

Contents

Key
Skills
Key
Terms

Preface

xv

1 Cognitive psychology in a changing world

1

- Introduction: Our world 1
- What is cognitive psychology? 2
- A brief history of cognitive psychology 3
- A global discipline 9
- Cognitive psychology today 10
- Shaping the world 10
- Understanding the world 12
- Experiencing the world 15
- Final thoughts: Five ways in which cognitive psychology can make a difference 17
- Chapter summary 18
- Multiple choice questions 18
- Reflective questions 19
- Key readings 19
- Keywords 20

2 Problem solving

21

- Introduction 21
- Defining and categorising problems 22
- Gaining insight: Problem restructuring and solution discovery 31
- Using prior knowledge: Heuristic strategies and analogising in problem solving 49
- Theoretical integration 67
- Chapter summary 70
- Multiple choice questions 73
- Reflective questions 75
- Key readings 76
- Keywords 76

3 Creativity and expertise

79

- Introduction 79
- Creative cognition 80
- The nature of expertise 104
- The determinants of expertise 114
- Chapter summary 119
- Multiple choice questions 121

Reflective questions	123
Key readings	123
Keywords	124

4 Deductive reasoning

127

Introduction	127
The nature of deductive reasoning	128
Conditional reasoning	130
Theories of conditional reasoning	136
The abstract Wason selection task	146
Thematic selection tasks: Content and context effects	154
Syllogistic reasoning	157
Further developments in dual-process theorising	169
Human rationality	177
Informal reasoning	178
Chapter summary	181
Multiple choice questions	183
Reflective questions	185
Key readings	185
Keywords	186

5 Concepts and categories

189

Introduction	189
The importance of categories	190
Properties of categories	193
How are categories mentally represented?	194
Ad hoc cognition	206
Chapter summary	207
Multiple choice questions	207
Reflective questions	209
Key readings	210
Keywords	210

6 Judgement and decision making

211

Introduction	211
The nature of judgement and decision making	212
Making probability judgements	214
Making decisions	236
Complex and real-world decision making	248
Chapter summary	255
Multiple choice questions	257
Reflective questions	259
Key readings	259
Keywords	259

7 Reading

263

Introduction	263
Reading words	264
Reading aloud	277
Reading text	286

8 Chapter summary	302
Multiple choice questions	303
Reflective questions	305
Key readings	306
Keywords	306
8 Speech and other language issues	309
Introduction	309
Speech perception	310
Speech recognition	311
Models of spoken word recognition	315
Other types of speech	319
Language production	322
Producing speech	323
Writing	335
Language and thought	336
Bilingualism	339
Language and ageing	345
Chapter summary	347
Multiple choice questions	348
Reflective questions	350
Key readings	350
Keywords	350
9 Memory and forgetting	353
Introduction	353
The architecture of memory	353
Working memory	365
Long-term memory	377
Theories of forgetting	385
Chapter summary	393
Multiple choice questions	394
Reflective questions	396
Key readings	396
Keywords	396
10 Everyday memory	399
Introduction	399
Autobiographical memory	400
Eyewitness testimony	412
False memories	420
Prospective memory	427
Chapter summary	433
Multiple choice questions	434
Reflective questions	436
Key readings	436
Keywords	437

11 Attention	439
Introduction	439
Focused auditory attention	440
Focused visual attention	443
Visual search	451
Cross-modal attention	456
Divided attention	459
Attention as a skill	465
Failures in attention	468
Chapter summary	473
Multiple choice questions	474
Reflective questions	476
Key readings	476
Keywords	476
12 Perception	479
Introduction	479
Bottom-up versus top-down perceptual processing	480
Two visual systems	486
Basic processes in vision	490
Object recognition	495
Face recognition	500
Perception and action	507
Perception in other domains	514
Chapter summary	519
Multiple choice questions	520
Reflective questions	522
Key readings	522
Keywords	522
13 The nature of consciousness	525
Introduction	525
What is consciousness?	527
Methods for studying consciousness	529
Theories of consciousness	531
Evidence from neuropsychological patients	534
The neural correlates of consciousness	535
Detecting consciousness	537
The purpose of consciousness	540
Conscious versus nonconscious processing	542
Consciousness and free will	554
Chapter Summary	559
Multiple choice questions	560
Reflective questions	562
Key readings	562
Keywords	562

14 Cognition and the body	565
Introduction 565	
Body metaphors and bodily states 566	
Defining embodied cognition 569	
Radical embodied cognition 570	
Robotics 570	
Animals 571	
Humans 571	
Mirror neurons 572	
Evaluation 573	
Diet and cognition 574	
Omega-3 fatty acids 575	
Vitamins 576	
Flavonoids 576	
Trans and saturated fats 578	
Breakfast 578	
Observational versus randomised controlled trials 579	
RCT evidence 579	
Evaluation 583	
Illness and cognition 583	
Stroke 584	
Depression 586	
Liver and kidney disease 586	
Obesity 588	
Evaluation 590	
Chapter summary 590	
Multiple choice questions 591	
Reflective questions 593	
Key readings 593	
Keywords 594	
15 The future of cognitive psychology: Issues and opportunities	595
Introduction 595	
Replication crisis 596	
Research in cognitive psychology 598	
Reading a journal article and critical evaluation 616	
How cognitive psychology can make you a better student 619	
Future directions for cognitive psychology 623	
Chapter summary 626	
Multiple choice questions 626	
Reflective questions 628	
Key readings 629	
Keywords 629	
<i>References</i>	631
<i>Index</i>	715