

Module 2 Unit 4

This is a **REQUIRED READING**.

Littlejohn, S., (1983). Theory in the process of inquiry. In S. Littlejohn, *Theories of Human Communication* (3rd ed.), (pp. 21- 37). Belmont, CA: Wadsworth.
[17 p.]

Theory in the Process of Inquiry

In the study of human communication, as in all branches of knowledge, it is appropriate, even compelling, to ask ourselves, How did we come to profess what we know or think we know? The question of truth, discovery, and inquiry is a particularly important place to begin this book because each chapter presents a kind of truth. Every theorist presented here has taken a stab at truth. This chapter discusses the special role of theory in the process of inquiry.

The Nature of Theory

What is theory? Uses of the term range from farmer Jones's theory about when his pullets will start laying eggs to Einstein's theory of relativity. People sometimes use the term *theory* to mean any unsubstantiated guess about something. Theory often is contrasted with "fact." Even among scientists, writers, and philosophers, the term is used in a variety of ways. The purpose of this book is to represent a wide range of thought about the communication process. Therefore, the term *theory* is

used in its broadest sense as any conceptual representation or explanation of a phenomenon.¹ In their most general form, communication theories are attempts of various scholars to represent what is conceived as important in the process of communication. We can make two generalizations about theories.

First, all theories are abstractions. Theories of communication are not themselves the process being conceptualized. As a result, every theory is partial; every theory leaves something out. Theories focus on certain aspects of the process at the expense of other aspects. This truism about theory

1. For definitions of the terms *theory* and *model*, see Karl W. Deutsch, "On Communication Models in the Social Sciences," *Public Opinion Quarterly* 16 (1952): 357; Frank E. X. Dance and Carl E. Larson, *The Functions of Human Communication: A Theoretical Approach* (New York: Holt, Rinehart & Winston, 1976), p. 3; Leonard Hawes, *Pragmatics of Analoguing: Theory and Model Construction in Communication* (Reading, Mass.: Addison-Wesley, 1975), pp. 122–123. See also Steven H. Chaffee and Charles R. Berger, "What Communication Scientists Do," in *Handbook of Communication Science*, eds. C. R. Berger and S. H. Chaffee (Newbury Park, Calif.: Sage, 1987), pp. 91–122. For a discussion of the several senses of the term *theory*, see Ernest G. Borrmann, *Communication Theory* (New York: Holt, Rinehart & Winston, 1980), pp. 24–25.

is important because it reveals the basic inadequacy of theory. No single theory will ever reveal Truth.

Second, all theories must be viewed as constructions. Theories are created by people, not ordained by God. Theories represent various ways in which observers see their environments, but theories themselves are not reality.² Many readers and theorists forget this principle, and students often are trapped by the conception that reality can be seen in this or that theory. Abraham Kaplan writes, "The formation of a theory is not just the discovery of a hidden fact; the theory is a way of looking at the facts, of organizing and representing them. . . . A theory must somehow fit God's world, but in an important sense it creates a world of its own."³

Let us take an analogy from biology. Two observers using microscopes may see different things in an amoeba, depending on their theoretical points of view. One observer sees a one-celled animal; the other sees an organism without cells. The first viewer stresses the properties of an amoeba that resemble all other cells—the wall, the nucleus, the cytoplasm. The second observer concentrates on the analogy between the amoeba and other whole animals. This observer sees ingestion of food, excretion, reproduction, mobility. Neither observer is wrong. Their theoretical frameworks simply stress different aspects of the observed object.⁴ We will see this point again and again in the following chapters. Because theories are constructions, questioning a theory's usefulness is wiser than questioning its truthfulness. This statement is not intended to imply that theories do not represent reality but that any given "truth" can be represented in a variety of ways, depending on the theorist's orientation.

In one manner of speaking, this book is like an art gallery. As you stroll through the gallery, you do not question the truthfulness of a painting or sculpture. You think some are more artistic, more

appealing, or more useful for providing a particular perspective than others. You may even question the composition or representativeness of a piece of art, but on some level you can enjoy them all as different creations, each with its own values and limits

Basic Elements of Theory

Concepts in Theories

The first and most basic aspect of a theory is concepts. We as persons are by nature concept-processing beings. Our entire symbolic world—everything known—stems from concept formation. Thomas Kuhn writes, "Neither scientists nor laymen learn to see the world piecemeal or item by item; . . . both scientists and laymen sort out whole areas together from the flux of experience."⁵ Although the process of conceptualizing is complex, basically it consists of grouping things and events into categories according to observed commonalities. The communication theorist observes many variables in communication and classifies and labels them according to perceived patterns. A goal of theory is to present useful concepts.

An important part of conceptualizing is labeling. We mark our concepts by symbols, usually words. Hence, an integral part of any theory is the set of terms that captures the theory's concepts. Concepts and definitions cannot be separated. Together they tell us what the theorist is looking at and what is considered important.

Some theories stop at the concept level, providing only a list of concepts and definitions without explaining how the concepts interrelate or affect one another. Such theories are known as *taxonomies*. (Note that many scholars believe that taxonomies are *not* theories.) Introductory communication texts often include basic taxonomies that list the "parts" of the communication process, including such concepts as source, message,

2. See Max Black, *Models and Metaphors* (Ithaca, N.Y.: Cornell University Press, 1962).

3. Abraham Kaplan, *The Conduct of Inquiry* (San Francisco: Chandler, 1964), p. 309.

4. Examples from N. R. Hanson, *Patterns of Discovery* (Cambridge, Mass.: Cambridge University Press, 1961), pp. 4–5.

5. Thomas S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: University of Chicago Press, 1970), p. 28.

receiver, feedback, and so forth. The best theories, however, go beyond concepts to provide explanations, statements about how concepts interrelate. These explanations tell us why variables are connected. Theories that stop at the concept level are primitive at best because the goal of theory building is to provide an understanding of how things work.

Explanation in Theories

The second element common to many theories is explanation. Explanation goes beyond naming and defining variables. It identifies regularities in the relationships among those variables. Explanations account for an event by referring to what is going on within that event or between it and some other event. In simplest terms, explanation answers the question, Why? Explanation relies primarily on the principle of necessity.

The principle of necessity. An explanation designates some logical force among variables that makes particular outcomes necessary. If x occurs, then y is necessary or probable. Necessity is rarely taken as absolute, and a probabilistic model is more appropriate. There are a variety of kinds of necessity and therefore a variety of kinds of explanation.⁶

Causal necessity explains events in terms of cause-effect, where behavior is seen as an outcome of causal forces. *Practical necessity* explains events in terms of act-consequence, where behavior is seen as intentional action designed to achieve some goal or future state. Causal necessity explains behavior as response to stimuli, whereas practical necessity attributes volition to the person or object. In causal necessity, the consequent event is a necessary outcome of the antecedent event. In practical necessity, however, behavior is “necessary”

6. Based on P. Achinstein, *Laws and Explanation* (New York: Oxford University Press, 1971); see also Donald P. Cushman and W. Barnett Pearce, “Generality and Necessity in Three Types of Theory About Human Communication, with Special Attention to Rules Theory,” *Human Communication Research* 3 (1977): 344–353. For an excellent discussion of explanation in the social sciences, see Paul F. Secord (ed.), *Explaining Human Behavior: Consciousness, Human Action, and Social Structure* (Beverly Hills, Calif.: Sage, 1982).

because the actor makes it so. (In fact, in practical explanation, the term *necessity* may be inappropriate.)

To better understand the difference between causal and practical necessity, consider how you might explain to a friend why you failed a test. If you said that you just aren’t very good at this subject and had bad teachers in high school, you would be using causal necessity: My bad grade was caused by things I can’t control. On the other hand, if you did quite well on the test, you would probably use practical necessity: I studied hard and needed to increase my grade-point average.

A useful model of theoretical explanation is that of Kenneth Gergen and Mary Gergen⁷ (Figure 2.1). In this scheme, explanations are *empowered* when they use causal explanation, and explanations are *enabling* when they use practical explanation. Empowered explanations imagine that human behavior is determined or brought about by outside forces, whereas enabling explanations attribute intention and volition to the acts of human beings.

Explanations can also be divided into two further categories. *Person-centered explanations* concentrate on factors inside the acting person, whereas *situation-centered explanations* involve primarily outside factors. Some situation-centered explanations focus on factors occurring before the action being explained, and some focus on those occurring after the action. As Figure 2.1 illustrates, six types of explanation result.

Chaining explanations. Theories often put together an elaborate explanatory framework. In such a framework, statements are linked by logical connection so that by accepting certain statements other statements follow logically. This is logical chaining, which relies on the force of logical consistency. In the overall scheme of a theory, it is the glue that holds together the various theoretical statements. Logical necessity relies on a series of

7. Kenneth J. Gergen and Mary M. Gergen, “Explaining Human Conduct: Form and Function,” in *Explaining Human Behavior: Consciousness, Human Action, and Social Structure*, ed. P. F. Secord (Beverly Hills, Calif.: Sage, 1982), pp. 127–154.

	Empowered explanations (Causal)	Enabling explanations (Practical)
Situation-centered (Prior)	"He was required to . . ." "She was raised to . . ."	"She used certain information." "Someone suggested it."
Person-centered	"It is a habit." "It is a trait."	"He decided." "She felt like it."
Situation-centered (Post)	"He is destined to . . ."	"He did it to reach a goal."

Figure 2.1 Forms of behavioral explanation.

internally consistent definitions and a set of correspondence rules among events. Consider the example of relational communication theory (explained in Chapter 12). The following list is a set of propositions contained in that theory. As you read through these propositions, notice how each presents an explanation of its own, yet the explanatory power of the entire set of propositions is made complete by the logic among them.

1. A complementary relationship exists when the behavior of one person follows naturally from the behavior of another (prior situation-centered/enabling).
2. One person's behavior will follow naturally from another's when the relational rules are both understood and accepted by the partners (person-centered/enabling).
3. Power is the ability to control relational rules (person-centered/enabling).
4. One-up behavior asserts control over the relational rules (situation-centered/enabling).
5. One-down behavior accepts control by the other in a relationship (situation-centered/enabling).
6. In a complementary relationship, the person consistently behaving in a one-up fashion has the power (person-centered/enabling).

Laws, rules, and systems. Traditionally, in the field of communication, theories have been separated into three types, depending on their primary method of explanation. *Law theories* are believed to rely primarily on causal necessity, embodying the spirit of science. They make use of covering laws that specify universal causal relations among variables. *Rule theories*, which rely on practical necessity, are believed to be more humanistic, claiming that people choose and change rules. In between lies the *systems approach*, which purportedly relies on logical chaining. This type of theory is believed to center on the logical relations among elements of a system. Such theories stress the intercorrelations among events.

Doubt has been cast on the utility of this laws-rules-systems trichotomy.⁸ Differences may not be

8. This controversy is well summarized in Bormann, *Communication Theory*, chap. 7. See also Charles R. Berger, "The Covering Law Perspective as a Theoretical Basis for the Study of Human Communication," *Communication Quarterly* 25 (1977): 7-18; Donald P. Cushman, "The Rules Perspective as a Theoretical Basis for the Study of Human Communication," *Communication Quarterly* 25 (1977): 30-45; Peter R. Monge, "The Systems Perspective as a Theoretical Basis for the Study of Human Communication," *Communication Quarterly* 25 (1977): 19-29. See also Ted Smith III, "Diversity and Order in Communication Theory: The Uses of Philosophical Analysis," *Communication Quarterly* 36 (1988): 28-40.

as clear as suggested by its advocates. Although the covering law approach clearly embodies a scientific epistemology, the difference between systems and rules appears to be more a matter of generality or abstractness than method of explanation. Besides, there are important differences in explanation even among theories that are classed as systems or those classed as rules. For example, rules theorists disagree among themselves as to how much power rules exert over people's actions, and systems theorists equivocate about whether systems relations are causal, correlational, or both. Keep in mind that we are not discarding the terms laws, rules, and systems. In fact, they are a useful way to classify theories. The problem comes when they are used to distinguish forms of explanation.

The Traditional Ideal of Theory

Traditional social science has been dominated by an approach to theory and research modeled on the experimental natural sciences.⁹ Traditional social science methods are based on a fourfold approach: (1) developing questions, (2) forming hypotheses, (3) testing the hypotheses, and (4) formulating theory. This approach is known as the *hypothetico-deductive method*. A theory then becomes a codification of hypotheses and/or findings from a series of tests. This approach is based on the assumption that complex phenomena are best understood in terms of fine analysis of parts, giving rise to the alternate label, the *variable-analytic tradition*. It also assumes that social life consists of cause-effect relations.

Hypothesis testing is a painstakingly slow process in which theories are developed and fine-tuned by numerous tests. The fourfold process is

thus repeated to generate new questions and improved hypotheses in an incremental building-block process. Figures 2.2 and 2.3 illustrate the hypothetical deductive method.¹⁰

The hypothetico-deductive method is based on five major concepts—hypothesis, operationism, control and manipulation, covering laws, and prediction. The first concept is hypothesis. An *hypothesis* is a well-formed guess about a relationship between variables. It is based on intuition, personal experience, or, most desirably, previous research and theory. In fact, hypothesis testing is often preceded by an inductive process of looking for generalizations.

An hypothesis must be testable; in other words, the variables brought together must be carefully defined so that any trained researcher can observe them in precisely the same way. Further, the relationship posited by the hypothesis must be framed so that potential rejection is possible. If it is not, any test will yield either a positive result or an equivocal one, and it is impossible to discover whether the hypothesis is wrong. Hypothesis testing, then, is really a process of looking for exceptions.

Operationism states that all variables in a hypothesis should be stated in ways that provide means of observation. An operational definition answers the question, How do you know when you see what you're seeking? Operational definitions are the most precise possible definitions because they tell you how the concept is to be seen. An operational definition of intelligence, for example, is the Stanford-Binet intelligence test. An operational definition of dominance might be a particular set of observer ratings on dominant versus submissive messages.

Operationism relies on *measurement*, in which precise, usually numerical, indices of observations are made. Measurement enables one to detect differences on an observed variable. Measurement is

9. See, for example, Steven H. Chaffee and Charles R. Berger, "What Communication Scientists Do"; Myron W. Lustig, "Theorizing About Human Communication," *Communication Quarterly* 34 (1986): 451-459; Fred N. Kerlinger, *Foundations of Behavioral Research* (New York: Holt, Rinehart & Winston, 1964), pp. 3-50; Robert J. Kibler, "Basic Communication Research Considerations," in *Methods of Research in Communication*, eds. P. Emmert and W. Brooks (Boston: Houghton Mifflin, 1970), pp. 9-50; Gerald Miller and Henry Nicholson, *Communication Inquiry* (Reading, Mass.: Addison-Wesley, 1976).

10. Figure 2.2 adapted from Walter L. Wallace, *Sociological Theory: An Introduction* (Chicago: Aldine, 1969), p. ix.; Figure 2.3 from Irwin B. J. Bross, *Design for Decision* (New York: Macmillan, 1952), pp. 161-177.

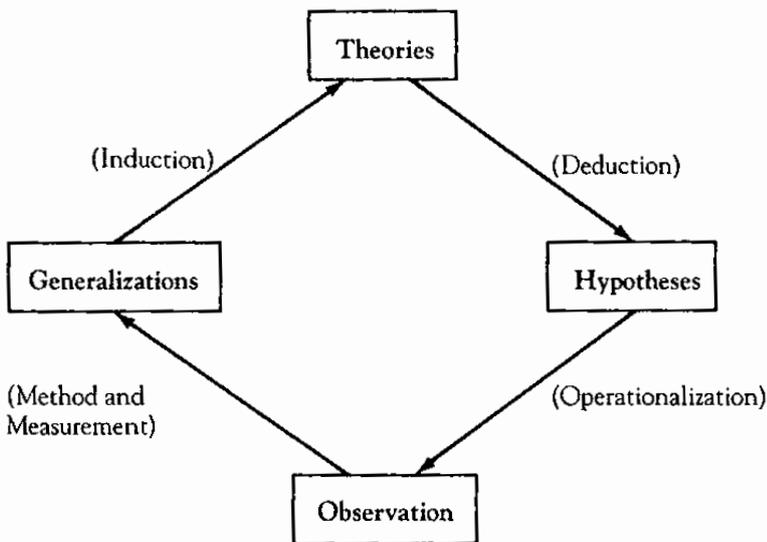


Figure 2.2 The classical ideal of science.

Reprinted with permission: Walter L. Wallace, (ed.) *Sociological Theory, An Introduction* (New York: Aldine de Gruyter). Copyright © 1969 by Walter L. Wallace.

evaluated in terms of two criteria: validity and reliability. *Validity* is the degree to which an observation measures what it is intended to measure. How do we know, for example, that the observer's ratings really measure dominance in communication? Perhaps what is really influencing the ratings is some other hidden factor, or perhaps the ratings reflect nothing in particular. Researchers have methods of estimating whether such measures are valid.

Reliability is the degree to which the construct is measured accurately, and reliability is most often estimated by consistency. If your bathroom scale gives you a different weight each day, even though you have not gained or lost, it is unreliable. And an intelligence test that yields a different result for the same person when administered on separate occasions is also unreliable. If all items on a test are designed to measure the same thing and they prove not to be very consistent with one another, the test is said to be unreliable. Clearly, validity and reliability are related to one another. Reliability is a necessary but not sufficient condition for validity. A measure cannot be valid if it is not first reliable.

The third concept of traditional science is *control* and *manipulation* in observation. These factors are

considered important because they are the only way in which causality can be ascertained. If one set of variables is held constant (*control*) and another set is systematically varied (*manipulation*), then the researcher can detect the effect of the manipulated variables without worrying about whether other variables were hidden causes. *Control* and *manipulation* can be exercised directly, as in experiments, or can be accomplished through particular kinds of statistical manipulation.

The fourth concept is the *covering law*. The *covering law* is a theoretical statement of cause and effect relevant to a particular set of variables across situations. In traditional science, the *covering law* is believed to be very significant because of its power in explaining events. *Covering laws* also enable the researcher to make predictions about future events. Theories in the classical tradition are statements of related *covering laws*, or more realistically, *hypothesized laws*.

Prediction is the final concept of classical social science inquiry. *Prediction* is an important outcome of inquiry; as an outcome, *prediction* gives people power over their environment. If, for example, I can predict that certain kinds of communi-

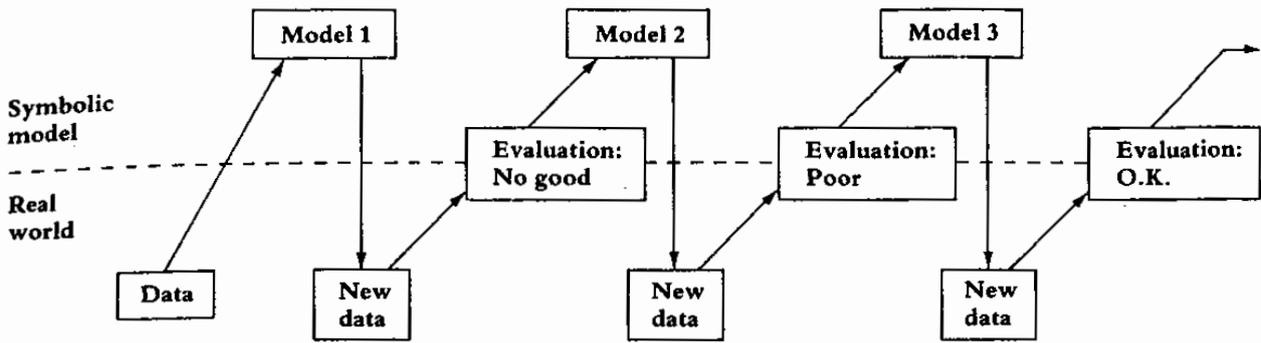


Figure 2.3 The decision-making process.

From *Design for Decision* by Irwin Bross. Copyright © 1953 by Macmillan Publishing Company. Reprinted with permission of the publisher. Copyright renewed 1981 by Irwin D. J. Bross.

cation will lead to particular relationships, I may be able to control relationships by carefully designing communication messages. Prediction is also crucial in the process of inquiry. Hypotheses are often stated in the form of a prediction: If x and y , then z .

This classical approach to research and theory is firmly planted in the tradition of “knowledge as discovery,” as explained in Chapter 1. As our previous discussion points out, however, the discovery method is often rejected by scholars in the interpretive and critical traditions. In general terms these critics refer to the classical ideal as “old paradigm” social science and their own work as that of the “new paradigm.”¹¹ A less biased designation is “traditional” and “alternative” paradigms.

Later in this chapter, we will discuss the paradigms and the issues that divide these schools of thought. In brief, alternative-paradigm scholars question two of the assumptions made by the older approach. First, they believe that reality does not have a singular, static structure to be discovered and represented by theory. Rather, reality itself changes and can be represented in a variety of useful ways. This shift questions the whole approach of hypothesis testing and validity in theory. Second, these researchers are suspicious of the view

that human behavior can be broken down into a set of variables that are determined by causal forces. These researchers therefore eschew covering laws and prediction in favor of interpretation.

Theory Development and Change

Although it is important to understand that theory is an abstraction from reality, realizing the relationship between the two is also necessary. Theory is not purely abstract, without grounding in actual experience. Experience affects theory, and theory in turn affects one’s conception of experience.

From original experiences (including research), we formulate theory. Good theory development, then, is a constant process of testing and formulating. For the traditionalist, this testing is a process of improving hypotheses about the “real” world. For the alternative-paradigm theorist, it is a process of fine-tuning interpretive frameworks for understanding the flow of events.

The theory development process stresses the need for research, which allows for

1. Specific investigation of facts that are considered significant.
2. Testing the theory’s predictive power or interpretive utility.

11. See, for example, R. Harré and P. F. Secord, *The Explanation of Social Behavior* (Totowa, N.J.: Littlefield, Adams, 1979), pp. 19–25.

3. Further developing and articulating the theory.¹²

Theories may change in three ways. The first is *growth by extension*. Here, knowledge is expanded piece-by-piece, moving from an understanding of one bit of reality to an adjoining bit by adding new concepts to the old. The second way, *growth by intension*, is the process of developing an increasingly precise understanding of individual concepts.¹³ For example, you might develop a theory of the use of insults in conflict situations. Your theory would change by extension if you added ideas about how compliments and jokes also occur in conflict situations. It would change by intension if you could elaborate more and more on the role of insults. Obviously, a theory could change by extension and intension at the same time.

The third way in which theories change is through *revolution*.¹⁴ In his well-known monograph on scientific revolutions, Thomas Kuhn states that “normal science” is a process of developing theory through extension and intension with relative consensus on the basic nature of the reality being modeled. At some point an extraordinary case is discovered that runs counter to prevailing assumptions of the theories in use. At this point a crisis develops, leading to the development of a new theoretical approach. The new theory (or set of theories) represents a different, competing way of looking at the world. For example, you might discover that conflict has nothing to do with insults at all. Gradually, the revolutionary theory is accepted by more and more members of the field until it becomes the primary theoretical approach in a new normal science.

In a scientific revolution, two paradigms are pitted against one another. The old paradigm represents normal science, and the new represents the revised view. Paradigms are sets of concepts and variables that a group of scholars believe to be

important to study, accompanied by a particular opinion of how these things operate. In normal science most scholars agree that a certain set of phenomena, defined by a known set of concepts, are important and should be studied. These scholars also share a notion of how these variables are related.

In a scientific revolution, the concepts and operations come to be conceptualized in a radically different fashion, requiring redefinition of an entire field of knowledge. Previous areas of study may die, others may be born, and new weddings may occur. “What were ducks in the scientist’s world before the revolution are rabbits afterwards. The man who saw the exterior of the box from above later sees its interior from below.”¹⁵ We can now see why critics of traditional social science are quick to call their approach “new paradigm” and why traditionalists dislike this term.

The Functions of Theory

Nine important and overlapping functions of theory can be identified. The first function of theory is to *organize* and *summarize* knowledge. We do not see the world in bits of data. We need to organize and synthesize the world. Patterns must be sought and connections discovered. Theories and models are one way of accomplishing this organization of knowledge. An added benefit of this function is theory’s contribution to accumulated knowledge. The student, practitioner, or scientist does not have to start anew with each investigation. Knowledge is organized into a body of theories, and the investigator begins a study with the organized knowledge of generations of previous scholars.

The second function is that of *focusing*. Theories, besides organizing data, focus attention on important variables and relationships, as a map depicts terrain. From the overall surface, a map points out recreation spots, communities, picnic grounds, and shopping centers. To the persistent

12. Kuhn, *Structure*, pp. 25–27.

13. Kaplan, *Conduct*, p. 305.

14. Kuhn, *Structure*. See also Ellen K. Coughlin, “Thomas Kuhn’s Ideas About Science,” *Chronicle of Higher Education* 22 September 1982, pp. 21–23.

15. Kuhn, *Structure*, p. 111.

question of "What will I look at?" the theory points out areas for investigation.

Third, theories *clarify* what is observed. The clarification not only helps the observer to understand relationships in communication but also to interpret specific events. Theories provide guideposts for interpreting, explaining, and understanding the complexity of human relations.

Fourth, theories offer an *observational aid*. Closely related to the focus function, the observational function points out not only what to observe but how to observe. Especially for those theories that provide operational definitions, the theorist gives the most precise indication possible about what is meant by a particular concept. Thus, by following directions the reader is led to observe details elaborated by the theory.

The fifth function of theories, to *predict*, is one of the most widely discussed purposes of scientific inquiry. Many theories allow the inquirer to make predictions about outcomes and effects in the data. This ability to predict is important in the applied communication areas such as persuasion and attitude change, psychotherapy, small-group dynamics, organizational communication, advertising, public relations, and mass media. Teachers work toward developing skills and abilities to improve communication competence. Various communication theories aid this process by helping the student substitute well-founded predictions for good guesses.

The sixth theoretical function, the *heuristic function*, is also frequently discussed. A familiar axiom is that a good theory generates research. The speculation forwarded in theories of communication often provides a guide about the direction the research will take and thus aids in furthering the investigation. This heuristic function of aiding discovery is vital to the growth of knowledge and is in a sense an outgrowth of each of the other functions of theory.

Seventh, theories serve an indispensable *communicative function*. Most investigators want and need to publish their observations and speculations for other interested persons. Theory provides a framework for this communication and provides an open forum for discussion, debate, and criticism.

Through the communication of numerous explanations of the phenomena we study, comparison and theory improvement become possible.

The eighth function of theories is *control*. This function grows out of value questions, in which the theorist seeks to judge the effectiveness and propriety of certain behavior. Such theory is often referred to as normative, in that it seeks to establish norms of performance. Much theory, of course, does not seek to fulfill this function at all, remaining on the descriptive level.

The final function of theory is the *generative function*. This is particularly relevant to the interpretive and critical traditions of alternative-paradigm social science. In short, it means using theory to challenge existing cultural life and to generate new ways of living. It is, in other words, the use of theory to achieve change. Kenneth Gergen states the generative function in these terms: "the capacity to challenge the guiding assumptions of the culture, to raise fundamental questions regarding contemporary social life, to foster reconsideration of that which is 'taken for granted,' and thereby to generate fresh alternatives for social action."¹⁶

Philosophical Issues in the Study of Communication

Communication Metatheory

Metatheory, as the prefix *meta-* suggests, is a body of speculation on the nature of inquiry that goes beyond the specific content of given theories. It addresses such questions as what should be observed, how observation should take place, and what form theory should take. Metatheoretical debates are a natural consequence of uncertainty over the status of knowledge in a field. In the last twenty years, metatheory has dominated the communication field. Communication scholars have come to question the adequacy of their methods,

16. Kenneth J. Gergen, *Toward Transformation in Social Knowledge* (New York: Springer-Verlag, 1982), p. 109.

precisely because of the problems of social science summarized in Chapter 1.¹⁷

Philosophy as a discipline deals with problems of knowledge and reality. Philosophy questions the basic assumptions and methods of proof used in generating knowledge in all walks of life. Thus, the kind of metatheoretical discussion that has occurred in communication constitutes an important philosophical analysis of communication research and theory. This philosophical examination is complex, yet it can be grouped into three major themes: epistemology (questions of knowledge), ontology (questions of existence), and axiology (questions of value).

Figure 2.4 identifies and briefly outlines the major issue areas of the field.¹⁸ It is divided into three general levels—the metatheoretical, the hypothetical, and the descriptive. The *metatheoretical level* is the most general and includes one's basic assumptions. The *hypothetical level* is the level of theory in which one's picture of reality is painted, and the framework for knowledge is established. The *descriptive level* includes actual statements of operations and findings closest to the thing observed. These three levels cannot be separated as distinct entities. When operating on one level, the scholar always examines the other two at the same time. The three levels within any knowledge tradition reinforce one another. Let us now look more closely at some of the actual issues within each area.

17. For an excellent discussion of metatheoretical issues, see Donald W. Fiske and Richard A. Shweder (eds.), *Metatheory in Social Science: Pluralisms and Subjectivities* (Chicago: University of Chicago Press, 1986); W. Barnett Pearce, Vernon E. Cronen, and Linda M. Harris, "Methodological Considerations in Building Human Communication Theory," in *Human Communication Theory: Comparative Approaches*, ed. F. E. X. Dance (New York: Harper & Row, 1982), pp. 1–41. See also John Waite Bowers and James J. Bradac, "Issues in Communication Theory: A Metatheoretical Analysis," in *Communication Yearbook 5*, ed. M. Burgoon (New Brunswick, N.J.: Transaction, 1982), pp. 1–28. For a thorough discussion of many of the issues in communication, see George Gerbner (ed.), *Ferment in the Field*, a special issue of *Journal of Communication* 33 (Summer 1983); and Brenda Dervin, Lawrence Grossberg, Barbara O'Keefe, and Ellen Wartella (eds.), *Rethinking Communication: Paradigm Issues* (Newbury Park, Calif.: Sage, 1989).

18. Adapted from Stanley Deetz, unpublished handout.

Issues of Epistemology

Epistemology is the branch of philosophy that studies knowledge. Epistemologists ask how people know what they claim to know. These scholars question observations and claims as a way of understanding the nature of knowledge and the processes by which it is gained. Any good discussion of inquiry and theory will inevitably come back to epistemological issues.

Because of the diversity of disciplines involved in the study of communication and the resulting divergence of thought about research and theory, epistemological issues are important in this field. Some of the most basic of these issues can be expressed as questions.¹⁹

To what extent can knowledge exist before experience? Many theorists believe that all knowledge arises from experience. We observe the world and thereby come to know about it. Yet is there something in our basic nature that provides a kind of knowledge even before we experience the world? Many philosophers believe so. This kind of "knowledge" would consist of inherent mechanisms of thinking and perceiving. For example, strong evidence exists that children do not learn language entirely from hearing it spoken. Rather, they may acquire language by using innate models to test what they hear. (We will discuss this idea more in Chapter 5.)

To what extent can knowledge be certain? Is knowledge certain, there for the taking by whoever can ascertain it? Or is knowledge relative and changing? The debate over this issue has persisted for hundreds of years. Communication theorists vary in terms of assumptions about the certainty of truth. Those who take a universal stance will admit

19. This analysis from Stephen W. Littlejohn, "Epistemology and the Study of Human Communication" (Paper delivered at the Speech Communication Association, New York, November 1980). See also Stephen W. Littlejohn, "An Overview of Contributions to Human Communication Theory from Other Disciplines," in *Human Communication Theory: Comparative Essays*, ed. F. E. X. Dance (New York: Harper & Row, 1982), pp. 247–249. For another approach, see W. Barnett Pearce, "Metatheoretical Concerns in Communication," *Communication Quarterly* 25 (1977): 3–6.

	Epistemological	Ontological	Perspectival	Axiological
Metatheory	Methodological questions	Metaphysical questions	Definitional questions	Aesthetic and value questions
Hypothetical	Methods and procedures	Theories, concepts, hypotheses, laws, and interpretive schemas	Definitions and metaphors	Ethical and moral premises and values
Descriptive	Instruments and techniques	Observational statements	Substantive focuses	Judgments
Things-in-Themselves	Flow of events			

Figure 2.4 Philosophical areas affecting theory

to errors in their theories, but they believe that these errors are merely a result of not yet having discovered the complete truth. Relativists would have us believe that knowledge will never be certain because there is no universal reality that can be comprehended.

By *what process does knowledge arise?* This question is extremely complex, and the debate on the issue lies at the heart of epistemology. There are at least four positions on the issue. *Mentalism*, or *rationalism*, suggests that knowledge arises out of the sheer power of the human mind. This position places ultimate faith in human reasoning. *Empiricism* states that knowledge arises in perception. We experience the world and literally "see" what is going on. *Constructivism* holds that people create knowledge in order to function pragmatically in life. People project themselves into what they experience. Constructivists believe that phenomena in the world can be fruitfully conceptualized many different ways, knowledge being what the person has made of the world. Finally, taking constructivism one step further, *social constructionism* teaches that knowledge is a product of symbolic interaction within social groups. In other words,

reality is socially constructed and a product of group and cultural life.

Is knowledge best conceived in parts or wholes? Gestaltists teach that true knowledge consists of general, indivisible understandings. They believe that phenomena are highly interrelated and operate as a system. Analysts, on the other hand, believe that knowledge consists of understanding how parts operate separately.

To what extent is knowledge explicit? Many philosophers and scholars believe that you cannot know something unless you can state it. Knowledge is thus seen as explicit. Others claim that much of knowledge is hidden, that people operate on the basis of sensibilities that are not conscious and that they may be unable to express. Such knowledge is said to be tacit.²⁰

The way in which scholars conduct inquiry and construct theories depends largely on their epistemological assumptions. Many basic positions arise from the issues just described. These positions can be called *worldviews*. Numerous fine distinctions

20. See Michael Polanyi, *Personal Knowledge* (London: Routledge & Kegan Paul, 1958).

can be made among these positions, but our discussion groups them into two broad opposing worldviews that affect thinking about communication.²¹

The *Worldview I* tradition is based on empiricist and rationalist ideas. It treats reality as distinct from the human being, something that people discover outside themselves. It assumes a physical, knowable reality that is self-evident to the trained observer.

Discovery is important in this position; the world is waiting for the scientist to find it. Because knowledge is viewed as something acquired from outside oneself, *Worldview I* is often called the *received view*. Objectivity is all important, with investigators being required to define the exact operations to be used in observing events. Most mainstream physical science is *Worldview I*, and much behavioral and social sciences follow suit.

Worldview I aims to make lawful statements about phenomena, developing generalizations that hold true across situations and over time. Scholars in this tradition try to reveal how phenomena appear and how they work. In so doing the scholar is highly analytical, attempting to define each part and subpart of the object of interest.

Worldview II takes a different turn by relying heavily on constructivism, viewing the world in process. In this view people take an active role in creating knowledge. A world of things exists outside the person, but the individual can conceptualize these things in a variety of useful ways. Knowledge therefore arises not out of discovery but from interaction between knower and known. For this

21. This particular analysis is supported in part by Georg H. von Wright, *Explanation and Understanding* (Ithaca, N.Y.: Cornell University Press, 1971); and Joseph Houna, "Two Ideals of Scientific Theorizing," in *Communication Yearbook 5*, ed. M. Burgoon (New Brunswick, N.J.: Transaction, 1982), pp. 29-48. Many other schemes have been devised to classify epistemological approaches. See, for example, Stephen Pepper, *World Hypotheses* (Berkeley: University of California Press, 1942); B. Aubrey Fisher, *Perspectives on Human Communication* (New York: Macmillan, 1978); Kenneth Williams, "Reflections on a Human Science of Communication," *Journal of Communication* 23 (1973): 239-250; Barry Brummett, "Some Implications of 'Process' or 'Intersubjectivity': Postmodern Rhetoric," *Philosophy and Rhetoric* 9 (1976): 21-51; Gerald Miller, "The Current Status of Theory and Research in Interpersonal Communication," *Human Communication Research* 4 (1978): 175.

reason perceptual and interpretive processes of the individuals are important objects for study.

Worldview II attempts not to uncover universal laws but to describe the rich context in which individuals operate. It is humanistic in that it stresses the individual subjective response. Knowing is interpreting, an activity in which everybody is believed to engage. Many theories of communication take a *Worldview II* stance, being based on the assumption that communication itself is a vital vehicle in the social construction of reality.²²

Issues of Ontology

Whereas epistemology is the study of knowledge, *ontology* is the branch of philosophy that deals with the nature of being, or more narrowly, the nature of the phenomena we seek to know.²³ Actually, epistemology and ontology go hand-in-hand because our conception of knowledge depends in part on our notions about the nature of the knowable. In the social sciences, ontology deals largely with the nature of human existence. Thus, ontological issues in the study of communication deal with the nature of human social interaction.

Ontological issues are important because the way a theorist conceptualizes communication depends in large measure on how the communicator is viewed. All communication theories begin with assumptions about being. Issues in this area reflect disagreements about the nature of human experience. Four issues are important.²⁴

To what extent do humans make real choices? Although all investigators probably would agree that people perceive choice, there is a long-standing philosophical debate on whether real choice is

22. See, for example, Peter Berger and Thomas Luckmann, *The Social Construction of Reality* (Garden City, N.Y.: Doubleday, 1966); Alfred Schutz, *The Phenomenology of the Social World*, trans. George Walsh and Frederick Lehnert (Evanston, Ill.: Northwestern University Press, 1967); Kenneth Gergen, "The Social Constructionist Movement in Modern Psychology," *American Psychologist* 40 (March 1985): 266-275; Harré and Secord, *Explanation*.

23. For a discussion of ontology, see Alasdair MacIntyre, "Ontology," in *The Encyclopedia of Philosophy*, vol. 5, ed. P. Edwards (New York: Macmillan, 1967), pp. 542-543.

24. For an ontological discussion of communication theory, see Bowers and Bradac, "Issues."

possible. On one side of the issue are the determinists, who state that people's behavior is caused by a multitude of prior conditions and that humans are basically reactive and passive. On the other side of the debate are the pragmatists, who claim that people plan their behavior to meet future goals. This school sees people as decision-making, active beings who affect their own destinies. Middle positions also exist, suggesting either that people make choices within a restricted range or that some behavior is determined while other behavior is a matter of free will.

*To what extent are humans best understood in terms of states versus traits?*²⁵ States are temporary conditions through which people pass. The state view believes that humans change and go through numerous states in the course of a day, year, or lifetime. The state view characterizes humans as dynamic. The trait view believes that people are mostly predictable because they display more or less constant characteristics. People may change because their traits have changed, but traits do not change easily. For the most part, humans are static. Many social scientists, of course, believe that both traits and states characterize human behavior.

To what extent is human experience basically individual versus social? Many social scientists view humans as individuals. Although these scholars understand that people are not in fact isolated from one another and that interaction is important, they interpret behavior as if it stems primarily from the individual. The unit of analysis for such scholars is the individual human life. Many other social scientists, however, focus on social life as the primary unit of analysis. These scholars believe that humans cannot be understood apart from their relationships with others in groups and cultures. This issue is especially important to communication scholars because of our focus on interaction.²⁶

25. This debate is summarized by Peter A. Andersen, "The Trait Debate: A Critical Examination of the Individual Differences Paradigm in the Communication Sciences," in *Progress in Communication Sciences*, eds. B. Dervin and M. J. Voigt (Norwood, N.J.: Ablex, 1986).

26. See, for example, Berger and Luckmann, *Social Construction*; Gergen, "Social Constructionist Movement."

To what extent is communication contextualized? The question is whether behavior is governed by universal principles or whether it depends on situational factors. Some philosophers believe that human life and action are best understood by looking at universal factors; others believe that behavior is richly contextual and cannot be generalized beyond the immediate situation. The middle ground on this issue is that behavior is affected by both general and situational factors.

Although numerous ontological positions can be seen in communication theory, this book groups them into two basic opposing positions: actional and nonactional. *Actional theory* assumes that individuals create meanings, have intentions, and make real choices. Theorists of the actional tradition are reluctant to seek covering laws because they assume that individual behavior is not governed entirely by prior events. Instead, they assume that people behave differently in different situations because rules change from one situation to another.

Nonactional theory assumes that behavior basically is determined by and is responsive to biology and environment. Covering laws are usually viewed as appropriate in this tradition; active interpretation by the individual is downplayed.

Axiological Issues

Axiology is the branch of philosophy studying values. For the communication scholar, three axiological issues are especially important.

Can theory be value-free? Classical science claims that theories and research are value-free; scholarship is neutral, attempting to get the facts as they are manifest in the real world. When a scientist's values impinge on his or her work, the result is bad science.²⁷ Another position on this issue is that scholarship is free of substantive values but embodies such metavalues as the pursuit of truth, the importance of ideas, objectivity, and the value of science itself. Here, the contention is that science is not value-free because the researcher's work is

27. See, for example, Kaplan, *Conduct*, p. 372.

guided by an interest in certain ways of conducting inquiry.²⁸

Finally, some scholars contend that theory can never be value-free, in method or in substance. Scientists choose what to study, and those choices are affected by personal as well as institutional values. Government and private organizational values determine what research is funded; political and economic ideologies both feed and are fed by particular ways of viewing the world embodied by different forms of theory and research.²⁹

A substantial political argument on values exists in science. Traditional scientists claim that they are not responsible for the ways scientific knowledge is used, that it can be used for good or ill. Critics object that scientific knowledge by its very nature is instrumentalist and control-oriented and that it necessarily promotes power domination in society. Traditional communication knowledge, especially as derived by media research, is believed by Marxists to be a necessary administrative tool of the power elite. The critics of science do not themselves claim to be above power, but they see themselves as making a choice in favor of a set of values that challenges domination in society rather than perpetuates it. This debate is discussed in more detail in Chapter 11.

To what extent does the practice of inquiry influence that which is studied? This second major value issue centers on the question of whether scholars intrude upon and thereby affect the process being studied. The traditional scientific viewpoint is that scientists observe carefully, but without interference, such that observational fidelity is maintained. Critics doubt this is possible. Observation by its very nature distorts that which is being observed. Sometimes the distortion is great, sometimes small, but it is always there.

On a higher level, some critics maintain that theory and knowledge themselves affect the course

28. See, for example, Juergen Habermas, *Knowledge and Human Interests*, trans. J. J. Shapiro (Boston: Beacon Press, 1971), p. 302; Kaplan, *Conduct*, pp. 370–397.

29. See, for example, Brian Fay, *Social Theory and Political Practice* (London: George Allen & Unwin, 1975).

of human life.³⁰ This presents two potential problems. First, the scholar, by virtue of scholarly work, becomes an agent of change. That role must be actively understood and reckoned with. At the very least, the scholar must consider ethical issues involved. Second, studying human life changes that life, so that what you believe you know at one time may not be true at another time. This second point has particularly profound epistemological implications.³¹

Finally, *to what extent should scholarship attempt to achieve social change?* Should scholars remain objective, or should they make conscious efforts to help society change in positive ways? Many believe that the proper role of the scholar is to produce knowledge: Let the technicians and politicians do what they will with it. Other scholars vociferously disagree: Responsible scholarship involves an obligation to promote positive change. Obviously, this second view is consistent with the critical approach to the development of knowledge.³²

Overall then, two general positions reside in these axiological issues. First, *value-conscious scholarship* recognizes the importance of values to research and theory and makes a concerted effort to direct those values in positive directions. What those directions should be, of course, is a matter of debate. Second, *value-neutral scholarship* believes that science is aloof from values.

How to Evaluate a Communication Theory

As you encounter theories of communication, you will need a basis for judging one against

30. See, for example, Fay, *Social Theory*; Gergen, *Transformation*, pp. 21–34.

31. This issue is explored by Sheila McNamee, “Research as Social Intervention: A Research Methodology for the New Epistemology” (Paper presented at the Fifth International Conference on Culture and Communication, Philadelphia, October 1988).

32. See, for example, Cees J. Hamelink, “Emancipation or Domestication: Toward a Utopian Science of Communication,” *Journal of Communication* 33 (1983): 74–79.

another. The following is a list of criteria that can be applied to the evaluation of any theory.³³ Remember that no theory is perfect; all can be faulted. Therefore, the following criteria are goal ideals.

Theoretical Scope

A theory's scope is its comprehensiveness or inclusiveness. Theoretical scope relies on the principle of generality.³⁴ This principle states that a theory's explanation must be sufficiently general to cover a range of events beyond a single observation. People continually provide explanations for events, but their explanations are not always theoretical. When an explanation is a mere speculation about a single event, it is not a theoretical explanation. However, when an explanation goes beyond a single instance to cover a range of events, it is theoretical.

Two types of generality exist. The first is the coverage of a broad domain. Theories that meet the test of generality in this way deal with many phenomena. A communication theory that meets this test would explain a variety of communication-related behaviors. This has been one of the appeals of system theory, for example. It explains an incredibly wide spectrum of events. A theory need not cover a large number of phenomena to be judged as good, however. Indeed, many fine theories are narrow in coverage. Such theories possess the second type of generality. Although they deal with a narrow range of events, their explanations of these events apply to a large number of situations. Such theories are said to be powerful. Certain theories of relationship breakups illustrate this type of generality.

Appropriateness

Are the theory's epistemological, ontological, and axiological assumptions appropriate for the

33. Evaluation is discussed in greater depth in Bross, *Design*, pp. 161–77; Deutsch, "On Communication Models," pp. 362–363; Calvin S. Hall and Gardner Lindzey, *Theories of Personality* (New York: Wiley, 1970), chap. 1; Kaplan, *Conduct*, pp. 312–322; Kuhn, *Structure*, pp. 100–101, 152–156.

34. Achinstein, *Laws*; Cushman and Pearce, "Generality."

theoretical questions addressed and the research methods used? In the last chapter, we discussed the fact that different genres of theory allow scholars to do different kinds of things. One criterion by which theories can be evaluated is whether their claims are consistent with their assumptions. If you assume that people make choices and plan actions to accomplish goals, it would be inappropriate to predict behavior on the basis of causal events. If you believe that the real structures affecting behavior are normally out of awareness, it would be inconsistent to report survey data in which subjects were asked why they did certain things. If you believe that theory should be value-free, it would be inconsistent to base your definition of communication on some standard of effectiveness.

In a way then, appropriateness is a kind of logical consistency between theories and presuppositions. For example, many writers from the cognitive tradition state that people actively process information and make plans to accomplish personal goals. Yet theories produced by these researchers often make lawlike statements about universal behaviors, which, if true, would leave little room for purposeful action.

Heuristic Value

Does the theory have potential for generating research and additional theory? One of the primary functions of theory is to help investigators decide what to observe and how to observe it. For example, a major contribution of Bales's interaction process theory (Chapter 13) is that it has spawned much research and further theorizing about group communication. Even Bales's critics find his ideas useful as springboards to develop new concepts.

Validity

Generally speaking, validity is the truth value of a theory. Of course, we must be careful to understand that "truth" is not intended to mean absolute, single-minded fact. Rather, there may be a variety of "truth values" to a theory. Consequently,

validity as a criterion of theory has at least three meanings.³⁵

One kind of validity is that of *value*, or *worth*. This definition of validity concerns the question of importance or utility, whether the theory has conceptual or pragmatic value. This is the primary form of validity in interpretive and critical theories.

The second kind of validity is that of *correspondence*, or *fit*. Here the question is whether the concepts and relations specified by the theory can be seen in observations of ongoing life. Both classical and interpretive-critical theories require fit as a form of validity, and one of the most important functions of research in both traditions is to establish that correspondence. Classical science assumes that one and only one representation will fit, whereas interpretive sciences believe that a number of theories may simultaneously fit. When this is the case, we judge between those theories on the basis of the first kind of validity: value, or worth.

The third kind of validity is *generalizability*, which refers to the extent to which the tenets of the theory apply across situations. This is the classical definition of validity and applies almost exclusively to traditional, discovery-oriented theories with covering laws.

Parsimony

The test of parsimony can be called logical simplicity. If two theories are equally valid, the theory with the simplest logical explanation is said to be the best. For example, although classical information theory can be faulted on other grounds, it is highly parsimonious. A few core assumptions and premises lead logically to a variety of claims about channels, signals, messages, and transmission.

Concepts and Commentary

As mentioned in the previous chapter, the material in Part I may be the most important in the

35. This analysis adapted from David Brinberg and Joseph E. McGrath, *Validity and the Research Process* (Beverly Hills, Calif.: Sage, 1985).

entire book. Here you have learned how communication is studied, the nature of theory, and the various forms that theory building can take. You have also learned what theories can do for us and how to evaluate a communication theory.

Theories are constructions: They are created by human interpreters just as all discourse is created. Theories cannot be taken as truth because they are abstractions, and different scholars will see different things in the same observation. Therefore, the constructions employed to understand communication are extremely diverse. They vary in not only what is covered but also their form and style; and a good deal of disagreement exists about what constitutes a legitimate theory. This state of affairs forces us to take a rather broad view of theory as any conceptual representation of communication. This broad coverage should be seen as an opportunity, rather than an obstacle, because it will help you explore a wide variety of representations and styles. It will let you see examples of a whole range of ways of depicting knowledge. Although a theory course in certain narrow fields is like a tour of a Renaissance portrait gallery, ours is like a tour of the full museum with numerous types and forms of art.

Regardless of their differences, however, all theories are basically composed of concepts, or labeled categories used to classify observations. Many theories also have explanations, which tell us why communication works as it does. Several models of explanation are discussed in this chapter, but what is most important to remember is that all rely on some form of necessity, or logical relations among concepts. The logic employed by the theory creates a kind of "force" that makes one statement follow naturally from another.

Traditionally, you have learned, theory is hypothetical and deductive. In other words, the theory is built on hypotheses and research. One posits a relationship, tests that relationship, and forms revised hypotheses on the basis of the research. Theory building in this traditional view is incremental and grows on the basis of repeated hypothesis testing. Not all theories follow this traditional norm, however, because scholars debate a number of metatheoretical issues affecting the development of communication theory. The assumptions a

researcher makes about knowledge, reality, and value determine his or her methods, the form of theoretical statements, and the ways in which norms and values are treated.

Whatever their form, theories constantly change and develop. Often they grow incrementally, as envisioned in traditional science, by extension from one bit of knowledge to the next. Here, the theory becomes more and more extensive as it grows in coverage. Often, however, theories change in another way, by intension, so that they look deeper and deeper into the subject at hand. More and more detail about the subject is revealed within the theory. The third form of change is revolution, in which the old theory is dumped and a brand new conceptualization comes into being.

As you examine the theories in the following pages, consider the ways in which they meet a variety of functions. How do they organize our knowledge about communication? What elements of the communication process do they focus our attention

on? What do they clarify? How do they tell us to observe communication events? Do they enable us to make any predictions? What new research questions do they suggest, and what holes do they leave unfilled? How have scholars used these theories to communicate with one another about their ideas? And what ideas are generated by these theories about how to improve social life?

And as you look closely at each theory, you will find some that appeal to you and others that do not. You will find some very helpful in your personal quest for understanding, and you will find others that are less so. As you evaluate these theories, think about their scope: How much do they tell us? Think about the appropriateness of their claims: Are they logically consistent? Think about their heuristic value: Do they suggest ideas for further research? And their parsimony: Are they simple but elegant?

Now take a deep breath and plunge in.