# Human Intelligence

This book is a comprehensive survey of our scientific knowledge about human intelligence, written by a researcher who has spent more than thirty years studying the field. It takes a nonideological view of a topic in which, too often, writings are dominated by a single theory or social viewpoint. The book discusses the conceptual status of intelligence as a collection of cognitive skills that include, but also go beyond, those skills evaluated by conventional tests; intelligence tests and their analysis; contemporary theories of intelligence; biological and social causes of intelligence; the importance of intelligence in social, industrial, and educational spheres; the role of intelligence in determining success in life, both inside and outside educational settings; and the nature and causes of variations in intelligence across age, gender, and racial and ethnic groups.

Earl Hunt is Professor Emeritus at the University of Washington, where he has been a faculty member since 1966. He has also taught at Yale; the University of California, Los Angeles; and the University of Sydney, Australia. His other books include *Concept Learning* (1962), *Experiments in Induction* (1966), *Artificial Intelligence* (1975), *Will We Be Smart Enough?* (1995), *Thoughts on Thought* (2002), and *The Mathematics of Behavior* (2007). He has received the International Society for Intelligence Research's Lifetime Achievement Award for his contributions to the study of intelligence and has been named the 2011 recipient of the Association for Psychological Science's Cattell Award for lifetime contributions to applied psychological research.

# Human Intelligence

EARL HUNT

*University of Washington*

CAMBRIDGE
UNIVERSITY PRESS

CAMBRIDGE UNIVERSITY PRESS
Cambridge, New York, Melbourne, Madrid, Cape Town, Singapore,
São Paulo, Delhi, Dubai, Tokyo, Mexico City

Cambridge University Press
32 Avenue of the Americas, New York, NY 10013-2473, USA

www.cambridge.org
Information on this title: www.cambridge.org/9780521707817



First published 2011

Printed in the United States of America

*A catalog record for this publication is available from the British Library.*

*Library of Congress Cataloging in Publication data*

Hunt, Earl B.
Human intelligence / Earl Hunt.
p. cm.
Includes bibliographical references and index.
ISBN 978-0-521-88162-3 (hardback) – ISBN 978-0-521-70781-7 (pbk.)
1. Intellect. I. Title.
BF431.H814 2010
153.9–dc22 2010038696

ISBN 978-0-521-88162-3 Hardback
ISBN 978-0-521-70781-7 Paperback

# Contents

# List of Figures

# List of Tables

# Introductory Remarks

After spending some thirty years studying human intelligence, I decided to write a book. Why? It must be that I have something new to say.

Well, I do and I do not. Virtually everything that could be said about human intelligence has been said. It is or isn't important, it is or isn't evaluated by the tests, it is or isn't genetically based, and on and on. This book does not say anything that has not already been said. It could not. What it does do is attempt to bring up to date the information on the various conflicting views. My contribution is to moderate these views, because I do not think that any of the extreme statements that have been made can be supported.

There is a saying that has been traced back to the days of classic Greece;

> *The fox knows many little things; the hedgehog knows one big thing.*

It is not entirely clear what that means, but some philosophers have interpreted it as saying that some people summarize issues with detailed, nuanced views, while others make bold, simple statements. I am a fox. I think the field of human intelligence has had far too many hedgehogs. There are major individual differences in cognitive power; these differences have important implications for human behavior; they do not have a single cause, nor do they ever act outside of the context of the current problem. We need to understand intelligence in its full complexity.

Intellectual foxes have a problem. They are more likely to be right than intellectual hedgehogs (there is actually data on this!), but they are less likely to be believed (there is data on this, too). Nevertheless, being a fox, there is nothing I can do but try to locate the burrows of as many intellectual hedgehogs as I can, and try to dig them out. It is my nature, and that is what I have tried to do. Complete intellectual objectivity is impossible to achieve. I have tried to present as fair a picture as I can of a much-studied, much-debated topic. The result is a book that may sometimes be difficult to read, but I hope that it is a comprehensive presentation.

Any effort of this sort is impossible unless you receive support. My first and greatest

debt is to my wife, Mary Lou Hunt, who has put up with years of papers scattered all over the house, a somewhat grumpy husband, and mutterings as I uncovered the tracks of one or another of those intellectual hedgehogs.

My second debt is to Cambridge University Press, which put up with my being late, late, late, but let me persevere. I also owe a special debt to Jeanie Lee, for her substantial assistance in ensuring that permissions for reproduction were obtained. Too many books on intelligence wave words at the reader about what the data said. Thanks in no small part to Ms. Lee's assistance, this book will often let the reader see what actually was found.

I owe favors to colleagues around the world who were willing to read prepublication versions. Special thanks go to Tom Bouchard Jr., who engaged me in lively e-mail discussions over virtually every chapter; to two of my sons, Alan and Steven, who discussed and commented on different topics (very different – Alan's a biophysicist and Steve an industrial-organizational psychologist); to Wendy Johnson of the University of Edinburgh for her comments on genetics; and to Diane Halpern, for comments on the introductory chapters. Naturally, I am responsible for everything in the final product!

And I suppose I owe an apology to all those authors whose works I should have read but did not. All I can say is that life is short and there are an awful lot of you.

*Bellevue, Washington*
*April 2010*

# Human Intelligence