STUDY GUIDE

Theodore Wagenaar
Earl Babbie

The Basics of Social Research

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FOR

THE BASICS OF SOCIAL RESEARCH

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Wadsworth Publishing Company
I(T)P® An International Thomson Publishing Company

Belmont, CA • Albany, NY • Boston • Cincinnati • Johannesburg • London • Madrid • Melbourne
Mexico City • New York • Pacific Grove, CA • Scottsdale, AZ • Singapore • Tokyo • Toronto

Printed in the United States of America
1 2 3 4 5 6 7 8 9 10

For more information, contact Wadsworth Publishing Company, 10 Davis Drive, Belmont, CA 94002, or electronically at http://www.wadsworth.com

International Thomson Publishing Europe
Berkshire House
168-173 High Holborn
London, WC1V 7AA, United Kingdom

International Thomson Editores
Seneca, 53
Colonia Polanco
11560 México D.F. México

Nelson ITP, Australia
102 Dodds Street
South Melbourne
Victoria 3205 Australia

International Thomson Publishing Asia
60 Albert Street #15-01
Albert Complex
Singapore 189969

International Thomson Publishing Japan
Hirakawa-cho Kyowa Building, 3F
2-2-1 Hirakawa-cho
Chiyoda-ku
Tokyo 102, Japan

Nelson Canada
1120 Birchmount Road
Scarborough, Ontario
Canada M1K 5G4

International Thomson Publishing Southern Africa
Building 18, Constantia Square
138 Sixteenth Road, P.O. Box 2459
Halfway House, 1685 South Africa

ISBN 0-534-55955-7

Preface

This book is designed for use in conjunction with *The Basics of Social Research*, by Earl R. Babbie. Its purpose is to reinforce and extend your understanding of the information in the text and to provide opportunities for you to apply the material in the textbook.

Each chapter begins with objectives that focus your attention on the major points. They are specific statements of expected learning outcomes and will enhance your learning if you complete them. Glance through them before reading the chapter and refer to and complete them as you progress through the chapter. A summary follows. Reading the summary before and after reading the chapter will give you both a preview and a review of its contents.

A list of the key terms follows the summary. Mark each in the text and try to restate the definition in the text. Several of the definitions for these terms are presented in the matching exercises to give you some practice. The answers and page number references are contained in Appendix 2 for your convenience. The review questions test both knowledge and the ability to apply the concepts and principles presented in the text. Be sure to complete them and check your answers with the correct answers in Appendix 2. Page numbers are provided in the event you wish to determine why you answered a particular question incorrectly. Completing these questions will enhance your performance on exams.

The discussion questions encourage you to address several of the major issues raised in the chapter. Writing out the answers in your own words will strengthen your understanding and application of these issues.

The best way to learn research methods is through actual practice. Hence, we have included several short exercises for each chapter. Several of them involve you in analyzing data from the General Social Surveys by using SPSS^{x} (or another data analysis program). Before starting work on an exercise, we suggest you read through the entire exercise first so that you will know everything that is required. Reread those portions of the chapter that deal with the topics covered in the exercise. Then you should be ready to start work. In suggesting so many different exercises, it was our intention to provide you and your instructor with options. The exercises are all limited enough in scope that you will be able to complete many of them during the course. But we certainly did not intend for you to do them all. Make sure your instructor knows that. Instructors are reminded that suggested answers for some of the exercises are presented in the *Instructor's Manual*.

Comments and suggestions are welcome. Please address comments to Theodore C. Wagenaar, Miami University, Department of Sociology, Gerontology, and Anthropology, Oxford, OH 45056. Email: wagenatc@muohio.edu.

Contents

Part 1

An Introduction to Inquiry

Chapter 1

Human Inquiry and Science

OBJECTIVES

1. Compare knowing things through agreement versus through experience.
2. Identify the two criteria needed for scientists to accept the reality of something they have not personally experienced.
3. Differentiate epistemology from methodology.
4. Define and illustrate causal reasoning and probabilistic reasoning.
5. Differentiate the scientific approach from the ordinary human inquiry approach to causal and probabilistic reasoning.
6. Differentiate prediction from understanding.
7. Describe the role of tradition and authority as sources of secondhand knowledge.
8. Define and illustrate each of the following errors in inquiry: inaccurate observations, overgeneralization, selective observation, and illogical reasoning.
9. Show how a scientific approach provides safeguards against each one of these errors.

10. Describe premodern, modern, and postmodern views of reality.

11. Describe the role of logic and observation as the bases of science.

12. Describe the three major aspects of the overall scientific enterprise.

13. Define theory and indicate how it differs from philosophy or belief.

14. Give three examples of social regularities.

15. Define aggregate and present a rationale for why social scientists examine aggregates.

16. Give four examples of variables and their respective attributes.

17. Differentiate independent and dependent variables by definition and example, and show how they contribute to understanding causality.

18. Compare idiographic and nomothetic explanations.

19. Compare inductive and deductive theory.

20. Compare quantitative and qualitative data.

21. Differentiate pure from applied research.

22. Identify two basic ethical rules in doing social research.

SUMMARY

People live in a world of two realities. People know things through agreement, the things people consider to be real because they have been told they are real. People also know things through direct experience. The scientific approach to both realities demands that two criteria be met: an assertion must have both logical and empirical support. Hence science is a special form of human inquiry, the result of the human desire to predict future events and to understand patterns of cause and effect. The textbook will examine social science methodology, which is a subfield of epistemology (the science of knowing).

Ordinary human inquiry is characterized by the recognition that some factors are caused by other factors, and that such patterns of cause and effect are probabilistic (the cause usually but not always brings about the effect). Understanding ordinary human inquiry also means distinguishing prediction from understanding. While it is possible to predict something without necessarily understanding it, understanding usually yields improved prediction abilities. In short, both what and why questions are addressed.

Two important sources of understanding are tradition and authority. The former involves accepting an inherited body of information and understanding, while the latter derives from the status of the transmitter of the knowledge. Authority and tradition can both assist and hinder human inquiry.

Ordinary human inquiry is prone to several errors. First, casual observations are frequently inaccurate. Science helps alleviate this error by mandating conscious observation. Second, people frequently overgeneralize on the basis of a few limited observations. Scientists protect themselves against overgeneralization by employing large random samples and by replicating studies. Third, people observe selectively, by paying attention to events that match a prior conclusion and ignoring those that do not. The scientific approach helps protect against this error by specifying in advance the number and types of observations to be made and by having several scientists investigate the same phenomenon. A fourth error is illogical reasoning, such as using an exception to prove a rule. Science helps here by providing systems of logic. In comparison to casual inquiry, scientific inquiry is a conscious activity and is more careful than our casual inquiry.

Most people give little thought to the nature of reality, something philosophers refer to as "naive realism." The nature of "reality" is more complex than we tend to assume, and can be approached through three views of reality. The premodern view of reality played a key role in earlier civilizations and assumed that things really were the way humans saw them. The modern view considers differing views of reality as legitimate; there is no one best view of what is assumed to exist. The postmodern view holds that what is "real" simply reflects our points of view and that there is actually no "objective" reality to be observed. The postmodern view highlights the difficulty scientists have in observing and explaining what is "real" because scientists' personal orientations can affect what they observe and how they explain what they observe.

Science is based on logic and observation. The scientific enterprise involves theory, data collection, and data analysis. Theory meets the scientific criterion of logic by

describing the logical relationships that exist among variables; it contributes to our understanding of what is observed. Data collection meets the scientific criterion of observation. Data analysis uncovers patterns in what is observed and helps compare what is logically expected with what is actually observed. Theory addresses what is, not what should be. Hence scientists cannot settle debates on values. In short, social science can only help in knowing what is and why.

Social scientific theory and research help uncover the social regularities underlying social life. Some people argue that contradictory cases negate social regularities; scientists point out that social regularities represent probabilistic patterns that need not apply to every situation. In short, social scientists analyze aggregates instead of individuals by examining the relationships between variables. They do so by examining the distributions of people across the attributes of variables that reflect causes (independent variables) and effects (dependent variables). Understanding causal connections remains paramount.

Four broad and connected distinctions underlie many of the variations of social research. The first involves two types of causal reasoning. Idiographic explanations address all the unique factors that help explain one particular case while nomothetic explanations address the major factors that help explain something across many cases. The second involves two types of theory. Inductive reasoning moves from particular observations to the discovery of a pattern underlying the particular observations. Deductive reasoning moves from a pattern that might be logically or theoretically expected to observations that confirm or disconfirm the expected pattern. The third involves the distinction between numerical and non-numerical data. Quantitative analysis helps make our observations more explicit and affords statistical analyses. Qualitative analysis provide greater detail and provide a greater richness of meaning than does quantitative analysis. The fourth involves two motivations for scientists. Pure research seeks knowledge for knowledge's sake alone while applied research seeks to apply knowledge to everyday problems in order to help address them.

Research ethics affect the process of social research. Social scientists follow two basic ethical rules. First, research should not harm the research subjects. Second, participation should be voluntary.

TERMS

1. aggregates
2. attributes
3. applied research
4. authority
5. causal reasoning
6. causation
7. data collection
8. data analysis
9. deductive theory
10. dependent variable
11. empiricism
12. epistemology
13. idiographic explanation
14. inaccurate observations
15. independent variable
16. inductive theory
17. methodology
18. modern view of reality
19. nomothetic explanation
20. overgeneralization
21. postmodern view of reality
22. prediction
23. premodern view of reality
24. probabilistic reasoning
25. pure research
26. qualitative data
27. quantitative data
28. relationship
29. selective observation
30. social regularities
31. theory
32. tradition
33. understanding
34. variables

MATCHING

17 1. The science of finding out. Methodology

19 (2.) Explanation that seeks to identify the major factors that affect something across many cases. Nomothetic explanation

34 (3.) A source of knowledge that is obtained from experts. Variables

~~3~~ 20 (4.) The assumption that a few similar events are evidence of a general pattern. Overgene

9 (5.) Interpreting events to fit a general pattern that a researcher believes to be true. Selective observation

30 6. Logical and persistent patterns in social life. Social Regularities

34 (7.) Logical groupings of attributes. Variables

28 (8.) An association that links variables. Relationships

REVIEW QUESTIONS

(A reminder: the answers are in Appendix 2)

1. Most of what we know is a matter of
   a. personal experience.
   b. a result of scientific discovery.
   c. empirical evidence.
   (d.) agreement reality.
   e. logical support.

2. Which one of the following is the best example of agreement-based knowledge?
   a. you meet 15 Graskinos and conclude that they are all prejudiced
   b. you develop a scale to measure love and give it to 20 people
   c. you accept prejudice as wrong because that is what the Bible says
   (d.) you do not get right next to people when you talk to them because it violates a norm
   e. you run an experiment to test the effect of crowding

(3.) The two foundations of science are
   a. tradition and observation.
   (b.) observation and logic.
   c. logic and theory.
   d. theory and observation.
   e. logic and generalization.

4. When you hear the 4:27 train blow its whistle as you walk home from school every day, you can expect within minutes to smell Ms. Stockland's cooking. This is an example of
   a. understanding without prediction.
   b. understanding with prediction.
   c. prediction with understanding.
   (d.) prediction without understanding.
   e. scientific reasoning.

5. "But my professor said that no significant differences exist between men and women regarding intelligence." What source of understanding does this example reflect?

a. personal experience
b. tradition
c. authority
d. public opinion
e. science

6. A student meets two fraternity men at a party who talk about all the partying they do. She then concludes that all fraternity men party all the time. What error in understanding does this example reflect?
a. inaccurate observation
b. overgeneralization
c. selective observation
d. illogical reasoning
e. overemphasis on authority

7. In your discussion of measurement with a friend, she argues that what you are trying to measure does not exist and that your own point of view will determine what you perceive in your measuring process. She has taken which view of reality?
a. correct
b. premodern
c. modern
d. postmodern
e. scientific

8. You have just had a wonderful streak of great luck in your methods class: you've gotten A's on the last three tests and computer assignment. You have a research project due on the last day of class and you just know that you are going to flunk it. After all, something has to happen to break up this streak of good luck. You have fallen prey to the error of
a. illogical reasoning.
b. inaccurate observation.
c. selective observation.
d. over-emphasis on tradition.
e. overgeneralization.

9. Criminal justice student Vierling has noticed in her internship that adolescents who have experienced difficulties in school are more likely to become juvenile delinquents. In her process of going from specific observations to the discovery of a more general pattern, she has employed

a. social regularity thinking.
b. illogical reasoning.
c. deductive reasoning.
d. inductive reasoning.
e. nomothetic inquiry.

10. Science
a. deals with what should be and ***not*** with what is.
b. can settle debates on value.
c. is exclusively descriptive.
d. has to do with disproving philosophical beliefs.
e. has to do with how things are and why.

11. Scientists do not study individuals per se, but instead study social patterns reflecting
a. aggregates.
b. collectivities.
c. theories.
d. attributes.
e. norms.

12. Professor Fremming examined the following categories of marital status: married, never married, widowed, separated, and divorced. These categories are known as
a. variables.
b. attributes.
c. variable categories.
d. units of analysis.
e. theoretical elements.

13. When social scientists study variables, they focus on
a. attributes.
b. groups.
c. people.
d. characteristics.
e. relationships.

14. Senator Josephson researched the effects of political orientation on attitudes toward abortion. "Political orientation" is an example of
a. an attribute.

b. an independent variable.
c. an aggregate.
d. a unit of analysis.
e. a dependent variable.

DISCUSSION QUESTIONS

1. How do tradition and authority hinder inquiry? How do they support it? Give examples.

2. Present both sides of the argument that the scientific approach is the best approach to understanding.

3. Show how the three views of reality reflect the intellectual climate of the time during which they developed.