

# 9

## Observation

*The Problem*  
*The Obstacles*  
*Practical Suggestions*

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In a sense, **all scientific research involves observation** of one kind or another. This is what **empiricism** means (Review Chapter One if needed). But in this chapter we come to focus on observation as one specific research technique among many. In this sense, the term “**observation**” means “**looking at something without influencing it and simultaneously recording it for later analysis.**”<sup>1</sup> In observational research, we do not deal with what people want us to know (self-report measures) or with what some test writer believes he knows (tests and scales). Rather, we deal with actual people in real situations. People are seen in action.

As such, observation is the most basic of techniques. The researcher with pad in hand carefully observes subjects he has selected in order to quantify variables he is interested in. Deciding what to observe and who to observe has been discussed in more general ways. Here we will look at how to record what is seen, and what mode of observation to use.

Before we move to practical steps in doing observational research, we must first consider the **biggest problem** in observational research. That problem is, quite simply, the **human being who does the observing.**

### The Problem of the Observation Method

Observation is a natural process. We do it all the time. We look at and listen to people. We infer meanings, characteristics, motivations, feelings, and intentions. We “know” when someone is sincere or not. We can “feel” whether or not someone is telling the truth. And this is the problem.

When an observer moves from the **actions he sees** to an **inference of motivation** behind those actions, his observational data is as much related to **who he is** as it is to **what subjects do**. The major problem with observation is the fact that the observer is human! Observers have feelings, aspirations, fears, biases, and prejudices. Any one of these can influence and distort that which is being observed. Here’s two examples:

An observer watches a group of children at play. One child turns to another and strikes him on the arm. The observer jots down “hostility.” The event was “one child strikes another.” The observer interpreted the act to be one of hostility, which is a complex con-

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<sup>1</sup>June True, *Finding Out: Conducting and Evaluating Social Research* (Belmont, CA: Wadsworth, 1983), 159

struct.

Two people watch a prominent television evangelist preach for ten minutes. One responds, "What courageous leadership! What a man of God!" The other responds "What a con man! He sure can manipulate people!" The difference in the data is in the observers, not in the evangelist. More data is needed to determine which of these two pictures is more correct.

These two examples illustrate **inference**, an enemy of valid and reliable data. When an observer **infers motive to observed action**, he adds something of himself to the data. Such data is distorted, invalid and unreliable.

A second enemy is **interference**. The **very presence of the observer** can affect the behavior of the people being observed. Tell a Sunday School teacher you'll be visiting his class the next Sunday, and you can expect a marked improvement in preparation of the lesson. This factor is also the rationale for using "undercover agents" – to infiltrate and observe criminal behavior as it really is. The presence of a uniformed police officer would certainly interfere with the criminal behavior.

## Obstacles to Objectivity in Observation

Obstacles to objectivity in collecting data in observation research include personal interest, early decision, and personal characteristics.

### Personal Interest

"I see what I want to see." I once had a lady church member who insisted that we never elect a divorced person as a Sunday School teacher. She quoted scripture and produced one reason after another why divorced persons would be the ruin of the church – until her own daughter got a divorce. It was not three weeks until this same lady was in my office, quoting scripture and complaining of how "the church does not care about divorced people" -- that we needed to give them opportunities for service – after all, "they're people too!!!" The scripture had not changed, but she certainly had, because of her personal experience.

We always have a personal interest in any study we conduct. If we did not, the process of giving birth to a research plan might be unbearable. **But our personal interest should be directed toward collecting objective facts, not proving preconceived notions.** If the study is intended from its inception to substantiate what you already believe, you will have difficulty seeing anything that contradicts this perspective. This is called **selective observation**, or, as we have noted, "I see what I want to see."

### Early decision

It is part of the reality of human perception that we naturally and automatically "fill in the gaps" of what we know to be true. We add elements from our own imagination to make situations "reasonable." The problem with this is that we can be deceived by our own imagination into creating a situation that does not exist in reality. When we have too few factual observations, we tend to fill in too much. This is the psychological basis of gossip: filling in the gaps between known data points with what we subjectively feel.

The researcher needs a **large number of objective data points** from which to develop a theoretical pattern. By ending the observation phase prematurely, the researcher may interpret the data incorrectly. **"I've seen enough. I can see the trend."** The trend may be an incorrect extrapolation from the facts.

Personal interest  
Early decision  
Personal characteristics

## Personal characteristics

Many of the things that characterize us as being “human” pose difficulties in the observation process: **emotions, prejudices, values, physical condition**. We can unknowingly make a faulty inference because of the subjective influence of one or more of these personal characteristics. They may be difficult to identify.<sup>2</sup> Whatever we study, we must make every effort to insure that our data reflects that which we study and not ourselves. Objective **observation checklists** can help remove our personal biases and lack of neutrality concerning the chosen subject.

## Practical Suggestions for Avoiding these Problems

Here are some key guidelines to use if you plan to do an observational study.<sup>3</sup>

### Definition

Observation is the act of looking at something – without influencing it – and recording the scene or action for later analysis.

### Familiar Groups

**Positively**, studying a familiar group permits the **use of previous experience** with the group and established understanding of the subjects. **Negatively**, this very previous experience **reduces the objectivity** of the study. Further, revelation of discoveries within a familiar group can be perceived by group members as a **betrayal of a trust**.

For example, a minister on a large church staff decides to study "interpersonal conflict in local church ministry," using his position as a platform for observation of staff meeting discussions. While his existing relationship with the staff (and further, the level of trust he enjoys with staff colleagues) will encourage more realistic behaviors, revelation of those behaviors through his study may well end his relationships!

### Unfamiliar Groups

**Positively**, studying an unfamiliar group **reduces the effects of group identification and bias**. In addition, observers notice things that insiders overlook. Unfamiliarity with the group **improves objectivity** in the data. **Negatively**, observers face problems in **gaining access** to unfamiliar groups, and, once involved, may have **difficulty in understanding member actions** within the group.

### Observational Limits

Observation is an intensively human process. It is a fact that observers simply cannot study some people. Factors such as **gender, age, race, appearance, religious denomination, or political affiliation of observers** may prevent access to some groups of subjects. These are just six of many possible barriers to observation.

### Manual versus Mechanical Recording

Manual recording refers to **taking notes by hand** during an observational session. Mechanical recording refers to recording the observations with tape recorders or video equipment. Manual recording of data is more difficult than mechanical, but can be

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<sup>2</sup>Hopkins, 81

<sup>3</sup>True, 175-176

simplified by using shorthand or tallies on observation checklists. Mechanical recording makes an exact record of all the data, but does nothing to simplify or reduce the bulk of the observations. Observational episodes must be analyzed at a later time.

### Interviewer Effect

Observation is an intensely human process! If subjects see observers taking notes, they may well **change their behavior**. (Interviewer effect is increased). Recording data surreptitiously decreases interviewer effect, but can be an **invasion of privacy!**

### Debrief Immediately

Write-ups of observation sessions have to be made promptly because observers -- being human! -- may **selectively forget details, or unintentionally distort observations**. Waiting until after the observational session is over to record responses greatly increases the likelihood that **observer subjectivity will influence the data**.

### Participant Observation

(Compare "Familiar Groups"). **Positively**, participant observers (i.e., observers who are members of the groups they observe), have easier access, and gain a truer picture of group behavior. **Negatively**, participant observers are restricted to one role within the group, and are more partial in their observations than a non-participant observer.

### Non-participant Observation

(Compare "Unfamiliar Groups"). **Positively**, non-participant observers have a clearer, less biased perspective on group behavior. **Negatively**, the presence of a known (non-member) observer alters the behavior of subjects, especially at the beginning of the study. Failure to announce the purpose for an observer being present in the group may be unethical.

### Observational Checklist

An observational checklist is a "structure for observation," and allows observers to **record behaviors during sessions quickly, accurately, and with minimal interviewer effect on behaviors**. Dr. Mark Cook developed an "observer consistency checklist" for use in his study on active participation as a teaching strategy in adult Sunday School classes.<sup>4</sup> He described his instrument this way:

The observer consistency checklist was developed to be used by trained observers in examining each teaching situation for consistency across treatments. It was imperative in this study that all other elements in the lesson plan and teaching environment be held constant while allowing active participation to be the independent variable. This evaluation form included (a) a checklist of teacher factors (such as any unusual enthusiasm or behaviors), student factors (such as unusual interruptions or group behaviors), and unusual external factors (outside interruptions, weather, or equipment problems); (b) frequency counts of the number of external interruptions, disruptions by students, departures from the lesson, and active participation; (c) a five-point rating of teacher enthusiasm; and (d) a record of the time span of the lesson.<sup>5</sup>

A copy of the checklist is located at the end of the chapter.

<sup>4</sup>Cook, 21

<sup>5</sup>*Ibid.*, 22

## Summary

The fundamental data gathering technique in science is observation. In this chapter we looked at the obstacles facing one who plans to do an observational study, as well as practical suggestions to help you plan an effective study.

## Vocabulary

inference	researcher infers motivation behind observed behavior
interference	researcher changes observed behavior by his/her presence
interviewer effect	potential bias in data due to subjective factors in interviewers
observation	gathering data by way of objective observation of behavior

## Study Questions

1. Define "observation research."
2. Define in your own words the terms "inference" and "interference" as they relate to enemies of valid data. Give an original example of each term.
3. Explain how our "humanness" is a liability in observational research.

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## Sample Test Questions

1. The most basic approach of science to acquiring data is through
  - a. statistical analysis
  - b. standardized testing
  - c. direct observation
  - d. controlled experimentation
2. "I see what I want to see" is most closely related to which of the following obstacles?
  - a. personal interest
  - b. early decision
  - c. personal characteristics
  - d. subjective projection
3. By observing unfamiliar groups, researchers
  - a. reduce the objectivity of the studies
  - b. increase the introduction of their own personal bias into the data
  - c. notice things insiders easily overlook
  - d. employ their own personal experiences with the group

APPENDIX A<sup>6</sup>

OBSERVER CONSISTENCY CHECKLIST

Date: \_\_\_\_\_ Time: \_\_\_\_\_

Observer: \_\_\_\_\_ Teacher: \_\_\_\_\_

Observer Instructions: Place a checkmark for each episode of the following factors. Memo the significant events or factors under the comment section at the bottom of the form.

<u>OBSERVED FACTORS</u>	ACTIVE <u>LESSON</u>	NON- ACTIVE <u>LES-</u>
<u>EXTERNAL FACTORS</u>		
Interruptions from outside class	_____	_____
Unusual weather	_____	_____
Equipment problems	_____	_____
Any other external factors	_____	_____
<u>STUDENT FACTORS</u>		
Students' experiences affect lesson	_____	_____
Student interruptions	_____	_____
Hostile environment	_____	_____
Unusual group behavior	_____	_____
<u>TEACHER FACTORS</u>		
Teacher experience affects lesson	_____	_____
Unusual teacher enthusiasm	_____	_____
Unusual teacher behavior	_____	_____
Different teaching style	_____	_____
Variation from lesson plan	_____	_____
Gave test answers	_____	_____
Use of active participation	_____	_____
Level of teacher enthusiasm (Scale: 1-5)	_____	_____
Time of lesson (record in minutes)	_____	_____
Attendance in the class	_____	_____

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

<sup>6</sup>Cook, 61