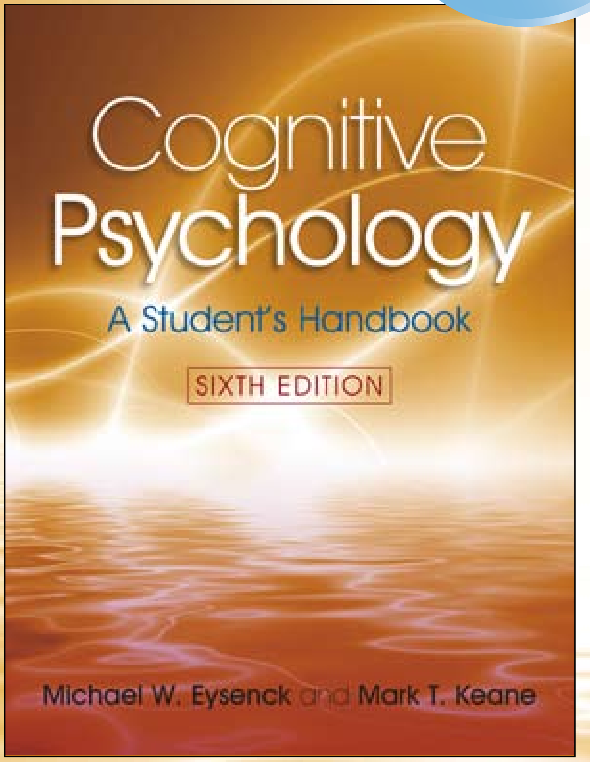
New Edition of **Textbook!**

EXAMINATION COPY AVAILABLE!

***"The new edition of this book improves a text that was already a leader.** The authors have injected more information about the neuroscientific bases of the cognitive phenomena they discuss, in line with recent trends in the field. Students will greatly profit from this text, and professors will enjoy reading it, too."*
- Henry L. Roediger, III, James S. McDonnell Professor of Psychology, Washington University in St. Louis, USA



- Now in full colour
- Increased emphasis on cognitive neuroscience
- Two new chapters: *Cognition and Emotion* and *Consciousness*
- Innovative online *Student Learning Program* (CogSLP), including simulations of key experiments, links to key journal articles and practice tests, is now **free-of-charge** to departments that adopt the textbook
- Online instructor resources, including a multiple-choice question test bank, a PowerPoint Lecture Course and a bank of textbook figures, are also **free-of-charge** to lecturers who recommend this textbook
- Download a free sample chapter now!

***"This new edition has reinforced my view that this is the best textbook on advanced undergraduate cognitive psychology available to support student learning.** ... The introductory chapter providing explanatory overviews is particularly helpful, and I very much welcome the increase in cognitive neuroscience elements throughout the chapters. The explanation of the various brain imaging techniques makes the descriptions of these studies very accessible to students."* **- Robert H. Logie, Department of Psychology, University of Edinburgh, UK**

Psychology Press
Taylor & Francis Group

www.psypress.com/ek6

Cognitive Psychology

A Student's Handbook, 6th Edition

By **Michael W. Eysenck,** Professor of Psychology, Royal Holloway University of London, UK and **Mark T. Keane,** Chair of Computer Science, University College Dublin, Ireland

Previous editions have established this best-selling student handbook as *the* cognitive psychology textbook of choice, both for its academic rigour and its accessibility. This sixth edition continues this tradition. It has been substantially updated and revised to reflect new developments in the field (especially within cognitive neuroscience).

Traditional approaches are combined with the cutting-edge cognitive neuroscience approach to create a comprehensive, coherent and totally up-to-date overview of all the main fields in cognitive psychology. The major topics covered include perception, attention, memory, concepts, language, problem solving, and reasoning, as well as some applied topics such as everyday memory.

New to this edition:

- Full colour throughout, with numerous colour illustrations including photographs and brain scans
- Increased emphasis on cognitive neuroscience, reflecting its growing influence on cognitive psychology
- A **new** chapter on cognition and emotion
- A **whole** chapter on consciousness
- Increased coverage of applied topics such as recovered memories, medical expertise, informal reasoning, and emotion regulation incorporated throughout the textbook
- More focus on individual differences in areas including long-term memory, expertise, reasoning, and emotion regulation.

The textbook is packed full of useful features that will engage students and aid revision, including key terms, which are new to this edition, chapter summaries, and suggestions for further reading.

Written by one of the leading textbook authors in psychology, this thorough and user-friendly textbook will continue to be essential reading for all undergraduate students of psychology. Those taking courses in computer science, education, linguistics, physiology, and medicine will also find it an invaluable resource.

This edition is accompanied by a rich array of supplementary materials which will be made available to qualifying adopters completely free of charge.

January 2010: 7½x10: 744pp
Hardcover: 978-1-84169-539-6: **£54.95**
Paperback: 978-1-84169-540-2: **£29.95**

Sample pages from *Cognitive Psychology: A Student's Handbook, 6th Edition* by Michael W. Eysenck and Mark T. Keane

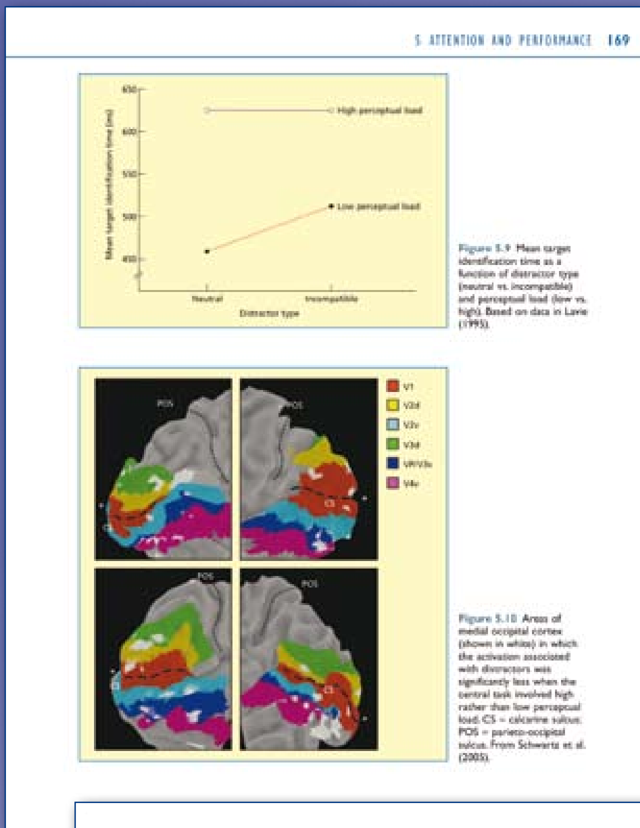


Figure 5.9 Mean target identification time as a function of distractor type (neutral vs. incompatible) and perceptual load (low vs. high). Based on data in Lavie (1995).

Figure 5.10 Areas of medial occipital cortex (shown in white) in which the activation associated with distractors was significantly less when the central task involved high rather than low perceptual load. CS = calcarine sulcus; POS = parieto-occipital sulcus. From Schwartz et al. (2005).

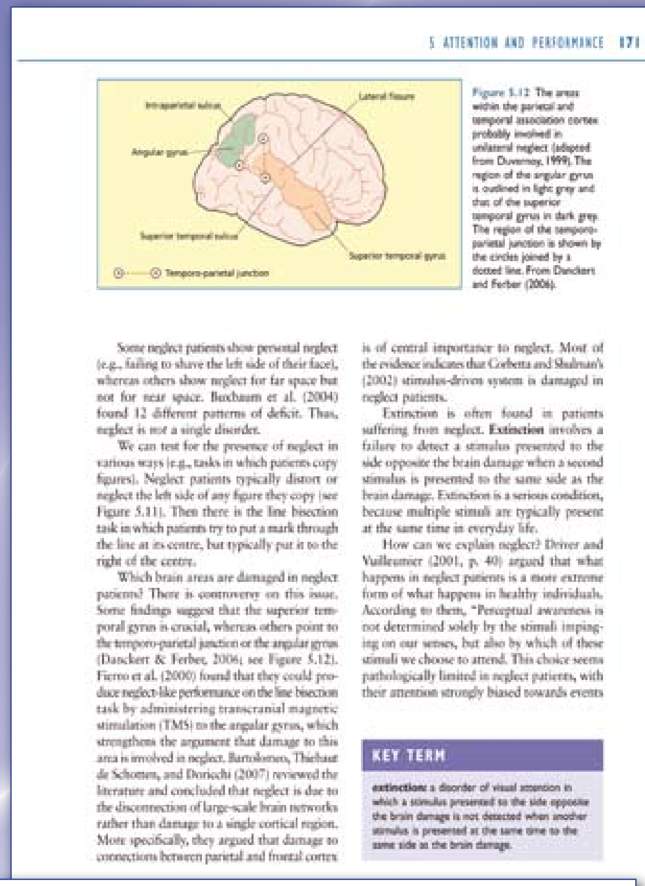


Figure 5.12 The areas within the parietal and temporal association cortex probably involved in unilateral neglect (adapted from Duvernoy, 1999). The region of the angular gyrus is outlined in light grey and that of the superior temporal gyrus in dark grey. The region of the temporo-parietal junction is shown by the circles joined by a dotted line. From Danckert and Ferber (2006).

Some neglect patients show personal neglect (e.g., failing to shave the left side of their face), whereas others show neglect for far space but not for near space. Buxbaum et al. (2004) found 12 different patterns of deficit. Thus, neglect is not a single disorder.

We can test for the presence of neglect in various ways (e.g., tasks in which patients copy figures). Neglect patients typically distort or neglect the left side of any figure they copy (see Figure 5.11). Then there is the line bisection task in which patients try to put a mark through the line at its centre, but typically put it to the right of the centre.

Which brain areas are damaged in neglect patients? There is controversy on this issue. Some findings suggest that the superior temporal gyrus is crucial, whereas others point to the temporo-parietal junction or the angular gyrus (Danckert & Ferber, 2006; see Figure 5.12). Fierro et al. (2000) found that they could produce neglect-like performance on the line bisection task by administering transcranial magnetic stimulation (TMS) to the angular gyrus, which strengthens the argument that damage to this area is involved in neglect. Bartolomeo, Thiebaut de Schotten, and Doricchi (2007) reviewed the literature and concluded that neglect is due to the disconnection of large-scale brain networks rather than damage to a single cortical region. More specifically, they argued that damage to connections between parietal and frontal cortex is of central importance to neglect. Most of the evidence indicates that Corbetta and Shulman's (2002) stimulus-driven system is damaged in neglect patients.

Extinction is often found in patients suffering from neglect. **Extinction** involves a failure to detect a stimulus presented to the side opposite the brain damage when a second stimulus is presented to the same side as the brain damage. Extinction is a serious condition, because multiple stimuli are typically present at the same time in everyday life.

How can we explain neglect? Driver and Vuilleumier (2001, p. 40) argued that what happens in neglect patients is a more extreme form of what happens in healthy individuals. According to them, "Perceptual awareness is not determined solely by the stimuli impinging on our senses, but also by which of these stimuli we choose to attend. This choice seems pathologically limited in neglect patients, with their attention strongly biased towards events

KEY TERM

extinction: a disorder of visual attention in which a stimulus presented to the side opposite the brain damage is not detected when another stimulus is presented at the same time to the same side as the brain damage.

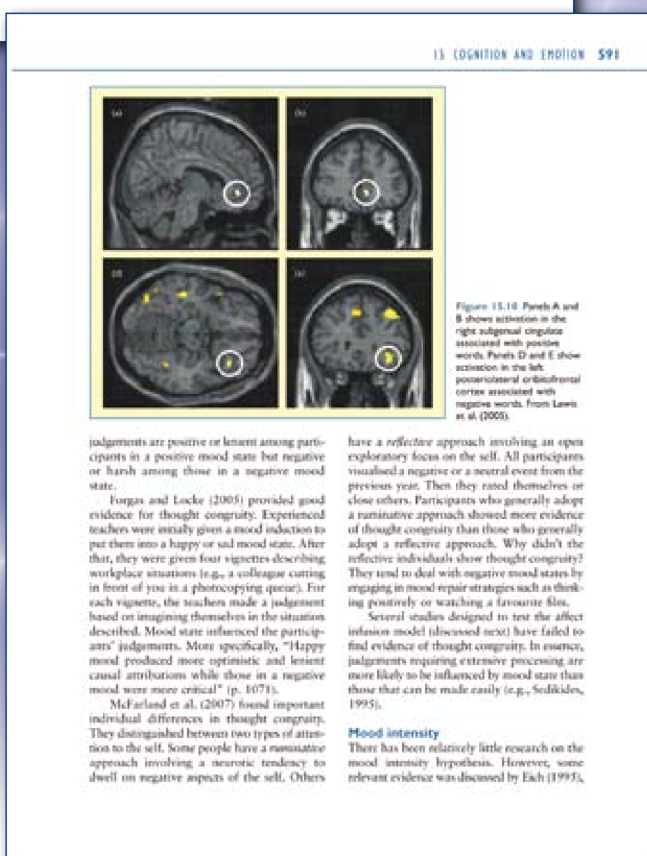


Figure 15.10 Panels A and B shows activation in the right subgenual cingulate associated with positive words. Panels D and E show activation in the left posterolateral orbitofrontal cortex associated with negative words. From Lewis et al. (2005).

judgments are positive or lenient among participants in a positive mood state but negative or harsh among those in a negative mood state.

Forgas and Locke (2005) provided good evidence for thought congruity. Experienced teachers were initially given a mood induction to put them into a happy or sad mood state. After that, they were given four vignettes describing workplace situations (e.g., a colleague cutting in front of you in a photocopying queue). For each vignette, the teachers made a judgement based on imagining themselves in the situation described. Mood state influenced the participants' judgements. More specifically, "Happy mood produced more optimistic and lenient causal attributions while those in a negative mood were more critical" (p. 1071).

McFarland et al. (2007) found important individual differences in thought congruity. They distinguished between two types of attention to the self. Some people have a *ruminative* approach involving a neurotic tendency to dwell on negative aspects of the self. Others have a *reflective* approach involving an open exploratory focus on the self. All participants visualised a negative or a neutral event from the previous year. Then they rated themselves or close others. Participants who generally adopt a ruminative approach showed more evidence of thought congruity than those who generally adopt a reflective approach. Why didn't the reflective individuals show thought congruity? They tend to deal with negative mood states by engaging in mood repair strategies such as thinking positively or watching a favourite film.

Several studies designed to test the affect infusion model (discussed next) have failed to find evidence of thought congruity. In essence, judgments requiring extensive processing are more likely to be influenced by mood state than those that can be made easily (e.g., Sedikides, 1995).

Mood intensity

There has been relatively little research on the mood intensity hypothesis. However, some relevant evidence was discussed by Eich (1995),

see Chapter 6). He presented visual displays of three rows of four letters very briefly and found that participants could recall only four or five of them. This suggested there was very limited conscious awareness of the display. However, Sperling (1960) and Landman et al. (2003) found that this was due more to memory limitations when reporting the letters than to strict limits on conscious awareness.

Another problem with using behavioural measures to assess conscious awareness is that different measures often fail to agree. For example, consider research on subliminal perception (see Chapter 2). Observers sometimes show "awareness" of visual stimuli when asked to make forced-choice decisions about them (objective threshold) but not when asked to report their experience (subjective threshold).

The vegetative state: Behavioural versus functional neuroimaging measures of consciousness

The limitations of behavioural evidence for conscious awareness have been shown in research on the **vegetative state**, which is defined by the following criteria: "There must be no evidence of awareness of self or environment, no response to external stimuli of a kind suggesting volition or purpose, and no evidence of language comprehension or expression" (Owen & Coleman, 2008, p. 235). The vegetative state is found in brain-damaged patients who emerge from a coma and display "wakefulness without awareness". Thus, the behavioural evidence indicates very strongly that patients in the vegetative state totally lack conscious awareness.

Important research by Owen et al. (2006) using functional neuroimaging has suggested that these patients may possess some conscious awareness. They studied a 23-year-old woman in the vegetative state as a result of a very serious road accident in July 2005. She was asked to imagine playing a game of tennis or visiting the rooms of her house starting from the front door. These two tasks were associated with different patterns of brain activity as assessed by functional magnetic resonance imaging (fMRI; see Glossary) – for example, only imagining playing tennis was associated with activation in the supplementary motor area. Of key importance, the patterns of brain activity were very similar to those shown by healthy participants. This brain activation was not triggered automatically by the words "tennis" or "house"; it lasted for the entire 30 seconds of each trial and included brain areas that do not respond automatically to familiar words.

Owen et al. (2006) carried out another test of the patient's conscious awareness. She was presented with sentences containing ambiguous words (italicised) (e.g., "The creak came from a beam in the ceiling"). She showed greater brain activity in the left inferior frontal region to ambiguous than to non-ambiguous words, showing that she engaged in full semantic processing of the sentences.

These findings suggest that the patient was consciously aware and purposefully following instructions (see Owen & Coleman, 2008, for a review). Of particular relevance to the current discussion, these findings suggest that functional neuroimaging sometimes provides a more valid assessment of the presence of conscious experience than behavioural measures. However, it is possible (although unlikely) that the patient's brain activity reflected unconscious but relatively sophisticated processing.

KEY TERM

vegetative state: a condition produced by brain damage in which there is wakefulness but an apparent lack of awareness and purposeful behaviour.

Visit **www.psypress.com/ek6** to:

- Download a free sample chapter
- Request your examination copy
- Get free preview access to the online resources
- Buy online at a 10% discount with free shipping.

Contents

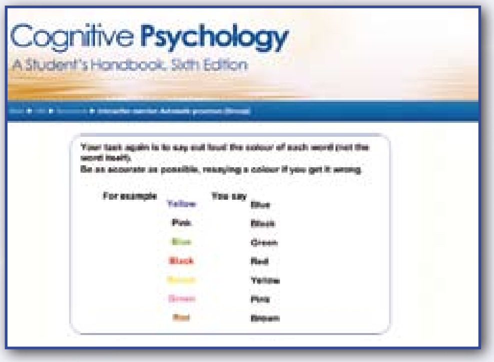
Online Resources

Cognitive Psychology: A Student's Handbook, 6th Edition is accompanied by a rich array of supplementary materials which will be made available to qualifying adopters and their students **completely free of charge.** Our online resources are hosted on Moodle.

The unique *Cognitive Psychology Student Learning Program* (CogSLP)

Each chapter is condensed into a concise summary version, providing an effective set of course notes. The summary chapters enhance and elucidate the book's content, and include page references to the textbook. These summaries also provide a framework for other interactive multimedia materials for students, including:

- Interactive exercises (including simulations of key experiments)
- Active reference links to journal articles
- Multiple-choice tests for practice
- Fill-in-the-blank questions for practice
- Key term definitions
- Case studies
- Research activities
- Links to related websites.



An interactive exercise

For preview access or queries, email julie.norton@informa.com.

Instructor resources

- A chapter-by-chapter PowerPoint lecture course
- A separate set of PowerPoint slides featuring the figures from the textbook
- A multiple-choice question test bank for every chapter. These tests are available for download by instructors in a variety of helpful formats.

Please send me a free-of-charge examination copy

Eysenck & Keane	Cognitive Psychology, 6th Edition	978-1-84169-540-2

Name

Department

University/ College

Address

Postal Code

Country

Email

Telephone

Fax

Course Title

Course Level

Textbook Currently Used

☐ Please check here if you do not want to join the Psychology Press mailing list.

☐ Please check here if you do not wish to receive special offers and updates by email.

We offer complimentary examination copies of this title to qualifying adopters. Examination copies are sent at the publisher's discretion.

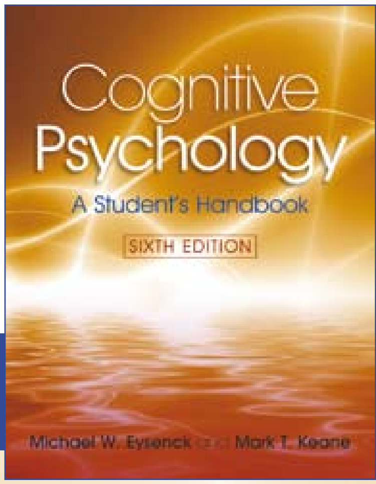
Please send to Marketing Support, Psychology Press, 27 Church Road, Hove, East Sussex, BN3 2FA, UK.
Tel: +44 (0)207 017 7747 • Fax: +44 (0)207 017 6717 • Email: julie.norton@informa.com

Please add me to the Psychology Press mailing list! Email your details to **alex.renner@informa.com** quoting "EKEd6".

Psychology Press
Taylor & Francis Group

27 Church Road
Hove
East Sussex
BN3 2FA, UK

www.psypress.com



Change of address? Email
alex.renner@informa.com, quoting 'EKEd6'.

Mixed Sources
Product group from well-managed forests and recycled wood or fiber
www.fsc.org Cert no. TT-COC-002340
© 1996 Forest Stewardship Council

an informa business

Psychology Press is part of the Taylor & Francis group,
a trading division of Informa UK Ltd.
Registered in England under no. 1072954
Registered Office: Mortimer House,
37-41 Mortimer Street, London W1T 3JH

Cognitive Psychology: A Student's Handbook, 6th Edition
by Michael W. Eysenck and Mark T. Keane

"I have recommended Eysenck and Keane from the very first version, and will continue to do so with this exciting new edition. The text is among the very best for the breadth and depth of material, and is written in a clear, approachable style that students value in an area that they often find to be one of the more difficult parts of psychology. This new edition brings the area right up to date and covers all the key ideas and findings since the previous edition."

- Trevor Harley, Dean and Chair of Cognitive Psychology, University of Dundee, UK

"Eysenck and Keane present a fresh look at cutting-edge issues in psychology, at a level that can engage even beginning students. With the authority of experts well-known in their fields they organize a welter of studies into a coherent story that is bound to capture everyone's interest."

- Bruce Bridgeman, Professor of Psychology and Psychobiology, University of California at Santa Cruz, USA

"Each chapter is structured around the main theoretical issues associated with the chapter topic, and the behavioural and neuroscience methods, phenomena, and data that inform these theoretical perspectives. In general the coverage is remarkably thorough, and a particularly strong aspect is that in addition to providing an historical perspective on the theoretical issues, there is also a clear focus on cutting-edge research and ideas."

- Charles L. Folk, Department of Psychology, Villanova University, USA

"Top of the premier league of textbooks on cognition, each edition of this classic improves on the previous one. Whether you are a keen student or an active researcher, keep this book close at hand."

- Mick Power, Professor of Clinical Psychology, University of Edinburgh, UK

ISBN: 978-0-415-88122-7
90000
9 780415 881227