





社会研究方法:

定性研究与定量研究









【美】威廉・劳伦斯・纽曼(W. Lawrence Neuman)



社会研究方法

——定性研究与定量研究

(第6版)

[美] 威廉·劳伦斯·纽曼 著

人民邮电出版社 非 京

图书在版编目(CIP)数据

社会研究方法:定性研究与定量研究(第6版):英文/(美)纽曼(Neuman, W. L.) 著. 一影印本. 一北京:人民邮电出版社,2010.1

ISBN 978 - 7 - 115 - 21888 - 9

I. ①社··· Ⅲ. ①纽··· Ⅲ. ①社会学—方法论—高等学校—教材—英文 Ⅳ. ①C91 - 03 中国版本图书馆 CIP 数据核字(2009)第 223270 号

Neuman, William Lawrence

Social Research Methods: Qualitative And Quantitative Approaches, 6th Edition

ISBN 0 - 205 - 45793 - 2

Copyright © 2006 by Pearson Education, Inc.

Posts & Telecom Press is authorized by Pearson Education to publish and distribute exclusively this reprint edition. This edition is authorized for sale in the People's Republic of China only (excluding Hong Kong SAR, Macau SAR and Taiwan). Unauthorized export of this edition is a violation of the Copyright Act. No part of this publication may be reproduced or distributed by any means, or stored in a database or retrieval system, without the prior written permission of the publisher. 本书英文影印版由 Pearson Education 公司授权人民邮电出版社独家出版发行。此版本仅限在中华人民共和国境内(不包括中国香港、澳门特别行政区及中国台湾地区)销售。未经授权的本书出口将被视为违反版权法的行为。未经出版者预先书面许可,不得以任何方式复制或发行本书的任何部分。

本书封底贴有 Pearson Education 公司和人民邮电出版社防伪标签,无标签者不得销售。 北京市版权局著作权合同登记号: 01 - 2008 - 0252 版权所有,侵权必究。

社会研究方法:定性研究与定量研究(第6版)

◆ 著 「美」威廉・劳伦斯・纽曼

策划 刘力陆瑜 责任编辑 刘力 刘丽丽

◆ 人民邮电出版社出版发行 北京市崇文区夕照寺街 14 号 A 座

邮编 100061 电子函件 315@ ptpress. com. cn

网址 http://www.ptpress.com.cn

电话 (编辑部)010-84937150 (市场部)010-84937152 (教师服务中心)010-84931276

北京圣瑞伦印刷厂印刷 新华书店经销

印张: 35.75

字数: 811 千字 2010 年 1 月第 1 版 2010 年 1 月第 1 次印刷 著作权合同登记号 图字: 01 - 2008 - 0252

ISBN 978 -7 -115 -21888 -9/F

定价: 68.00 元

内容提要

威廉·劳伦斯·纽曼的《社会研究方法》(Social Research Methods)是一部概述社会科学研究方法的经典之作。近20年来,在美国、英国、加拿大、澳大利亚、新加坡、中国台湾、中国香港等国家和地区的高校内被广泛选作教材,本书是其最新修订的第6版的英文版。该书对定性研究和定量研究进行了全面而均衡的论述,强调了将各种方法综合运用的益处。书中收录了大量真实社会研究案例,从而帮助学生和读者形象地理解和掌握概念和方法。

全书分 5 编共 16 章,分别介绍了理论与方法的关系,方法 论的含义,文献检索与学术伦理,定量与定性研究的设计、测量与取样,实验研究,调查研究,非反应式研究、田野研究、 历史比较研究,以及如何撰写研究报告等。

本书可作为我国高等院校经济学、管理学、心理学、政治学、 法学、社会学、教育学以及传播学等社会科学专业本科研究方 法双语教学课适用教材,也可供专业研究人员参考。

王 垒

中国心理学有一个很早的开端,却只有不长的历史。从 1900 年京师大学堂开设"心理学概论"课程, 1917 年北京大学成立中国第一个科学心理学实验室, 到随后清华大学、杭州大学等一批学校成立心理学系, 说起来有一个多世纪了。但由于 20 世纪战争与和平的较量以及文化意识形态领域里的跌宕起伏, 相当多的时间被耽误了, 学科发展被拖了后腿, 算起来, 中国心理学界真正能够用心做学问的时间不过半个世纪。

中国心理学有一个不错的开端,却有坎坷的历程。早在1908~1910年、1912~1913年,蔡元培先生两度在德国游学,两度选修了冯特的"实验心理学"课程,这对他后来极力推动北京大学心理学的发展起了很大的作用。更有20世纪20~30年代,唐钺、孙国华、陈立、潘菽、曹日昌、朱智贤、周先庚等一批学者在美国哈佛、斯坦福、康奈尔、芝加哥等著名大学留学归来,投入国内心理学建设,形成了北方、南方诸多学校心理学齐发展的格局。但由于经费困难,后来的战乱,20世纪50~60年代一些对心理学的不公正对待,中国心理学经历了"几起几落"。

改革开放以来,中国心理学迎来了大发展的春天,教学和研究迅速普及,师资队伍和学生规模始终呈高速度扩张态势。在1980年,国内只有北京大学、北京师范大学、华东师范大学和杭州大学4个学校设有心理学系,到20世纪90年代初中期增加到了约20余所学校,再到21世纪初这几年增加到了100多所学校,发展速度可谓惊人。

然而,高速发展也产生发展中的瓶颈。一方面,众多学校建设心理学系, 开展心理学教学和研究,同时国内社会经济与文化的发展对心理学的需求 越来越旺盛;另一方面,国内心理学的总体水平相对西方发达国家还比较落 后,教学研究队伍并不强大,教学研究水平仍亟待提高。这种需求与供给、 速度与质量的矛盾不断激化,要保证国内心理学的健康发展,必须寻求一些 有效的方法和途径。

"西学东渐"、"洋为中用"是可以推荐的诸多方法之一。教育部高教司 近年来大力提倡引进外版教材和开展双语教学,这无疑对我国心理学教学 的发展产生巨大的推动作用。据统计,美国每年授予博士学位人数最多的学科是心理学,可见心理学在美国的重要和普及程度。心理学诞生在西方,心理学的高等教育也在西方积累了较丰富的经验,教材在内容、形式上都已经比较成熟,而且能够快速有效地跟进国际心理学科学发展的前沿趋势,这对于保持高等教育的水平有着举足轻重的作用。相比来看,我国内地一些地区心理学师资匮乏,一些自编教材低水平重复,对教、学质量均有很大负面影响,情况堪忧。

教育部高等学校心理学教学指导委员会是国家教育部设立的心理学高等教育指导、咨询机构,负责制定国家心理学高等人才培养的宏观战略和指导规范。根据教育部发展高等教育的有关精神,我们与国内外多家出版机构合作,作为一个长期的工程,有计划、分期分批地引进外版教材,以期推动我国心理学教学的快速高效发展。

培生教育出版集团在出版心理学教材方面富有经验,此次引进的教材 均是培生多次再版,被实践证明为适合高等学校教学的优秀教材。特别是 这些教材均经过国内著名专家学者鉴定并大力推荐,这对引进教材的质量 起到了重要的把关作用。在此谨对这些专家学者表示特别的感谢和敬意!

希望这套教材对高校的心理学教学有所帮助,并祝愿我国的心理学高等教育事业蓬勃发展!

王垒

北京大学心理学教授

教育部高等学校心理学教学指导委员会主任

方法论和方法学问题历来是社会科学研究的关键问题,方法论的突破意味着相关学科领域研究深化。然而在我国,社会科学研究的方法学的发展与更新一直比较滞后,而且,我国大学的本科教育和研究生教育对学生研究方法训练的系统性和前瞻性还存在明显的不足。这其中的一个重要原因是有关社会科学研究方法方面的教材结构和内容还存在着一些明显的问题。选择合适的教材是社会科学相关领域本科生和研究生训练的首要步骤。从这个意义上讲,我很乐意推荐W. L. Neuman 教授所著的《社会研究方法——定性研究与定量研究》作为研究社会科学相关领域本科生或研究生学习研究方法的教材。纵观这本教材,我认为它具有以下几个方面的特点:

首先,该书以科学研究的步骤为线索,对社会科学研究的方法进行了系统的梳理,便于学习者从整体上把握社会科学研究方法的脉络。该书第一部分为基础概念部分,介绍了科学和研究,研究的特征,理论和研究,方法学的意义,文献综述和研究的伦理道德。这一部分的目的是引导学生理解科学,并懂得研究方法和统计在科学中的重要性。第二部分为研究的计划和准备,介绍了定量和定性研究设计、测量和取样,以便学生正确评价定量和定性两个不同的研究过程。第三部分和第四部分使学生了解不同的研究方法所对应的不同的统计分析手段。第三部分为定量数据的收集和分析,介绍了实验研究,调查研究,二次分析等量化数据的收集和分析,介绍了由野研究,历史比较研究,以及如何分析定性数据。最后一个部分简要介绍了研究报告的撰写,以及社会政治对研究的影响。

其次,在这本书中,作者将定量研究与定性研究并重,以同等笔墨介绍定量研究和定性研究的方法。在以往的教科书中,作者通常重视定量研究方法,用大量的篇幅介绍定量研究的各种方法。在这类教材中定性研究只是作为定量研究的补充而存在。事实上,目前社会科学的研究方法从上一个世纪中后期偏重强调定量研究的取向有所回归,越来越多的研究者开

始重新认识定性研究的价值,强调要重视定性研究。然而,目前常见的介绍定性研究的书籍往往内容艰涩,初学者很难把握其中的要领。在这本书中,Neuman 教授简洁明了地介绍了常见定性研究的各类方法,可以说这本书是初学定性研究方法的学习者了解该类方法的很好的入门材料。

第三,本书的组织方式与国内传统的方法学教材有很大不同。国内的研究方法教材通常不依照研究的步骤安排章节,而是依照研究的方法,依次介绍文献法、观察法、访谈法、实验法和问卷法,最后再介绍数据的整理和分析。学生虽然能快速地懂得如何使用研究方法,却难以了解研究背后的意义,以及理论、方法与统计相结合的意义。而我希望学生能够从一个更大的、更宏观的角度来理解研究方法和统计。社会研究不是抽象的规则和深奥的技术,而是一个活生生地发现的过程和知识的创建。W. Lawrence Neuman 教授的这本书从研究的理论基础、设计、实施到数据分析,这样循序渐进的方法更适合学生的学习。

另外,本书的每一章节都引用了大量国际上经典和最新的研究文献, 对学习者的学习有极大的参考作用。学习者可以根据每章后罗列的文献目录,选择喜欢的文献进行深入的阅读和学习。这也是本书的一个特色。

正是因为这些方面的特点,这本教材自从出版以来已经连续再版 6 次,深受学习者的欢迎。我希望大家在阅读此书之后,有不同于过去的崭新的感悟。

辛 涛北京师范大学发展心理研究所教授

Preface

When I wrote the first edition of this textbook, nearly fifteen years ago, I never imaged that it would become a success and attract a large, loyal following. I continue to strive to make this book a comprehensive, authoritative introduction to social science research that is highly accessible to students who are new to the field.

In addition to generally updating examples and incorporating recent research on specific data collection techniques, I made other changes in the sixth edition. The changes, made in response to teachers who have used previous editions, represent an attempt to improve the clarity of presentation.

First, I moved key term definitions from a separate glossary at the end of the textbook to notes within the text itself. Students told me that they had trouble with some definitions and often turned to the back to read formal definitions after a term was introduced in the text. I thought that moving the definitions to appropriate locations in the text would help students to learn and understand the terms more quickly and in the proper context.

Second, readers of past editions will notice that I rearranged the organization of material in several chapters. This was done to build the sequence of concepts and to make the presentation of material clearer to students. The integration of qualitative and quantitative styles of research remains, but I refined it and clarified how the two styles are different yet complementary. In addition, I now repeat references to a small number of example studies on a few topics, instead of introducing many studies on a disparate range of topics. This should make it easier for students to examine a study in depth and see how multiple studies on one topic can be interrelated to build more general knowledge.

A third change was to reduce some discussions and expand others. For example, information on the web survey was expanded, and in several places didactic charts have been added. Besides rewriting some sections in each chapter, I substantially reorganized and revised the chapters on theory and re-

search design. New information on survey research techniques, cross-cultural research, and the negative case study was added. The following supplements are available to assist both students and instructors:

- Instructor's Manual with Test Items
- TestGen EQ Computerized Test Bank for Windows and Macintosh
- M Student Workbook with Data CD-ROM
- Student SPSS software (packaged with the text on request at a special price)
- Research NavigatorTM, an online research database that is searchable by key word and provides access to thousands of full-text articles from scholarly social science journals, popular magazines, and newspapers (free to students when the text is packaged with a Research NavigatorTM Guide)
- Allyn & Bacon Social Research Website (www.ablongman.com/socialresearch)

This edition continues a commitment to show students that social research is an exciting, important process that real people conduct. My premise is that social research is not a collection of disembodied, abstract principles or arcane techniques; rather, it is a living, breathing process of discovery and knowledge creation. The process is one that most students can master or at least understand with modest effort and study. Professional researchers need to have a high level of dedication and commitment, but they are only human. They live in the real social, political, and historical world, and it can affect them. The effects include the influence of cultural assumptions, beliefs, and values that can lead to ethnocentric or nationalist views if one is not careful. The text continues to seek an international audience.

I believe social researchers need to be simultaneously detached from and involved in the social-political world around them. A degree of detachment from everyday events and concerns helps maintain

a critical scientific perspective. Current fashions, pressing issues, and public concerns can have a negative influence on research. In a quest for relevance, they demand that research provide quick answers. skip steps, and take shortcuts; they rarely allow time for contemplation or examining past accumulated knowledge and alternative points of view. Often economic, political, and practical pressures attempt to turn social research into a nonreflective "quick fix" technology that anyone can apply to resolve a huge range of contemporary problems or issues. When social research is reduced to a simple technology, it leaves behind a vital part of what research really means. The ethos, an attitude, and a perspective of social research is a craftlike process of knowledge creation that extends beyond contemporary society today.

At the same time, excessive detachment can be a danger. If researchers do not apply research in practical applications or ignore the concerns of the day, they may be playing an ivory tower game. Soon, the public and societal leaders will cease to trust, understand, or support research. This requires social researchers to balance a degree of detachment with an awareness of how research is relevant for many practical affairs.

Lastly, this text continues to show students the value of both qualitative and quantitative approaches to research. I believe that maintaining a diversity of perspectives and research techniques will best advance knowledge of the social world, and that a tension between different research styles is healthy.

ACKNOWLEDGMENTS

I would like to thank the reviewers of this edition of *Social Research Methods*: Linda Liska Belgrave, University of Miami; William Gabrenya, Florida Institute of Technology; Kelley Hall, DePauw University; Sandra L. Hofferth, University of Maryland; Bethany L. Letiecq, Montana State University; and Rae S. Shevalier, Metropolitan State College.

Contents

Preface xi

PART ONE Foundations

CHAPTER 1 Science and Research 1

Alternatives to Social Research 2

How Science Works 6

Quantitative and Qualitative

Social Research 13

Steps in the Research Process 14
Why Conduct Social Research? 20

Conclusion 20

CHAPTER 2 Dimensions of Research 23

Dimensions of Research 23

Conclusion 47

CHAPTER 3 Theory and Research 49

What Is Theory? 50

Social Theory versus Ideology 50

The Parts of Social Theory 52

Aspects of Theory 58
The Dynamic Duo 76
Conclusion 77

CHAPTER 4 The Meanings of Methodology 79

The Three Approaches 80

Positivist Social Science 81

Interpretive Social Science 87

Critical Social Science 94

Feminist and Postmodern Research

Conclusion 104

CHAPTER 5
The Literature Review and Ethical
Concerns 110

The Literature Review 110
Ethics in Social Research 129

Conclusion 146

PART TWO

Planning and Preparation

CHAPTER 6 Qualitative and Quantitative Research Designs 149

Triangulation 149

Qualitative and Quantitative Orientations toward Research 151

Qualitative Design Issues 157

Quantitative Design Issues 160

Conclusion 174

102

CHAPTER 7

Qualitative and Quantitative Measurement 179

Why Measure?

180

Quantitative and Qualitative

Measurement

Parts of the Measurement Process

181

Reliability and Validity

188

A Guide to Quantitative Measurement

198

Index Construction

202

Scales 206

Conclusion

216

CHAPTER 8

Qualitative and Quantitative

Sampling 219

Nonprobability Sampling

Probability Sampling

224

220

Conclusion

244

PART THREE

Quantitative Data Collection and Analysis

CHAPTER 9

Experimental Research 246

Research Questions Appropriate for an

Experiment

A Short History of the Experiment in Social

Research

248

Random Assignment 249

Experimental Design Logic

252

Internal and External Validity

Practical Considerations

2.59

267

Results of Experimental Research:

Making Comparisons 267

A Word on Ethics

CHAPTER 10

Survey Research

269

272

273

276

277

Conclusion

for a Survey

269

CHAPTER 12

Analysis of Quantitative Data 343

Dealing with Data 344

Results with One Variable

346

Results with Two Variables

353 362

339

More than Two Variables

Inferential Statistics

370

Conclusion 374

Constructing the Ouestionnaire Types of Surveys: Advantages and

Research Questions Appropriate

A History of Survey Research

The Logic of Survey Research

273

Disadvantages

299

Interviewing

304

The Ethical Survey

313

Conclusion

314

CHAPTER 11

Nonreactive Research and Secondary Analysis 320

Nonreactive Measurement

320

Content Analysis 322

Existing Statistics/Documents and Secondary

Analysis

331

Issues of Inference and Theory Testing

Conclusion

340

PART FOUR

Qualitative Data Collection and Analysis

379

406

C	H	A	P	T	E	R	4	3	
Field Research									378

Research Questions Appropriate for Field Research 379 A Short History of Field Research

The Logic of Field Research

Choosing a Site and Gaining Access 385

Relations in the Field 392

Observing and Collecting Data 396 The Field Research Interview

Leaving the Field

Ethical Dilemmas of Field Research 412

Conclusion 414

CHAPTER 14 **Historical-Comparative Research** 418

A Short History of Historical-Comparative Research 419

Research Questions Appropriate for Historical-Comparative Research 419

The Logic of Historical-Comparative Research 420

Steps in a Historical-Comparative Research Project 428

Data and Evidence in Historical

Context 430

Comparative Research

Equivalence in Historical-Comparative

437

Research 449

Ethics 452

Conclusion 453

CHAPTER 15

Analysis of Qualitative Data 457

Comparing Methods of Data **Analysis** 458

Coding and Concept Formation 459

Analytic Strategies for Qualitative

Data 466

Other Techniques 480

Conclusion 488

PART FIVE

Communicating With Others

CHAPTER 16 Writing the Research Report and the **Politics of Social Research** 490

The Research Report 491 The Politics of Social Research

Objectivity and Value Freedom

516

504

Conclusion 518

Appendixes

APPENDIX A
American Sociological Association Code
of Ethics 521

APPENDIX B
Table of Randomly Selected Five-Digit
Numbers 535

A P P E N D I X C
Sample of Data Archives and Resources for Secondary Analysis 537

Bibliography 548

Name Index 552

Subject Index 554

A P P E N D I X D

Measurement Theory and Specialized
Techniques for Index and Scale
Construction 539

APPENDIX E
Evaluation Research 543

Science and Research

Alternatives to Social Research

Authority Tradition Common Sense Media Myths Personal Experience

How Science Works

Science Pseudoscience and Junk Science The Scientific Community The Norms of the Scientific Community The Scientific Method and Attitude

Journal Articles in Science Science as a Transformative Process

Quantitative and Qualitative Social Research

Steps of the Research Process

The Steps **Quantitative Studies Qualitative Studies**

Why Conduct Social Research? Conclusion

The sociologist, then, is someone concerned with understanding society in a disciplined way. The nature of this discipline is scientific. This means that what the sociologist finds and says about the social phenomena he studies occurs within a certain rather strictly defined frame of reference.

-Peter Berger, An Invitation to Sociology, p. 16

Regardless of whether we are aware of it, we are surrounded by social research. Educators, parents, business managers, administrators, government officials, business leaders, human service providers, and health care professionals regularly use social research findings and principles in their jobs. They use social research to raise children, reduce crime, improve public health, sell products, or just understand one's life. Research may seem remote but it has a relevance for daily life. Reports of research appear on broadcast news programs, in magazines, and in newspapers. Recently, I read in my daily newspaper about studies showing that children who watch more TV have lower reading scores and more behavior problems, that the D.A.R.E. antidrug program and "boot camps" for criminal offenders are wholly ineffective, that 10- to 14-year-olds who

watch R-rated films are more likely to start smoking than those who watch only G or PG films, that 31 percent of gay teens were physically threatened or injured while in school, and that medical doctors admitted through Affirmative Action programs are just as successful as those admitted on test scores and grades alone.1

Research does not always guide decisions. Political leaders sometimes advance new policies without scientific evidence or that rely on weak or flawed research. For example, shortly after President George W. Bush took office in 2001, he proposed government funding for "faith-based" social programs instead of traditional methods. Critics observed that almost no evidence showed that faith-based programs were effective. Only a single study existed on a faith-based program to reduce drug dependence, but it was unpublished and had many methodological flaws.²

This book is about social research. In simple terms, research is a way of going about finding answers to questions. Social research is conducted by sociologists, social scientists, and others to seek answers to questions about the social world. You probably already have some notion of what social research entails. First, let me end possible misconceptions. When I ask students what they think research entails, they usually give the following answers:

- Based on facts alone, without theory or judgment
- Read or used only by experts or college professors
- Done only in universities by people with Ph.D. degrees
- Involves going to the library and finding articles on a topic
- Hanging around some exotic place and observing people
- Conducting an experiment in which people are tricked into doing something
- Drawing a sample of people and giving them questionnaires
- Looking up lots of tables from government reports or books
- Using computers, statistics, charts, and graphs

The first three of these answers are wrong, and the others describe only part of what constitutes social research. It is unwise to confuse one part with the whole. Just as you would never mistake wearing shoes for being fully dressed, you should not mistake any one of these items for social research.

Social research involves learning something new about the social world. To do this, a researcher needs to think logically, follow rules, and repeat steps over and over. A researcher combines theories

Social research A collection of methods and methodologies that researchers apply systematically to produce scientifically based knowledge about the social world.

or ideas with facts in a systematic way and uses his or her imagination and creativity. He or she learns to organize and plan carefully and to select the appropriate technique to address a question. A researcher also must treat the people in a study in ethical and moral ways. In addition, a researcher must communicate to others clearly.

Social research is a collection of methods people use systematically to produce knowledge. It is an exciting process of discovery, but it requires persistence, personal integrity, tolerance for ambiguity, interaction with others, and pride in doing quality work. You will learn more about the diversity of social research in Chapter 2.

This book is about research methodology and methods, two terms often treated as synonyms. Methodology is broader than methods and envelops methods. It is understanding the social-organizational context, philosophical assumptions, ethical principles, and political issues of the enterprise of social researchers who use methods. Methods are sets of specific techniques for selecting cases, measuring and observing aspects of social life, gathering and refining data, analyzing the data, and reporting on results. The two are closely linked and interdependent, but distinct.

ALTERNATIVES TO SOCIAL RESEARCH

You learned most of what you know about the social world by an alternative to social research. A great deal of what you know is based on what your parents and others have told you. You also have knowledge that you have learned from personal experience. The books and magazines you have read and the movies and television you have watched also have given you information. You may also use common sense.

In addition to being a collection of methods, social research is a process for producing knowledge. It is a more structured, organized, and systematic process than the alternatives.³ Knowledge from the alternatives is often correct, but knowledge based on research is more likely to be true and has fewer errors. It is important to recognize that research does not always produce perfect knowledge.

edge. Nonetheless, compared to the alternatives, it is less likely to be flawed. Let us review the alternatives before examining social research.

Authority

You gain knowledge from parents, teachers, and experts as well as from books and television and other media. When you accept something as being true just because someone in a position of authority says it is true or because it is in an authoritative publication, you are using authority as a basis of knowledge. Relying on the wisdom of authorities is a quick, simple, and cheap way to learn something. Authorities often spend time and effort to learn something, and you can benefit from their experience and work.

Relying on authorities also has limitations. It is easy to overestimate the expertise of other people. You may assume that they are right when they are not. Authorities may speak on fields they know little about; they can be plain wrong. An expert in one area may try to use his or her authority in an unrelated area. Have you ever seen television commercials in which an expert in football uses that expertise to try to convince you to buy a car? In addition, there are the questions: Who is or is not an authority? Whom do you believe when different authorities disagree?

Authority is frequently misused. For example, the National Center for Public Policy Research, an advocacy group funded by large corporations, had a list of environmental experts in 27 policy fields. Only 51 of the 141 names on the list had a Ph.D. in any area, and some of the Ph.D.'s were in unrelated areas.⁴ All legitimate scientists may not agree 100 percent of the time, but sometimes a person who has training and expertise in one area (e.g., space physics) speaks about an unrelated area (e.g., crime policy). Using the halo effect (discussed later), a person may apply expertise in one area illegitimately to act as an authority in a different area.

A related situation occurs when a person becomes a "senior fellow" or "adjunct scholar" in a private "think tank" that has an impressive name, such as the Center for the Scientific Study of X.

Some think tanks are legitimate research centers, but many are mere fronts created by wealthy special-interest groups to engage in advocacy politics. No regulations control the titles of think tanks, and anyone can become a "scholar" in the group. The purpose is to facilitate the person making authoritative statements to the mass media as if he or she were a neutral third party who had some kind of expertise. In reality, the person may lack expertise and make statements that do not come from serious research.⁵

History is full of past experts whom we now see as being misinformed. For example, some "experts" of the past measured intelligence by counting bumps on the skull; other "experts" used bloodletting to try to cure diseases. Their errors seem obvious now, but can you be certain that today's experts will not become tomorrow's fools? Also, too much reliance on authorities can be dangerous to a democratic society. An overdependence on experts lets them keep others in the dark, and they may promote ideas that strengthen their power and position. When we have no idea of how the experts arrived at their knowledge, we lose some of our ability to make judgments for ourselves.

Tradition

People sometimes rely on tradition for knowledge. Tradition is a special case of authority—the authority of the past. Tradition means you accept something as being true because "it's the way things have always been." For example, my father-in-law said that "drinking a shot of whiskey cures a cold." When I asked about his statement, he said that he had learned it from his father when he was a child, and it had come down from past generations. Tradition was the basis of the knowledge for the cure.

Here is an example from the social world. Many people believe that children who are raised at home by their mothers grow up to be better adjusted and have fewer personal problems than those raised in other settings. People "know" this, but how did they learn it? Most accept it because they believe (rightly or wrongly) that it was true in the past or is the way things have always been done.