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这才是心理学



How to
Think Straight
About
Psychology

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[加] 基思·斯坦诺维奇 (Keith E. Stanovich) 著

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这才是心理学

(第11版, 英文版)

[加] 基思·斯坦诺维奇 著

本书不仅适合于心理学专业学生，也适合于对心理学感兴趣的读者。它特地将心理学与日常生活的实例、决策作主义、实证主义、实证主义、实证主义、安慰剂效应、相关和因果基本原则、与测、与原则、与原则、与上一版相比，第11版更新了20个最新文献、5个新文献、新文献、新文献。

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内容提要

心理学是一门很容易让人误解的学科。与其他学科不同，它研究的是与人们生活紧密相关的问题。有些还正好是大家都熟悉，而且经常关心的问题。比如：

在今天的媒体和图书市场上，到处充斥着关于潜能提升、心理操控、色彩星座、催眠读心等伪装成心理学的主题，更有一些伪心理学家、所谓的心理治疗师打着心理学的旗号欺世盗名，从中渔利。在浩如烟海、良莠不齐的心理学信息面前，如何拨除迷雾，去伪存真，成为一个明智的心理学信息的消费者呢？这本书将教给你科学实用的批判性思维技能，将真正的心理学研究从伪心理学中区分出来，告诉你什么才是真正的心理学。

本书英文版首版于1983年面世，30多年来一直被奉为心理学入门经典，在全球顶尖大学中享有盛誉，现在呈现在读者面前的是英文第11版。这本书并不同于一般的心理学导论类教材，很多内容是心理学课堂上不曾讲授的，也是许多心理学教师在教学中感到只可意会而不可言传的。作者正是从此初衷出发，以幽默生动的语言，结合一些妙趣横生、贴近生活的实例，深入浅出地介绍了可证伪性、操作主义、实证主义、安慰剂效应、相关和因果、概率推理等心理学中的基本原则。与上一版相比，第11版更新了最新的研究资料和实例以及290篇新文献。

本书不仅适合于心理学专业的学生，有助于建立心理学研究中必要的批判性思维技能与意识，而其通俗易懂性也非常适合所有对心理学感兴趣的读者，它将帮助你纠正对心理学的种种误解，学会独立地评估心理学信息，用科学的精神和方法理解自己和他人的行为。此外，由于心理学与其他学科的共通性，本书也不失为一本精彩有趣的科学哲学类读物。

心理学家的批判性思维习惯：也就是说，心理学家不相信个人的智慧，更相信科学的方法，而科学方法的本质是证伪，即对我们的经验、常识和直觉，产生怀疑、挑战和批评。从原则上而言，心理学家不怕犯错误，但害怕以假乱真。心理学家也不相信那些能回答所有问题的绝对真理，但相信对所有问题应该有一个相对正确的答案。心理学家从不相信个案和特例，因为其

推荐序

心理学是一门很容易让人误解的学科。与其他学科不同，它研究的是与人们生活紧密相关的问题。有些还正好是大家都熟悉，而且经常关心的问题。比如：什么样的人容易讨人喜欢？什么样的事情让人记忆深刻？什么样的事情让人高兴（或痛苦）？为什么男人比女人更爱聊政治时事？人为什么要自杀？意念能不能被植入梦中？……正因为大家关心这些问题，人们就会有自己的分析，自己的证据，得出自己相信的结论。很多时候，这些自觉的结论与心理学家的研究结论并不完全一致，比如说，我们心理学家就发现，青梅竹马的婚姻很难成立，婴儿并不是有奶便认娘，性格并不决定一个人的命运，等等。每当矛盾、怀疑、迷惑甚至气愤产生的时候，我们到底是该相信自己的直觉、经验和常识，还是该相信心理学的研究、证据和知识呢？

不幸的是，大多数的心理学教科书只满足告诉大家心理学的研究、发现和知识，但从不说为什么这些研究、发现和知识是值得我们关注和信任的。这些书的作者好像都在假设每一位读者思考问题起来都像心理学家一样，相信和理解心理学的研究、发现和知识。幸运的是，基思·斯坦诺维奇教授写了这本 *How to Think Straight About Psychology*，一本“与众不同的心理学”教科书。他总结了心理学家的职业特质，让每一位读者都有机会去理解我们心理学家是如何思考、分析和解读人类的行为和心理的。每一章都将一个常识的、朴素的、直觉的有关人类心理的分析和思考与一个科学的、严谨的、心理学的分析和思考相对比，以帮助读者理解心理学家的分析逻辑和研究思路。

我个人觉得，在斯坦诺维奇阐述的心理学特质中，有两点应该是区分我们心理学家和其他人（包括其他领域的科学家）与众不同的地方。

其一是我们心理学家的批判性思维习惯，也就是说，心理学家不相信个人的智慧，更相信科学的方法，而科学方法的本质是证伪，即对我们的经验、常识和直觉，产生怀疑、挑战和批评。从原则上而言，心理学家不怕犯错误，但害怕以假乱真。心理学家也不相信那些能回答所有问题的绝对真理，但相信对所有问题应该有一个相对正确的答案。心理学家从不相信个案和特例，因为其

随机性和主观性过于明显，但我们愿意相信大样本基础上的科学研究发现。我们希望听到动听的心理故事，但更愿意看到众多心理学观察的数据和总结。

其二是我们心理学家的概率性思维习惯。我们和很多自然科学家思考方式不同之处就在于我们更容易相信，任何人类的行为都是概率性的表现，也就是说，它有一定的不确定性，会受到其他随机事件的影响。其实人类很多学科都是建立在概率基础之上的，比如核物理、天体物理、生物进化、病理学、所有的社会科学（经济学、社会学、政治学等）等等，它们都不可能准确预测每一个研究对象的具体活动，但都对整体的事物活动规律有很好的描述和预测。只不过我们心理学家更愿意承认而且强调我们学科的不确定性而已。

总之，我很高兴地看到这本书在中国再版，并向心理学爱好者推荐这本“与众不同”的心理学教科书。

彭凯平

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Contents

Operationalists Link Concepts to Observable Events	42
Reliability and Validity	43
Direct and Indirect Operational Definitions	44
Scientific Concepts Evolve	45
Operational Definitions in Psychology	46
Operationalism as a Humanizing Force	47
Essentialist Questions and the Misunderstanding of Psychology	48
Summary	49
1 Psychology Is Alive and Well (and Doing Fine Among the Sciences) and Doing Fine Among the Sciences	
1 Testimonials and Case Study	50
4 Placebo Effects	51
1 To Paula, who taught me how to think straight about life	52
3 The Place of the Case Study	53
4 Testimonials Are Worthless: Placebo Effects	54
6 The "Vividness" Problem	55
7 The Overwhelming Impact of the Single Case	56
8 Why Vivid Anecdotes and Testimonials Are Problematic	57
9 The Amazing Research: Search for Testimonials	58
10 Testimonials Open the Door to Common Sense	59
11 Summary	60
5 Correlation and Causation: Birth Control by the Toaster	61
4 The Third-Variable Problem	62
5 Why Goldberger's Evidence Was Better	63
6 The Directionality Problem	64
7 Scientific Bias	65
8 Summary	66
6 Getting Things Under Control: The Case of Clever Hans	67
7 The Case of Clever Hans	68
8 Snowy and Cholera	69
9 Comparison, Control, and Manipulation	70
10 Random Assignment in Conjunction with Manipulation Defines the True Experiment	71
11 The Importance of Control Groups	72
12 The Case of Clever Hans, the Really Mean	73
13 Clever Hans in the 1990s and in the Present Day	74
14 Essentialists Like to Argue About the Meaning of Words: Part 1: Why	75
26 Green Men in the Head	76
27 Theories and the Falsifiability Criterion	77
28 The Theory of Knocking Rhythms	78
29 Falsifiability and Falsifiability	79
30 The Little Green Men	80
31 Not All Contradictions Are Equal	81
32 Falsifiability and Folk Wisdom	82
33 The Freedom to Admit a Mistake	83
34 Thoughts Are Cheap	84
35 Errors in Science: Getting Closer to the Truth	85
36 Summary	86
37 Operationalism and Essentialism: "But Doctor, What Does It Really Mean?"	87
38 Why Scientists Are Not Essentialists	88
39 Essentialists Like to Argue About the Meaning of Words: Part 2: Why	89

Preface

There exists a body of knowledge that is unknown to most people. This information concerns human behavior and consciousness in their various forms. It can be used to explain, predict, and control human actions. Those who have access to this knowledge use it to gain an understanding of other human beings. They have a more complete and accurate conception of what determines the behavior and thoughts of other individuals than do those who do not have this knowledge.

Surprisingly enough, this unknown body of knowledge is the discipline of psychology.

What can I possibly mean when I say that the discipline of psychology is unknown? Surely, you may be thinking, this statement was not meant to be taken literally. Bookstores contain large sections full of titles dealing with psychology. Television and radio talk shows regularly feature psychological topics. Magazine articles and websites quote people called psychologists talking about a variety of topics. Yet, despite all of this, there is an important sense in which the *field* of psychology is unknown.

The transfer of “psychological” knowledge that is taking place via the media is largely an illusion. Few people are aware that the majority of the books they see in the psychology sections of many bookstores are written by individuals with absolutely no standing in the psychological community. Few are aware that many of the most visible psychological “experts” have contributed no information to the fund of knowledge in the discipline of psychology.

The flurry of media attention paid to “psychological” topics has done more than simply present inaccurate information. It has also obscured the very real and growing knowledge base in the field of psychology. The general public is unsure about what is and is not psychology and is unable to independently evaluate claims about human behavior. Adding to this problem is the fact that many people have a vested interest in a public that is either without evaluative skills or that believes there is no way to evaluate psychological claims. The latter view, sometimes called the “anything goes” attitude, is one of the fallacies discussed in this book, and it is particularly costly to the public. Many pseudosciences are multimillion-dollar industries that depend on the lack of public awareness that claims about human behavior can be tested. The general public is also unaware that many of the claims made by these pseudosciences (e.g., astrology, psychic surgery, speed reading, biorhythms, therapeutic touch, subliminal self-help tapes, facilitated communication, indigo children, psychic detectives) have been tested and proved false. The existence of the pseudoscience industry, which is discussed in this book, increases the media’s tendency toward sensationalistic reporting of science. This tendency is worse in psychology than in other sciences, and understanding the reasons why this is so is an important part of learning how to think straight about psychology.

This book, then, is directed not at potential researchers in psychology but at a much larger group: the consumers of psychological information. The target audience is the beginning psychology student and the general reader who have encountered information on psychological issues in the general media and have wondered how to go about evaluating its validity.

This book is not a standard introductory psychology text. It does not outline a list of facts that psychological research has uncovered. Indeed, telling everyone to take an introductory psychology course at a university is probably not the ultimate solution to the inaccurate portrayal of psychology in the media. There are many laypeople with a legitimate interest in psychology who do not have the time, money, or access to a university to pursue formal study. More importantly, as a teacher of university-level psychology courses, I am forced to admit that my colleagues and I often fail to give our beginning students a true understanding of the science of psychology. The reason is that lower-level courses often do not teach the critical analytical skills that are the focus of this book. As instructors, we often become obsessed with “content” —with “covering material.” Every time we stray a little from the syllabus to discuss issues such as psychology in the media, we feel a little guilty and begin to worry that we may not cover all the topics before the end of the term.

Consider the average introductory psychology textbook. Many now contain between 600 and 800 multicolumned pages and reference literally hundreds of studies in the published literature. Of course, there is nothing wrong with such books containing so much material. It simply reflects the increasing knowledge base in psychology. There are, however, some unfortunate side effects. Instructors are often so busy trying to cram their students full of dozens of theories, facts, and experiments that they fail to deal with some of the fundamental questions and misconceptions that students bring with them to the study of psychology. Rather than dealing directly with these misconceptions, the instructors (and the introductory textbook authors) often hope that if students are exposed to enough of the empirical content of psychology, they will simply *induce* the answers to their questions. All too often this hope is frustrated. In a final review session—or in office hours at the end of the term—instructors are often shocked and discouraged by questions and comments that might have been expected on the first day of the course but not after 14 weeks: “But psychology experiments aren’t real life; what can they tell us?”; “Psychology can’t be a *real* science like chemistry, can it?”; “But I heard a therapist on TV say the opposite of what our textbook said”; “I think this theory is stupid—my brother behaves just the opposite of what it says”; “Psychology is nothing more than common sense, isn’t it?”; “Everyone knows what anxiety is—why bother defining it?” For many students, such questions are not implicitly answered merely by a consideration of the content of psychology. In this book, I deal explicitly with the confusions that underlie questions and comments such as these.

Unfortunately, research has shown that the average introductory psychology course does surprisingly little to correct students’ misconceptions about the discipline (Kowalski & Taylor, 2009; Lilienfeld, 2014; Taylor & Kowalski, 2004). This unfortunate fact provides the rationale for this book. Psychology students need explicit instruction

in the critical thinking skills that will transform them into independent evaluators of psychological information.

Years after students have forgotten the content of an introductory psychology course, they will still use the fundamental principles covered in this book to evaluate psychological claims. Long after Erikson's stages of development have been forgotten, students will be using the thinking tools introduced in this text to evaluate new psychological information encountered in the media. Once acquired, these skills will serve as lifelong tools that will aid in the evaluation of knowledge claims. For example, these skills provide some criteria for assessing the reliability of "expert" opinion. Because the need to rely on expert opinion can never be eliminated in a complex society, the evaluation of an expert's credibility becomes essential to knowledge acquisition.

Many psychologists are pessimistic about any effort to stem the tide of misinformation about their discipline. Although this pessimism is, unfortunately, often justified, this "consumer's guide" to psychology was motivated by the idea that psychologists must not let this problem become a self-fulfilling prophecy.

Although I have welcomed the opportunity to prepare several editions of *How to Think Straight About Psychology*, it is unfortunately true that the reasons for the book's existence are just as applicable today as they were when I wrote the first edition. Students in introductory psychology courses enter with as many misconceptions as they ever did, and they think that unaided common sense is all they need to understand human behavior, or worse, they turn to pseudosciences. Thus, the goals of all subsequent editions have remained the same: to present a short introduction to the critical thinking skills that will help students to better understand the subject matter of psychology.

New to the Edition

The eleventh edition of *How to Think Straight About Psychology* has no major structural revisions because a chapter reorganization occurred in a previous edition. The content and order of the chapters remain the same. At the request of reviewers and users, this edition remains at the same length as the tenth edition. Readers and users have not wanted the book to lengthen and, indeed, it has not. I have continued to update and revise the examples that are used in the book (while keeping those that are reader favorites). Some dated examples have been replaced with more contemporary studies and issues. I have made a major effort to use contemporary citations that are relevant to the various concepts and experimental effects that are mentioned. A large number of new citations appear in this edition (290 new citations, to be exact!), so that the reader continues to have up-to-date references on all of the examples and concepts.

New examples, discussions, and sections have been added. A sampling of these new additions include the following issues and discussions: cell phone use while driving; the use of psychology in child custody disputes; pseudoscience in clinical psychology; the efficacy of crisis counselling after traumatic events; the causes of people making bad investment decisions; the "reading wars" in education; the effects of violent video games; facilitating communication in autism; conducting

experiments over the Internet; the left-brain/right brain fallacy; health outcomes of alcohol consumption; distraction from electronic dashboard devices; coverage of the replication crisis in psychology; a new emphasis on the evils of vanity publishing; an additional section on the relation between lab and field results in psychology; a discussion of the Amazon Mechanical Turk; a discussion of how vivid presentations of results from neuroscience can skew conclusions; a discussion of the fallacies surrounding the mistaken idea of multitasking; a new discussion of Walter Mischel's famous marshmallow studies and how they exemplify going from basic to applied research; a discussion of the danger of the phrase "new study shows" in the media; many additional examples of the use of meta-analytic studies in psychology (including marriage longevity, brain training, predictors of job performance, and suicide prevention); a discussion of how the media suggest that science is non-cumulative in their reporting of research on autism and reading disability and ADHD.

The goal of the book remains what it always was—to present a short introduction to the critical thinking skills that will help the student to better understand the subject matter of psychology. During the past decade and a half there has been an increased emphasis on the teaching of critical thinking in universities (Arum & Roksa, 2011; Sternberg, Roediger, & Halpern, 2006). Indeed, some state university systems have instituted curricular changes mandating an emphasis on critical thinking skills. At the same time, however, other educational scholars were arguing that critical thinking skills should not be isolated from specific factual content. *How to Think Straight About Psychology* combines these two trends. It is designed to provide the instructor with the opportunity to teach critical thinking within the rich content of modern psychology.

Readers are encouraged to send me comments at: keith.stanovich@utoronto.ca.

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that is routinely alluded to in acknowledgments. Her concern for all human beings, particularly those less fortunate, is an inspiration to all who know her. A view we both share is that all human beings should have the opportunity to utilize their full potential. This book attests to the fact that I have had such an opportunity. Paula works to speed the day when this opportunity will be fully extended to all individuals with disabilities.

and Well (and Doing Fine Among the Sciences)



Learning Objectives

- 1.1 Explain why Freud's methods are unrepresentative of modern psychology
- 1.2 Describe the implications of diversity in the field of psychology
- 1.3 Differentiate psychology from other disciplines that deal with human behavior
- 1.4 Describe the three features that define science
- 1.4 Distinguish between psychology and folk wisdom
- 1.5 Explain the reasons for the hostility directed towards psychology as a discipline

The Freud Problem

Stop 100 people on the street and ask them to name a psychologist, either living or dead. Record the responses. Of course, Dr. Phil and other "media psychologists" would certainly be named. If we leave out the media and pop psychologists, however, and consider only those who have had an impact on psychology as a discipline, there would be no question about the outcome of this informal survey. Sigmund Freud would be the winner hands down. B. F. Skinner would finish a distant second (Reediger, 2016; Sternberg, 2016). No other psychologist would get enough recognition even to bother

Contents

Preface xiv

1 Psychology Is Alive and Well (and Doing Fine Among the Sciences) 1

The Freud Problem 1

The Diversity of Modern Psychology 3

Implications of Diversity 4

Unity in Science 4

What, Then, Is Science? 6

Systematic Empiricism 7

Publicly Verifiable Knowledge: Replication and Peer Review 8

Empirically Solvable Problems: Scientists' Search for Testable Theories 10

Psychology and Folk Wisdom: The Problem with "Common Sense" 11

Psychology as a Young Science 15

Summary 16

2 Falsifiability: How to Foil Little Green Men in the Head 17

Theories and the Falsifiability Criterion 18

The Theory of Knocking Rhythms 19

Freud and Falsifiability 20

The Little Green Men 22

Not All Confirmations Are Equal 23

Falsifiability and Folk Wisdom 24

The Freedom to Admit a Mistake 25

Thoughts Are Cheap 27

Errors in Science: Getting Closer to the Truth 28

Summary 30

3 Operationism and Essentialism: "But, Doctor, What Does It Really Mean?" 31

Why Scientists Are Not Essentialists 31

Essentialists Like to Argue About the Meaning of Words 32

Operationists Link Concepts to Observable Events	32
Reliability and Validity	34
Direct and Indirect Operational Definitions	37
Scientific Concepts Evolve	38
Operational Definitions in Psychology	40
Operationism as a Humanizing Force	42
Essentialist Questions and the Misunderstanding of Psychology	43
Summary	44
4 Testimonials and Case Study Evidence: Placebo Effects and the Amazing Randi	45
The Place of the Case Study	47
Why Testimonials Are Worthless: Placebo Effects	48
The “Vividness” Problem	51
The Overwhelming Impact of the Single Case	53
Why Vivid Anecdotes and Testimonials Are So Potent	54
The Amazing Randi: Fighting Fire with Fire	55
Testimonials Open the Door to Pseudoscience	57
Summary	62
5 Correlation and Causation: Birth Control by the Toaster Method	63
The Third-Variable Problem	64
Why Goldberger’s Evidence Was Better	65
The Directionality Problem	68
Selection Bias	70
Summary	72
6 Getting Things Under Control: The Case of Clever Hans	74
Snow and Cholera	75
Comparison, Control, and Manipulation	76
Random Assignment in Conjunction with Manipulation Defines the True Experiment	77
The Importance of Control Groups	79
The Case of Clever Hans, the Wonder Horse	83
Clever Hans in the 1990s and in the Present Day	85
Prying Variables Apart: Special Conditions	88

Intuitive Physics	90
Intuitive Psychology	91
Summary	93
7 “But It’s Not Real Life!”: The “Artificiality” Criticism and Psychology	94
Why Natural Isn’t Always Necessary	94
The Random Sample Versus Random Assignment Confusion	96
Theory-Driven Research Versus Direct Applications	97
Applications of Psychological Theory	99
The “College Sophomore” Problem	101
The Real-Life and College Sophomore Problems in Perspective	104
Summary	105
8 Avoiding the Einstein Syndrome: The Importance of Converging Evidence	106
The Connectivity Principle	107
A Consumer’s Rule: Beware of Violations of Connectivity	108
The “Great-Leap” Model Versus the Gradual-Synthesis Model	109
Converging Evidence: Progress Despite Flaws	110
Types of Converging Evidence	113
Scientific Consensus	118
Methods and the Convergence Principle	118
The Progression to More Powerful Methods	119
A Counsel Against Despair	122
Summary	124
9 The Misguided Search for the “Magic Bullet”: The Issue of Multiple Causation	125
The Concept of Interaction	126
The Temptation of the Single-Cause Explanation	128
Summary	131
10 The Achilles’ Heel of Human Cognition: Probabilistic Reasoning	132
“Person-Who” Statistics	135

Probabilistic Reasoning and the Misunderstanding of Psychology	136
Psychological Research on Probabilistic Reasoning	138
Insufficient Use of Probabilistic Information	139
Failure to Use Sample-Size Information	140
The Gambler's Fallacy	142
A Further Word About Statistics and Probability	144
Summary	146
11 The Role of Chance in Psychology	147
The Tendency to Try to Explain Chance Events	147
Explaining Chance: Illusory Correlation and the Illusion of Control	150
Chance and Psychology	151
Coincidence	151
Personal Coincidences	153
Accepting Error in Order to Reduce Error: Clinical Versus Actuarial Prediction	155
Summary	160
12 The Rodney Dangerfield of the Sciences	162
Psychology's Image Problem	163
Psychology and Parapsychology	163
The Self-Help Literature	165
Recipe Knowledge	166
Psychology and Other Disciplines	167
Our Own Worst Enemies	168
Our Own Worst Enemies, Part II: Psychology	
Has Become an Ideological Monoculture	172
Isn't Everyone a Psychologist? Implicit Theories of Behavior	178
The Source of Resistance to Scientific Psychology	179
The Final Word	182
References	183
Name Index	210
Subject Index	217