

Psychology Press Classic Editions

READING, WRITING AND DYSLEXIA

A COGNITIVE ANALYSIS

Andrew W. Ellis

READING, WRITING AND DYSLEXIA

This is a classic edition of Andrew Ellis' acclaimed introduction to the scientific study of reading, writing and dyslexia, which now includes a new introduction from the author. The book describes the remarkable skills of reading and writing – how we acquire them, how we exercise them as skilled readers and writers, and what can go wrong with them in childhood disorders or as a result of brain damage. The new introduction reflects on key research developments since the book was first published.

Reading, Writing and Dyslexia provides an engaging introduction to the field. It remains essential reading for all students of psychology and education, whilst also being accessible to parents and teachers.

Andrew W. Ellis is Emeritus Professor of Psychology at the University of York, UK. *Reading, Writing and Dyslexia* was the first title published by Psychology Press in 1984, and was followed by *Human Cognitive Neuropsychology* (with Andy Young) and *The Psychology of Language and Communication* (with Geoffrey Beattie). He was made a Fellow of the British Psychological Society and is an Honorary Fellow of the Royal College of Speech and Language Therapists.

Psychology Press and Routledge Classic Editions

The Psychology Press and Routledge Classic Editions series celebrates a commitment to excellence in scholarship, teaching, and learning within the field of Psychology. The books in this series are widely recognized as timeless classics, of continuing importance for both students and researchers. Each title contains a completely new introduction which explores what has changed since the books were first published, where the field might go from here, and why these books are as relevant now as ever. Written by recognized experts, and covering core areas of the subject, the Psychology Press and Routledge Classic Editions series presents fundamental ideas to a new generation.

The Ecological Approach to Visual Perception (Classic Edition)

By James J. Gibson

Essentials of Human Memory (Classic Edition)

By Alan Baddeley

Uncommon Understanding (Classic Edition): Development and Disorders of Language Comprehension in Children

By D.V.M. Bishop

Essential Cognitive Psychology (Classic Edition)

By Alan J. Parkin

Human Cognitive Neuropsychology (Classic Edition)

By Andrew W. Ellis and Andrew W. Young

Lev Vygotsky (Classic Edition): Revolutionary Scientist

By Fred Newman and Lois Holzman

The New Psychology of Language (Classic Edition): Cognitive and Functional Approaches To Language Structure, Volume I

Edited by Michael Tomasello

The New Psychology of Language (Classic Edition): Cognitive and Functional Approaches To Language Structure, Volume II

Edited by Michael Tomasello

Principles of Learning and Memory (Classic Edition)

By Robert G. Crowder

Psychologists on Psychology (Classic Edition)

By David Cohen

Attention and Emotion (Classic Edition)

By Adrian Wells and Gerald Matthews

Cross-Cultural Roots of Minority Child Development (Classic Edition)

Edited by Patricia M. Greenfield and Rodney R. Cocking

Mind and Media: The Effects of Television, Video Games, and Computers (Classic Edition)

By Patricia M. Greenfield

The Cognitive Neuropsychology of Schizophrenia (Classic Edition)

By Christopher Donald Frith

Patterns of Attachment: A Psychological Study of the Strange Situation (Classic Edition)

By Mary D. Salter Ainsworth, Mary C. Blehar, Everett Waters and Sally Wall

Romance and Sex in Adolescence and Emerging Adulthood: Risks and Opportunities (Classic Edition)

Edited by Alan Booth, Ann C. Crouter and Anastasia Snyder

Statistical Misconceptions (Classic Edition)

By Schuyler W. Huck

Affect Regulation and the Origin of the Self: The Neurobiology of Emotional Development (Classic Edition)

By Allan N. Schore

Reading, Writing and Dyslexia (Classic Edition): A Cognitive Analysis

By Andrew W. Ellis

What If There Were No Significance Tests? (Classic Edition)

Edited by Lisa L. Harlow, Stanley A. Mulaik and James H. Steiger

Couples in Conflict (Classic Edition)

Edited By Alan Booth, Ann C. Crouter, Mari L. Clements and Tanya Boone-Holladay

Phonological Skills and Learning to Read (Classic Edition)

By Usha Goswami and Peter Bryant

Praise for the first edition:

"Every course in foreign language pedagogy should require this book . . . It is the best introduction to the state of our knowledge about psychological processes involved in reading and writing that I have come across, and one of the clearest and most concise scholarly books I have read.

Our profession has produced lamentably few 'classics', works that should be part of every professional's library. This book deserves to become one of them"

Bruce Beatie in The Modern Language Journal

"Over the past decade, many cognitive psychologists have focused their attention on reading processes in both normal and dyslexic readers. Ellis' book reviews some of the most important studies in this broad field and presents a clear theoretical framework for understanding individual differences in reading and spelling processes . . . [This] book is one of the most clearly organized and readable books in the field. It provides an excellent introduction to the current major issues in reading theory and dyslexia."

Richard Olson in Contemporary Psychology

"[Reading, Writing and Dyslexia] . . . is splendidly written and is to be recommended for undergraduates and teachers as well as those researchers who have not yet come to grips with the style of theorizing that Ellis so excellently employs."

John Morton, Bulletin of the British Psychological Society

"Ellis' clarity of analysis owes much to his thinking about reading and spelling in terms of the relationships between written language and the spoken form from which it is derived. It deserves to be widely read by psychologists and others with direct concerns for reading development."

Geoffrey Underwood in Journal of Research in Reading

READING, WRITING AND DYSLEXIA

A cognitive analysis Classic Edition

Andrew W. Ellis



Classic edition published 2016 by Routledge

2 Park Square, Milton Park, Abingdon, Oxon OX14 4RN

and by Routledge

711 Third Avenue, New York, NY 10017

Routledge is an imprint of the Taylor & Francis Group, an informa business

© 2016 Andrew W. Ellis

The right of Andrew W. Ellis to be identified as author of this work has been asserted by him in accordance with sections 77 and 78 of the Copyright, Designs and Patents Act 1988.

All rights reserved. No part of this book may be reprinted or reproduced or utilised in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including photocopying and recording, or in any information storage or retrieval system, without permission in writing from the publishers.

Trademark notice: Product or corporate names may be trademarks or registered trademarks, and are used only for identification and explanation without intent to infringe.

First edition published by Psychology Press 1984 Second edition published by Psychology Press 1993

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

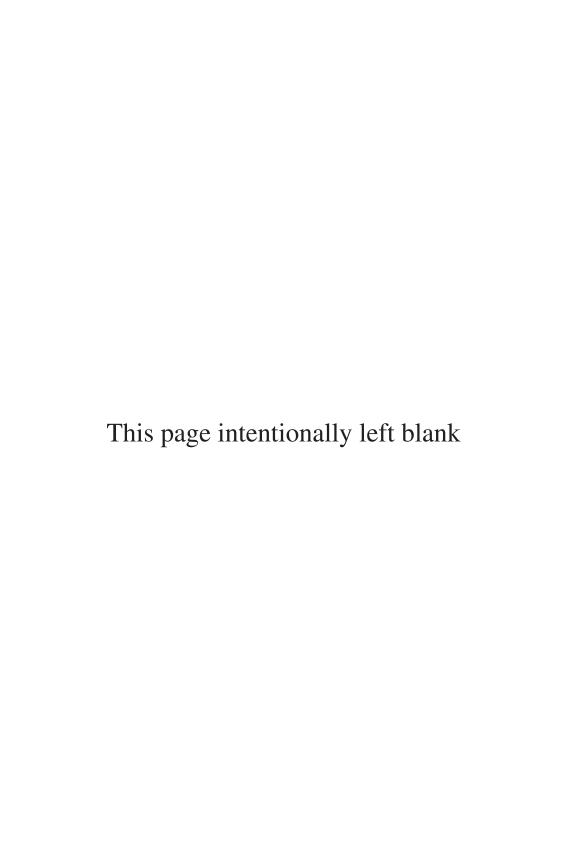
Library of Congress Cataloging-in-Publication Data A catalog record for this book has been requested

A catalog record for this book has been req ISBN: 978-1-138-94764-1 (hbk)

ISBN: 978-1-138-94765-8 (pbk) ISBN: 978-1-315-66999-1 (ebk)

Typeset in Bembo by Apex CoVantage, LLC





CONTENTS

Preface to the Second Edition Preface to the First Edition Introduction to the Classic Edition		xi xiii xv			
			1	Written language The origins of writing 1 The emergence of true writing 3 The origins of English spelling 4 Orthography and phonology 6 The uses of writing 8	1
			2	Skilled word recognition Eye movements in reading 9 Factors affecting the ease or difficulty of word recognition 12	9
3	Models of word recognition A simple model for word recognition in reading 20 Lexical versus sublexical routes from print to sound 26 The role of sound in accessing the meanings of familiar words 29	19			
4	The acquired dyslexias Peripheral dyslexias 33 Central dyslexias 35	32			
5	Words in combinations Comprehending text 41 Reading and listening 46 Literacy, text and memory 47	41			

x Contents

6	Writing and spelling	49
	Planning to write 49	
	Spelling familiar words 51	
	Spelling unfamiliar words 54	
	Central acquired dysgraphias 55	
	Peripheral writing processes and peripheral dysgraphias 58	
7	Learning to read and write	62
	Pre-reading 62	
	Beginning reading 64	
	Teaching reading 68	
	Learning to write 75	
8	Developmental disorders of reading and writing	77
	The cognitive basis of dyslexia 79	
	Is there anything special about being dyslexic? 86	
	The biological basis of dyslexia 88	
	Spelling and writing in dyslexia 89	
	Teaching dyslexics 90	
	Developmental comprehension disorders 91	
Re	ferences	9.5
Index		109
1111	VCV	107

PREFACE TO THE SECOND EDITION

When I was first asked to produce a second edition of this book, I imagined that it would be a relatively simple matter of changing or inserting the odd phrase or reference and improving the wording here and there. When I sat down to it, however, I realised that it was not going to be that easy. The study of reading, writing and dyslexia has advanced so much in the last 10 years that it has proven necessary to start again and effectively write a fresh book. Fragments of the old have survived here and there (notably in the first chapter which deals with the origins, evolution and nature of writing), but this is largely a new book. In a sense, that is a shame because a lot of people seemed to like the first edition. I can only hope that this new version does not disappoint.

I have retained the broad organisation of the first edition. The book opens with a consideration of the history and nature of writing in Chapter 1, then moves on to three chapters dealing with the nature of skilled reading (word recognition in Chapters 2 and 3, text processing in Chapter 4). Chapter 5 is concerned with the different ways that brain injury in adulthood can disrupt the mature reading skill; that is, with the "acquired dyslexias". Chapter 6 considers spelling and writing processes, both in skilled writers and in patients with "acquired dysgraphia". Only in Chapter 7 do we consider the learning process – how children develop the skills of reading and writing. One of the changes here in comparison with the first edition is a more thorough treatment of the teaching of reading. Chapter 8 deals with developmental reading and writing problems. This is a book about reading and writing and both forms of dyslexia – acquired and developmental: it is not a book that is exclusively (or even primarily) concerned with developmental dyslexia.

As in the first edition, I have tried to write a book which is accessible to a non-psychologist but which might also be used as part of an undergraduate psychology course. The production of this second edition coincided with a term of office as Head of the Department of Psychology at the University of York. I would not

xii Preface to the second edition

recommend that combination to anyone. It has, however, helped enormously to have been working in a department where so many people are studying aspects of the reading process. People at York who have contributed to the development of the ideas presented here include (in strictly alphabetical order) Sue Franklin, Evi Graf, Peter Hatcher, Kathi Hirsh, Charles Hulme, Siné McDougall, Andrew Monk, Catriona Morrison, John Rack and Sue Stothard. My thanks to all of them. Once again, Anna, Martin and Hayden have provided sympathy, encouragement and the right amount of distraction.

Andrew W. Ellis York, December 1992

PREFACE TO THE FIRST EDITION

Reading and writing have been the objects of intensive psychological research in recent years. Much of this work has focused on the skilled reader and writer, but there have been other valuable and interesting approaches. One of these has been the analysis of how brain injury can impair reading and writing in previously literate adults – the study, that is, of the acquired dyslexias and dysgraphias. Developmental problems in learning to read and write have also been investigated by cognitive psychologists, as has the acquisition of literacy by normal children. It is my personal belief that real advances are being made on all these fronts, and this book is an attempt to summarize and convey those advances. The book is aimed primarily at students of psychology or education, but I have tried at the same time to make the book intelligible to parents, teachers, and anyone else coming afresh to the investigation of reading, writing, and dyslexia. In addition, the book contains accounts of much recent or unpublished research, and also some of my own ideas. I hope that on these grounds it will also interest professionals in the field. Two people have had a particularly strong influence on the development of my own thinking about reading, writing, and dyslexia. They are John Marshall and John Morton, and I should like to take this opportunity to thank them publicly. I have been fortunate enough to have worked for the past five years at Lancaster University. I should like to thank all my colleagues for creating such a friendly and stimulating atmosphere, but I have benefited particularly from exchanges of ideas with Alan Collins, Lesley Galpin, Dennis Hay, Phil Levy, Diane Miller, Peter Morris, Mary Smyth, and, last only on alphabetic grounds, Andy Young. If this book has any merit whatsoever it is due in no small measure to the extremely helpful comments on earlier drafts received from Max Coltheart, Karalyn Patterson, Leslie Henderson, Alan Collins, Tim Miles, and Maggie Snowling. I only wish I could have answered satisfactorily all of the points they raised. Alan Collins prepared the indices, Anne Parker, Sylvia Sumner, and Hazel Satterthwaite typed