

In the Know

Emotional intelligence is an important trait for success at work. IQ tests are biased against minorities. Every child is gifted. Preschool makes children smarter. Western understandings of intelligence are inappropriate for other cultures. These are some of the statements about intelligence that are common in the media and in popular culture. But none of them are true. *In the Know* is a tour of the most common incorrect beliefs about intelligence and IQ. Written in a fantastically engaging way, each chapter is dedicated to correcting a misconception and explains the real science behind intelligence. Controversies related to IQ will wither away in the face of the facts, leaving readers with a clear understanding of the truth about intelligence.

Russell T. Warne is an associate professor of psychology at Utah Valley University, USA, and an educational psychologist. He is the author of the widely successful textbook for undergraduates: *Statistics for the Social Sciences* (Cambridge, 2018).

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Debunking 35 Myths about Human Intelligence

RUSSELL T. WARNE
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For Dallin

*Thank you for serving without complaint as “backup dad” so that
I could have more time to write this book.*

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Contents

<i>List of Figures</i>	<i>page</i> x
<i>List of Tables</i>	xii
<i>Acknowledgments</i>	xiii
<i>Preface</i>	xv
Introduction	1
SECTION 1 THE NATURE OF INTELLIGENCE	
1 Intelligence Is Whatever Collection of Tasks a Psychologist Puts on a Test	31
2 Intelligence Is Too Complex to Summarize with One Number	35
3 IQ Does Not Correspond to Brain Anatomy or Functioning	40
4 Intelligence Is a Western Concept that Does Not Apply to Non-Western Cultures	46
5 There Are Multiple Intelligences in the Human Mind	52
6 Practical Intelligence Is a Real Ability, Separate from General Intelligence	62
SECTION 2 MEASURING INTELLIGENCE	
7 Measuring Intelligence Is Difficult	73
8 The Content of Intelligence Tests Is Trivial and Cannot Measure Intelligence	80
9 Intelligence Tests Are Imperfect and Cannot Be Used or Trusted	85
10 Intelligence Tests Are Biased against Diverse Populations	90
	vii

SECTION 3 INFLUENCES ON INTELLIGENCE

- | | |
|-----------------------------------------------------------------------------|-----|
| 11 IQ Only Reflects a Person's Socioeconomic Status | 107 |
| 12 High Heritability for Intelligence Means that Raising IQ Is Impossible | 114 |
| 13 Genes Are Not Important for Determining Intelligence | 120 |
| 14 Environmentally Driven Changes in IQ Mean that Intelligence Is Malleable | 125 |
| 15 Social Interventions Can Drastically Raise IQ | 133 |
| 16 Brain-Training Programs Can Raise IQ | 143 |
| 17 Improvability of IQ Means Intelligence Can Be Equalized | 149 |

SECTION 4 INTELLIGENCE AND EDUCATION

- | | |
|----------------------------------------------------------------------------|-----|
| 18 Every Child Is Gifted | 159 |
| 19 Effective Schools Can Make Every Child Academically Proficient | 169 |
| 20 Non-cognitive Variables Have Powerful Effects on Academic Achievement | 176 |
| 21 Admissions Tests Are a Barrier to College for Underrepresented Students | 186 |

SECTION 5 LIFE CONSEQUENCES OF INTELLIGENCE

- | | |
|------------------------------------------------------------------------------------|-----|
| 22 IQ Scores Only Measure How Good Someone Is at Taking Tests | 197 |
| 23 Intelligence Is Not Important in the Workplace | 204 |
| 24 Intelligence Tests Are Designed to Create or Perpetuate a False Meritocracy | 215 |
| 25 Very High Intelligence Is Not More Beneficial than Moderately High Intelligence | 223 |
| 26 Emotional Intelligence Is a Real Ability that Is Helpful in Life | 229 |

SECTION 6 DEMOGRAPHIC GROUP DIFFERENCES

- | | |
|------------------------------------------------------------------------------|-----|
| 27 Males and Females Have the Same Distribution of IQ Scores | 239 |
| 28 Racial/Ethnic Group IQ Differences Are Completely Environmental in Origin | 247 |
| 29 Unique Influences Operate on One Group's Intelligence Test Scores | 264 |
| 30 Stereotype Threat Explains Score Gaps among Demographic Groups | 273 |

SECTION 7 SOCIETAL AND ETHICAL ISSUES

- | | |
|-------------------------------------------------------------------------------------|-----|
| 31 Controversial or Unpopular Ideas Should Be Held to a Higher Standard of Evidence | 287 |
| 32 Past Controversies Taint Modern Research on Intelligence | 296 |

<i>Contents</i>	ix
33 Intelligence Research Leads to Negative Social Policies	309
34 Intelligence Research Undermines the Fight against Inequality	317
35 Everyone Is About as Smart as I Am	328
Conclusion	336
<i>References</i>	349
<i>Index</i>	406

Figures

I.1	Example of a matrix item	<i>page</i> 3
I.2	Example of a coding item	4
I.3	Examples of items that measure spatial reasoning in two or three dimensions	6
I.4	A normal distribution of intelligence test scores	8
I.5	Schematic of the Cattell–Horn–Carroll model of mental abilities	10
I.6	Schematic of the bifactor model of mental abilities	11
I.7	A scatterplot demonstrating a correlation of $r = +.90$	14
I.8	A scatterplot demonstrating a correlation of $r = +.50$	15
I.9	A scatterplot demonstrating a correlation of $r = 0$	15
I.10	A scatterplot demonstrating a correlation of $r = -.30$	16
I.11	A scatterplot demonstrating a correlation of $r = -.80$	16
I.12	Two normal distributions with averages that differ by $d = .20$	18
I.13	Two normal distributions with averages that differ by $d = .50$	18
I.14	Two normal distributions with averages that differ by $d = 1.00$	18
3.1	Depiction of the differences in brain cortex volume and neuron organization in low- and high-IQ individuals	43
3.2	A schematic showing the P-FIT model	44
10.1	Distribution of IQ scores for the major American racial groups	91
10.2	Initial medical screening of potential immigrants at Ellis Island in the early twentieth century	99
10.3	Potential immigrants at Ellis Island awaiting a brief psychological exam – including an intelligence test – after failing an initial screening procedure	100
10.4	Two government employees, at least one of whom is a physician, test a potential immigrant at Ellis Island after she had failed the original screening procedure and the brief follow-up examination on a previous day	101

<i>List of Figures</i>	xi
10.5 Two government employees, at least one of whom is a physician, test a potential immigrant at Ellis Island who seems to be the same examinee as shown in Figure 10.4	102
10.6 Wooden puzzle that served as a non-verbal intelligence test for immigrants at Ellis Island whom physicians suspected were “feeble-minded”	103
12.1 Hypothetical data showing the relationship between blood lead levels and IQ scores in a group of 20 individuals with high lead exposure	118
12.2 Hypothetical data showing the relationship between blood lead levels and IQ scores in a group of 20 individuals with low lead exposure	118
23.1 Examinees taking a predecessor of the Army Alpha (called Examination <i>a</i>) in November 1917 at Camp Lee, Virginia	205
23.2 Examinees taking a predecessor of the Army Alpha (called Examination <i>a</i>) in November 1917 at Camp Lee, Virginia	206
23.3 Relationship between military job and intelligence in the US army during World War I	208
27.1 Two distributions of IQ scores with different levels of variability	242
28.1 A scatterplot showing the correlation between <i>g</i> loadings (the degree to which a test measures <i>g</i>) and the size of the difference between European American and African American averages on the test (measured in Cohen’s <i>d</i> units)	254
29.1 If unique environmental variables operated systematically to lower one group’s IQ scores, then that can cause the lower distribution to shift down	265
31.1 A participant in the Tuskegee Syphilis Study has blood drawn	288
32.1 Image used on the “Certificate Awarded for Meritorious Exhibits” at the Second International Eugenics Congress, held September 25–28, 1921, in New York City	301
32.2 Image associated with the Third International Eugenics Congress, held August 21–23, 1932, in New York City	302

Tables

9.1	Standard error of measurement (SEM) of IQ scores, given reliability values	<i>page 87</i>
14.1	Percentage of Americans, ages 25 and over, with a high school diploma or bachelor's degree, 1940–2017	128
17.1	Change in standard deviation (SD) of IQ scores if environments were equalized	152
20.1	Characteristics of the Big Five personality traits	177
21.1	Average SAT and ACT scores for different racial/ethnic groups, 2017–2018 school year	187
22.1	Life outcomes that correlate with intelligence test scores	198
23.1	Strength of selected predictors of job performance in medium-complexity jobs	210
27.1	Female-to-male ratios beyond an IQ cutoff score with no average sex differences	242
27.2	Female-to-male ratios beyond an IQ cutoff score with a $d = .20$ mean male advantage	243
27.3	Female-to-male ratios beyond an IQ cutoff score with a $d = .20$ mean female advantage	243
28.1	Projected values of mean environmental differences, given between-group heritability (h_b^2) and within-group heritability (h_w^2) values for an IQ difference of 15 points ($d = 1.00$)	252
32.1	Prominent people who endorsed eugenics in the early twentieth century	304
34.1	Estimated percentage of racial/ethnic group members who exceed various IQ score cutoffs	321
34.2	Estimated percentage of the population above IQ score cutoffs who belong to various racial/ethnic groups	322

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encountered a more welcoming group of scientists. Members often disagree, but are never disagreeable. This group embraced me and has given me more support than I deserve as I have tried to contribute to the field of intelligence research. I am afraid for three reasons to create a list of specific people whom I appreciate. First, the list would be too long. Second, I am deathly afraid of forgetting a name and slighting a colleague unintentionally. Third, these people already know who they are, and because of their humility, they don't need to be acknowledged by name. The intelligence research community is full of remarkably wonderful people who would be justified in having bigger egos than they do.

It is also important to mention that certain members in the intelligence community have also influenced me, even when I disagree with them vigorously. I am thankful for people who dissent from orthodox theories of intelligence because they expose blind spots in my thinking. Encountering their ideas has helped me write a better book because they forced me to craft arguments against them. Although some of these people are not cited favorably in the book, they still wielded an influence that I appreciate.

I also thank my former professor and graduate school mentor, Joyce Juntune, for exposing me to intelligence research. For years, she has been a lone voice in the wilderness discussing the importance of intelligence in gifted education. She started me down this path when she assigned course readings on human intelligence and then encouraged me to incorporate that work into my theorizing as an educational psychologist. It is because of her that I got sucked into human intelligence research.

From a personal perspective, I am thankful for my wife, Katie, for her unwavering love and support. Being the wife of a workaholic is a lonely existence, and writing the first draft of this book in less than a year meant a lot of solitary evenings for her. My brother, Dallin, was a godsend in his service as “backup dad,” helping to care for my children while I worked or traveled. My children are lucky to have him as an uncle.

Preface

This book is the culmination of more than a decade of study and research related to human intelligence. I have learned a lot over the years, sometimes about areas far outside my professional training (which was in educational psychology). As I learned more about intelligence, I discovered that the scholarly knowledge about the topic was out of sync with popular opinion – sometimes alarmingly so. I wrote this book to try to reduce some of the distance between the beliefs of laymen and experts.

This book is aimed at anyone who is not a psychologist specializing in human intelligence. Students, non-psychologists, K-12 teachers, interested laymen, and scientists from outside the field can gain from reading this book. I have tried to make the book as nontechnical as possible. My goal is not to make readers into experts, but rather to give them the tools to recognize common incorrect arguments and beliefs about intelligence.

I am not naïve enough to think that this book will fix every incorrect idea about intelligence. But if this book corrects some of the mistaken beliefs that readers have, it will be worth it. Intelligence is one of the most important topics of study in the social sciences. But erroneous ideas about intelligence are surprisingly common, and this leads people to dismiss, ignore, or marginalize research on intelligence far too often.

ORGANIZATION OF THE BOOK

This book is organized into 7 sections that contain a total of 35 chapters:

- Section 1 is comprised of Chapters 1–6 and discusses the nature of intelligence.
- Section 2 discusses intelligence testing and covers Chapters 7–10.
- Section 3 is organized around the theme of the genetic and environmental influences on intelligence levels. Chapters 11–17 are in this section.

- Section 4 discusses the relationship between intelligence and the education system and comprises Chapters 18–21.
- Section 5 is about the life consequences of different intelligence levels and is made up of Chapters 22–26.
- Section 6 is comprised of Chapters 27–30 and discusses demographic differences in intelligence.
- Section 7 explores societal and ethical issues related to intelligence and includes Chapters 31–35.

Additionally, the book begins with an introduction that provides background about the nature of intelligence, tests and procedures used to measure intelligence, some important statistical concepts, and the history of research in the field. This information provides useful context for the 35 chapters in the book, and the main chapters refer frequently to the concepts that the introduction explains. After Section 7, there is a conclusion with some thoughts about the overall state of intelligence research and some unanswered questions.

BOOK VIEWPOINT

Throughout the book I have tried to voice opinions that are widely held among intelligence researchers. Unanimity is rare, though, and some experts may disagree with some chapters. I know it is impossible to please everyone all the time, but my goal is to have any mainstream expert in intelligence agree with the vast majority of what I say in the book, with the disagreements being on the level of typical differences of professional opinion. I am sure that some of my colleagues will think I am overconfident on some topics and not firm enough with my opinions in others. I hope this does not detract from the “big picture” of the book about the reality of intelligence, the importance of intelligence differences, and the mismatch between popular belief and expert opinion.

Despite my efforts to describe consensus positions about scientific topics, this book should not be taken as an authoritative position for any scholarly organization or group of scientists. Inevitably, the content is filtered through a single scientist, and my personal viewpoints and perspectives may color the discussion somewhat. I have tried to minimize my individual influence by leaning heavily on the scholarly literature and adopting the perspectives of senior leaders in the field. The court of professional opinion will determine whether I have been successful in this goal.

Some chapters in this book – especially towards the end – touch upon social and political issues. I have tried to be politically neutral in these sections, mostly because I am not a very political person. I find the tribalism of modern American politics distasteful, mostly because I find the idea that “the other side” is completely wrong or evil to be highly unlikely. I think that most politicians and advocates are motivated by a genuine goal to improve society, though I do

disagree with the goals and methods of actors on both sides of the political aisle. I believe that political views should accommodate the reality of human nature, including facts about intelligence. For many people, these accommodations will be minor because intelligence research is compatible with many political positions.

But people at the extremes in political belief will undoubtedly find the chapters in the book that discuss political and social issues to be distasteful, perhaps even incendiary. That says more about their beliefs than about intelligence research or my book. Facts are value-neutral, and only reality deniers will find anything in this book that is so threatening that they must fight against it.

INFORMATION ABOUT CITATIONS

This book contains more citations than many scientific books aimed at a non-expert audience. This is especially apparent because of the in-text citation format I have chosen, which can disrupt the flow of the text. However, I prefer this style because (1) it clearly shows which statements are supported by the scholarly literature – and which are not, and (2) it is easier to identify the source of a statement than other citation formats.

The research on intelligence started over 100 years ago and encompasses tens of thousands of articles, books, dissertations, and technical reports. It is impossible for anyone to read every scholarly publication about intelligence. As a result, I do not cite every study ever published to support my claims. I have preferred to select either (a) particularly strong studies or (b) studies that are representative of the wider literature on a topic. I encourage readers to explore this research to verify for themselves whether the scholarly literature supports my positions.

WHAT IS NOT IN THIS BOOK

This book is not a comprehensive overview of intelligence research. Instead, it is meant as a guide to correct common false beliefs that the public has about intelligence. As a result, it provides little or no discussion about some topics, especially in neuroscience, cognitive psychology, and mental aging. These topics are important, but I do not discuss them much because non-experts rarely have strong incorrect opinions about them. Readers who are interested in neuroscience should read Haier's (2017a) book *The Neuroscience of Intelligence*. People interested in cognitive aging would benefit from the books summarizing the two most important studies on the topic, written by Schaie (2013) and edited by Deary, Whalley, and Starr (2009). Books by Hunt (2011) and Mackintosh (2011) are more comprehensive than my book, and both have thorough discussions of how intelligence relates to research in cognitive psychology, neuroscience, and other areas. Jensen's (1998) book

The g Factor: The Science of Mental Ability is an indispensable classic on the topic and holds up extremely well more than two decades after its publication.

LAST WORDS . . . BEFORE THE FIRST WORDS

This book may be read cover to cover, or – after reading the introduction – it is possible to skip around the chapters and read them in any order. The chapters are designed to be self-contained. However, often content from one chapter will be relevant to one or more other chapter(s), especially chapters contained within the same section. When this occurs, I reference the other chapter(s) so that readers can explore a specific topic more comprehensively. Regardless of how readers choose to tackle this book, I hope they find it as enjoyable to read as I have found to write. If you wish to give me any feedback, please visit my professional website (www.russellwarne.com), my public Facebook page (www.facebook.com/russwarnephd) or follow me on Twitter at @Russwarne.