titled 'LOOKING BACK AND MOVING FORWARD' with the following text:

Your introduction to the field of social psychology is now complete. In this first chapter, you have gone step by step through a definition of social psychology, a review of its history and discussion of its future, an overview of its research methods and a consideration of ethics and values. As you study the material presented in the coming chapters, we invite you to share our enthusiasm. You can look forward to information that overturns common sense assumptions, to lively debate and heated controversy, and to a better understanding of yourself and other people. Welcome to the world according to social psychology. We hope you enjoy it!



A **Common Sense Test** in every chapter challenges you to think about your intuitive beliefs related to the material covered in the chapter. Find the answers in the margins when the topic is discussed, and further explanations in the end-of-chapter review.

PUTTING COMMON SENSE TO THE TEST

Humans are the only animals who recognise themselves in the mirror. **False**

REVIEW

THE SELF-CONCEPT

- The self-concept is the sum total of a person's beliefs about his or her own attributes. It is the cognitive component of the self.

Rudiments of the self-concept

- Using brain scans, social neuroscientists find that certain areas become relatively more active when people process self-relevant information.
- Recognising oneself as a distinct entity is the first step in the development of a self-concept.
- Cooley's 'looking-glass' self suggests that social factors are a necessary second step.

According to social comparison theory, people often evaluate their own opinions and abilities by comparing themselves to similar others.

Based on Schachter and Singer's two-factor theory of emotion, research shows that, under certain conditions, people interpret their own arousal by watching others in the same situation (arousal + label = emotion).

Autobiographical memories

- When people recall life experiences, recent, vivid and lasting memories are more likely to arise.
- Autobiographical memories are shaped by self-serving motives as people overemphasise their own roles in past events.

Culture and the self-concept

- Many Europeans and North Americans hold an independent view of the self that emphasises autonomy.
- People in certain Asian, African and Latin American cultures hold an interdependent view of the self that encompasses social connections.
- These cultural differences influence the way we perceive, feel about and present ourselves in relation to others.

PUTTING COMMON SENSE TO THE TEST

Humans are the only animals who recognise themselves in the mirror.

FALSE. Studies have shown that the great apes (chimpanzees, gorillas and orangutans) are also capable of self-recognition.

Key Terms are bolded when first introduced in the text and then listed at the end of the chapter. You will also find them defined in the full **Glossary** at the back of the text.

self-concept
The sum total of an individual's beliefs about his or her own personal attributes.

self-schema
A belief people hold about themselves that guides the processing of self-relevant information.

attention. To the social psychologist, it also shows that the self is an important object of our attention.

The term **self-concept** refers to the sum total of beliefs that people have about themselves. What specifically does the self-concept consist of? According to Hazel Markus (1977), the concept is made up of cognitive molecules she called **self-schemas**: beliefs about oneself that guide the processing of self-relevant information. Self-schemas are to an individual's total self-concept as hypotheses are to a theory or as books are to a library. You can think of yourself as masculine or feminine, as independent or dependent and as introverted or extroverted. Indeed, any self-attribute may have relevance to the self-concept for some people but not for others. The schema for body weight is a good example. Men and women who regard themselves as extremely overweight or underweight, or for whom body image is a prominent aspect of the self-concept are considered **schematic** with respect to weight. For these body-weight schematics, a wide range of otherwise mundane events – shopping for groceries, buying new clothing, eating dinner at a restaurant or spending the day at the beach – may trigger thoughts about the self. By contrast, to



Cultural Diversity boxes are included in every chapter to introduce you to global and regional themes of relevance to the chapter content. These boxes serve to highlight both the similarities and differences that exist in social psychological processes around the world.

CULTURAL DIVERSITY

SOCIAL COMPARISONS IN NEW ZEALAND

Diane Mackie (1984) was interested in social comparisons in the context of New Zealand ethnic groups. She asked Samoan and Pakeha (European) children in New Zealand to indicate who they make comparisons to in a variety of contexts. For example, they responded to the question, 'When you think of someone who is a better person than you, who do you think of?' After responding to the questions, the researchers established whether the targets the children identified were part of their ethnic ingroup or not.

Overall, New Zealand European (Pakeha) children nominated members of their ingroup in 67% of cases and Samoan children nominated members of their ingroup in 54% of cases. Thus, the 'similarity rule' plays out even among children of varying cultures and ethnicities.

FIGURE 2.4 The similarity principle in the context of social comparisons

Group	Samoan	Pakeha	Other
Samoan children	54%	26%	20%
Pakeha children	21%	67%	12%

Source: Adapted from Mackie, 1984.



Critical Thinking Activities challenge you to reflect on, and evaluate, the concepts and issues covered in the chapter.

CRITICAL THINKING ACTIVITY

Why are you studying psychology? Is your motivation to do so mainly intrinsic, extrinsic or some mix of the two?

Consider the rewards that you might gain from your study of psychology – maybe praise from your lecturers or tutors, marks on your university transcript or social prestige. Reflect on how these rewards might shape your motivation to study psychology.

RESEARCH SPOTLIGHT

DR FIONA BARLOW, UNIVERSITY OF QUEENSLAND AND GRIFFITH UNIVERSITY



1 What are the topic areas of your research?
I look at contact between members of different groups, and how such contact (or expectations about contact) shapes intergroup relations. I look extensively at how fears around contact (for example, expecting rejection on the basis of race) can encourage race-based segregation, and how negative contact between members of traditionally oppositional groups can effectively poison intergroup relations. My work informs researchers about expecting rejection on the basis of your race (Barlow et al., 2009, 2010), minority group experiences of contact and rejection (Barlow et al., 2010, 2011, 2013), the differential impact of negative and positive contact on racism and discrimination (Barlow et al., 2012) and the impact of contact and contact related fears on intergroup emotions, such as anxiety and anger (Barlow et al., 2009, 2010, 2011, 2012; Harth et al., 2010).

• Barlow, F. K., Horsey, M. J., Thai, M., Sengupta, N., & Sibley, C. G. (2013). The wallpaper effect: The contact hypothesis fails for minority group members who live in

for political action as outcomes of race-based rejection in majority and minority groups. *British Journal of Social Psychology*, 51(1), 167–177.

• Harth, N. S., Horsey, M. J., & Barlow, F. K. (2011). Emotional responses to rejection of gestures of intergroup reconciliation. *Personality and Social Psychology Bulletin*, 37(6), 815–829.

2 Which of your research findings have you found most intriguing?
One paper that I am very proud of was authored by my PhD student Michael Thai. In this paper we took on the topic of ‘ethnic deviance’. Typically, work shows that we really dislike deviance – and we police the groups to which we belong by making sure that anyone who doesn’t ‘act like us’ is either disciplined or ejected from the group. Michael and I proposed that for some groups, this general pattern may not hold true. Specifically, we looked at Asian Australians. Asian Australians (like many other Asian people in Western settings) are perpetually denied their national identity. They are always being asked, ‘Where are you really from?’ and so on and so forth. Given these pressures, we proposed that under certain conditions Asian Australian participants might actually



Research Spotlight boxes profile Australian and New Zealand social psychology academics and discuss their research interests, as well as their background in this area of psychology.

At the end of each chapter you’ll find several tools to help you to review the chapter and key learning concepts, and also to help extend your learning.

REVIEW

OBSERVATION: THE ELEMENTS OF SOCIAL PERCEPTION

- To understand others, social perceivers rely on indirect clues – the elements of social perception.

A person’s physical appearance

- People often make snap judgments of others based on physical appearances (for example, adults with baby faced features are seen as having childlike qualities).

Perceptions of situations

- People have preconceptions, or ‘scripts’, about certain types of situations. These scripts guide our interpretations of behaviour.

enable us to make judgments that are quick but often in error. Second, we tend to commit the fundamental attribution error – overestimating the role of personal factors and underestimating the impact of situational factors.

Cultural and tribalism

- Cultures differ in their implicit theories about the causes of human behaviour.
- Studies show, for example, that East Asians are more likely than Americans to consider the impact of the social and situational contexts of which they are a part.

Motivational biases

The **Review** section enables you to consolidate your understanding of the concepts being learnt as you work through each chapter.

REVIEW QUIZ

1 Which of the following is **not** considered a major source of information in the processes of perceiving others?

- Situations
- Behaviours
- Physical appearance
- Heuristics

2 Which of the following three aspects stem from Kelley’s covariation theory?

- Choice, expectancies and effects
- Consensus, distinctiveness and consistency
- Availability, choice and consistency
- Personal attribution, situational attribution and behavioural attribution

3 Which of the following best describes current understanding of the arithmetic of integrating information about others?

- Weighted average
- Summation
- Standard deviation
- Difference scores

4 Which term refers to the phenomenon whereby individuals interpret ambiguous information as supporting their prior beliefs?

- Belief perseverance
- False consensus
- Confirmatory hypothesis testing
- Base-rate fallacy

A **Review Quiz** tests your comprehension of key concepts in each chapter.

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Activity 1: Impression formation
Locate the article ‘The sweet smell ... of coldness: Vanilla and the warm-cold effect’ by Roxane Saint-Bauzel and Valerie Folmlet (2013). Review the findings and reflect on how they align with

Establish whether the explanation of a primacy effect corroborates the material covered in this chapter. The article emphasises the emotional impact of memories for determining how vivid and easy to recall they are. Do you think this holds true for the impressions you hold of others? For example, do you remember someone who evoked a very strong response over someone that had less of an impact? Note how the article also discusses self-fulfilling prophecies and deception, topics also covered in this chapter. Reflect on how these different topics align with an understanding of the social psychology of perceiving persons.

Activity 3: Confirmation bias
Find Andreas Hergovich and colleagues’ place in *Current*

Search me! Psychology Activities linked to the SearchMe! Psychology database guide you through online research of relevant peer-reviewed journals and news media.

WEBLINKS

Deception blog
<http://deception.crimpsychblog.com>
A blog site collating recent deception research, as well as deception in the news and media.

Decision making and heuristics
<http://cal.sala.edu/thinker/decisions/heuristics>
A demonstration of the availability heuristic as well as other heuristics used in attributions and decision-making.

How to spot a liar
www.ted.com/talks/pamela_meyer_how_to_spot_a_liar
TED talk by Pamela Meyer.

Maps of bound ed reality
www.mobilize.org/ukol prizes/economic-sciences/laureates/2002/kahneman-lecture.html
A lecture (and transcript) by Daniel Kahneman discussing the System 1 and System 2 cognitive processes.

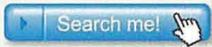
Social perception lab
<http://lab.princeton.edu/demonstrations>
A demonstration site for Alex Todorov’s laboratory in which you can see how traits appear on the face.

Spot the fake smile
www.bbc.co.uk/science/humanbody/mind/surveys/smiles/index.

Weblinks help you to extend your knowledge and understanding of key points through wider online research.

Online resources

Visit <http://login.cengagebrain.com> and use the access code that comes with this book for 12 months' access to:



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- ◆ **Search me! psychology:** Fast and convenient, this resource provides you with 24-hour access to full-text articles from hundreds of scholarly and popular journals and newspapers, including *The Australian* and *The New York Times*. Use Search me! psychology to explore topics further and find current references.

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The Instructor's Manual provides you with content to help set up and administer your subject. It includes a chapter outline, lecture and discussion ideas, classroom activities, multimedia resources and solutions to the problems in the text.

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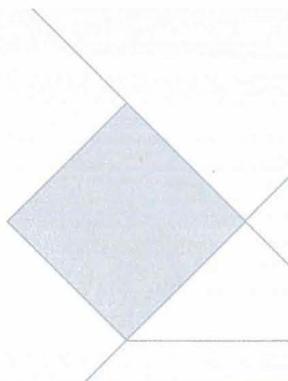
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ExamView helps you to create, customise and deliver tests in minutes for both print and online applications. The Quick Test Wizard and Online Test Wizard guide you step-by-step through the test-creation process. With ExamView's complete word-processing abilities, you can add an unlimited number of new questions to the bank, edit existing questions and build tests of up to 250 questions using up to 12 question types. You can also export the files into Blackboard or WebCT.

Artwork

These digital files of graphs, tables, pictures and flowcharts from the text can be used in a variety of media. Add them into your course management system, use them within student handouts or copy them into lecture presentations.

ACKNOWLEDGEMENTS



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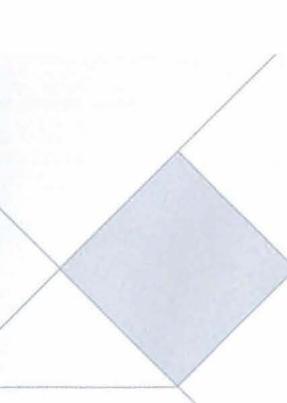
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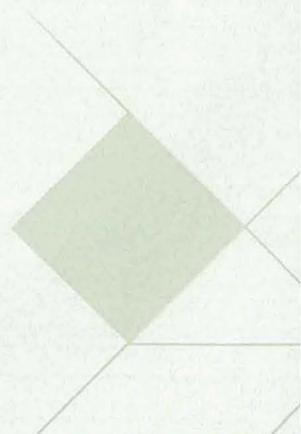
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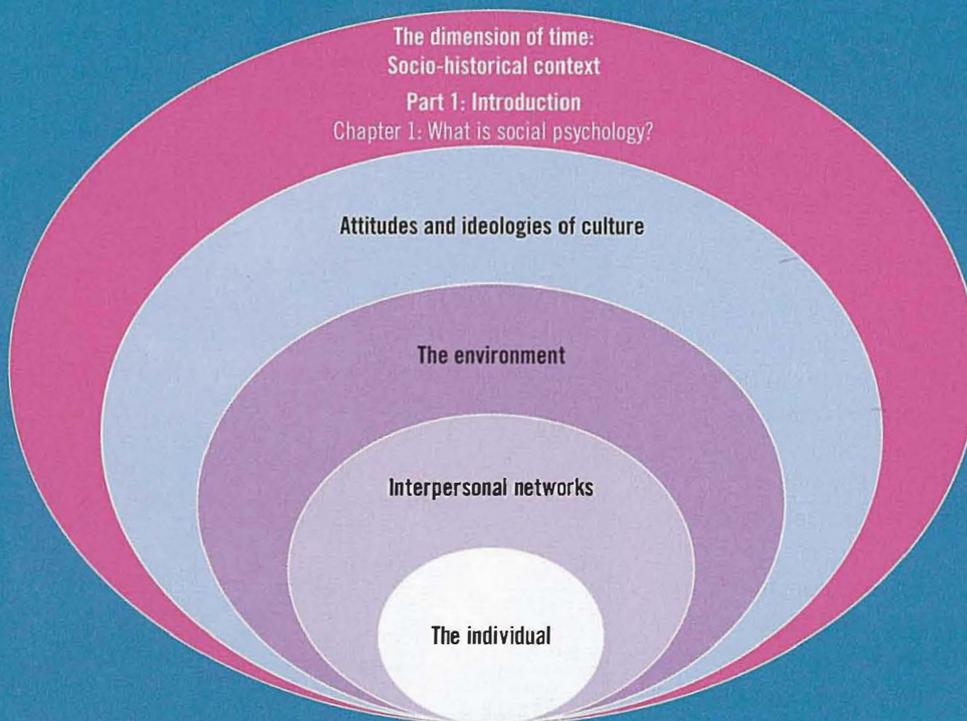
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Diane Sivasubramaniam is a Senior Lecturer in Psychology at Swinburne University of Technology, where she teaches Social Psychology. Her PhD was awarded in 2006 by the University of New South Wales. Before moving to Swinburne University, she completed Postdoctoral Fellowships in New York at John Jay College of Criminal Justice and Barnard College, Columbia University, and was an Assistant Professor at the University of Ontario Institute of Technology (UOIT) in Canada. Diane's research applies the social psychology of procedural justice to the legal system, focusing on restorative justice, jury decision making and interrogations. Diane is an active researcher in the psychology-law field, is a member of the Editorial Board of *Law and Human Behavior* and co-chaired the 2012 meeting of the American Psychology-Law Society.



INTRODUCTION

◆ Chapter 1: What is social psychology?



In this section we introduce you to the study of social psychology. We begin by identifying how it is distinct from but related to some other areas of study, both outside and within psychology. Next we review the history of the field and consider the important themes and perspectives propelling social psychology into a new century. But of course no introduction would be complete without a discussion of the way that social psychologists conduct research, so we step you through the process of developing, refining and testing ideas. Finally we turn our attention to some important questions about ethics and values in social psychology.

WHAT IS SOCIAL PSYCHOLOGY?

What is social psychology?
(4)

A brief history of social
psychology (8)

Social psychology in a new
century: what is trending
today? (11)

Research methods: what
and why (15)

Developing ideas:
beginning the research
process (16)

Refining ideas: defining
and measuring social
psychological variables (17)

Testing ideas: research
designs (20)

Ethics and values in social
psychology (31)

Learning objectives

By the end of this chapter, you should be able to:

- 1 define social psychology, identify the kinds of questions that social psychologists try to answer and differentiate social psychology from other related fields
- 2 describe the trajectory of the field of social psychology from the 1880s to the end of the 20th century
- 3 identify key areas that are trending in social psychology in current times
- 4 explain the challenges of practicing social psychology as a science
- 5 describe the process of generating research ideas in social psychology, searching the relevant literature and developing hypotheses
- 6 explain how social psychologists go about conceptualising, operationalising and measuring variables
- 7 Compare and contrast types of descriptive research, correlational research and experimental research
- 8 Discuss the function of ethics in social psychological research, including the use of deception and confederates and scientific integrity.

How many times in the last 24 hours have you stopped to wonder why a person reacted to a situation the way they did, or considered your own reactions in an attempt to understand your thoughts, feelings and behaviours? Ask the people around you the same questions and you will see a common trend. As social beings living in a social world, we cannot escape the complexities of our interactions with others or our isolation from them. The history of social psychology has been paved with questions of social behaviours, with questions and ideas from inquiring minds just like yours providing the paving stones. Hundreds of thousands of studies and experiments have formed the cement that holds the pavers together, and the questions that those studies have generated have provided the complexity in the direction of the paths they have created. Not only will you learn interesting and relevant details of research findings throughout

the book, but you also will learn *how* social psychologists have discovered this evidence. It is an exciting process and one that we are enthusiastic about sharing with you. The purpose of this first chapter is to provide you with a broad overview of the field of social psychology and to introduce you to some of the methodologies we use to carry out the scientific investigations in this field. By the time you finish it, you should be ready and (we hope) eager for what lies ahead – your path is a work in progress.

Source: Fairfax Media/Rohan Thomson



SOME YEARS FROM NOW, you may receive a letter in the mail inviting you to a high school or university reunion. You'll probably feel a bit nostalgic, and you'll begin to think about those old school days. What thoughts will come to mind first? Will you remember the poetry you finally began to appreciate in your third year? Will you think about the pride you felt when you completed your first chemistry lab? Will a tear form in your eye as you remember how inspiring your social psychology class was?

Perhaps. But what will probably dominate your thoughts are the people you knew in school and the interactions you had with them – the long and intense discussions about everything imaginable; the loves you had, lost, or wanted so desperately to experience; the time you made a fool of yourself at a party; the effort of trying to be accepted by a clique of popular people; the day you sat in the pouring rain with your friends while watching a rugby game or an outdoor film.

We focus on these social situations because we are social beings. We forge our individual identities not alone but in the context of other people. We work, play and live together. We hurt and help each other. We define happiness and success for each other. And we don't fall passively into social interactions; we actively seek them. We visit family, find mates, have parties, build networks, go on dates, pledge an enduring commitment and perhaps decide to have children. We watch others, speculate about them and predict who will wind up with whom, whether in real life or on 'reality' television shows. Many of us text or tweet each other about what we're up to, or we spend time on social networking sites such as Facebook, interacting with people from around the world and adding hundreds or even thousands of 'friends' to our social networks.

One of the exciting aspects of learning about social psychology is discovering how basic and profoundly important social relationships are to the human animal. And research continues to find new evidence for, and point to new implications of, our social nature. Consider, for example, this set of conclusions:

- ◆ Having close friends and staying in contact with family members is associated with health benefits such as protecting against heart disease, infection, diabetes and cancer, and with living longer and more actively (Hawkley & Cacioppo, 2013; Luo et al., 2012).
- ◆ Children who are socially excluded from activities by their peers are more likely than other children to suffer academically as well as socially in school, even several years later (Buhs et al., 2010; Rodkin & Ryan, 2012). The experience of being excluded as a child or adolescent is pointedly negative (Wölfer & Scheithauer, 2013).
- ◆ Experiencing a social rejection or loss is so painful that it produces activity in the same parts of the brain as when we feel physical pain. Being treated well and fairly by other people, on the other hand, activates parts of the brain associated with physical rewards such as desirable food and drink (Eisenberger, 2012; Eisenberger & Cole, 2012). Such effects even extend to witnessing the social exclusion of a friend (Meyer et al., 2013).
- ◆ As many doctors can tell you, there is something very real about a 'broken heart'. For example, a person is more than twice as likely than usual to suffer a heart attack within the month following the death of a loved one (Carey et al., 2014).

Precisely because we need and care so much about social interactions and relationships, the social contexts in which we find ourselves can influence us profoundly. You can find many examples of this kind of influence in your own life. Have you ever laughed at a joke you didn't get just because those around you were laughing? Do you present yourself in one way with one group of people and in quite a different way with another group? The power of the situation can also be much more subtle, and yet more powerful, than in these examples, as when another's unspoken expectations about you literally seem to cause you to become a different person.

The relevance of social psychology is evident in everyday life, of course, such as when two people become attracted to each other or when a group tries to coordinate its efforts on a project. Dramatic events can heighten its significance all the more, as is evident in people's behaviour during and after natural disasters or war. In these traumatic times, a spotlight shines on how people help or exploit each other, and we witness some of the worst and best that human relations have to offer. These events invariably call attention to the kinds of questions that social psychologists study – questions about hatred and violence, about intergroup conflict and suspicion, and about heroism, cooperation and the capacity for understanding across cultural, ethnic, racial, religious and geographic divides. We are reminded of the need for a better understanding of social psychological issues as we see footage of death and destruction from areas in the Middle East or Africa, or are confronted with the reality of an all-too-violent world as nearby as our own neighbourhoods and campuses. We also appreciate the



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Egyptian youth post video to Facebook and Twitter of footage they shot earlier that day of revolutionary protests in Tahrir Square during the Arab Spring of 2011. Social psychologists study, among other things, the expanding role of social networking and technology in our lives, and how people deal with conflict.

social psychology

The scientific study of how individuals think, feel and behave in a social context.

majesty and power of social connections as we recognise the courage of a firefighter, read about the charity of a donor or see the glow in the eyes of a new parent. These are all – the bad and the good, the mundane and the extraordinary – part of the fascinating landscape of social psychology.

This chapter introduces you to the study of social psychology and examines how social psychologists do their research. We begin by defining social psychology and identifying how it is distinct from but related to some other areas of study, both outside and within psychology. Next, we review the history of the field and then look forward, with a discussion of the important themes and perspectives that are propelling social psychology in the twenty-first century. Then we ask, ‘Why should you learn about research methods?’ We answer this question by discussing how learning about research methods can benefit you both in this course and beyond. Next, we consider how researchers come up with and develop ideas and begin the research process. Then we provide an overview of the research designs that social psychologists use to test their ideas. Finally, we turn to important questions about ethics and values in social psychology.

WHAT IS SOCIAL PSYCHOLOGY?

We begin by previewing the new territory you’re about to enter. Then we define social psychology and map out its relationship to sociology and some other disciplines within the field of psychology.

Defining social psychology

Social psychology is the scientific study of how individuals think, feel and behave in a social context. Let’s look at each part of this definition.

Scientific study

There are many approaches to understanding how people think, feel and behave. We can learn about human behaviour from novels, films, history and philosophy, to name just a few possibilities. What makes social psychology different from these artistic and humanistic endeavours is that social psychology is a science. It applies the *scientific method* of systematic observation, description and measurement to the study of the human condition. How, and why, social psychologists do this is explained later in this chapter.

How individuals think, feel and behave

Social psychology concerns an amazingly diverse set of topics. People’s private, even non-conscious beliefs and attitudes; their most passionate emotions; their heroic, cowardly or merely mundane public behaviours – these all fall within the broad scope of social psychology. In this way, social psychology differs from other social sciences such as economics and political science. Research on attitudes offers a good illustration. Whereas economists and political scientists may be interested in people’s economic and political attitudes, respectively, social psychologists investigate a wide variety of attitudes and contexts, such as individuals’ attitudes towards particular groups of people or how their attitudes are affected by their peers or their mood. In so doing, social psychologists strive to establish general principles of attitude formation and change that apply in a variety of situations rather than exclusively to particular domains.

Note the word *individuals* in our definition of social psychology. This word points to another important way in



Our social relationships and interactions are extremely important to us. Most people seek out and are profoundly affected by other people. This social nature of the human animal is what social psychology is all about.

which social psychology differs from some other social sciences. Sociology, for example, typically classifies people in terms of their nationality, race, socioeconomic class and other *group factors*. By contrast, social psychology typically focuses on the psychology of the *individual*. Even when social psychologists study groups of people, they usually emphasise the behaviour of the individual in the group context.

A social context

Here is where the ‘social’ in social psychology comes into play and how social psychology is distinguished from other branches of psychology. As a whole, the discipline of psychology is an immense, sprawling enterprise, the 800-pound gorilla of the social sciences, concerned with everything from the actions of neurotransmitters in the brain to the actions of music fans in a crowded club. What makes social psychology unique is its emphasis on the social nature of individuals.

However, the ‘socialness’ of social psychology varies. In attempting to establish general principles of human behaviour, social psychologists sometimes examine non-social factors that affect people’s thoughts, emotions, motives and actions. For example, they may study whether hot weather causes people to behave more aggressively (Anderson & DeLisi, 2011). What is social about this is the behaviour: people hurting each other. In addition, social psychologists sometimes study people’s thoughts or feelings about non-social things, such as people’s attitudes towards Nike products. How can attitudes towards Nike products be of interest to social psychologists? One way is if these attitudes are influenced by something social, such as whether the endorsement of Nike by tennis stars Maria Sharapova, Rafael Nadal and Roger Federer makes people prefer that brand. Both examples – determining whether heat causes an increase in aggression or whether tennis stars cause an increase in sales of Nike shoes – are *social* psychological pursuits because the thoughts, feelings, or behaviours either (a) *concern other people* or (b) *are influenced by other people*.

The ‘social context’ referred to in the definition of social psychology does not have to be real or present. Even the implied or imagined presence of others can have important effects on individuals (Allport, 1985). For example, if people imagine receiving positive or negative reactions from others, their self-esteem can be affected substantially (Libby et al., 2011; Smart Richman & Leary, 2009). If children imagine having contact with a child from another country, their attitudes towards individuals from that country can become more positive (Vezzali et al., 2012). And if university students imagine living a day in the life of a professor, they are likely to perform better later on an analytic test; if they imagine instead being a cheerleader, however, they perform worse (Galinsky et al., 2008)!

Social psychological questions and applications

For those of us fascinated by social behaviour, social psychology is a dream come true. Just look at **Table 1.1** and consider a small sample of the questions you’ll explore in this textbook. As you can see, the social nature of the human animal is what social psychology is all about. Learning about social psychology is learning about ourselves and our social worlds. And because social psychology is scientific rather than anecdotal, it provides insights that would be impossible to gain through intuition or experience alone.

The value of social psychology’s perspective on human behaviour is widely recognised. Courses in social psychology are often required or encouraged for students interested in careers in business,

TABLE 1.1 Examples of social psychological questions

Social perception: What affects the way we perceive ourselves and others?

- ◆ Why do people sometimes sabotage their own performance, making it more likely that they will fail? (Chapter 2)
- ◆ How do we form impressions of others – sometimes in the blink of an eye? (Chapter 3)
- ◆ Where do stereotypes come from, and why are they so resistant to change? (Chapter 4)

Social influence: How do we influence each other?

- ◆ Why do we often like what we suffer for? (Chapter 5)
- ◆ How do salespeople sometimes trick us into buying things we never really wanted in the first place? (Chapter 6)
- ◆ Why do people often perform worse in groups than they would have alone? (Chapter 7)

Social relations: What causes us to like, love, help and hurt others?

- ◆ How similar or different are the sexes in what they look for in an intimate relationship? (Chapter 8)
- ◆ When is a bystander more or less likely to help you in an emergency? (Chapter 9)
- ◆ Does exposure to television violence or to pornography trigger aggressive behaviour? (Chapter 10)

Applying social psychology: How does social psychology help us understand questions other domains of life?

- ◆ What can psychology contribute to the climate change debate? (Chapter 11)
- ◆ How can being part of a community help in the aftermath of a disaster? (Chapter 12)
- ◆ How does stress affect one’s health, and what are the most effective ways of coping with stressful experiences? (Chapter 13)
- ◆ Can interrogators really get people to confess to serious crimes they did not commit? (Chapter 14)
- ◆ How can business leaders most effectively motivate their employees? (Chapter 15)

education, medicine, law and journalism, as well as in psychology and sociology. Although many advanced graduates with a doctorate in social psychology hold faculty appointments in universities, others work in medical centres, law firms, government agencies, the military and a variety of business settings including investment banking, marketing, advertising, human resources, negotiating and social networking.

The number and importance of these applications continue to grow. Climate scientists and governments are utilising social psychological findings to determine the best ways to assess and, sometimes, change attitudes and shape behaviour. Community groups and local governments are drawing from the knowledge gained in the social psychological study of group processes and prosocial behaviour. Judges are drawing on social psychological research to render landmark decisions, and lawyers are depending on it to select juries and to support or refute evidence. Businesses are using cross-cultural social psychological research to operate in the global marketplace, and they are consulting research on group dynamics to foster the best conditions for their work forces. Health care professionals are increasingly aware of the role of social psychological factors in the prevention and treatment of disease. We consider these applied contexts further in the final five chapters of this book. Indeed, we can think of no other field of study that offers expertise that is more clearly relevant to so many different career paths.

Social psychology and related fields: distinctions and intersections

Social psychology is sometimes confused with certain other fields of study. Before we go on, it is important to clarify how social psychology is distinct from these other fields. At the same time, it is important to illustrate some of the ways that interesting and significant questions can be addressed through interactions between social psychology and these other fields (see **Table 1.2**).

Social psychology and sociology

Sociologists and social psychologists share an interest in many issues, such as violence, prejudice, cultural differences and marriage. As noted, however, sociology tends to focus on the group level, whereas social psychology tends to focus on the individual level. For example, sociologists might

track a society's racial attitudes over time, whereas social psychologists might examine some of the specific factors that make individuals more or less likely to behave in a racist way towards members of some group.

In addition, although there are many exceptions, social psychologists are more likely than sociologists to conduct experiments in which they manipulate some variable and determine the effects of this manipulation using precise, quantifiable measures.

Despite these differences, sociology and social psychology are clearly related. Indeed, many sociologists and social psychologists share the same training and publish in the same journals. When these two fields intersect, the result can be a more complete understanding of important issues. For example, interdisciplinary research on stereotyping and prejudice has examined the dynamic roles of both societal and immediate factors, such as how particular social systems or institutional norms and beliefs affect individuals' attitudes and behaviours (Eagly & Wood, 2012; Jost & van der Toorn, 2012; Levy et al., 2010; Sidanius & Pratto, 2012).

Social psychology and related areas of psychology

If you tell people not very familiar with psychology that you are taking a social psychology class, they may say things like, 'Oh, great, now you're going to start psychoanalysing me' or 'Finally, maybe you can tell me why everyone in my family is so messed up'. The assumption underlying these reactions, of course, is that you are studying clinical, or abnormal, psychology. If you base your impressions of psychology

TABLE 1.2 Distinctions between social psychology and related fields: the case of research on prejudice

To see the differences between social psychology and related fields, consider an example of how researchers in each field might conduct a study of prejudice.

Field of study	Example of how a researcher in the field might study prejudice
Sociology	Measure how prejudice varies as a function of social or economic class.
Clinical psychology	Test various therapies for people with antisocial personalities who exhibit great degrees of prejudice.
Personality psychology	Develop a questionnaire to identify men who are very high or low in degree of prejudice towards women.
Cognitive psychology	Manipulate exposure to a member of some category of people and measure the thoughts and concepts that are automatically activated. (Note that a study of prejudice in this field would, by definition, be at the intersection of cognitive and social psychology.)
Social psychology	Manipulate various kinds of contact between individuals of different groups and examine the effect of these manipulations on the degree of prejudice exhibited.

primarily by how it's portrayed in popular culture, you're likely to miss how incredibly broad and diverse the field is. Although social psychology is related to other areas of psychology, each has a very different focus.

Clinical psychologists, for example, seek to understand and treat people with psychological difficulties or disorders. Social psychologists do not focus on disorders; rather, they focus on the more typical ways in which individuals think, feel, behave and influence each other. Personality psychology is another area that is often confused with social psychology. However, personality psychology seeks to understand stable differences between individuals, whereas social psychology seeks to understand how social factors affect most individuals *regardless of* their different personalities. In other words, a personality psychologist may ask, 'Is this person outgoing and friendly almost all the time, in just about any setting?' while a social psychologist may ask, 'Are people in general more likely to seek out friends when they are made anxious by a situation than when they are made to feel relaxed?'

Cognitive psychologists study mental processes such as thinking, learning, remembering and reasoning. Social psychologists are often interested in these same processes. More specifically, though, social psychologists are interested in how people think, learn, remember and reason with respect to social information and in how these processes are relevant to social behaviour.

These examples show the contrast between the fields, but, in fact, social psychological theory and research often intersect with these other areas quite a bit. For example, both clinical and social psychology may address how people cope with anxiety or pressure in social situations, or how being bullied or stereotyped by others can affect individuals' physical and mental health (Bijleveld et al., 2012; Brodish et al., 2011; Crocker et al., 2010; Gibbons et al., 2012; Greenland et al., 2012; Huynh et al., 2012).

Personality and social psychology are especially closely linked because they complement each other so well. For example, some social psychologists examine how receiving negative feedback (a social factor) can have different effects on people as a function of their self-esteem (a personality factor), or whether playing violent video games (a social factor) is especially likely to trigger aggressiveness in particular types of children (a personality factor) (Bosson & Swann, 2009; Thomas & Levant, 2012; Zeigler-Hill et al., 2011).

Cognitive and social psychology are also closely connected. The last few decades have seen an explosion of interest in the intersection of cognitive and social psychology. The study of *social cognition* is discussed in more detail later in this chapter, and it is a focus throughout this text, especially in Part II (Social perception).

Social psychology and other fields of study

Social psychologists today more than ever are conducting research that spans traditional boundaries between fields. The intersections of social psychology with disciplines such as neuroscience, biology, economics, political science, public health, environmental studies, law and medicine are increasingly important to contemporary social psychology. We discuss more about some of these intersections later in this chapter, but these connections also emerge throughout this book, especially in Part V (Social psychology and real world applications).

Social psychology and common sense

After reading about a theory or finding of social psychology, you may sometimes think, 'Of course. I knew that all along. Anyone could have told me that.' This 'knew-it-all-along' phenomenon often causes people to question how social psychology is different from common sense, or traditional folk wisdom. After all, why would any of the following social psychological findings be surprising?

- ◆ Beauty and brains don't mix. Physically attractive people tend to be seen as less smart than physically unattractive people.
- ◆ People will like an activity more if you offer them a large reward for doing it, causing them to associate the activity with the positive reinforcement.
- ◆ People think that they're more distinctive than they really are. They tend to underestimate the extent to which others share the same opinions or interests.
- ◆ Playing contact sport or violent video games releases aggression and makes people less likely to vent their anger in violent ways.

In a minute, we will have more to say about each of these statements.

Common sense may seem to explain many social psychological findings after the fact. The problem is distinguishing common sense fact from common sense myth. After all, for many common

sense notions, there is an equally sensible-sounding notion that says the opposite. Is it ‘Birds of a feather flock together’ or ‘Opposites attract’? Is it ‘Two heads are better than one’ or ‘Too many cooks spoil the broth’? Which are correct? We have no reliable way to answer such questions through common sense or intuition alone.

Social psychology, unlike common sense, uses the scientific method to put its theories to the test. How it does so is discussed in greater detail in the next chapter. But before we leave this section, one word of caution: Those four ‘findings’ listed above? *They are all false*. Although there may be sensible reasons to believe each of the statements to be true, research indicates otherwise. Therein lies another problem with relying on common sense: despite offering very compelling predictions and explanations, it is sometimes wildly inaccurate. And even when it is not completely wrong, common sense can be misleading in its simplicity. Often there is no simple answer to a question such as ‘Does absence make the heart grow fonder?’ In reality, the answer is more complex than common sense would suggest, and social psychological research reveals how such an answer depends on a variety of factors.

To emphasise these points and to encourage you to think critically about social psychological issues *before* as well as after learning about them, this textbook contains a feature called ‘Putting common sense to the test’. Beginning with Chapter 2, each chapter opens with a few statements about social psychological issues that are covered in that chapter. Some of the statements are true, and some are false. As you read each statement, make a prediction about whether it is true or false and think about why this is your prediction. Margin notes throughout the chapter will tell you whether the statements are true or false. We revisit these statements again in the review section at the end of each chapter with a brief explanation to help you understand the correct answer. In reading the chapter, check not only whether your prediction was correct but also whether your reasons for the prediction were appropriate. If your intuition wasn’t quite on the mark, think about what the right answer is and how the evidence supports that answer. There are few better ways of learning and remembering than through this kind of critical thinking.

A BRIEF HISTORY OF SOCIAL PSYCHOLOGY

People have probably been asking social psychological questions for as long as humans could think about each other. Certainly early philosophers such as Plato offered keen insights into many social psychological issues. But no systematic and scientific study of social psychological issues developed until the end of the nineteenth century. The field of social psychology is therefore a relatively young one. Recent years have marked a tremendous interest in social psychology and an injection of many new scholars into the field. As social psychology is now in its second century, it is instructive to look back to see how the field today has been shaped by the people and events of its first century. Specific histories of social psychology have been written for Australia (Feather, 2009; Taft, 1989) and the Society for Australasian Social Psychologists (Innes, 2008). In this chapter, we focus broadly on the history of the field as it unfolded around the world. In each of the other chapters, we highlight a local social psychologist or researcher who handles themes of social psychology in Australia and New Zealand. Keep your eye out – you may spot academics at your university, or even see some of your own lecturers!

The birth and infancy of social psychology: 1880s to 1920s

Like most such honours, the title ‘founder of social psychology’ has many potential recipients, and not everyone agrees on who should prevail. Over the years, most have pointed to the American psychologist Norman Triplett, who is credited with having published the first research article in social psychology at the end of the nineteenth century (1897–1898). Triplett’s work was noteworthy because after observing that cyclists tended to race faster when racing in the presence of others than when simply racing against a clock, he designed an experiment to study this phenomenon in a carefully controlled and precise way. This scientific approach to studying the effects of the social context on individuals’ behaviour can be seen as marking the birth of social psychology.

A case can also be made for the French agricultural engineer Max Ringelmann. Ringelmann’s research was conducted in the 1880s but wasn’t published until 1913. In an interesting coincidence, Ringelmann also studied the effects of the presence of others on the performance of individuals. In contrast to Triplett, however, Ringelmann noted that individuals often performed worse on simple

tasks such as pulling rope when they performed the tasks with other people. The issues addressed by these two early researchers continue to be of vital interest, as will be seen later in Chapter 7.

Some scholars (Haines & Vaughan, 1979; Stroebe, 2012) suggest a handful of other possible examples of the first social psychology studies, including research that Triplett himself cited. These studies also were conducted in the 1880s and 1890s, which seems to have been a particularly fertile time for social psychology to begin to set its foundation.

Despite their place in the history of social psychology, these late-nineteenth-century studies did not truly establish social psychology as a distinct field of study. Credit for this creation goes to the writers of the first three textbooks in social psychology: the English psychologist William McDougall (1908) and two Americans, Edward Ross (1908) and Floyd Allport (1924). Allport's book, in particular, with its focus on the interaction of individuals and their social context and its emphasis on the use of experimentation and the scientific method, helped to establish social psychology as the discipline it is today. These authors announced the arrival of a new approach to the social aspects of human behaviour. Social psychology was born.

A call to action: 1930s to 1950s

What one person would you guess has had the strongest influence on the field of social psychology? Various social psychologists, as well as psychologists outside of social psychology, might be mentioned in response to this question. But someone who was not a psychologist at all may have had the most dramatic impact on the field: dictator of Nazi Germany, Adolf Hitler.

Hitler's rise to power and the horrendous events that followed caused people around the world to become desperate for answers to social psychological questions about what causes violence, prejudice, genocide, conformity and obedience, and a host of other social problems and behaviours. In addition, many social psychologists living in Europe in the 1930s fled to the United States and helped to establish a critical mass of social psychologists who would give shape to the rapidly maturing field. The years just before, during and soon after World War II marked an explosion of interest in social psychology.

In 1936, Gordon Allport (younger brother of Floyd, author of the 1924 textbook) and a number of other social psychologists formed the Society for the Psychological Study of Social Issues. The name of the society illustrates these psychologists' concern for making important, practical contributions to society. Also in 1936, a social psychologist named Muzafer Sherif published groundbreaking experimental research on social influence. As a youth in Turkey, Sherif had witnessed groups of Greek soldiers brutally killing his friends. After migrating to the United States, Sherif drew on this experience and began to conduct research on the powerful influences groups can exert on their individual members. Sherif's research was crucial for the development of social psychology because it demonstrated that it is possible to study complex social processes such as conformity and social influence in a rigorous, scientific manner. This innovation laid the foundation for what was to become one of the major topics in social psychology. Research and theory on social influence are discussed throughout this text, particularly in Part III (Social influence).

Another great contributor to social psychology, Kurt Lewin, fled the Nazi onslaught in Germany and migrated to the United States in the early 1930s. Lewin was a bold and creative theorist whose concepts have had lasting effects on the field (see, for example, Lewin, 1935, 1947). One of the fundamental principles of social psychology that Lewin helped establish was that behaviour is a function of the interaction between the person and the environment. This position, which later became known as the **interactionist perspective** (Blass, 1991), emphasised the dynamic interplay of internal and external factors, and it marked a sharp contrast from other major psychological paradigms during his lifetime: psychoanalysis, with its emphasis on internal motives and fantasies; and behaviourism, with its focus on external rewards and punishments.



Racers from around the world compete in a stage of the Tour de France. Would these cyclists have raced faster or slower if they were racing individually against the clock rather than racing simultaneously with their competitors? More generally, how does the presence of others affect an individual's performance? The earliest social psychology experiments ever done sought to answer questions such as these. Chapter 7 on group processes brings you up to date on the latest research in this area.

interactionist perspective
An emphasis on how both an individual's personality and environmental characteristics influence behaviour.



What determines whether people are likely to act to conserve their environment, as these individuals do by volunteering on Clean Up Australia Day? Built on the legacy of Kurt Lewin, applied social psychology contributes to the solution of numerous social problems, such as environmental degradation.

Lewin also profoundly influenced the field by advocating for social psychological theories to be applied to important, practical issues. Lewin researched a number of practical issues, such as how to persuade Americans at home during the war to conserve materials to help the war effort, how to promote more economical and nutritious eating habits, and what kinds of leaders elicit the best work from group members. Built on Lewin's legacy, applied social psychology flourishes today in areas such as advertising, business, education, environmental protection, health, law, politics, public policy, religion and sport. Throughout this text, we draw on the findings of applied social psychology to illustrate the implications of social psychological principles for our daily lives. In Part V (Social psychology and real world applications), five prominent areas of applied social psychology are discussed in detail: environment and conservation, community processes, health, law and business. One of Lewin's statements can be seen as a call to action for the entire field: 'No research without action, no action without research.'

During World War II, many social psychologists answered Lewin's call as they worked for their government to investigate how to protect soldiers from the propaganda of the enemy, how to persuade citizens to support the war effort, how to select officers for various positions, and other practical issues. During and after the war, social psychologists sought to understand the prejudice, aggression and conformity the war had brought to light. The 1950s saw many major contributions to the field of social psychology. For example, Gordon Allport (1954) published *The Nature of Prejudice*, a book that continues to inspire research on stereotyping and prejudice more than a half century later. Solomon Asch's (1951) demonstration of how willing people are to conform to an obviously wrong majority amazes students even today. Leon Festinger (1954, 1957) introduced two important theories – one concerning how people try to learn about themselves by comparing themselves to other people, and one about how people's attitudes can be changed by their own behaviour – that remain among the most influential theories in the field. These are just a sample of a long list of landmark contributions made during the 1950s. With this remarkable burst of activity and impact, social psychology was clearly, and irrevocably, on the map.

Confidence and crisis: 1960s to mid-1970s

In spectacular fashion, Stanley Milgram's research in the early and middle 1960s linked the post-World War II era with the coming era of social revolution. Milgram's research was inspired by the destructive obedience demonstrated by Nazi officers and ordinary citizens in World War II, but it also looked ahead to the civil disobedience that was beginning to challenge institutions in many parts of the world. Milgram's experiments, which demonstrated individuals' vulnerability to the destructive commands of authority, became the most famous research in the history of social psychology. This research is discussed in detail in Chapter 6 ('Conformity, compliance and obedience').

With its foundation firmly in place, social psychology entered a period of expansion and enthusiasm. The sheer range of its investigations was staggering. Social psychologists considered how people thought and felt about themselves and others. They studied interactions in groups and social problems, such as why people fail to help others in distress. They also examined aggression, physical attractiveness and stress. For the field as a whole, it was a time of great productivity.

Ironically, it was also a time of crisis and heated debate. Many of the strong disagreements during this period can be understood as a reaction to the dominant research method of the day: the laboratory experiment. Critics of this method asserted that certain practices were unethical, that experimenters' expectations influenced their participants' behaviour, and that the theories being tested in the laboratory were historically and culturally limited (Gergen, 1973; Kelman, 1967; Rosenthal, 1976). Those who favoured laboratory experimentation, on the other hand, contended that their procedures were ethical, their results were valid and their theoretical principles were widely applicable (McGuire, 1967). For a while, social psychology seemed split in two.

An era of pluralism: mid-1970s to 1990s

Fortunately, both sides won. As we will see later in this chapter, more rigorous ethical standards for research were instituted, more stringent procedures to guard against bias were adopted, and more attention was paid to possible cross-cultural differences in behaviour. Laboratory experiments continued to dominate, but often with more precise methods. Laboratory experiments did, however, get some company. A pluralistic approach emerged as a wider range of research techniques and questions became established.

Pluralism in social psychology extends far beyond its methods. There are also important variations in what aspects of human behaviour are emphasised. For example, social psychologists became more and more interested in processes relevant to (as well as in adapting methods from) cognitive psychology. A new subfield was born called **social cognition**, the study of how we perceive, remember and interpret information about ourselves and others. Social cognition research continues to thrive today and examines issues important to virtually every major area in social psychology.

Another source of pluralism in social psychology is its development of international and multicultural perspectives. Although individuals from many countries helped establish the field, social psychology was most prominent in the United States and Canada. At one point, it was estimated that 75–90% of social psychologists lived in North America (Smith & Bond, 1993; Triandis, 1994). However, this aspect of social psychology began to change rapidly in the 1990s, reflecting not only the different geographic and cultural backgrounds of its researchers and participants but also the recognition that many social psychological phenomena once assumed to be universal may actually vary dramatically as a function of culture. You can find evidence of this new appreciation of the role of culture in every chapter of this book – look for content on cultural perspectives and considerations set apart in feature boxes throughout each chapter.



Source: Getty Images/Lorne Resnick/Stone

Social psychologists are becoming increasingly interested in cross-cultural research, which helps us break out of our culture-bound perspective. Many of our behaviours differ across cultures. In some cultures, for example, people are expected to negotiate about the price of the products they buy, as in this market in Tunisia. In other cultures, such bargaining would be highly unusual and cause confusion and distress.

social cognition
The study of how people perceive, remember and interpret information about themselves and others.

SOCIAL PSYCHOLOGY IN A NEW CENTURY: WHAT IS TRENDING TODAY?

As we began the twenty-first century, social psychology began its second hundred years. The field today continues to grow in the number and diversity of researchers and research topics, areas of the world in which research is conducted, and industries that hire social psychologists and apply their work.

Throughout this text, we emphasise the most current, cutting-edge research in the field, along with the classic findings of the past. First, we focus on a few of the exciting themes and perspectives emerging from current research.

Integration of emotion, motivation and cognition

In the earlier days of social cognition research in the 1970s and 1980s, the dominant perspective was called ‘cold’ because it emphasised the role of cognition and de-emphasised the role of emotion and motivation in explaining social psychological issues. This was contrasted with a ‘hot’ perspective that focused on emotion and motivation as determinants of our thoughts and actions. Today there is growing interest in integrating both ‘hot’ and ‘cold’ perspectives, as researchers study how individuals’ emotions and motivations influence their thoughts and actions, and vice versa. For example, researchers today examine how motivations we aren’t even consciously aware of (such as being motivated to treat others fairly, or being motivated to feel superior to others) can bias how we think, feel and behave (Moskowitz et al., 2011; Seitchik & Harkins, 2014; Shoda et al., 2014; Tamir et al., 2013; Wyer, 2012).

One issue illustrating the integration of ‘hot’ and ‘cold’ variables concerns the conflict between wanting to be *right* and wanting to *feel good* about oneself, and how these different motivations influence how we process information. On the one hand, we want to be accurate in our judgments about ourselves and others. On the other hand, we don’t want to be accurate if it means we will learn

something bad about ourselves or those closest to us. These goals can pull our cognitive processes in very different directions. How we perform the required mental gymnastics is an ongoing concern for social psychologists.

Another theme running through many chapters of this book is the growing interest in distinguishing between automatic and controllable processes and in understanding the relationship between them (Monteith et al., 2010; Payne & Iannuzzi, 2012; Trawalter & Shapiro, 2010). How much do we have control over our thoughts and actions, and how vulnerable are we to influences beyond our awareness or control? Are we sometimes influenced by stereotypes even if we don't want to believe them? Can we train ourselves to regulate ourselves against automatic impulses? These are among the questions that social psychologists are studying today.

Biological and evolutionary perspectives

As the technology available to researchers evolves, biological perspectives are increasingly being integrated into all branches of psychology, and this integration should continue to grow in social psychology. We are, of course, biological organisms, and it is clear that our brains and bodies influence, and are influenced by, our social experiences. This interaction between the physical and the social is the focus of more research than ever before in the field, and examples can be found throughout the textbook, such as in studies demonstrating the cardiovascular effects of being the target of discrimination, and research examining the role of hormones and neurotransmitters in human aggression (Kaholokula et al., 2012; Mendes & Jamieson, 2012).

A particularly exciting development is the emergence of the subfield of **social neuroscience** – the study of the relationship between neural and social processes. This intersection of social psychology and neuroscience is addressing a rapidly growing number of fascinating issues, such as how playing violent video games can affect brain activity and subsequent acts of aggression, or how different patterns of activity in parts of the brain relates to how people are likely to perceive themselves or members of a different racial group (Amodio, 2013; Beer, 2012; Engelhardt et al., 2011).

Advances in **behavioural genetics** – a subfield of psychology that examines the effects of genes on behaviour – have triggered new research to investigate such matters as the extent to which political attitudes are at least partially inherited and the roles that genes play in individuals' sexual orientation, identity and levels of well-being (Fredrickson et al., 2013; Kim, 2009; Rhee & Waldman, 2011).

Evolutionary psychology, which uses the principles of evolution to understand human behaviour, is another growing area that is sparking new research in social psychology. According to this perspective, to understand a social psychological issue such as jealousy, we should ask how tendencies and reactions underlying jealousy today may have evolved from the natural selection pressures our ancestors faced. Evolutionary psychological theories can then be used to explain and predict gender differences in jealousy, the situational factors most likely to trigger jealousy, and so on (Buss, 2012; DelPriore et al., 2012; Perilloux et al., 2012b; Shackelford et al., 2012). This perspective is discussed in many places throughout the textbook, especially in Part IV (Social relations).

Cultural perspectives

Because of the fantastic advancements in communication technologies and the globalisation of the world's economies, it is faster, easier and more necessary than ever for people from vastly different cultures to interact with one another. Thus, our need and desire to understand how we are similar to and different from one another are greater than ever as well. Social psychology is currently experiencing tremendous growth in research designed to give us a better understanding and appreciation of the role of culture in all aspects of social psychology.

What is meant by 'culture' is not easy to pin down, as many researchers think of culture in very different ways. Broadly speaking, **culture** may be considered to be a system of enduring meanings, beliefs, values, assumptions, institutions and practices shared by a large group of people and transmitted from one generation to the next. Whatever the specific definition, it is clear that how individuals perceive and derive meaning from their world is influenced profoundly by the beliefs, norms and practices of the people and institutions around them.

Increasing numbers of social psychologists are evaluating the universal generality or cultural specificity of their theories and findings by conducting **cross-cultural research**, in which they examine similarities and differences across a variety of cultures. More and more social psychologists are also conducting **multicultural research**, in which they examine racial and ethnic groups within cultures.

social neuroscience

The study of the relationship between neural and social processes.

behavioural genetics

A subfield of psychology that examines the role of genetic factors in behaviour.

evolutionary psychology

A subfield of psychology that uses the principles of evolution to understand human social behaviour.

culture

A system of enduring meanings, beliefs, values, assumptions, institutions and practices shared by a large group of people and transmitted from one generation to the next.

cross-cultural research

Research designed to compare and contrast people of different cultures.

multicultural research

Research designed to examine racial and ethnic groups within cultures.

These developments are already profoundly influencing our view of human behaviour. For example, cross-cultural research has revealed important distinctions between the collectivist cultures (which value interdependence and social harmony) typically found in Asia, Africa and Latin America, and the individualistic cultures (which value independence and self-reliance) typically found in Australia, New Zealand and much of North America and Europe. The implications of these differences can be seen throughout the textbook. Consider, for example, our earlier discussion of the integration of ‘hot’ and ‘cold’ variables in contemporary social psychology, in which we mentioned the conflict people have between wanting to be right and wanting to feel good about themselves. Cross-cultural research has shown that how people try to juggle these two goals can differ dramatically across cultures.

Several researchers have found, for example, that people from individualistic cultures are more likely than people from collectivist cultures to seek out or focus on information that makes them feel good about themselves rather than information that points to the need for improvement (Heine, 2007). In one such study, Carl Falk and colleagues (2009) asked Japanese and European-Canadian individuals to indicate which of a variety of desirable and undesirable traits were characteristic of themselves. **Figure 1.1** illustrates the results of the study, demonstrating that European-Canadian participants were far more likely to choose desirable than undesirable traits, but Japanese participants were much more balanced between desirable and undesirable traits.

In this text, we describe studies conducted in dozens of countries, representing every populated continent on Earth. As our knowledge expands, we should be able to see much more clearly both the behavioural differences among cultures and the similarities we all share. But it is important to note that even within a particular society, people are often treated differently as a function of social categories such as gender, race, physical appearance and economic class. They may be raised differently by their parents, confronted with different expectations by teachers, exposed to different types of advertising and marketing, and offered different kinds of jobs. In a sense, then, even people within the same town or region may develop and live in distinct subcultures, and these differences can have profound effects on people’s lives.

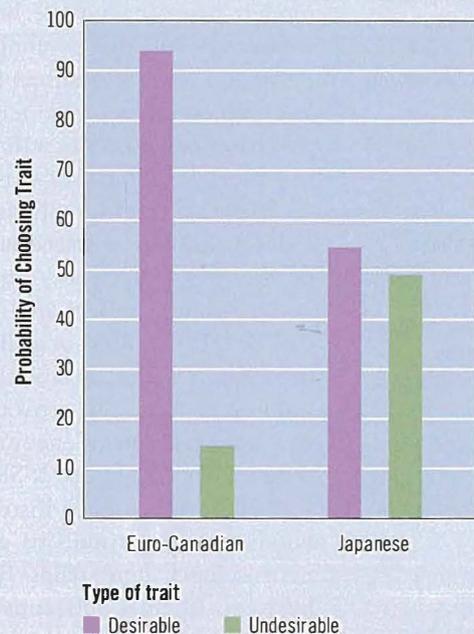
Some social psychology textbooks devote a separate chapter to culture. We have chosen not to do so. Because we believe that cultural influences are inherent in *all* aspects of social psychology, we have chosen instead to integrate discussions of the role of culture in every chapter of the textbook. Further, we include features that highlight cross-cultural or multicultural research.

Behavioural economics, embodied cognition and other interdisciplinary approaches

One of the authors taught a new course called Interdisciplinary Approaches to Social Psychology and the reading list was packed with fascinating studies that were at the intersection of social psychology and other disciplines, such as economics, environmental studies, political science and so forth. What was especially noteworthy about this was that of the more than 40 readings assigned for the semester, almost all of them were published within a year or two of the semester in which the course was

FIGURE 1.1 Self-descriptions across cultures

Japanese or European-Canadian research participants were presented with a list of desirable (for example, sincere or intelligent) and undesirable (for example, cruel or indecisive) traits and asked which traits were characteristic of themselves. The European-Canadian participants (the two bars on the left) were much more likely to choose desirable than undesirable traits, but the Japanese participants (the two bars on the right) chose a much more balanced mix of traits.



Source: Based on Falk et al. (2009).

CRITICAL THINKING ACTIVITY

How would you describe your cultural background? Is it the same as the culture in which you currently find yourself? Reflect on how your own personal cultural orientation might shape the way you interact with and respond to others, and even how others respond to you.

Throughout this textbook, you will see that many social psychological processes are impacted by culture. It is important for you to understand how your own culture might fit into your own social psychological experience.

taught. And it would have been easy to choose another 40 readings from the same time period that would have been similarly interesting and relevant.

The point of this is that there is a rapidly growing number of social psychologists today who are asking questions and using methodologies that cross traditional academic boundaries. We've already discussed intersections of social psychology with neuroscience, evolutionary theory and cultural psychology. Other topics are beginning to trend in increasing numbers. For example, one relatively new area of study that has received a great deal of attention is known as **behavioural economics**. This subfield focuses on how psychology – and particularly social and cognitive psychology – relates to economic decision making. Behavioural economics research has revealed that the traditional economic models were inadequate because they failed to account for the powerful – and often seemingly irrational – role that psychological factors have on people's economic behaviour. For example, Nathan Pettit and Niro Sivanathan (2011) found that if people experienced a threat to their self-esteem, such as by receiving negative feedback about their cognitive abilities, they became more likely to make purchases based on the status of the item and to use credit rather than cash. This reaction could result in a short-term burst of satisfaction at the risk of longer-term debt.

Another interdisciplinary area of research attracting increasing interest among social psychologists today is known as **embodied cognition**, which focuses on the close links between our minds and the positioning, experiences, and actions of our bodies. According to this perspective, people's perceptions and judgments reflect and can influence their bodily experiences. For example, studies have found that people's feelings of guilt for having done something morally wrong were reduced if they washed their hands with soap, and that people found the face of a stranger to be more trustworthy if they were induced to pull their arms towards themselves when viewing the stranger's picture (thereby moving in a way symbolic of encouraging the stranger to approach) than if they pushed their arms away from them (Meier et al., 2012; Slepian et al., 2012; Zhong & Liljenquist, 2006).

There is a longer history of social psychology research that intersects with political science, but interest continues to expand, and some of it now also includes social-cognitive and social-neuroscience approaches. For example, a number of researchers have found provocative differences between liberals and conservatives in how they attend to and process different kinds of social information, and even in their patterns of brain activity (Jost & Amodio, 2012). Social psychological research can help to inform the public about vitally important matters such as whether prejudice may play a role in attitudes towards political policies or candidates, or how the reactions of the audience at a political debate can be more important in affecting viewers' attitudes about the candidates' performance than the actual content of the candidates' speeches (Fein et al., 2007; Knowles et al., 2010; Levin et al., 2012).

New technologies and the online world

Advances in technologies that allow researchers to see images of the brain at work through non-invasive procedures have had a profound effect on several areas of psychology, including social psychology. A growing number of social psychologists are using techniques such as event-related potential (ERP), transcranial magnetic stimulation (TMS), and functional magnetic resonance imaging (fMRI) to study the interplay of the brain and discrete thoughts, feelings and behaviours. Social psychology research today benefits from other technological advances as well, such as new and better techniques to measure hormone levels, to code people's everyday dialogue into quantifiable units, and to present visual stimuli to research participants at fractions of a second and then record the number of milliseconds it takes the participants to respond to these stimuli. Some researchers are using virtual reality technology to examine a number of social psychological questions. James Blascovich and others created the Research Center for Virtual Environments and Behaviour at the University of California and are conducting fascinating research on issues such as conformity, group dynamics, aggression and altruism, social support and eyewitness testimony (see, for example, Blascovich & McCall, 2010; Kane et al., 2012). Because participants in these experiments are immersed in a virtual reality that the experimenters create for them, the researchers can test questions that would be impractical, impossible or unethical without this technology.

'Awesome' is an overused word, but it surely describes the revolution that is taking place in how we access information and communicate with each other. The waves of this revolution have carried social psychology research along with it. Social psychologists around the world can now not only communicate and collaborate much more easily but can also gain access to research

behavioural economics

An interdisciplinary subfield that focuses on how psychology – particularly social and cognitive psychology – relates to economic decision making.

embodied cognition

An interdisciplinary subfield that examines the close links between our minds and the positioning, experiences and actions of our bodies.

participants from populations that would otherwise never have been available. These developments have sparked the field's internationalisation, perhaps its most exciting course in this new century. World War II triggered an explosion of social psychological research in the United States, and the Internet is extending this research to the rest of the world. Just within the last few years there has been an exponential increase in the number of studies that are conducted online, providing access to vastly more diverse samples of research participants than had been possible even just a decade before.

The Internet itself is also becoming a provocative topic of study. As more people interact with each other through social networking sites, online dating services and communications services such as Skype or FaceTime, there is growing interest in studying how attraction, prejudice, group dynamics and a host of other social psychological phenomena unfold online versus offline. Other important, and potentially troubling, questions raised by our increasingly online lives are the subject of new research, such as: What factors contribute to or protect against cyberbullying? Can too much time on social networking sites lead to depression or loneliness? Does the habit of frequent texting or checking to see who has commented on one's most recent shared photo lead to attentional and social problems offline?

We would be presumptuous, and probably naive, to try to predict how new communication and new technologies will influence the ways that people will interact in the coming years, but it probably is safe to predict that their influence will be great. As more and more people fall in love online, fall into social isolation or react with anxiety or violence to the loss of individual privacy, social psychology will explore these issues. We expect that some of the students reading this textbook today will be among those explorers in the years to come.



Together yet apart. Even when interacting in a group, many of us today are also pulled away by our individual phones, electronic games, iPods, laptops or tablets. How new technologies and living so much of our lives online affect human interaction is becoming increasingly important to social psychology.

RESEARCH METHODS: WHAT AND WHY

Because we all are interested in predicting and explaining people's behaviours and their thoughts and feelings about each other, we all have our own opinions and intuitions about social psychological matters. If the discipline of social psychology were built on the personal experiences, observations and intuitions of everyone who is interested in social psychological questions, it would be full of interesting theories and ideas, but it would also be a morass of contradictions, ambiguities and relativism. Instead, social psychology is built on the scientific method.

Scientific? It's easy to see how chemistry is scientific. When you mix two specific compounds in the laboratory, you can predict exactly what will happen. The compounds will act the same way every time you mix them if the general conditions in the laboratory are the same. But what happens when you mix together two chemists, or any two people, in a social context? Sometimes you get great chemistry between them; at other times you get apathy or even repulsion. How, then, can social behaviour, which seems so variable, be studied scientifically?

To many of us in the field, that's the great excitement and challenge of social psychology – the fact that it *is* so dynamic and diverse. Furthermore, in spite of these characteristics, social psychology can, and should, be studied according to scientific principles. Social psychologists develop specific, quantifiable hypotheses that can be tested empirically. If these hypotheses are wrong, they can be proven wrong. In addition, social scientists report the details of how they conduct their tests so that others can try to replicate their findings. They integrate evidence from across time and place. And slowly but steadily they build a consistent and ever more precise understanding of human nature. How social psychologists investigate social psychological questions scientifically is the focus of this chapter. Before we explain the methodology they use, we first explain why it's important and interesting for you to learn about these matters.

The most exciting phrase to hear in science, the one that heralds new discoveries, is not 'Eureka!' (I found it!) but 'That's funny ...'

One important benefit for learning about research methods is that it can make you a better, more sophisticated consumer of information. Training in research methods in psychology can improve your reasoning about real-life events and problems (Lehman et al., 1988; Leshowitz et al., 2002; VanderStoep & Shaughnessy, 1997). We are constantly bombarded with ‘facts’ from the media, from sales pitches, and from other people. Much of this information turns out to be wrong or, at best, oversimplified and misleading. We are told about the health benefits of eating certain kinds of food, the drawbacks of being digitally dependent, or the social status benefits of driving a certain kind of car or wearing a certain kind of shoe. To each of these pronouncements, we should say: ‘Prove it.’ What is the evidence? What alternative explanations might there be?

For example, a commercial tells us that most doctors prefer a particular brand of aspirin. So should we buy this brand? Think about what it was compared with. Perhaps the doctors didn’t prefer that brand of aspirin more than other (and cheaper) brands of aspirin, but rather were asked to compare that brand of aspirin with several non-aspirin products for a particular problem. In that event, the doctors may have preferred *any* brand of aspirin more than non-aspirin products for that need. Thinking like a scientist while reading this text will foster a healthy sense of doubt about claims such as these. You will be in a better position to critically evaluate the information to which you’re exposed and separate fact from fiction.

More immediately, learning about research methods should help you better understand the research findings reported in the rest of this book, which will in turn help you on tests and in subsequent courses. If you simply read a list of social psychological findings without knowing and understanding the evidence that social psychologists have produced to support the findings, you may discover later that the task of remembering which were the actual findings and which merely sound plausible can be difficult. Being able to understand, and therefore remember, the research evidence on which social psychological principles are based should provide you with a deeper comprehension of the material.

DEVELOPING IDEAS: BEGINNING THE RESEARCH PROCESS

The research process involves coming up with ideas, refining them, testing them and interpreting the meaning of the results obtained. This section describes the first stage of research – coming up with ideas. It also discusses the role of hypotheses and theories and of basic and applied research.

Getting ideas and finding out what has been done

Every social psychology study begins with a question. And the questions come from everywhere. As discussed earlier in this chapter, one of the first social psychology experiments published was triggered by the question: ‘Why do bicyclists race faster in the presence of other bicyclists?’ (Triplett, 1897–98). Or consider a much more recent example. Social psychologist Dylan Selterman has been conducting fascinating studies examining the connection between people’s dreams about romantic partners and their actual patterns of emotions and behaviours in personal relationships (Selterman & Drigotas, 2009; Selterman et al., 2012). Where did this idea come from? It was inspired in part by the dreams some of his ex-girlfriends told him about!

Questions can come from a variety of sources – from something tragic, such as a controversial interracial shooting of an unarmed man; something perplexing, such as the underrepresentation of women in maths and science; or something amusing, such as the lyrics of a song suggesting that female patrons seem more attractive to the men in a bar as closing time approaches (Good et al., 2012; Payne & Iannuzzi, 2012; Pennebaker et al., 1979).

Ideas also come from reading about research that has already been done. The most important research not only answers some pressing questions but also raises new questions, inspiring additional research. The most reliable way to get ideas for new research, therefore, is to read about research already published. Even if you already have an idea, you’ll need to search the social psychological literature to find out what’s been researched already. How do you find these published studies? Textbooks such as this one offer a good starting point. You also can find information about many research findings by searching the Internet, of course, but general searches on the Internet can be wildly variable in the relevance, quality and accuracy of the information presented (a notable

exception is Google Scholar, which limits the search to academic outlets and books). Instead, scholars in the field rely on electronic databases of published research, typically

‘The currency of science is not truth, but doubt.’

Dennis Overbye

available via university library systems. Some of these databases, such as PsycINFO, are specific to the psychology literature; others are more general. These databases allow one to instantly search hundreds of thousands of published articles and books.

Hypotheses and theories

An initial idea for research may be so vague that it amounts to little more than a hunch or an educated guess. Some ideas vanish with the break of day, but others can be shaped into a **hypothesis** – an explicit, testable prediction about the conditions under which an event will occur. Based on observation, existing theory or previous research findings, one might test a hypothesis such as ‘Teenage boys are more likely to be aggressive towards others if they have just played a violent video game for an hour than if they played a non-violent video game for an hour’. This is a specific prediction, and it can be tested empirically. Formulating a hypothesis is a critical step towards planning and conducting research. It allows us to move from the realm of common sense to the rigours of the scientific method.

As hypotheses proliferate and data are collected to test the hypotheses, a more advanced step in the research process may take place: the proposal of a **theory** – an organised set of principles used to explain observed phenomena. Social psychologists aspire to do more than collect a list of findings. The goal is to explain these findings, to articulate the connections between the variables that are studied, and to thereby predict and more completely understand our social worlds. All else being equal, the best theories are efficient and precise; they encompass all of the relevant information and lead to new hypotheses, further research and better understanding. Good social psychological theories inspire subsequent research designed to test various aspects of the theories and the specific hypotheses that are derived from them. Whether it truly is accurate or not, a theory has little worth if it cannot be tested. One of the chief criticisms of many of Sigmund Freud’s theories of personality in the early twentieth century, for example, was that they could not be tested sufficiently.

A theory may make an important contribution to the field even if it turns out to be wrong. The research it inspires may prove more valuable than the theory itself, as the results shed light on new truths that might not have been discovered without the directions suggested by the theory. Indeed, the best theorists want their ideas to be debated and even doubted, in order to inspire others in the field to put their ideas to the test. The goal is for these theories to evolve – to become more and more accurate and complete.

Basic and applied research

Is testing a theory the purpose of research in social psychology? For some researchers, yes. **Basic research** seeks to increase our understanding of human behaviour and is often designed to test a specific hypothesis from a specific theory. **Applied research** has a different purpose: to enlarge our understanding of naturally occurring events and to contribute to the solution of social problems.

Despite their differences, basic and applied research are closely connected in social psychology. Some researchers switch back and forth between the two – today basic, tomorrow applied. Some studies test a theory and examine a real-world phenomenon simultaneously. Keith Payne, Joshua Correll and several other social psychologists, for example, have tested theories about automaticity and non-conscious stereotyping while studying the real-world problem of police officers mistakenly perceiving a weapon in the hands of an unarmed suspect (Ma & Correll, 2011; Payne & Iannuzzi, 2012). Carol Dweck (2012) has tested theories about the effects of people’s beliefs about human abilities while addressing important problems such as the underrepresentation of women in maths and science. As a pioneer in both basic and applied approaches, Kurt Lewin (1951) set the tone when he encouraged basic researchers to be concerned with complex social problems and urged applied researchers to recognise that ‘there is nothing so practical as a good theory’.

REFINING IDEAS: DEFINING AND MEASURING SOCIAL PSYCHOLOGICAL VARIABLES

To test their hypotheses, researchers always must decide how they will define and measure the variables in which they are interested. This is sometimes a straightforward process. For example, if you are interested in comparing how quickly people run a 100-metre race when alone and

hypothesis

A testable prediction about the conditions under which an event will occur.

theory

An organised set of principles used to explain observed phenomena.

basic research

Research whose goal is to increase the understanding of human behaviour, often by testing hypotheses based on a theory.

applied research

Research whose goals are to enlarge the understanding of naturally occurring events and to find solutions to practical problems.

CRITICAL THINKING ACTIVITY

Imagine you are interested in studying the effects of mood on altruistic (helpful) behaviour. It sounds simple, right?

But wait. You need to step back and ask yourself, 'What do I mean by mood? How would I measure or manipulate it? What do I mean by altruistic behaviour?'

You will need to define these concepts, and there may be countless ways to do this. Which ones should you pick?

when racing against another person, you're all set if you have a stopwatch and runners who can race alone or in pairs. On many other occasions, however, the process is less straightforward. It is in these cases that careful consideration must be placed into the process of conceptualising and operationalising variables.

From the abstract to the specific: conceptual variables and operational definitions

When a researcher first develops a hypothesis, the variables typically are in an abstract, general form. These are *conceptual variables*. Examples of conceptual variables include prejudice, conformity, attraction, love, group pressure and social anxiety. In order to test specific hypotheses, we must then transform these conceptual variables into variables that can be manipulated or measured in a study. The specific way in which a conceptual variable is manipulated or measured is called the **operational definition** of the variable. For example, 'conformity' in a particular study may be defined as the number of times a participant indicated agreement with the obviously wrong judgments made by a group of research assistants playing the role of participants (called confederates). Part of the challenge and fun of designing research in social psychology is taking an abstract conceptual variable such as love or group pressure and deciding how to operationally define it so as to manipulate or measure it.

Imagine, for example, wanting to conduct a study on the effects of alcohol intoxication on aggression. One of the conceptual variables might be whether or not participants are intoxicated. There are several ways of measuring this variable, most of which are relatively straightforward. For example, one researcher might operationally define intoxication as when a participant has a blood alcohol level of 0.10 or more, whereas another might define it as when a participant says that he or she feels drunk. A second conceptual variable in this study would be aggression. Measuring aggression in experiments is particularly difficult because of ethical and practical issues: Researchers can't let participants in their studies attack each other. Researchers interested in measuring aggression are thus often forced to measure relatively unusual behaviours, such as administering shocks or blasts of noise to another person, as part of a specific task.

Often there is no single best way to transform a variable from the abstract (conceptual) to the specific (operational). A great deal of trial and error may be involved. However, sometimes there are systematic, statistical ways of checking how valid various manipulations and measures are, and researchers spend a great deal of time fine-tuning their operational definitions to best capture the conceptual variables they wish to study.

Researchers evaluate the manipulation and measurement of variables in terms of their **construct validity**. Construct validity refers to the extent to which (1) the manipulations in an experiment really manipulate the conceptual variables they were designed to manipulate, and (2) the measures used in a study (experimental or otherwise) really measure the conceptual variables they were designed to measure.

Measuring variables: using self-reports, observations and technology

Social psychologists measure variables in many ways, but most can be placed into one of two categories: self-reports and observations. We discuss each of these methods in the next sections, along with how advances in technology are enabling social psychologists to measure variables in new ways.

Self-reports

Collecting self-reports – in which participants disclose their thoughts, feelings, desires and actions – is a widely used measurement technique in social psychology. Self-reports can consist of individual questions or sets of questions that together measure a single conceptual variable. One popular self-report measure, the Rosenberg Self-Esteem Scale, consists of a set of questions that measures individuals' overall self-esteem. For example, respondents are asked the extent to which they agree with statements such as 'I feel that I have a number of good qualities' and 'All in all, I am inclined to feel that I'm a failure'. This scale, first developed by Morris Rosenberg in the 1960s, continues to be used today in a wide variety of settings in countries across the world because many researchers consider it to have good construct validity (Huang & Dong, 2012; Supple & Plunkett, 2011; Vasconcelos-Rapaso et al., 2012).

operational definition

The specific procedures for manipulating or measuring a conceptual variable.

construct validity

The extent to which the measures used in a study measure the variables they were designed to measure and to which the manipulations in an experiment manipulate the variables they were designed to manipulate.

Self-reports give the researcher access to an individual's beliefs and perceptions. But self-reports are not always accurate and can be misleading. For example, the desire to look good to ourselves and others can influence how we respond. This is evident in the results of research using the **bogus pipeline technique** – a procedure in which participants are led to believe that their responses will be verified by an infallible lie detector (Jones & Sigall, 1971). When participants believe their lies will be detected, they report facts about themselves more accurately and endorse socially unacceptable opinions more frequently. The bogus pipeline is, in fact, bogus – no such infallible device exists – but belief in its powers discourages people from lying (Fisher & Brunell, 2014; Grover & Miller, 2012; Mann & Kawakami, 2012; Myers & Zeigler-Hill, 2012).

Self-reports are also affected by the way that questions are asked, such as how they are worded or in what order or context they are asked (Betts & Hartley, 2012; Schwarz & Oyserman, 2011). For example, a large majority (88%) of participants indicated that they thought condoms were effective in stopping AIDS when condoms were said to have a '95 per cent success rate'. However, when condoms were said to have a '5 per cent failure rate' (which is merely another way of saying the same thing), less than half (42%) of the participants indicated that they thought condoms were effective (Linville et al., 1992)! There are theoretical explanations that can account for the seemingly irrational results reported in these two studies, but the point here is that subtle factors can have significant effects on the attitudes and opinions that people report.

Indeed, even the exact same question can elicit very different responses depending on the context in which the question occurs. For example, all individuals contacted in one telephone survey were asked how important the issue of skin cancer was in their lives, but this question was asked either before or after a series of questions about other health concerns. Even though the wording of the question was identical, respondents rated skin cancer as significantly more important if the question was asked first than if it came after the other health questions (Rimal & Real, 2005). In another example of the impact of previous questions, Kimberly Morrison and Adrienne Chung (2011) found that white university students indicated significantly less support for multiculturalism if they had earlier marked their race/ethnicity as 'White' on a questionnaire than if the questionnaire used the term 'European American' instead.

Another reason self-reports can be inaccurate is that they often ask participants to report on thoughts or behaviours from the past, and people's memory of their thoughts or behaviours is very prone to error, particularly if how they feel *now* about things is different from how they felt in the past. To minimise this problem, psychologists have developed ways to reduce the time that elapses between an actual experience and the person's report of it. For example, some use *interval-contingent* self-reports, in which respondents report their experiences at regular intervals, usually once a day. Researchers may also collect *signal-contingent* self-reports. Here, respondents report their experiences as soon as possible after being signalled to do so, usually by means of a text message or a special app. Finally, some researchers collect *event-contingent* self-reports, in which respondents report on a designated set of events as soon as possible after such events have occurred. For example, the Rochester Interaction Record (RIR) is an event-contingent self-report questionnaire used by respondents to record every social interaction lasting 10 minutes or more that occurs during the course of the study, usually a week or two (Nezlek et al., 2012).

Observations

Self-reports are but one tool social psychologists use to measure variables. Researchers also observe people's actions. Sometimes these observations are very simple, as when a researcher notes which of two items a person selects or how long two people spend talking to one another. At other times, however, the observations are more elaborate and require that interrater reliability be established. **Interrater reliability** refers to the level of agreement among multiple observers of the same behaviour. Only when different observers agree can the data be trusted.

The advantage of observational methods is that they avoid our sometimes faulty recollections and distorted interpretations of our own behaviour. Actions can speak louder than words.



A simple set of electrodes can increase the accuracy of self-reports when they serve as a bogus pipeline. Participants believe that any lies will be detected, and so end up providing more honest responses.

bogus pipeline technique
A procedure in which research participants are (falsely) led to believe that their responses will be verified by an infallible lie detector.

interrater reliability
The degree to which different observers agree on their observations.

Of course, if individuals know they are being observed, their behaviours, like their self-reports, may be biased by the desire to present themselves in a favourable light. Therefore, researchers sometimes make observations much more subtly. For example, in experiments concerning interracial interactions, researchers may record participants' eye contact and seating distance to demonstrate biases that would not be revealed using more overt measures (Goff et al., 2008; Todd et al., 2012).

Technology

Of course, social psychologists use more than merely their eyes and ears to observe their subjects. Advances in technology offer researchers exciting new tools that enable them to make extremely precise, subtle and complex observations that were beyond the dreams of social psychologists just a generation or so ago. Various kinds of equipment are used to measure physiological responses such as changes in heart rate, levels of particular hormones and degrees of sexual arousal. Computers are used to record the speed with which participants respond to stimuli, such as how quickly they can identify the race of people in photographs or the presence of a weapon in the hands of a white or black man (Bishara & Payne, 2009; Klauer et al., 2011). Eye-tracking technology is used to measure exactly where and for how long participants look at particular parts of a stimulus, such as an advertisement or a video (Crosby et al., 2008; DeWall et al., 2009).

Social psychologists have begun opening a window into the live human brain – fortunately, without having to lift a scalpel. Brain-imaging technologies take and combine thousands of images of the brain in action. As mentioned earlier in this chapter, many social psychology studies today use fMRI (functional magnetic resonance imaging) scans to provide researchers with visual images of activity in parts of the brain while the research subject is thinking, making decisions, responding to audio or visual stimuli, and so on. These images can show researchers what parts of the brain show increased activity in response to a particular stimulus or situation. For example, although participants in a study may show no signs of any racial or sexist biases on their self-reports or through easily observable behaviour in the laboratory, these same participants may show increased activity in

parts of their brain associated with feelings of threat or strong emotion when they see pictures of or think about people from a particular racial group or gender (Amodio, 2013; Jenkins & Mitchell, 2011; Van Bavel & Cunningham, 2010).

TESTING IDEAS: RESEARCH DESIGNS

Social psychologists use several different methods to test their research hypotheses and theories. Although methods vary, the field generally emphasises objective, systematic and quantifiable approaches. Social psychologists do not simply seek out evidence that supports their ideas; rather, they test their ideas in ways that could very clearly prove them wrong. We can divide these types of tests into three categories: descriptive, correlational and experimental.

Descriptive research: discovering trends and tendencies

One obvious way of testing ideas about people is simply to record how frequently or how typically people think, feel or behave in particular ways. The goal of *descriptive research* in social psychology is, as the term implies, to describe people and their thoughts, feelings and behaviours. This method can test questions such as: Do most people support capital punishment? What percentage of people who encounter a person lying on the footpath would offer to help that person? What do men and women say are the things most likely to make them jealous of their partner? Particular methods of doing descriptive research include observing people, studying records of past events and behaviours, and surveying people. We discuss each of these methods in this section.

Source: Image courtesy of Objective Experience Labs, Sydney
<http://www.objectiveexperience.com/>



Eye-tracking technology allows researchers to examine patterns of fixation in real time, including news websites, as pictured here.

Observational studies

We can learn about other people simply by observing them, of course, and some social psychological questions can be addressed through observational studies. For example, although researchers around the world who study bullying among schoolchildren often use self-report measures to ask children and teachers about the frequency and severity of bullying, some researchers have gotten a more direct look at the problem by spending time in playgrounds and schoolyards carefully watching and taking notes on the children's interactions, sometimes using hidden cameras and microphones (with the schools and parents' consent) to record incidents of bullying (Frey et al., 2009; Hawkins et al., 2001).

Archival studies

Archival research involves examining existing records of past events and behaviours, such as newspaper articles, medical records, diaries, sporting statistics, personal advertisements, crime statistics or hits on a web page. A major advantage of archival measures is that because the researchers are observing behaviour secondhand, they can be sure that they did not influence the behaviour by their presence. A limitation of this approach is that available records are not always complete or sufficiently detailed, and they may have been collected in a non-systematic manner.

Archival measures are particularly valuable for examining cultural and historical trends. In Chapter 10, for example, we report a number of trends concerning the rate of violent crime and how it has changed over time, and we report differences in homicide rates in countries around the world. These data come from archival records, such as the records of police stations, governmental bodies and the United Nations. Examples of archival research include a study that examined whether the wording of job advertisements was biased as a function of gender stereotypes (Gaucher et al., 2011).

CRITICAL THINKING ACTIVITY

The advent of the Internet has brought about a great deal of change in availability of archival research. Consider your own 'archives' on the Internet. How might they be used to answer social psychological research questions? Consider the different conclusions that might be reached if different sources of your archival data were used (for example, Google search history, Facebook wall posts or time per day spent online).

Surveys

It seems that nobody in politics these days sneezes without first conducting an opinion poll. Surveys have become increasingly popular in recent years, and they are conducted on everything from politics and attitudes about social issues to the percentages of people who think the best cure for hiccups is to drink a glass of water or hold your breath. (Okay, we will tell you: According to a May 2012 poll on Yahoo.com with almost 60 000 responses, 52% say drink water, 37% say hold your breath – and 12% say have someone scare you.) Conducting surveys involves asking people questions about their attitudes, beliefs and behaviours. Surveys can be conducted in person, over the phone, by mail or via the Internet. Many social psychological questions can be addressed only with surveys because they involve variables that are impossible or unethical to observe directly or manipulate, such as people's sexual behaviours or their optimism about the future.

Although anyone can conduct a survey (and sometimes it seems that everyone does), there is a science to designing, conducting and interpreting the results of surveys. Like other self-report measures, surveys can be affected strongly by subtle aspects of the wording and context of questions, and good survey researchers are trained to consider these issues and to test various kinds of wording and question ordering before conducting their surveys.

One of the most important issues that survey researchers face is how to select the people who will take part in the survey. The researchers first must identify the *population* in which they are interested. Is this survey supposed to tell us about the attitudes of Australians in general, shoppers at David Jones, or students in an Introduction to Social Psychology course at a particular university? From this general population, the researchers select a subset, or *sample*, of individuals. For a survey to be accurate, the sample must be similar to, or representative of, the population on important characteristics such as age, sex, race, income, education and cultural background. The best way to achieve this representativeness is to use **random sampling**, a method of selection in which everyone in a population has an equal chance of being selected for the sample. Survey researchers use randomising procedures, such as randomly distributed numbers generated by computers, to decide how to select individuals for their samples.

To see the importance of random sampling, consider a pair of US presidential elections (Rosnow & Rosenthal, 1993). Just before the 1936 election, a magazine called the *Literary Digest*

random sampling

A method of selecting participants for a study so that everyone in a population has an equal chance of being in the study.



Many social psychological questions are addressed using surveys, which can be conducted over the phone, by mail, via the Internet or face to face in field settings.

because of improved sampling procedures, surveys conducted on little more than 1000 respondents can be used to make accurate predictions about an entire country's population

Qualitative versus quantitative research

There are two types of research that are conducted in social psychology – qualitative and quantitative. These methods differ in the way that they collect and analyse data, with **qualitative research** gathering data in non-numerical form and **quantitative research** gathering data in numerical form. Although they do share some methods of collecting data (surveys, interviews and observations) their emphasis on the type of data collection is quite different. For example, where a quantitative researcher would make use of a structured interview or structured observation, a qualitative researcher would use non-structured interviews and unstructured observations – a far less rigid approach that allows a person to tell a story in terms of what is important to them rather than being restricted to the information which the researcher deems to be important. According to Carla Willig (2013), qualitative researchers are concerned with meaning – how people experience their world and how they make sense of their world: 'They are interested in the quality and texture of experience rather than with the identification of cause-effect relationships' (p. 8). Qualitative researchers may make use of diary accounts, open-ended questionnaires, case studies, focus groups, drawings and other forms of visual media in their pursuit to understand the 'as lived experience' of a person in relation to the aspect of the research they are interested in. It is a much more time-consuming approach to research, of course, as this method requires a great deal of attention to detail during data collection and analysis, with expert knowledge of an area being used to interpret and code that data into theoretically meaningful responses or themes.

Correlational research: looking for associations

Although there is much to learn from descriptive research, social psychologists typically want to know more. Most research hypotheses in social psychology concern the relationship between variables. For example, is there a relationship between people's gender and their willingness to ask for help from others or between how physically attractive people are and how much money they make?

One way to test such hypotheses is with correlational research. Like descriptive research, **correlational research** can be conducted using observational, archival or survey methods. Unlike descriptive research, however, correlational approaches measure the *relationship* between different variables. The extent to which variables relate to each other, or correlate, can suggest how similar or distinct two different measures are (for example, how related people's self-esteem and popularity are) and how well one variable can be used to predict another (for example, how well we can predict academic success in university from HSC or NCEA scores). It is important to note that researchers doing correlational research typically do not manipulate the variables they study; they simply measure them.

qualitative research

A research method that seeks to identify what something means to a person.

quantitative research

A research method that is concerned with quantifying a problem.

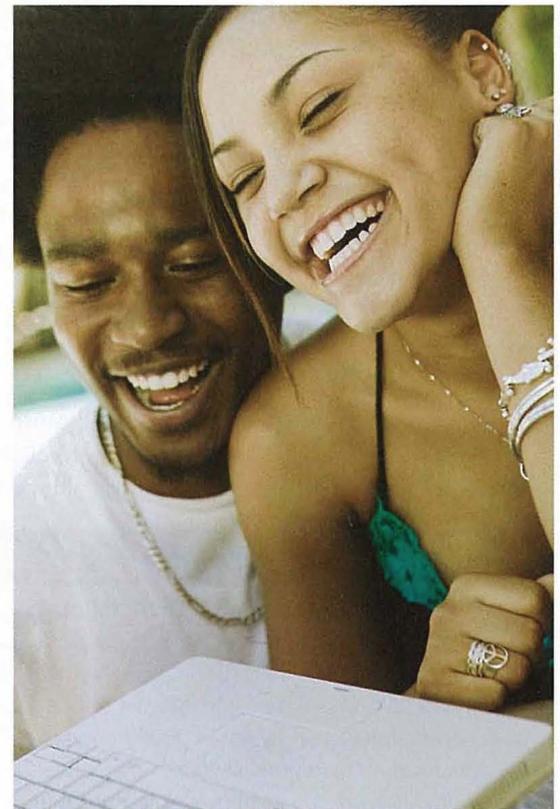
correlational research

Research designed to measure the association between variables that are not manipulated by the researcher.

Correlation coefficient

When researchers examine the relationship between variables that vary in quantity (such as temperature or degree of self-esteem), they can measure the strength and direction of the relationship between the variables and calculate a statistic called a **correlation coefficient**. Correlation coefficients can range from +1.0 to -1.0. The absolute value of the number (the number itself, without the positive or negative sign) indicates how strongly the two variables are associated. The larger the absolute value of the number, the stronger the association between the two variables, and thus the better either of the variables is as a predictor of the other. Whether the coefficient is positive or negative indicates the direction of the relationship. A positive correlation coefficient indicates that as one variable increases, so does the other; for example, high school marks correlate positively with university marks. The positive direction of this relationship indicates higher high school marks are associated with higher university marks and that lower high school marks are associated with lower university marks. This correlation is not perfect: some people with impressive high school marks have poor university marks and vice versa. Therefore, the correlation is less than +1.0, but it is greater than 0 because there is some association between the two. A negative coefficient indicates that the two variables go in opposite directions: as one goes up, the other tends to go down. For example, number of classes missed and weighted average mark (WAM) are likely to be negatively correlated. And a correlation close to 0 indicates that there is no consistent relationship at all. These three types of patterns are illustrated in **Figure 1.2**. Because few variables are perfectly related to each other, most correlation coefficients do not approach +1.0 or -1.0 but have more moderate values, such as +0.39 or -0.57.

Some correlational studies involve a variable that does not vary in quantity, such as race, gender or political affiliation, or preferences for Thai, Indian or Italian food. In this case, researchers cannot compute a typical correlation coefficient but instead use different kinds of statistical analysis. The same point applies, though, as the researchers can determine if there is a relationship between the two variables.

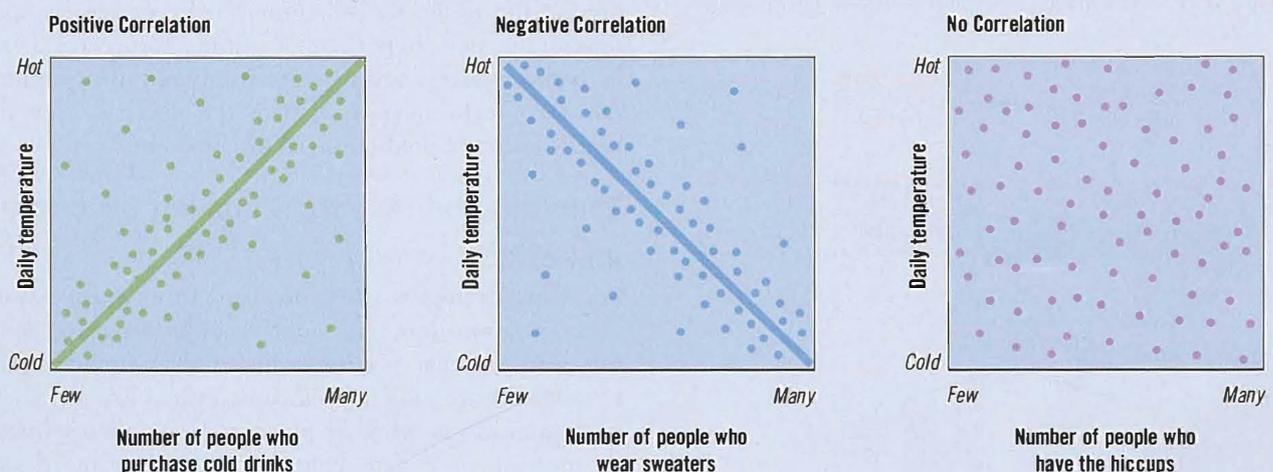


Similarity is correlated with attraction – the more similar two people are, the more attractive they are likely to find each other. But a correlation cannot identify the cause of this attraction. Chapter 8 ('Attraction and close relationships') discusses correlational and experimental research on the role of similarity in the attraction process.

correlation coefficient
A statistical measure of the strength and direction of the association between two variables.

FIGURE 1.2 Correlations: positive, negative and none

Correlations reveal a systematic association between two variables. Positive correlations indicate that variables are in sync: increases in one variable are associated with increases in the other; and decreases are associated with decreases. Negative correlations indicate that variables go in opposite directions: increases in one variable are associated with decreases in the other. When two variables are not systematically associated, there is no correlation.



Advantages and disadvantages of correlational research

Correlational research has many advantages. It can study the associations of naturally occurring variables that cannot be manipulated or induced, such as gender, race, ethnicity and age. It can examine phenomena that would be difficult or unethical to create for research purposes, such as love, hate and abuse. And it offers researchers a great deal of freedom in where variables are measured. Participants can be brought into a laboratory specially constructed for research purposes or they can be approached in a real-world setting (often called 'the field') such as a shopping mall or airport.

Despite these advantages, however, correlational research has one very serious disadvantage. And here it is in bold letters: **Correlation is not causation.**

In other words, a correlation cannot demonstrate a cause-and-effect relationship. Instead of revealing a specific causal pathway from one variable, A, to another variable, B, a correlation between variables A and B contains within it three possible causal effects: A could cause B; B could cause A; or a third variable, C, could cause both A and B. For example, imagine learning that the number of hours per night one sleeps is negatively correlated with the number of colds one gets. This means that as the amount of sleep increases, colds decrease in frequency. Conversely, as sleep decreases, colds become more frequent.

One reasonable explanation for this relationship is that lack of sleep (variable A) causes people to become more vulnerable to colds (variable B). Another reasonable explanation, however, is that people who have colds can't sleep well, and so colds (variable B) cause lack of sleep (variable A). A third reasonable explanation is that some other variable (C) causes both lack of sleep and greater frequency of colds. This third variable could be stress. Indeed, stress has many effects on people, as is discussed in Chapter 13. **Figure 1.3** describes another correlation that can be explained in many ways: the correlation between playing violent video games and aggression.

We can guarantee you this: There will be many, many times in your life when you'll encounter reports in the media that suggest cause-and-effect relationships based on correlational research. Even the most respectable news sources are guilty of this repeatedly. If you look for it, you can find numerous examples on a weekly basis. One of the great benefits of learning and gaining experience with the material in this chapter is that you can see the flaws in media reports such as these and are less likely to be taken in by them. Again, correlation is not causation.

Do we learn nothing, then, from correlations? To say that would be to take caution too far. Correlations tell researchers about the strength and direction of relationships between variables, thus helping them understand these variables better and allowing them to use one variable to predict the other. Correlations can be extremely useful in developing new hypotheses to guide future research. And by gathering large sets of correlations and using complicated statistical techniques to crunch the data, we can develop highly accurate predictions of future events.

Experimental research: looking for cause and effect

Social psychologists often do want to examine cause-and-effect relationships. Although it is informative to know, for example, that playing a lot of violent video games is correlated with violent behaviour in real life, the inevitable next question is whether playing these video games *causes* an increase in violent behaviour. If we want to examine cause-and-effect relationships, we need to conduct an

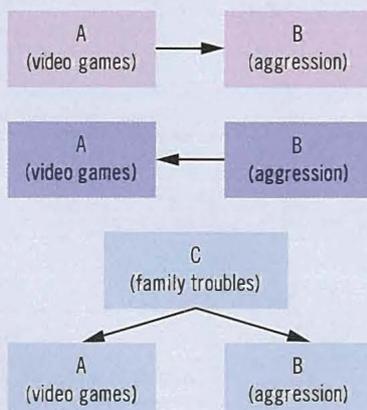
CRITICAL THINKING ACTIVITY

Spend a few moments browsing your favourite news source for coverage of scientific findings. Is there evidence of the 'correlation equals causation' trap? By reading the article carefully, it can be clear that the methods used were correlational (that is, variables were measured) but the conclusions the journalist makes are causal (that is, presuming at least one of the variables was manipulated). How might you rewrite the article to accurately reflect the correlational nature of the findings?

FIGURE 1.3 Explaining correlations: three possibilities

The correlation between one variable (A) and another variable (B) could be explained in three ways. Variable A could cause changes in variable B, variable B could cause changes in variable A, or a third variable (C) could cause similar changes in both A and B, even if A and B did not influence each other. For example, a correlation between how much children play violent video games and how aggressively they behave could be explained in the following ways:

- 1 Playing violent video games causes aggressive behaviour.
- 2 Children who behave aggressively like to play a lot of violent video games.
- 3 Children who have family troubles, such as parents who are not very involved in the children's development, tend both to play a lot of violent video games and to behave aggressively.



experiment. Experiments are the most popular method of testing ideas in social psychology, and they can range from the very simple to the incredibly elaborate. All of them, however, share two essential characteristics.

- 1 The researcher has *control* over the experimental procedures, manipulating the variables of interest while ensuring uniformity elsewhere. In other words, all participants in the research are treated in exactly the same manner – except for the specific differences the experimenter wants to create.
- 2 Participants in the study are *randomly* assigned to the different manipulations (called ‘conditions’) included in the experiment. If there are two conditions, who goes where may be determined by simply flipping a coin. If there are many conditions, a computer program may be used. But however it’s done, **random assignment** means that participants are not assigned to a condition on the basis of their personal or behavioural characteristics. Through random assignment, the experimenter attempts to ensure a level playing field. *On average, the participants randomly assigned to one condition are no different from those assigned to another condition.* Differences that appear between conditions after an experimental manipulation can therefore be attributed to the impact of that manipulation and not to any pre-existing differences between participants.

Because of experimenter control and random assignment of participants, an experiment is a powerful technique for examining cause and effect. Both characteristics serve the same goal: to eliminate the influence of any factors other than the experimental manipulation. By ruling out alternative explanations for research results, we become more confident that we understand just what has, in fact, caused a certain outcome to occur. **Table 1.3** summarises the distinctions between correlational and experimental research.

experiment

A form of research that can demonstrate causal relationships because (1) the experimenter has control over the events that occur and (2) participants are randomly assigned to conditions.

random assignment

A method of assigning participants to the various conditions of an experiment so that each participant in the experiment has an equal chance of being in any of the conditions.

TABLE 1.3 Correlations versus experiments

	Correlational research	Experimental research
What does it involve?	Measuring variables and the degree of association between them	Random assignment to conditions and control over the events that occur; determining the effects of manipulations of the independent variable(s) on changes in the dependent variable(s)
What is the biggest advantage of using this method?	Enables researchers to study naturally occurring variables, including variables that would be too difficult or unethical to manipulate	Enables researchers to determine cause-and-effect relationships; that is, whether the independent variable can cause a change in the dependent variable

Random sampling versus random assignment

You may recall that we mentioned random sampling earlier, in connection with surveys. It’s important to remember the differences between random *sampling* and random *assignment*. **Table 1.4** summarises these differences. Random sampling concerns how individuals are selected to be in a study. It is essential for generalising the results obtained from a sample to a broader population, and it is therefore very important for survey research. Random assignment concerns not who is selected to be in the study but rather how

TABLE 1.4 Random sampling versus random assignment

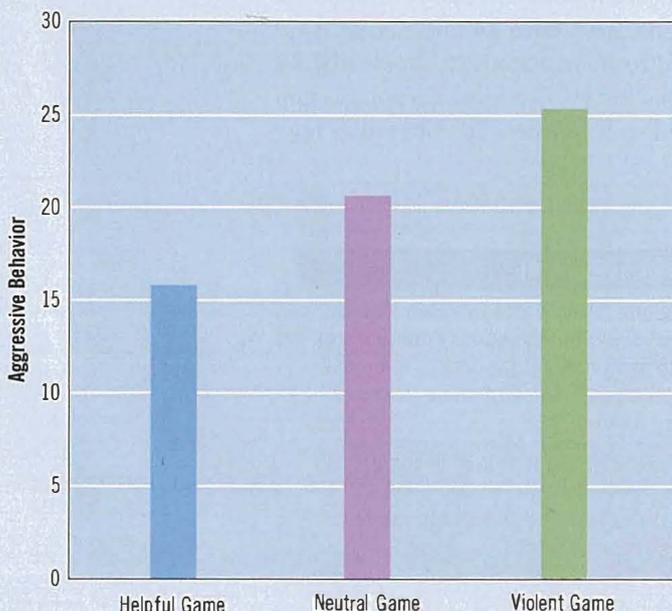
	Random sampling	Random assignment
What does it involve?	Selecting participants to be in the study so that everyone from a population has an equal chance of being a participant in the study	Assigning participants (who are already in the study) to the various conditions of the experiment so that each participant has an equal chance of being in any of the conditions
What is the biggest advantage of using this procedure?	It enables researchers to collect data from samples that are representative of the broader population; it is important for being able to generalise the results to the broader population	It equalises the conditions of the experiment so that it is very unlikely that the conditions differ in terms of pre-existing differences among the participants; it is essential to determine that the independent variable(s) caused an effect on the dependent variable(s)



In field research, people are observed in real-world settings. Field researchers may observe children in a schoolyard, for example, to study any of a variety of social psychological issues, such as friendship patterns, group dynamics, conformity, helping, aggression and cultural differences.

FIGURE 1.4 Effects of violent versus helpful video games

Participants in Greitemeyer et al.'s experiment played either a violent, neutral or helping-oriented video game, and later had the chance to deliver annoying blasts of noise to another person as this person tried to complete a task. (This 'noise blast' procedure has been a successful measure of aggression in a number of experiments.) This graph shows that the students who played the helpful game were the least aggressive, and the students who played the violent game were the most aggressive.



Source: Based on Greitemeyer et al., 2012

participants in the study are assigned to different conditions, as explained above. Random assignment is essential to experiments because it is necessary for determining cause-and-effect relationships; without it, there is always the possibility that any differences found between the conditions in a study were caused by pre-existing differences among participants. Random sampling, by contrast, is not necessary for establishing causality. For that reason, and because random sampling is difficult and expensive, very few experiments use random sampling. We consider the implications of this fact later in the chapter.

Laboratory and field experiments

Most experiments in social psychology are conducted in a *laboratory* setting, usually located in a university, so that the environment can be controlled and the participants carefully studied. Social psychology labs do not necessarily look like stereotypical laboratories with liquid bubbling in beakers or expensive equipment everywhere (although many social psychology labs are indeed very high-tech). They can resemble ordinary living rooms or even games rooms. The key point here is that the laboratory setting enables researchers to have control over the setting, measure participants' behaviours precisely, and keep conditions identical for participants.

Field research is conducted in real-world settings outside the laboratory. Researchers interested in studying helping behaviour, for example, might conduct an experiment in a public park. The advantage of field experiments is that people are more likely to act naturally in a natural setting than in a laboratory in which they know they are being studied. The disadvantage of field settings is that the experimenter often has less control and cannot ensure that the participants in the various conditions of the experiment will be exposed to the same things.

Because of the important role that experiments play in social psychology, let's take a closer look at the elements of experiments by focusing on two experiments.

Experiment 1: can video games make you more or less aggressive?

As we will see in Chapter 10, a growing number of studies demonstrate that playing violent video games can lead to real-life aggression. But can playing video games that feature helping others, rather than hurting them, lead to the opposite effect; that is, of making people become *less* aggressive? Tobias Greitemeyer and colleagues (2012) conducted a series of experiments to address this question. In one of their experiments with university students in Germany, they randomly assigned one-third of the students to play a violent video game (*Mortal Kombat* – a game involving violent fighting), another third to play a neutral video game (pinball) and a third to play a helping-oriented game (helping characters escape from burning buildings). After playing the assigned video game for 15 minutes, the students were then given the opportunity to act aggressively towards another person by blasting them with noise while this person tried to complete a task.

As **Figure 1.4** shows, the students who had played the violent game were more aggressive (that is, selected louder levels of noise) than the students who had played the neutral

game. On the other hand, the students who had played the helpful game were *less* aggressive than the students who had played the neutral game.

Experiment 2: mood and culture

Imagine that someone shows you a handful of pens. Most of the pens are of one colour (for example, black) and a minority of the pens are of a different colour (for example, blue). You can choose to keep one of the pens. Do you choose a colour from the majority or the minority? Believe it or not, there is a consistent cultural difference in how people make this choice. People from Western cultures, such as Australia, New Zealand and the United States, tend to choose the uncommon pen colour, whereas people from East Asian cultures, such as Korea, Thailand and China, tend to choose the majority pen colour.

This cultural difference was explored in an interesting way in an experiment by Claire Ashton-James and colleagues (2009). The researchers hypothesised that being in a positive mood makes people more open to new experiences, which can result in their acting in ways that are inconsistent with how people in their culture typically behave. Would being in a good mood, therefore, cause people to become more likely to defy their cultural norm, making Westerners more interested in the common colour pen and East Asians more interested in the uncommon colour pen? The researchers tested this idea by presenting participants from either Western (European or Euro-Canadian) or East Asian background with the pen choice described above. Before looking at the pens, though, the participants were randomly assigned to be placed into a positive or negative mood. How was mood manipulated? The participants in the positive mood condition listened to a very pleasant, upbeat piece of classical music (by Mozart), while those in the negative mood condition listened to a much more serious, rather depressing piece (by Rachmaninov).

Table 1.5 summarises the design of this experiment.

Figure 1.5 depicts the results of this study. The bars in this graph depict what percentage of participants in each condition chose the uncommon pen. Among the Western participants, as can be seen in the left half of the graph, those put in a positive mood were *less* likely to choose the uncommon pen compared with those in the negative mood condition. The opposite was true for the East Asian participants: Those put in a positive mood were *more* likely to choose the uncommon pen compared with those in the negative mood condition. The results, therefore, supported the researchers' predictions: positive moods did make individuals more likely to act in ways that deviated from the norms of their cultures.

Independent and dependent variables

Now that we've looked at a couple of experiments, let's focus on some of the specific elements. In an experiment, researchers manipulate one or more **independent variables** and examine the effect of these manipulations on one or more **dependent variables**. In the first experiment above, some participants were randomly assigned to play a violent video game, others to play a neutral video game, and others to play a helping-oriented video game. This was the independent variable. The dependent variable in that experiment was how much noise the participants chose to deliver to another person. It was the dependent variable because the researchers were interested in seeing if it would *depend* on (that is, be influenced by) the manipulation of the independent variable.

TABLE 1.5 Mood and culture: the conditions

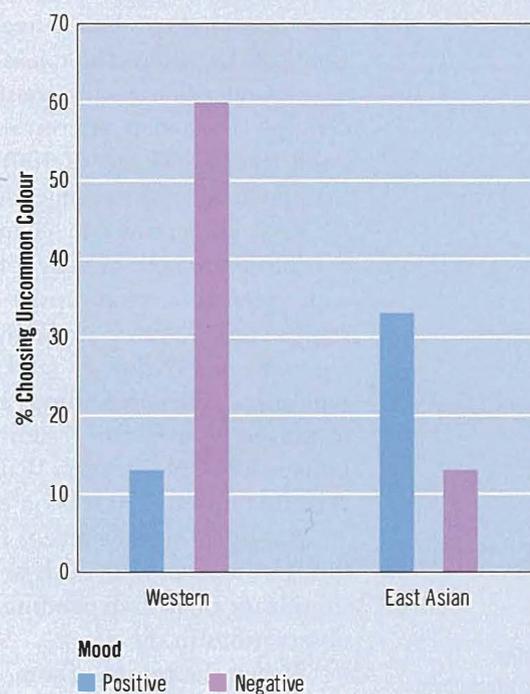
In Ashton-James et al.'s experiment, participants from Western or East Asian backgrounds were put in a positive or negative mood. Combining these two variables – culture and the manipulation of mood – created the four conditions displayed here.

	Western	East Asian
	Condition 1	Condition 2
Positive Mood	Western/Positive	East Asian/Positive
	Condition 3	Condition 4
Negative Mood	Western/Negative	East Asian/Negative

Source: Ashton-James, Maddux, Galinsky & Chartrand (2009).

FIGURE 1.5 Mood and culture

Research participants from Western or East Asian backgrounds were put in a positive or negative mood and then were given a choice to keep one of several pens. Most of the pens were in one colour, but one or two were in a different colour. Western participants were more likely to choose the uncommon colour when in a negative mood than a positive mood, whereas East Asian participants showed the opposite pattern. These results supported the hypothesis that positive moods can make individuals act in ways that are inconsistent with their cultural norms.



Source: Based on Ashton-James et al., 2009.

independent variable

In an experiment, a factor that experimenters manipulate to see if it affects the dependent variable.

dependent variable

In an experiment, a factor that experimenters measure to see if it is affected by the independent variable.

Subject variables

Some experiments include variables that are neither dependent nor truly independent. The gender, ethnicity and prior political leanings of the participants may vary, for example, and researchers may be interested in examining some of these differences. These variables cannot be manipulated and randomly assigned, so they are not true independent variables, and they are not influenced by the independent variables, so they are not dependent variables. Variables such as these are called **subject variables** because they characterise pre-existing differences among the subjects, or participants, in the experiment. If a study includes subject variables but no true, randomly assigned independent variable, it is not a true experiment. But experiments often include subject variables along with independent variables so that researchers can test whether the independent variables have the same or different effects on different kinds of participants. Ashton-James and colleagues' experiment on mood and culture described above is an example of an experiment with one true independent variable and one subject variable. The randomly assigned independent variable was the manipulation of mood – some were placed into a good mood and some into a bad mood. The subject variable was the participants' cultural background – some were of Western background and some were of East Asian background. The dependent variable in this study was which pen the participants chose to keep.

Statistical significance and replications

In the Ashton-James experiment, 60% of the Western participants chose the uncommon colour pen when in a negative mood, but only 13% did so when in a positive mood. Is the difference between 60% and 13% large enough to be meaningful, or could this difference simply be due to chance (that is, just random variation, like flipping a coin 10 times and getting heads six times and tails four)? The answer is that you can't tell just by looking at these numbers alone. Results obtained in an experiment are examined with statistical analyses that allow the researcher to determine how likely it is that the results could have occurred by random chance. The standard convention is that if the results could have occurred by chance five or fewer times in 100 possible outcomes, then the result is *statistically significant* and should be taken seriously.

The fact that results are statistically significant does not mean, however, that they are absolutely certain. In essence, statistical significance is an attractive betting proposition. The odds are quite good (at least 95 out of 100) that the effects obtained in the study were due to the experimental manipulation of the independent variable. But there is still the possibility (as high as 5 out of 100) that the findings occurred by chance.

This is one reason why it is important to try to *replicate* the results of an experiment – to repeat the experiment and see if similar results are found. If similar results are found, the probability that these results could have occurred by chance both times is less than 1 out of 400. There has been a growing emphasis in psychology (and some other disciplines, such as medicine) on the importance of both replicating research findings and developing and using statistical techniques that serve as alternatives to the focus on statistical significance. Geoff Cumming of La Trobe University and Kevin Bird of the University of New South Wales are both advocates of these alternative approaches. We will return to this issue in the final section of this chapter.

Statistical significance is relevant not only for the results of experiments but also for many other kinds of data as well, such as correlations. A correlation between two variables may be statistically significant or not, depending on the strength of the correlation and the number of participants or observations in the data.

When the results of some research are reported in the media or an advertisement, it's not always clear from the reporting whether the results are statistically significant, so it is important to be very cautious when learning about them. You can be sure, however, that whenever we report in this textbook that there is a difference between conditions of an experiment or that two variables are correlated, these results are statistically significant.

Internal validity: did the independent variable cause the effect?

When an experiment is properly conducted, its results are said to have **internal validity**. That is, there is reasonable certainty that the independent variable did, in fact, cause the effects obtained on the dependent variable (Cook & Campbell, 1979). As noted earlier, both experimenter control and random assignment seek to rule out alternative explanations of the research results, thereby strengthening the internal validity of the research. If some other factor varies consistently along with the manipulation, this other factor is called a **confound**. A confound is a serious threat to internal validity and, therefore,

subject variable

A variable that characterises pre-existing differences among the participants in a study.

internal validity

The degree to which there can be reasonable certainty that the independent variables in an experiment caused the effects obtained on the dependent variables.

confound

A factor other than the independent variable that varies between the conditions of an experiment, thereby calling into question what caused any effects on the dependent variable.

makes the issue of cause and effect in the experiment uncertain. For example, if the students who played the violent video game in Greitemeyer's study always did so in a very hot room, and the students who played the helping-oriented game did so in a cool room, then this would be a confound, and it would be impossible to know if the different games or the different temperatures caused the effect on aggressive behaviour. Fortunately, Greitemeyer and colleagues knew to avoid this problem.

Experiments sometimes include *control groups* for purposes of internal validity. Typically, a control group consists of participants who experience all of the procedures except the experimental treatment. In Greitemeyer's study, for example, the participants in the condition in which the video game content was neutral could be considered a control group, which provided a baseline against which to compare the behaviour of participants who played a violent or helping-oriented game.

Outside the laboratory, creating control groups in natural settings that examine real-life events raises many practical and ethical problems. For example, researchers testing new medical treatments for deadly diseases face a terrible dilemma. Individuals randomly assigned to the control group receive the standard treatment, but they are excluded for the duration of the study from what could turn out to be a life-saving new intervention. Yet without such a comparison, it is extremely difficult to determine which new treatments are effective and which are useless.

In assessing internal validity, researchers need to consider their own role as well. Unwittingly, they can sometimes sabotage their own research. For example, imagine you are a researcher and you know which participants are in which conditions of your experiment. You will no doubt have expectations (and possibly even strong hopes) about how your participants will respond differently between conditions. Because of these expectations, and without realising it, you may treat the participants a little differently between conditions. It turns out that even very subtle differences in an experimenter's behaviour can influence participants' behaviour (Rosenthal, 1976). Therefore, because of these **experimenter expectancy effects**, the results you find in your experiment may be produced by your own actions rather than by the independent variable!

The best way to protect an experiment from these effects is to keep experimenters uninformed about assignments to conditions. This often is called being 'blind to the conditions' in a study. If the experimenters do not know the condition to which a participant has been assigned, they cannot treat participants differently as a function of their condition. In their experiment, Greitemeyer and colleagues wisely decided to use one experimenter in the first part of the study (when the participants played the video games) and a different experimenter for the second part (when the participants chose the noise level to use on another person). The second experimenter did not know which video game the participants had played and therefore could not bias the results through experimenter expectancy effects.

Of course, there may be times when keeping experimenters uninformed is impossible or impractical. In such cases, the opportunity for experimenter expectancy effects to occur can at least be reduced somewhat by minimising the interaction between experimenters and participants. For example, rather than receiving instructions directly from an experimenter, participants can be asked to read the instructions on a computer screen.

External validity: do the results generalise?

In addition to guarding internal validity, researchers are concerned about **external validity** – the extent to which the results obtained under one set of circumstances would also occur in a different set of circumstances (Berkowitz & Donnerstein, 1982). When an experiment has external validity, its findings can be assumed to generalise to other people and to other situations. Both the participants in the experiment and the setting in which it takes place affect external validity.

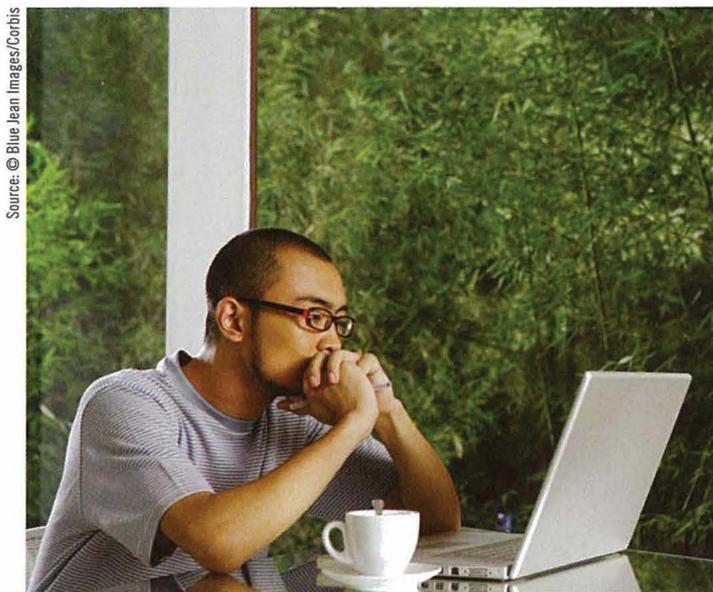
To help increase external validity, social psychologists would love to conduct their experiments with huge samples of participants that are representative of the general population. Usually, however, they must rely on convenience samples drawn from populations that are readily available to them, which explains why so much of social psychological research is conducted on university students. There are very practical reasons for the use of convenience samples. Representative samples are fine for surveys that require short answers to a short list of questions. But what about complex, time-consuming experiments? The costs and logistical problems associated with this would be staggering. Advocates of convenience samples contend that the more basic the principle, the less it matters who participates in the research. For example, people from different cultures, regions and ages might differ in the *form* of aggression they typically exhibit when angry, but the situational factors that cause people to be *more likely to aggress* – in whatever way that aggression is expressed – may be similar for

experimenter expectancy effects

The effects produced when an experimenter's expectations about the results of an experiment affect his or her behaviour towards a participant and thereby influence the participant's responses.

external validity

The degree to which there can be reasonable confidence that the results of a study would be obtained for other people and in other situations.



Source: © Blue Jean Images/Corbis

Many individuals earn money at home by participating in online research projects through a service provided by Amazon called Mechanical Turk. Online services like this now allow social psychologists to reach out to vastly more diverse samples of people from around the world to participate in their studies.

mundane realism

The degree to which the experimental situation resembles places and events in the real world.

experimental realism

The degree to which experimental procedures are involving to participants and lead them to behave naturally and spontaneously.

deception

In the context of research, a method that provides false information to participants.

confederate

An accomplice of an experimenter who, in dealing with the real participants in an experiment, acts as if she is also a participant.

most individuals across time and place. Yet in spite of these arguments, having the most diverse, representative samples of research participants as possible is ideal. The growing interest in cross-cultural research in the field is certainly one step in the right direction.

Another promising development is the rapidly increasing use of the Internet to collect data, which allows for far more diverse sets of participants. There are numerous challenges associated with this approach as well, however, such as having less control over what participants are seeing or doing as they participate in the study from afar. Fortunately, recent research testing the data collected via one of the most popular online services, called Mechanical Turk, suggests that the data are at least as reliable as data collected through traditional methods and offer a much greater diversity of participants (Buhrmester et al., 2011; Mason & Suri, 2012; Paolacci & Chandler, 2014).

The external validity of an experiment may also depend in part on how realistic the study is for the participants. But what is meant by 'realistic' is not as straightforward as one might think. Two types of realism can be distinguished: mundane and experimental (Aronson & Carlsmith, 1968). **Mundane realism** refers to the extent to which the research setting resembles the real-world setting of interest. In order to study

interpersonal attraction, Theodore Newcomb (1961) set up an entire university dormitory – a striking example of mundane realism. Advocates of mundane realism contend that if research procedures are more realistic, research findings are more likely to reveal what really goes on. By contrast, **experimental realism** refers to the degree to which the experimental setting and procedures are real and involving to the participant, regardless of whether they resemble real life or not. According to those who favour experimental realism, if the experimental situation is compelling and real to the participants while they are participating in the study, their behaviour in the laboratory – even if the laboratory is in the basement of the psychology building – will be as natural and spontaneous as their behaviour in the real world. The majority of social psychologists who conduct experiments emphasise experimental realism.

Deception in experiments

Researchers who strive to create a highly involving experience for participants often rely on **deception** – providing participants with false information about experimental procedures. To this end, social psychologists sometimes employ **confederates**, or people who act as though they are participants in the experiment but are really working for the experimenter. For example, in Solomon Asch's (1956) classic research on conformity, research participants made judgments about the lengths of lines while in the midst of a number of confederates – who were pretending to be ordinary participants – who at various times all gave wrong answers. The researchers wanted to see if the real participants would conform to the confederates and give the obviously wrong answer that the confederates had given. Although it was a very odd setting, the situation was a very real one to the participants (and therefore was high in experimental realism), and many of the participants clearly struggled with the decision about whether or not to conform. We will revisit Asch's study in Chapter 6: Conformity, compliance and obedience.

Deception not only strengthens experimental realism but also provides other benefits. It allows the experimenter to create situations in the laboratory that would be difficult to find in a natural setting, such as a regulated, safe environment in which to study a potentially harmful behaviour such as aggression or discrimination. Studies have shown that participants are rarely bothered by deception and often particularly enjoy studies that use it (Smith & Richardson, 1983). Nevertheless, the use of deception creates some serious ethical concerns, leading to debate about whether and how it should be used (Hertwig & Ortmann, 2008; Kimmel, 2012). Fortunately, as we will see a bit later in the chapter, procedures have been put in place to try to ensure the ethical integrity of research today.

Meta-analysis: combining results across studies

We have seen that social psychologists conduct original descriptive, correlational and experimental studies to test their hypotheses. Another way to test hypotheses in social psychology is to use a set of

statistical procedures to examine, in a new way, relevant research that has already been conducted. This technique is called **meta-analysis**. By ‘meta-analysing’ the results of a number of studies that have been conducted in different places and by different researchers, researchers can measure precisely how strong and reliable particular effects are. For example, studies published concerning the effects of alcohol on aggression may sometimes contradict each other. Sometimes alcohol increases aggression; sometimes it doesn’t. By combining the data from all the studies that are relevant to this hypothesis and conducting a meta-analysis, a researcher can determine what effect alcohol typically has, how strong that effect typically is, and perhaps under what specific conditions that effect is most likely to occur. This technique is being used with increasing frequency in social psychology today, and we report the results of many meta-analyses in this textbook.

meta-analysis

A set of statistical procedures used to review a body of evidence by combining the results of individual studies to measure the overall reliability and strength of particular effects.

Culture and research methods

The study by Ashton-James and others on the effects of mood on Western and East Asian participants’ pen choices is but one example of the growing interest in studying culture in social psychology. One of the advantages of this approach is that it provides better tests of the external validity of research that has been conducted in any one setting. By examining whether the results of an experiment generalise to a very different culture, social psychologists can begin to answer questions about the universality or cultural specificity of their research. It is important to keep in mind that when a finding in one culture does not generalise well to another culture, this should be seen not simply as a failure to replicate but also as an opportunity to learn about potentially interesting and important cultural differences, and about how and why these differences affect the issue being studied.

As important and exciting as these cultural investigations are, however, they offer special challenges to researchers. For example, cultural differences have been found in how affected people are by the context of questions as they complete a survey, or about the assumptions respondents make about what the researchers have in mind for a given question (Schwarz et al., 2010). It also can be difficult for researchers to translate materials from one language into another. Although it is relatively easy to create literal translations, it can be surprisingly challenging to create translations that have the same meaning to people from various cultures. **Table 1.6** presents examples – from signs displayed around the world – of what can go wrong when simple sentences are poorly translated.

An even more subtle point about language is that multilingual people may think or act differently as a function of which language is being used in a particular setting. A study by Nairán Ramírez-Esparza and colleagues (2008) illustrates this point. They found that how agreeable a sample of bilingual Mexican American participants appeared to be – either on a self-report questionnaire or in their behaviour in an interview – varied significantly as a function of whether the study was conducted in Spanish or in English.

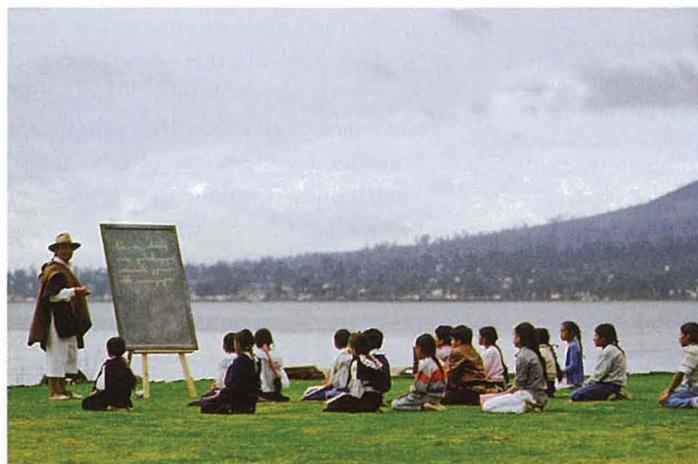
TABLE 1.6 Lost in translation

- ◆ ‘Drop your trousers here for best results.’ (A dry cleaner in Thailand)
- ◆ ‘You are invited to take advantage of the chambermaid.’ (A hotel in Japan)
- ◆ ‘Ladies are requested not to have children in the bar.’ (A cocktail lounge in Mexico)
- ◆ ‘Take one of our horse-driven city tours – we guarantee no miscarriages.’ (A tourist agency in the former Czechoslovakia)
- ◆ ‘We take your bags and send them in all directions.’ (An airline in Denmark)

Source: Triandis (1994).

ETHICS AND VALUES IN SOCIAL PSYCHOLOGY

Regardless of where research is conducted and what method is used, ethical issues must always be considered. Researchers in all fields have a moral and legal responsibility to abide by ethical principles. In social psychology, the use of deception has caused some concern about ethics, as we indicated earlier. In addition, several studies have provoked fierce debate about whether the procedures used in the studies went beyond



The setting in which children attend school can vary dramatically across cultures. Here students sit outside in a class in Imbabura, Ecuador. Recognising cultural variation has become increasingly important in social psychology today, and social psychologists are conducting their research across a wider range of cultures and contexts than ever before.

the bounds of ethical acceptability. The most famous of these controversial studies was designed by Stanley Milgram in the early 1960s. Milgram (1963) designed a series of studies to address the question: ‘Would people obey orders to harm an innocent person?’ To test this question, he put volunteers into a situation in which an experimenter commanded them to administer painful electric shocks to someone they thought was another volunteer participant. (In fact, the other person was a confederate who was not actually receiving any shocks.) The experiment had extremely high experimental realism – many of the participants experienced a great deal of anxiety and stress as they debated whether they should disobey the experimenter or continue to inflict pain on another person. The details and results of this experiment are discussed in Chapter 6 (‘Conformity, compliance and obedience’), but suffice it to say that the results of the study made people realise how prevalent and powerful obedience can be.

Milgram’s research was inspired by the obedience displayed by Nazi officers in World War II. No one disputes the importance of his research question. What has been debated, however, is whether the significance of the research topic justified exposing participants to possibly harmful psychological consequences. Even though no one in Milgram’s studies actually received the electric shocks, the participants were quite stressed during the study because they *thought* they were harming another person, until the experimenter finally told them the truth at the conclusion of the experiment. Under today’s provisions for the protection of human participants, Milgram’s classic experiments probably could not be conducted in their original form. (In an interesting twist, even though conducting an experiment like Milgram’s might be impossible now, in popular culture today individuals endure far greater stress and even humiliation in numerous unscripted television shows for the entertainment of viewers at home.)

Several studies in the history of social psychology have sparked ethical debate or controversy, including a famous study in which Philip Zimbardo and others simulated a prison environment in the basement of Stanford University’s psychology department building to study how ordinary people can be affected in extraordinary ways by the roles they are assigned in a prison environment (Haney et al., 1973). This study is discussed in detail in Chapter 14. Although the controversial studies such as Milgram’s and Zimbardo’s have received the most public attention, today virtually every social psychology study is evaluated for its ethics by other people before the study can be conducted. In the following sections, we describe current policies and procedures as well as continuing concerns about ethics and values in social psychological research.

Ethics review bodies and informed consent: protecting research participants

Nearly all universities and research organisations have human research ethics committees or institutional review boards that are designed to review and ensure the protection of human participants in research. Such bodies are a key safeguard for research, taking on the responsibility of reviewing research proposals to ensure that the welfare of participants is adequately protected.

Besides submitting their research to such ethical bodies, researchers must also abide by their profession’s code of ethics. The Australian Psychological Society and the New Zealand Psychological Society publish codes of ethics, though these are catered fairly specifically to clinical practice. The American Psychological Association (APA), publishes the *Ethical Principles of Psychologists and Code of Conduct* (2002, 2010), which addresses academic research questions more broadly. These codes consider a wide range of ethical issues, including those related to research procedures and practices. Such codes stipulate that researchers are obliged to guard the rights and welfare of all those who participate in their studies.

One such obligation is to obtain **informed consent**. Individuals must be asked whether they wish to participate in the research project and must be given enough information to make an informed decision. Participants must also know that they are free to withdraw from participation in the research at any point. Note that the APA code recognises that research ‘involving only anonymous questionnaires, naturalistic observations, or certain kinds of archival research’ may not require informed consent.

Debriefing: telling all

Just as participants should receive informed consent before they begin their participation in a study, they should also receive a **debriefing** at the end of it, especially if deception was used. Debriefing is a process of disclosure in which researchers fully inform their participants about the nature of the research in which they have participated. During a debriefing, the researcher goes over all procedures, explaining exactly what happened and why. The researcher discusses the purpose of the research, reveals any deceptions

informed consent

An individual’s deliberate, voluntary decision to participate in research, based on the researcher’s description of what will be required during such participation.

debriefing

A disclosure, made to participants after research procedures are completed, in which the researcher explains the purpose of the research, attempts to resolve any negative feelings, and emphasises the scientific contribution made by the participants’ involvement.

and makes every effort to help the participant feel good about having participated. A skilful debriefing takes time and requires close attention to the individual participant. Indeed, we have known students who became so fascinated by what they learned during a debriefing that it sparked their interest in social psychology, and eventually they became social psychologists themselves!

Values and science: points of view and new controversies

Ethical principles are based on moral values. These values set standards for and impose limits on the conduct of research, but do values affect science in other ways as well? Although many people hold science to a standard of complete objectivity, science can probably never be completely unbiased and objective because it is a human enterprise. Scientists choose what to study and how to study it; their choices are affected by personal values as well as by professional rewards. Indeed, some think that values *should* fuel scientific research and that scientists would be not only naive but also irresponsible to try to keep values out of the picture. Most social psychologists, however, strive to use the scientific methods described in this chapter to free themselves of their preconceptions and, thereby, to see reality more clearly and objectively, even if never perfectly.

One value on which the entire field agrees is that researchers must conduct and report their research with complete honesty. It is therefore both shocking and deeply disturbing when a case of academic fraud is revealed. One such example rocked the field towards the end of 2011, when a Dutch social psychologist was caught – and soon confessed to – having committed a massive amount of dishonesty, involving the fabrication of data published in dozens of studies for about a decade (Stroebe et al., 2012). The news of this scandal, together with a few other events during this period of time, caused some social psychologists to question the field's practices. One such event was the publication of a set of studies that claimed to find evidence for the seemingly outrageous idea that a future outcome can influence a past action (Bem, 2011). Not surprisingly, this publication set off a firestorm of criticism and controversy. Also around this time, social psychologist Jonathan Haidt made news by criticising the lack of diversity of political ideologies represented by social psychologists today and suggesting that this could bias research (Inbar & Lammers, 2012). This, too, triggered a good deal of criticism and controversy.

With all this in the air, a wave of suggestions for how the field should better protect itself against intentional or unintentional bias or dishonesty emerged. These suggestions included utilising more advanced and precise statistical methods to better and more fairly test researchers' ideas, demanding researchers to be more open for public scrutiny of their materials and data, and instituting much more emphasis on replicating each other's research (Bartlett, 2012; Funder et al., 2014; John et al., 2012; Young, 2012). It is important to note that these concerns are by no means specific to social psychology. In fact, several special sections of *Perspectives on Psychological Science*, an academic journal that publishes reviews across a range of areas of psychology, have been dedicated to questions of data practice, replication and reduction of bias. In fact, high-profile cases of fraud, for example, span all fields, including physics, medicine, history, literature and journalism (Coscarelli, 2012; Deer, 2011; Rayner, 2010; Sovacool, 2008). It is also important to note that the strong reaction by the social psychology community to these issues is a testament to how much it cares about its integrity and the importance for community members to work diligently to reassert and protect that integrity in the years to come.

TOPICAL REFLECTION

LOOKING BACK AND MOVING FORWARD

Your introduction to the field of social psychology is now complete. In this first chapter, you have gone step by step through a definition of social psychology, a review of its history and discussion of its future, an overview of its research methods and a consideration of ethics and values. As you study the material presented in the coming chapters, we invite you to share our enthusiasm. You can look forward to information that overturns common sense assumptions, to lively debate and heated controversy, and to a better understanding of yourself and other people. Welcome to the world according to social psychology. We hope you enjoy it!



REVIEW

WHAT IS SOCIAL PSYCHOLOGY?

Defining social psychology

- ◆ Social psychology is the scientific study of how individuals think, feel and behave in a social context.
- ◆ Like other sciences, social psychology relies on the systematic approach of the scientific method.
- ◆ Distinctive characteristics of social psychology include a focus on the individual as well as a broad perspective on a variety of social contexts and behaviours.

Social psychological questions and applications

- ◆ Social psychologists study a large variety of fascinating questions about people and their social worlds. The scope and relevance of these questions to so many important aspects of our lives make social psychology applicable to many careers and interests.

Social psychology and related fields: distinctions and intersections

- ◆ Social psychology is related to a number of different areas of study, including sociology, clinical psychology, personality psychology and cognitive psychology.
- ◆ Social psychology tends to focus on individuals, whereas sociology tends to focus on groups.

Social psychology and common sense

- ◆ Many social psychological theories and findings appear to be like common sense. The problems with common sense, however, is that it may offer conflicting explanations, provides no way to test which is correct and is often oversimplified and therefore misleading.

A BRIEF HISTORY OF SOCIAL PSYCHOLOGY

The birth and infancy of social psychology: 1880s to 1920s

- ◆ Early research by Triplett and Ringelmann established an enduring topic in social psychology: how the presence of others affects an individual's performance.
- ◆ The first social psychology textbooks in 1908 and 1924 began to shape the emerging field.

A call to action: 1930s to 1950s

- ◆ Social psychology began to flourish because the world needed an explanation for the violence of war and solutions to it.
- ◆ The 1940s and 1950s saw a burst of activity in social psychology, including by researchers Sherif and Lewin, that firmly established it as a major social science.

Confidence and crisis: 1960s to mid-1970s

- ◆ Stanley Milgram's experiments demonstrated individuals' vulnerability to the destructive commands of authority.
- ◆ While social psychology was expanding in many new directions, there was also intense debate about the ethics of research procedures, the validity of research results, and the generalisability of conclusions drawn from research.

An era of pluralism: mid-1970s to 1990s

- ◆ During the 1970s, social psychology began to take a pluralistic approach to its research methods, the integration of perspectives into a subfields such as social cognition, and the development of international and multicultural perspectives.

SOCIAL PSYCHOLOGY IN A NEW CENTURY: WHAT IS TRENDING TODAY?

- ◆ Several exciting themes and perspectives are helping to shape the beginning of social psychology's second century.

Integration of emotion, motivation and cognition

- ◆ Researchers are becoming more interested in how emotion, motivation and cognition can operate together in influencing individuals' thoughts, feelings and behaviours.
- ◆ Individuals sometimes are faced with a conflict: wanting to be right and wanting to feel good about oneself.

Biological and evolutionary perspectives

- ◆ Biological perspectives, including perspectives based on neuroscience, genetics and evolutionary principles, are being applied to the study of social psychological issues such as gender differences, relationships and aggression.

Cultural perspectives

- ◆ Increasing numbers of social psychologists are evaluating the universal generality or cultural specificity of their theories and findings by examining similarities and differences across cultures as well as between racial and ethnic groups within cultures.

Behavioural economics, embodied cognition and other interdisciplinary approaches

- ◆ The emerging subfield of behavioural economics studies how psychology – particularly social and cognitive psychology – relates to economic decision making.
- ◆ Research on embodied cognition focuses on the connections between the mind and the body, such as in how body gestures or movements can influence and be influenced by our thoughts and feelings.
- ◆ Social psychological research that intersects with political science can offer valuable insights into a variety of important contemporary issues.

New technologies and the online world

- ◆ Advances in technology, such as improved brain-imaging techniques, have given rise to groundbreaking research in social psychology.
- ◆ Virtual reality technology enables researchers to test questions that otherwise would be impractical, impossible or unethical.
- ◆ The Internet has fostered communication and collaboration among researchers around the world, enabled researchers to study participants from diverse populations, and inspired researchers to investigate whether various social psychological phenomena are similar or different online versus offline.

RESEARCH METHODS: WHAT AND WHY

- ◆ Studying research methods in psychology improves people's reasoning about real-life events and information presented by the media and other sources.
- ◆ Understanding the scientific evidence on which social psychological theories and findings are based will help you to better understand the research that is reported throughout this book, which in turn will help you learn the material more deeply.

DEVELOPING IDEAS: BEGINNING THE RESEARCH PROCESS

Getting ideas and finding out what has been done

- ◆ Ideas for research in social psychology come from everywhere: personal experiences and observations, events in the news and other research.
- ◆ Before pursuing a research idea, it is important to establish what research has already been done on that idea and related topics. Electronic databases are invaluable in this effort.

Hypotheses and theories

- ◆ Formulating a hypothesis is a critical step towards planning and conducting research.
- ◆ Theories in social psychology attempt to explain and predict social psychological phenomena. The best theories are precise, explain all the relevant information, and generate research that can support or disconfirm them. They should be revised and improved as a result of the research they inspire.

Basic and applied research

- ◆ The goal of basic research is to increase understanding of human behaviour.
- ◆ The goal of applied research is to increase understanding of real-world events and contribute to the solution of social problems.

REFINING IDEAS: DEFINING AND MEASURING SOCIAL PSYCHOLOGICAL VARIABLES

From the abstract to the specific: conceptual variables and operational definitions

- ◆ Researchers often must transform abstract, conceptual variables into specific operational definitions that indicate exactly how the variables are to be manipulated or measured.
- ◆ Construct validity is the extent to which the operational definitions successfully manipulate or measure the conceptual variables to which they correspond.

Measuring variables: using self-reports, observations and technology

- ◆ In self-reports, participants indicate their thoughts, feelings, desires and actions.
- ◆ Self-reports can be distorted by efforts to make a good impression as well as by the effects of the wording and context of questions.
- ◆ Observations are another way for social psychologists to measure variables.
- ◆ Interrater reliability, or the level of agreement among multiple observers of the same behaviour, is important when measuring variables using observation.
- ◆ New and improved technologies enable researchers to measure physiological responses, reaction times, eye movements and activity in regions of the brain.

TESTING IDEAS: RESEARCH DESIGNS

- ◆ Most social psychologists test their ideas by using objective, systematic and quantifiable methods.

Descriptive research: discovering trends and tendencies

- ◆ In descriptive research, social psychologists record how frequently or typically people think, feel or behave in particular ways.

- ◆ In observational research, researchers observe individuals systematically, often in natural settings.
- ◆ In archival research, researchers examine existing records and documents such as newspaper articles, diaries and published statistics.
- ◆ Surveys involve asking people questions about their attitudes, beliefs and behaviours.
- ◆ Survey researchers identify the population to which they want the results of the survey to generalise, and they select a sample of people from that population to take the survey.
- ◆ There are two types of research that are conducted in psychology – qualitative and quantitative. Quantitative research is concerned with quantifying things whereas qualitative research is concerned with understanding meaning.

Correlational research: looking for associations

- ◆ Correlational research examines the association between variables.
- ◆ A correlation coefficient is a measure of the strength and direction of the association between two variables.
- ◆ Positive correlations indicate that as scores on one variable increase, scores on the other variable increase, and that as scores on one variable decrease, scores on the other decrease.
- ◆ Negative correlations indicate that as scores on one variable increase, scores on the other decrease.
- ◆ Correlation does not indicate causation; the fact that two variables are correlated does not necessarily mean that one causes the other.

Experiments: looking for cause and effect

- ◆ Experiments require (1) control by the experimenter over events in the study, and (2) random assignment of participants to conditions.
- ◆ Random sampling concerns how people are selected to be in a study, whereas random assignment concerns how people who are in the study are assigned to the different conditions of the study.
- ◆ Experiments are often conducted in a laboratory so that the researchers can have control over the context and can measure variables precisely.
- ◆ Field experiments are conducted in real-world settings outside the laboratory.
- ◆ Results that are statistically significant could have occurred by chance 5 or fewer times in 100 possible outcomes.
- ◆ The rapidly increasing use of the Internet to collect data allows for far more diverse sets of participants in social psychological research today.

Meta-analysis: combining results across studies

- ◆ Meta-analysis uses statistical techniques to integrate the quantitative results of different studies.

ETHICS AND VALUES IN SOCIAL PSYCHOLOGY

- ◆ Ethical issues are particularly important in social psychology because of the use of deception in some research.

Ethics review bodies and informed consent: protecting research participants

- ◆ Ethics review bodies are responsible for reviewing research proposals to ensure that the welfare of participants is adequately protected.

- ◆ Professional association codes of ethics require psychologists to secure informed consent from research participants.

Debriefing: telling all

- ◆ During a debriefing at the end of a study the researchers disclose the facts about the study and make sure that the participant does not experience any distress. This is especially important if deception was used.

Values and science: points of view and new controversies

- ◆ Moral values set standards for and impose limits on the conduct of research.

- ◆ Various views exist on the relation between values and science. Few believe that there can be a completely value-free science, but some advocate trying to minimise the influence of values on science, whereas others argue that values should be recognised and encouraged as an important factor in science.
- ◆ Controversies in social psychology have led to a variety of suggestions for how the field should better protect itself against intentional or unintentional bias or dishonesty, including more openness to scrutiny, use of different statistical analyses and greater emphasis on replication.

ONLINE STUDY RESOURCES



Visit <http://login.cengagebrain.com> and use the access code that comes with this book for 12 months' access to the resources and

study tools for this chapter. The CourseMate website contains glossaries, flashcards, quizzes, videos and more.

KEY TERMS

applied research (17)
 basic research (17)
 behavioural economics (14)
 behavioural genetics (12)
 bogus pipeline technique (19)
 confederate (30)
 confound (28)
 construct validity (18)
 correlation coefficient (23)
 correlational research (22)
 cross-cultural research (12)
 culture (12)
 debriefing (32)
 deception (30)
 dependent variable (27)
 embodied cognition (14)
 evolutionary psychology (12)
 experiment (25)
 experimental realism (30)
 experimenter expectancy effects (29)

external validity (29)
 hypothesis (17)
 independent variable (27)
 informed consent (32)
 interactionist perspective (9)
 internal validity (28)
 interrater reliability (19)
 meta-analysis (31)
 multicultural research (12)
 mundane realism (30)
 operational definition (18)
 qualitative research (22)
 quantitative research (22)
 random assignment (25)
 random sampling (21)
 social cognition (11)
 social neuroscience (12)
 social psychology (4)
 subject variable (28)
 theory (17)

REVIEW QUIZ

- 1 Social psychology is primarily concerned with the ways in which:
 - a group factors contribute to the functioning of social institutions.
 - unconscious forces influence conscious motivations and desires.
 - specific personality characteristics predict behaviour across situations.
 - individuals think, feel, and behave with regard to others.
- 2 Social psychologists use the scientific method when they study human behaviour in order to:
 - a allow other social psychologists to attempt to replicate the findings.
 - b ensure that the right people get credit for the research.
 - c ensure that their research is in line with ethical standards.
 - d encourage social psychologists to conduct more basic, rather than applied, research.
- 3 Social psychology differs from common sense in that:
 - a common sense tends to produce more accurate knowledge about human behaviour than social psychology.
 - b common sense captures the full complexity of human behaviour.
 - c social psychology is far more intuitive than common sense.
 - d social psychology relies on the scientific method to test its theories.

- 4 Among the following social psychologists, who was one of the original founders of social psychology?
- Norman Triplett
 - Stanley Milgram
 - Michael Norton
 - Philip Zimbardo
- 5 Which of the following is a new technology used in contemporary social psychological research?
- Positron emission tomography
 - Functional magnetic resonance imaging
 - Virtual reality
 - All of these

SEARCH ME! PSYCHOLOGY ACTIVITIES



A FREE 12-month subscription to Search me! Psychology is included with each new copy of *Social Psychology*. Login to Search me! through <http://login.cengage.com> using the access code that comes with this book. Fast and convenient, this resource provides you with 24-hour access to full-text articles from hundreds of scholarly and popular journals, eBooks, magazines and newspapers.

Complete the following activities using Search me!

Activity 1: Qualitative methods

Search for the article 'High risk drinking among non-affiliated college students' (Smith, Finneran & Droppa, 2014). In this article the authors take a semi-structured interview approach to elicit rich information about the problems associated with drinking practices in university students. Pay particular attention to the method and the analysis of the data used. Compare this article and the

methods used with the article titled 'Lifting the domestic violence cloak of silence: Resilient Australian women's reflected memories of their childhood experiences of witnessing domestic violence' (O'Brien, Cohen, Pooley & Taylor, 2013). This research takes a case study approach to data collection.

Activity 2: The qualitative–quantitative divide

Access the article 'Deconstructing the qualitative–quantitative divide in health research' (Baum, 1993). The article discusses the debates about methodologies used to collect data in health research. Reflect on how this might translate into collecting data in social psychological research and establish common themes with the content in this chapter.

Activity 3: Research with cultural minorities

Access the article 'Beyond research on cultural minorities: Challenges and implications of research as situated cultural practice' (Arzubiaga, Artiles, King & Harris-Murri, 2008). The authors examine the cultural nature of research and the theoretical and methodological limits of traditional practice of research.

WEBLINKS

Australian Psychological Society: Ethics

www.psychology.org.au/about/ethics

A link to the Australian Psychological Society's *Code of Ethics*, with details of the ethical code of conduct applicable to practice in Australia and a number of other documents of relevance.

New Zealand Psychological Society: Publications and media

www.psychology.org.nz/publications-media/#.U5PKji_5Px8

A link to the New Zealand Psychological Society's *Code of Ethics*. A similar site with documents relevant to practice in New Zealand.

Reproducibility project: Psychology

<https://osf.io/ezcuj>

The website for the Reproducibility Project, a crowdsourced empirical effort to estimate the reproducibility of a sample of

studies from scientific literature. The project is a large-scale, open collaboration currently involving more than 150 scientists from around the world.

Social psychology in Australia: Past and present

<http://e-book.lib.sjtu.edu.cn/iupsys/Origins/Adair/adair06.html>

A link to a thorough overview of the history of social psychology in Australia by Norman T. Feather of Flinders University, South Australia.

Society of Australasian Social Psychologists

www.sasp.org.au

The website for the Society of Australasian Social Psychologists. It contains links to funding opportunities and events of relevance to social psychology.