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Phenomenological Research Methods

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PSYCHOLOGY AND PHENOMENOLOGICAL RESEARCH

Research methods are plans used in the pursuit of knowledge. They are outlines of investigative journeys, laying out previously developed paths, which, if followed by researchers, are supposed to lead to valid knowledge. These paths are drawn on maps based on assumptions about the nature of reality and the processes of human understanding. The map developed for Western science during the past three centuries is based on the notion that reality consists of natural objects and that knowledge is a description of these objects as they exist in themselves. The purpose of the paths laid out on this map is to eliminate the distorting influence of personal perspective and the subjective properties of researchers.

Phenomenological research methods are drawn on a different map. It is a map developed in the first half of this century by Edmund Husserl and subsequent members of the phenomenological movement (Spiegelberg, 1976). The phenomenological map is not antithetical to the mainstream natural science map, but it marks different features of the terrain. It locates geological features of human awareness and reminds us that the research journey needs to attend to the configurations of experience before moving on to assumptions about independent natural objects. Because the descriptions of natural objects are derived from experience, experience itself must be clearly understood before a firm foundation can be established for the sciences studying the natural world.

The approach of Western science includes the commonsense assumption that experiencing is unproblematic and consists of sense data reflecting the objects of the world along with subjective bias and feeling. These subjective elements can be sifted out through methodological techniques that recognize only those experiences consisting of directly perceived objects on which there is intersubjective agreement. In this model of experience, the knower is a passive recipient of reflective sensations from natural objects. Phenomenological philosophy, however, calls this assumption into question. It holds that experience involves the operation of active processes that encompass and constitute the various contents that become present to awareness. These contents include not only the objects of perception but also those of memory, imagination, and feeling.

Phenomenological Philosophy

The phenomenological map refocuses inquiry, concentrating not on descriptions of worldly objects but on descriptions of experience. This requires a change in the attitude or attunement of the researcher from a natural perspective to a phenomenological perspective. In the phenomenological perspective, questions about the existence and character of the objects that are experienced are put in abeyance while the researchers attend, instead, to what is present or given in awareness. This suspension or reduction (also called the first or phenomenological *epoche* [bracketing]) of the commonsense thesis that an independent reality "explains" experience locates the

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research in the phenomenological realm [Husserl, 1913/1931, pp. 107–111]. It removes the distraction, the need to look outside of awareness for sources that "cause" experience.

In the return to the investigation of experience itself, phenomenological philosophy has produced an understanding of experience that undercuts some of the commonsense assumptions that inform Western science. The form and continuity of experience are products of an intrinsic relationship between human beings and the world. The error of the traditional approach is the result of separating mind and body into two independent spheres. This separation has produced two contradictory pictures. On the one hand, the world is understood to be made up of the random buzzing of electrical particles, and it is mind that imposes the notions of form and substance on this confusion. On the other hand, the world itself is understood as ordered and structured, the mind making no special contribution to experience and merely passively mirroring the natural order (Rorty, 1979). The phenomenological correction holds that experience consists of the reception of worldly objects by the processes of consciousness to constitute what presents itself in awareness.

In awareness, objects appear *as* something. That is, things appear as "chairs," "tables," and so forth; they do not appear as mere sense data. The notion of independent sense data is derived from a secondary abstracting process that constructs out of an originally given whole perception a deficient mode of seeing. Experience, as it is directly given, occurs at the meeting of person and world. For example, as I experience two objects, one appears nearer to me than the other. The seeing of the one thing as nearer than the other requires both that the object exists in the world and that a person exists who is the locus of the experience. Understanding experience merely as a mental projection onto the world (the idealistic fallacy) or as a reflection of the world (the realistic fallacy) misses the necessity of the person–world relationship in the constituting of experience. Experience is a reality that results from the openness of human awareness to the world, and it cannot be reduced to either the sphere of the mental or the sphere of the physical.

The realm of experience consists of both particular occurrences and the meanings of which they are instances. The commonsense approach assumes that the real is only particulars—that is, that individual things make up the hard-core facts of reality. For example, things like this particular pencil I am holding are ultimately what make up reality. But this particular is also an instance of "pencilness," a category of meaning. Phenomenology recognizes the experiential reality of meanings as well as concrete particulars. A meaning remains constant in spite of factual variations in the experience of its particular manifestations. For example, particular experiences of the meaning *triangle* may show up as drawings on a blackboard, three pieces of metal connected together, or a marking on my dog. What remains constant is the structure of "triangleness" that presents me with the particular experiences of triangles. Erazim Kohák (1978), in commenting on Husserl's differentiation of particulars and principles, writes:

> Our direct awareness includes not only particular, factual instances but also the necessary principles they embody. In ordinary experience as I live it, I am aware of every object both as a particular and "in principle," as the instance of a type. (p. 14)

The investigations of phenomenological philosophy have concentrated on describing these structuring activities of experience. Husserl (1913/1931) uses the terms *eidos, Wesen,* or *essence* to refer to these structures of experience. Although we do not experience a particular without perceiving it as an instance of a structure—that is, as a kind of something—we can examine these typical ways of being in isolation, apart from any instantiation. "It is possible to know something 'in principle' without having any particular instance in mind" (Kohák, 1978, p. 15). The investigation of conscious (or "lived") structures involves distinguishing those aspects of an experience that are invariant and essential, making the experience show up as the kind it is—that is, as the typical way in which a phenomenon presents itself in experience. For example, for a figure to be seen as a triangle, the essential elements are three intersecting straight lines. Other elements, such as a particular color or size, or the particular size of the angles, or whether it is the outline of an actual object or a drawing in chalk, are unessential. These unessential elements are not necessary for experiencing something *as* a triangle. Instead, they serve to differentiate particular experiences of triangles from one another.

Husserl (1913/1931) held that knowledge of the structures of consciousness was not a matter of induction or generalization from a sample but was the result of a "direct grasp" of "eidetic seeing." I need only one instance (even an imaginary one) to grasp or "see" (not in the sense of visual sighting but of apprehending) the principle and inner necessities of a structure. In practice, the process leading to grasping the essential pattern of a structure usually requires a careful working through and imaginative testing of various descriptions of an essence, until the essential elements and their relationship are differentiated from the unessential and particular.

Phenomenological philosophy has concentrated its investigations on descriptions of those essential structures that are inherent in consciousness and are necessary for human experience to have the general appearance it has.

In this sense, it is concerned with the universal elements and relationships that constitute experience in general. Phenomenological philosophy holds that consciousness is intentional in the sense that an essential characteristic of experience is that it is always an experience of something. Consciousness is an activity guided by human intention rather than determined by mechanical causation. It acts to constitute its contents (*noemata*) in various modes (*noeses*)—including imagination, recollection, and hallucination—as well as in perceptual awareness. Husserl (1913/1931) has investigated the principles of consciousness that constitute our experience of physical objects as unified wholes, given that what appears at any moment to awareness is a one-sided perspective of an object. Husserl (1928/1964) has also identified the elements of temporal protention and retention, which are necessary to constitute experiences of temporal wholes such as melodies and sentences.

With Martin Heidegger's (1927/1962) investigation, *Being and Time,* phenomenological philosophy began to merge with the philosophy of existence. Existentialism, whose roots go back to Kierkegaard and beyond (Friedman, 1964), can be defined by its central theme, *existence,* a term used in a new, more limited sense by Kierkegaard, for the way in which a single individual experiences his or her being-in-the-world. Existential phenomenology maintains that existence can be approached phenomenologically and studied as one phenomenon among others in its essential structures.

Phenomenology and Psychology

Thus far, I have discussed phenomenology and existentialism as philosophies, not psychologies. It is important to differentiate phenomenological *philosophy* from phenomenological *psychology.* As a philosophy, phenomenology has been concerned with providing descriptions of the general characteristics of experience, with a particular focus by existentialists on the experience of being human. Giorgi (1985b) expressed the need "to translate the fundamental and valuable insights of [philosophical] phenomenology into a concrete program of psychological scientific research" (p. 45). Underlying the particular sciences, such as psychology, are philosophical positions regarding the nature of reality and ways that reality can be known. Phenomenological psychology is a perspective that acknowledges the reality of the realm of meaningful experience as the fundamental locus of knowledge. It differs from mainstream psychology by holding that human behavior is an expression of meaningful experience rather than a mechanically learned response to stimuli.

Phenomenological psychology is not a subfield of philosophy; it is a psychology that draws on the philosophical insights of phenomenology. As a psychology, it assumes its place within the psychological and scientific traditions that have preceded it. It selects for study the phenomena relevant to psychology and investigates these phenomena in a methodical, systematic, and rigorous way. The translation of the philosophical methods developed by phenomenology into functioning research practices for psychology is unfinished. Suggestions for this translation are offered in later sections of this chapter.

Although the structures investigated by *philosophical* phenomenology are universal and required for the appearance of consciousness itself, phenomenological *psychology* investigates structures that are typical or general for groups of people. The method of *philosophical* phenomenology retains the traditional philosophical use of self-reflection or "armchair philosophizing" that psychology broke away from when it became a science, but phenomenological *psychology* places the emphasis on descriptions from research subjects (see Giorgi, 1985b, pp. 46–53), instead of the researchers' self-reports.

The tradition of psychology has held the examination of conscious experience as one of its critical tasks. In its early decades, psychology dealt with practically nothing but consciousness, and in the past two decades it has returned to the investigation of consciousness under the aegis of cognitive science; it was only during its middle decades that psychology was redefined by behaviorism to exclude conscious experience.

Psychological Research on Consciousness

During the era of behaviorism, from the 1920s to the 1960s, mainstream psychology, for the most part, abandoned the attempt to study consciousness and limited itself to data available to direct public perception. In the last two decades, however, psychology has returned to consciousness as a major object of study, with electronic computers and information theory replacing Wundt's chemistry model. Cognitive psychologists—for example, Kosslyn (1980)—have developed computer programs that purport to simulate human responses. These are based on the assumption that because both the computer and human beings respond similarly to the same inputs, the mind must function like a computer program. Although computer analogies of consciousness were thought to hold great promise, the limits of this approach are becoming apparent (Gardner, 1985), as we shall see later.

Other psychologists (for example, Hirai, Izawa, & Koga, 1959) have attempted to study consciousness by examining brain-wave measurements, assuming that changes in brain-wave activity correlate with different

types of mental activities. And split-brain researchers have studied patients who have had their corpus callosa surgically severed, attempting to correlate types of conscious activity with the right- and left-brain hemispheres. Despite the wide attention given to this research program and the initial excitement surrounding it, split-brain studies (see Bakan, 1978) have proved to be of limited value in comprehending the structures and contents of consciousness. Mainstream research investigating consciousness has retained a commitment to the philosophical principles of positivism. After initial successes, these programs have developed problems (Gardner, 1985) as they have moved to study the more complex activities of consciousness, such as musical and other artistic abilities.

The difficulties that mainstream psychological research has encountered in these studies can be attributed to inadequacies in the understanding of consciousness in its foundational philosophy—positivism. Phenomenological psychologists hold that the general description of consciousness developed by phenomenological philosophers provides a firmer base from which to develop research designs to study consciousness and its flow of experiences. Psychological research based on phenomenological philosophy uses a different approach to the study of consciousness than is used in mainstream psychological research; epistemological principles attuned to the special characteristics of human experience are applied. The aim of phenomenologically informed research is to produce clear and accurate descriptions of a particular aspect of human experience. Recognizing that consciousness is different in essence from the objects of nature, it rejects the positivists' ideal of a single and unified scientific method that will be able to yield all knowledge. Phenomenological research holds that the unique characteristics of consciousness require a distinct kind of science, utilizing data-gathering procedures and processes designed specifically for developing general descriptions of experiential processes.

Phenomenological psychological research uses a different set of epistemological principles than the set used in positivist psychology, and its use of the general terms of knowledge generation—for example, *method, research*—is sometimes misinterpreted because the meanings assigned to these terms in phenomenological research are not the same as are assumed by mainstream psychologists. For example, the term *method,* as used in positive science, refers to a specific sequence of technical procedures, an algorithm, designed to protect the investigator from error and insure the production of reliable knowledge. Such an algorithm has been of limited usefulness when applied to the study of consciousness. Methods based on phenomenological principles, by contrast, function as general guidelines or outlines, and researchers are expected to develop plans of study especially suited to understanding the particular experiential phenomenon that is the object of their study.

Research is another problem word. To many, the term *research* connotes laboratory experiments, quantified data derived from sophisticated instruments or questionnaires, and statistically described relationships among operationally defined variables. Psychological researchers using phenomenological principles, however, often conduct open-ended interviews. Working from long interview transcriptions, they search out meaning units and use "thought experiments." (A thought experiment involves varying a thought or perception in one's imagination and observing the outcome. For example, I can vary my image of a chair so as to "see" it without legs to find out if such an imagined image would still be experienced as a chair.) Their products are general descriptions of the features and structures common to interview examples. Although some have suggested that such terms as *inquiry, study,* or *investigation* might be clearer for phenomenologically grounded research, I believe that the term *research* should not be confined to studies using the natural-science model. All psychology researchers, both phenomenologists and positivists, are expected to share a commitment to scientific values and the search for truth. They engage in systematic and rigorous searches seeking a depth of understanding that extends beyond a cursory view and commend their findings to the scientific community for review and critique.

Descriptive and Qualitative Research

Phenomenological research is descriptive (Ihde & Silverman, 1985) and qualitative (Bogdan & Taylor, 1975; Schwartz & Jacobs, 1979), but it has, in addition, a special realm of inquiry—the structures that produce meaning in consciousness. Simple identification of phenomenological research with descriptive or qualitative research overlooks the important differences between phenomenology and the other sciences that use descriptions and natural language data.

Although phenomenological research is sometimes identified with other "descriptive" and "qualitative" approaches, it differs from them because its focus is on the subject's experienced meaning instead of on descriptions of their overt actions or behavior. Phenomenology maintains the critical distinction between what presents itself as part of a person's awareness and what might exist as a reality "outside" of our experience.

The term *descriptive research* usually refers to all those inquiries whose goal is to give a neutral, close, and thorough account of the topic they are investigating (Ihde & Silverman, 1985). Instead of approaching topics with

predetermined hypotheses, they look to discover the essential attributes of phenomena and then express the results in verbal portraits. In addition to phenomenological research, the case study (Yin, 1984) and field research (Crane & Angrosino, 1974) are included within the category of descriptive research. Descriptive research can also refer to studies whose findings are given as taxonomic descriptions. Thus the natural sciences—botany and ornithology, for example—whose practices include establishing classification schemes for the objects of their realm can be called *descriptive.*

In general use, "qualitative research" refers to a particular perspective on the nature of the human realm (Ashworth, Giorgi, & de Konig, 1986, p. vii), and is not simply a category of research designs. From the qualitative perspective, the richness and profundity of human reality is seen as closely related to the structures and meanings of natural language. Thus in the broad context of research strategies, *qualitative* is identified with a commitment to the logic of natural language as the preferred form for understanding human affairs. Qualitative research uses natural language descriptions (for example, unstructured interviews) for its data and usually presents the results in natural language. Descriptive and qualitative research are overlapping categories with most descriptive studies done from a qualitative perspective. Besides phenomenological research, with its focus on the realm of experience, other kinds of studies can be carried out from a qualitative perspective. These explorations of the human realm approach their topics from the commonsense or natual attitude viewing their phenomena as existing in the world. Examples of nonphenomenological or "quasi-phenomenological" qualitative research are *Children of Crisis: Vol. 1* (Coles, 1967), *Intimate Strangers* (Rubin, 1983), *Habits of the Heart* (Bellah, Madsen, Sullivan, Swidler, & Tipton, 1985), and *Vital Involvement in Old Age* (Erikson, Erikson, & Kivnick, 1986). (The special use of nominal or qualitative variables in developing statistical data, Reynolds, 1977, is usually not included as part of the qualitative research perspective.)

Doing Psychological Research from a Phenomenological Perspective

The locus of phenomenological research is human experience, and it approaches the topics of interest to psychology through their presence in conscious awareness. Instead of studying the body as an organic object, it studies the experiences people have of their bodies. In this sense, the subject matter of phenomenological research is limited. The exclusive focus on experience, however, provides access to all that can be directly known because all knowledge is ultimately grounded in human experience (Husserl, 1936/1970). There is no viewpoint outside of consciousness from which to view things as they exist independently of our experience of them. (The theory of intentionality, however, has been extended by Merleau-Ponty, 1945/1962, to include subconscious bodily behaviors and by Ricoeur, 1960/1967, to the unconscious structures of volition and action. Studies in these areas require interpretative or hermeneutic methods as a supplement to the phenomenological inquiry of directly conscious experience.)

Phenomenologically based inquiries can be divided into two basic types: (a) those that ask how objects are present to the various modes of conscious experience, such as perception or memory, and (b) those that ask how meaning presents itself in experience. Although there are examples of the first type—for instance, Richer's (1978) study of how perceptual objects are given to experience and Casey's (1976) study of the presence of objects in imagination—most phenomenological researchers have been interested in investigating the presence of meaning in experience. In experience, events appear as meaningful—both the appearance of worldly objects and happenings and our own thoughts and feelings. Although experience is meaningfully ordered, the structure and order of meaning are difficult to describe. The purpose of phenomenological research is to produce clear, precise, and systematic descriptions of the meaning that constitutes the activity of consciousness.

The psychological study of the processes of consciousness is problematic in three ways:

1. Consciousness differs in fundamental ways from natural objects. It cannot be picked up and held or examined under a microscope. The contents of consciousness are in continuous flux; they cannot be easily grasped. Consciousness is an activity, not an object, and it presents itself as a fleeting trace or indication, a mere wisp. Romanyshyn (1982) has proposed that consciousness is analogous to a mirror reflection.

2. Consciousness is always filled with contents and is an integrated ensemble of modes of presentation, such as perceptions, remembrances, and imaginations. It is present to us as a complex of interacting strata—levels of abstraction, awareness, and control. The presence of these contents is the result of the constitutive work of consciousness with its openness to itself, others, and the cultural and physical existents in the world. We have direct access to the finished work of our conscious processes, yet in our everyday existence we are not aware of the operations that make up the integrated flux of experience.

3. Access to consciousness is also problematic, and the data a researcher collects are several times removed

from the actual flow of experience. For one thing, the act of reflecting—by researchers on their own or by subjects on their experience—effects a change in awareness. The initial nonreflective, direct engagement with the flow of experience (the object of study) is replaced by the self's relocation to a point of observation that is removed from the experience. For another thing, the report of what was witnessed requires that the observation of experience be described in a language. Thus the verbal or written report is not a duplication of what was seen; it is a culturally conventional system of signs that indicates or points toward the prereflective reality. In addition, we have direct awareness of only one consciousness, our own. Care must be taken by researchers as they interpret reports from others describing their experiences.

These problem areas confront any attempt to comprehend the operations and productions of consciousness. The task of psychology—generally held to be the understanding of human existence—requires knowledge of the structures that are implicit in the experienced or lived realm out of which our actions and expressions arise.

A general format for the phenomenological investigation of consciousness by psychologists follows a three-step procedure. The investigator must:

1. Gather a number of naive descriptions from people who are having or have had the experience under investigation.
2. Engage in a process of analyzing these descriptions so that the researcher comes to a grasp of the constituents or common elements that make the experience what it is.
3. Produce a research report that gives an accurate, clear, and articulate description of an experience. The reader of the report should come away with the feeling that "I understand better what it is like for someone to experience that."

The following sections will discuss these steps in detail. I will use, as an example, Fischer and Wertz's (1979) study of being criminally victimized. This study demonstrates how the results of a phenomenological research inquiry can be used to effect changes in public policy and, thereby, in the quality of our lives.

DATA GATHERING

In psychological research based on a phenomenological perspective, the usual purpose of data gathering is to collect naive descriptions of the experience under investigation. The descriptions provide specific instances from which the researcher can tease out the structure of consciousness that constitutes the experience.

Phenomenologists need reports of the experience as it actually appears in a person's consciousness. These reports are different from commonsense descriptions that are aimed at depicting things or happenings as they exist independently of a person's experience of them; thus, the production of phenomenological protocols requires that subjects' awareness be redirected toward their own experiencing. The way the researcher frames questions can help subjects to report their experiences rather than to give worldly depictions. By asking, What did you experience? or, What was it like for you? instead of, What happened?, the investigator is more likely to elicit experiential data.

Phenomenological researchers can draw on three sources to generate descriptions of experiences: (a) the researchers' personal self-reflections on the incidents of the topic that they have experienced; (b) other participants in the study, who describe the experience under investigation either orally, in response to interview questions, or in written statements; and (c) depictions of the experience from outside the context of the research project itself—for example, by novelists, poets, painters, choreographers, and by previous psychological and phenomenological investigators.

Data from Self-Reflection

Although phenomenological philosophers often make exclusive use of self-reflection in their studies, in phenomenological psychological research, self-reflection, when used, is typically only a preparatory step to gathering data from research subjects. Colaizzi (1973) has called self-reflection the individual phenomenological reflection (IPR). The researcher will often jot down these reflections for reference during data analysis. They are important for locating the presuppositions and biases the researcher holds as well as clarifying the parameters and dimensions of the experience before beginning subject interviews. The Fischer and Wertz (1979) project began with an initial self-reflective process by its research team.

> [We] agreed, as a sensitizing exercise, to jot down notes about our personal experiences of having been the victim of crime. Then we met to discuss, among other issues, what we thought we were likely to find. The recorded anticipations alerted interviewers to possible themes that might require clarification if alluded to by subjects. They also allowed us to become aware of our presuppositions regarding the phenomenon so that we could attempt not to impose them upon our subjects. Later we found that some of our notions had been fulfilled (albeit always in special ways), some modified, and some disconfirmed. (p. 138)

Phenomenological research emphasizes approaching the topic afresh without preconceived notions about what one will find in the investigation. The data from self-reflection can be used by researchers to help them become aware of and bracket out the presuppositions and assumptions they bring to the investigation. This awareness, in itself, provides some protection against the imposition of the researchers' expectations on the study.

Data Gathered from Participants

A primary difference between phenomenological philosophy and phenomenological psychology is the use of other persons as the primary source of original naive descriptions of an experience. Although psychological research might include a researcher's personal descriptions, its focus is on data generated from subjects.

This major modification in the philosophical method for psychological research is supported on philosophical and pragmatic grounds. Strasser (1969) has proposed that phenomenological research needs to include the experiences of others if solipsism is to be overcome. Emphasizing that the meaning and contents of experience are not *within* but *between* persons, he has proposed a dialogic phenomenology that would search for what *we*, rather than *I*, experience. The full exploration of the attributes of a meaning structure, he said, requires an understanding of how it operates among us and creates a meaningfully shared experiential world. Spiegelberg (1964) has also argued for a phenomenology through vicarious experience in which descriptions of experience by others are accepted. He cites the important phenomenological investigations of psychopathological experiences by researchers who have no previous personal knowledge of these experiences as a demonstration of the value of using vicarious descriptions. Giorgi (1985b) has described the practical reasons for using descriptions from others in phenomenological psychology:

> The reason that descriptions of experienced situations by others are so critical, on a pragmatic level, is that the climate of self-understanding in psychological science is still such that a description of an experience and the analysis of it by the same person (the researcher) is simply not acceptable because of the fear of "subjective bias." (pp. 49–50)

He proposes that the original data for psychological studies should consist of "naive descriptions, prompted by open-ended questions, of experiences by subjects unfamiliar with the researcher's theories or biases" (p. 69).

Researchers have gathered descriptions from subjects in various forms, the two most common ones being written statements and (the preferred method) interviews. The face-to-face interaction of the interview allows the researcher to help the subject move toward nontheoretical descriptions that accurately reflect the experience. Stevick (1971) explains her preference for interviews: "Written questionnaires employed in the pilot studies yielded responses of a distant and highly reflective nature. The experimenter's [written] questions also prestructured the phenomenon for the subjects. Recorded interviews were found to correct these problems" (p. 135).

I will be using the term *subject* to refer to he or she who provides written statements or participates in interviews for the research project even though there has been some move against this term and for its replacement by *co-researcher, research partner, research collaborator,* or *co-author*. The reason for the move had been to emphasize that phenomenological research interacts in a personal manner with those asked to provide examples from their experience. People are not to be treated as experimental objects for the use of the researcher; the role and responsibility of the participants is to share their experiences with the researcher. They are not, however, primarily involved, nor held responsible for, the analysis and conclusions of the study. It is the researcher who plans, implements, and writes up the study. Participants open their subjective experience to the researcher, but they are not "subjects" of the researcher. Participants are human subjects—that is, they are actors (the subjects of sentences); they are not objects (passive recipients of stimuli).

Selection of Subjects

Subjects are chosen who are able to function as *informants* by providing rich descriptions of the experience being investigated. The first requirement of selection is that a subject has had the experience that is the topic of the research. Many topics, such as "being angry" and "feeling understood," are part of the general experiences of most people. Some topics, however, are limited to specific groups—for example, the experiences of being criminally assaulted or being the sibling of a schizophrenic. The second requirement is that a subject has the capacity to provide full and sensitive descriptions of the experience under examination. Adrian van Kaam (1969) has proposed that this capacity requires subjects to have six important skills: (a) the ability to express themselves linguistically with relative ease, (b) the ability to sense and to express inner feelings and emotions without shame and inhibition, (c) the ability to sense and to express the organic experiences that accompany these feelings, (d) the experience of the situation under investigation at a relatively recent date, (e) a spontaneous interest in their experience, and (f) the ability to report or write what was

going on within themselves (p. 328). This last skill requires an atmosphere in which subjects can find the necessary relaxation to enable them to put sufficient time and orderly thought into the reporting or the writing. Colaizzi (1978) states: "Experience with the investigated topic and articulateness suffice as criteria for selecting subjects" (p. 58).

The logic of the selection of subjects in phenomenological research differs from the logic of statistical sampling theory. The statistical demands of making inferences from a sample to a population require that subjects be chosen randomly from the population for which the study is designed. The purpose of phenomenological research is to describe the structure of an experience, not to describe the characteristics of a group who have had the experience. Rather than seeking to describe the mean and standard deviation of a group as it relates to the experience, the phenomenological concern is with the nature of the experience itself.

The purpose of selecting subjects in phenomenological research is to generate a full range of variation in the set of descriptions to be used in analyzing a phenomena, not to meet statistical requirements for making statements about distribution with a group of subjects. Phenomenological researchers use subjects to generate a fund of possible elements and relationships that can be used in determining the essential structure of the phenomena. (Besides gathering the empirical descriptions from subjects, phenomenological researchers generate additional descriptions through imaginative thought experiments.) The point of subject selection is to obtain richly varied descriptions, not to achieve statistical generalization. The error that phenomenological researchers can make in selection is to choose subjects that produce a narrow range of descriptions. The researcher needs to choose an array of individuals who provide a variety of specific experiences of the topic being explored.

The issue of generalizability for phenomenological findings is not one of population characteristics but the specificity of the essential description. For example, if a researcher is investigating the experience of "being anxious" and uses descriptions from students anxious about grades, the question of generalizability is whether the essential structure developed in this particular situation would hold for "being anxious" in other situations, such as public speaking. Researchers who want to claim that their findings apply to other situations than that represented by their subjects, must overcome the readers' doubts that the application or extension of the findings to other situations is appropriate. The argument would need to be made that the essential constituents of the phenomenon they have identified from the imagined and empirical variations of the experience would not be altered in another situation. Strategies for this argument can be based on the use of a stratified sample of people selected as representative or prototypical of those to whom the findings are said to hold. For example, a researcher studying the experience of "being healthy" could choose to interview athletes, physicians, hospital patients, and the disabled in order to gather sufficient variation in the descriptions of the experience.

The *number of subjects* selected for phenomenologically based studies varies considerably. At one end of the continuum is van Kaam's (1969) use of 325 written descriptions from high-school students in his study on the experience of "really feeling understood." In the mid-range are Stevick's (1971) use of 30 interviews in her study of the experience of "being angry" and Mruk's (1983) use of 25 descriptions of "being pleased and displeased with self" in his study of self-esteem. At the other end is de Konig's (1979) use of three subjects to generate the data for his study of the experience of "being suspicious."

For a specific example of the selection of subjects for a phenomenological psychology study, we can return to the Fischer and Wertz (1979) study of people who had been criminally assaulted. At the request of the researchers, representatives of a police department in the Pittsburgh area telephoned a stratified sample of persons who had reported crimes during the previous 3 years. Eighty percent of the people called agreed to participate in either personal or telephone interviews. People whose victimization was rape, attempted murder, or corporate crime were excluded. Six members of the research team conducted 50 interviews that were taped and transcribed.

The Interview

In the interview, subjects were asked to describe in detail examples of their experience with the topic being investigated. In Fischer and Wertz's study, the victims were asked to describe what was going on prior to the crime, what it was like for them to be victimized, and what had actually happened. The researchers reported that "questions were restricted to requests for clarification or elaboration of what the victim had already said" (p. 138).

Characteristically, interviews are open-ended and unstructured, requiring enough time to explore the topic in depth—usually from a half-hour to an hour, although sometimes lasting for several hours. In some studies, subjects are interviewed more than once. The length of the interview depends on both the amount of self-reflection the participant feels comfortable with and the topic of study. Some studies require extensive interviewing with only a few people; others need a greater variety of de-

scriptions, and so a large number of people are interviewed. Interviews are taped and transcribed.

The theory behind phenomenological interviewing differs from the theory behind survey-questionnaire interviewing. Survey interviewing is considered a stimulus–response interaction; the interviewer's question is the stimulus, and the subject's answer is the response. According to survey-interview theory, it is assumed to be possible and desirable for the questioner to present a constant stimulus to all subjects. Thus the questions must be worded exactly the same in each interview, the questions must be presented in the same order, and the interviewer must not respond in a manner that would bias responses.

The phenomenological interview, in contrast, is conceived of as a discourse or conversation (Mishler, 1986). It involves an interpersonal engagement in which subjects are encouraged to share with a researcher the details of their experience. The researcher's behavior, although individualized, is also disciplined in its focus on the research question. Most interviews used in phenomenological studies have been conducted face-to-face; at times, however, logistics require the use of telephone interviews. The Fischer and Wertz (1979) study used both personal and telephone interviews.

Kvale (1983) has outlined aspects of the phenomenological interview. The focus of the interview is on the life-world or experience of the interviewee and is theme-oriented, not person-oriented. The interview seeks to describe and understand the meaning of the central themes of the experience being investigated. The interview is qualitative in aiming at obtaining nuanced descriptions that are precise and stringent in meaning and interpretation. The interview seeks descriptions of the experience itself without the subject's interpretation or theoretical explanations. To keep the focus on nontheoretical descriptions of the experience, the interviewer takes care to remain open to the presence of new and unexpected constituents in the description and does not shape the questions as tests of ready-made categories or schemes of interpretation. Rather than seeking general opinions, the interview focuses on specific situations and action sequences that are instances of the theme under investigation so that the essence or structure of the theme will emerge and show itself. When the statements of an interviewee are ambiguous, it is the task of the interviewer to seek clarification. The interview is a temporal process, and descriptions may become richer and clearer in the latter portions of the interview.

Colaizzi (1978, p. 58) suggests a procedure by means of which interviewers can generate questions to be used in the phenomenological interview. The first step is to engage in self-reflection on the topic to be investigated; this allows the interviewer to uncover *prima facie* dimensions for exploration. The second step is to conduct some initial interviews in the manner of a pilot study; these interviews might add dimensions that have been overlooked in the self-reflection. The integration of these two steps can generate a list of research questions designed to tap the subjects' experiences in their fullness.

Other approaches to gathering descriptions from subjects include Spiegelberg's (1975) procedure of "cooperative or group phenomenology" and the "think aloud" technique that Christopher Aanstoos (1986) used in studying the thought processes involved in a game of chess. Spiegelberg's group data-gathering procedure brought subjects together in groups ranging in size from 6 to 16 people and lasting from 2 days to 2 weeks. (These groups are similar to the focus groups used in contemporary marketing research.) The researcher led the group, moving the process from individual written descriptions by each member to a final general structural description reflecting the group as a whole.

The "think aloud" technique involves asking the subjects to "think out loud as completely as possible all of the thoughts you are having throughout the game . . . exactly as they occur to you" (Aanstoos, 1986, p. 83). While engaging in an activity, each subject "thinks aloud," describing any thought that comes to mind, and the subjects' descriptions are tape-recorded and later transcribed. (In the Aanstoos study, the subjects' opponents listened to music through headphones so they would not hear the subjects' reports and strategies. In addition, the chess moves were written down so that the subjects' thoughts could be linked to their moves.)

Researchers may also set up particular events for subjects, such as watching a motion picture or observing children at play, and then ask them to report the experiences that they had in engaging in the event. The more usual procedure is to ask subjects to recall their experiences of incidents from the past.

As mentioned previously, one of the epistemological tactics of philosophical phenomenology is the phenomenological reduction. In this reduction, attention is reduced from the natural concern about the independent existence of what appears in experience to concern with a description of the appearance itself. The data of phenomenological research are descriptions of experience as it presents itself, not descriptions of objects and actions as they are assumed to exist outside of experience. In gathering protocols from subjects, researchers take the subjects' reports as descriptions of their experience, not as statements about an independent reality. Thus, even when researchers doubt the existence of the objects being described, their interest remains focused on the subject's experience. An extreme case would be a subject's report of a hallucination where the researcher knows that the

experience being reported is an illusion. The point of gathering phenomenological data is to obtain example descriptions of the experience under investigation, not to ascertain if these descriptions correspond to an independent reality.

The principle of the phenomenological reduction maintains that the protocols needed for phenomenological research are descriptions of what is present in a person's consciousness when he or she attends to the particular experience under investigation. These descriptions are different from commonsense descriptions that are aimed at depicting things or happenings as they exist independently of a person's experience of them; thus the production of phenomenological protocols requires that subjects' awareness be redirected toward their own experiencing. The way the researcher frames questions can help subjects to report their experiences rather than to give worldly depictions. By asking, What did you experience? or, What was it like for you?, instead of, What happened?, the investigator is more likely to elicit experiential data.

Data from Previously Developed Descriptions

Characterizations of the experience under investigation can be drawn from a variety of sources within one's tradition, ranging from philosophical texts and research articles (using either phenomenological or natural science methods), to creative literature (such as poetry, plays, and novels), and nonliterary art forms. Philosophical studies have often combined the use of data gathered from self-reflection and from philosophical writings. Casey's (1976) study on imagination, for example, used self-reflection and philosophical texts, including Sartre's (1940/1966) *Psychology of Imagination* and various works of Romantic authors.

Creative writers and cultural myths can provide psychological researchers with very sensitive, rich descriptions. Steen Halling (1979), for example, used two of Eugene O'Neill's plays as the source of data for his study of the experience of forgiveness, and Bernd Jager (1979) used the Greek myth of Dionysus for his study of passion. Literary descriptions, however, often contain sophisticated metaphors and images requiring considerable interpretion if the researcher is to gain access to the depth of understanding they offer. This interpretive or hermeneutic work requires an understanding of how genre, historical context, author's intent, and reception by the reader contribute to eliciting the meaning of a literary work. The editors of *Duquesne Studies in Phenomenological Psychology, Vol. 3* (Giorgi, Knowles, & Smith, 1979) point out differences between the use of data gathered directly from subjects and the use of literary sources:

> Up to now, empirical-phenomenological psychology proceeded by collecting protocols descriptive of the subjects' experience (e.g., learning, envy, anxiety, etc.), and then systematically and rigorously interrogating these descriptions step by step to arrive at the structure of the experience. Hermeneutical psychology suggests another data source and a different method of analysis. . . . Does a hermeneutical work of this type depend solely upon the singular talents of the individual author, or can the hermeneutical procedure be in some way specified and standardized so that it can be communicated to others for reduplication? (pp. 179–180)

The editorial comment suggests caution in using literary protocols as the data base for phenomenologically grounded psychological research. I have a more positive attitude to this type of data, especially when used in combination with protocols gathered from subjects. Literary data often offer deeply penetrating descriptions, and they allow the researcher access to protocols from a variety of geographical and historical settings.

The Results of Data Collection

The data-gathering process produces a collection of experiential descriptions of the topic under investigation. The very process of gathering the data allows the researcher to learn about the experience and to obtain some notions about its structure. In phenomenological research, therefore, investigators commonly consider it essential to participate directly in data gathering. The gathered descriptions—whether personal reflections by the researcher, reflections from subjects, or previous descriptions—are converted to written form. The stage of data collection often results in hundreds of pages of written material, which is then analyzed in the data-analysis stage to tease out the essential descriptions of the experience under investigation.

DATA ANALYSIS

The aim of phenomenological inquiry is to reveal and unravel the structures, logic, and interrelationships that obtain in the phenomenon under inspection. Data analysis is the core stage of research efforts in phenomenological psychology. Its purpose is to derive from the collection of protocols, with their naive descriptions to specific examples of the experience under consideration, a description of the essential features of that experience. The researcher must glean from the examples an accurate essential description of their contents and the

particular structural relationship that coheres the elements into a unified experience.

Essential Structures as Findings

The finding of phenomenological research is a description of the essential structure of the experience being investigated. The essential structure is made up of the elements or constituents that are necessary for an experience to present itself as what it is. The finding is called a "general structural description" or "synthetic description." For example, van Kaam's (1969) study of the experience of "really feeling understood" produced as its finding:

> The experience of "really feeling understood" is a perceptual-emotional Gestalt: A subject, perceiving that a person co-experiences what things mean to the subject and accepts him, feels, initially, relief from experiential loneliness, and, gradually, safe experiential communion with that person and with that which the subject perceives this person to represent. (pp. 336–337)

The finding of Stevick's (1971) study of "being angry" produced this general structural description:

> Anger is the pre-reflective experience of being made unable by another who prevents us, and it is the counteraction of this sense of inability by an affective transformation of the other and of the relationship with the other. The body is experienced as bursting forth, and expresses itself, publicly or privately as each person's pre-reflective restrictions allow, in expansive, explosive, nontypical behavior. (p. 144)

The phenomenological position is that the sphere of experience appears at the intersection of person and world. This sphere has common features that structure the person–world interaction so that contents, not buzzing confusion, appear, and these contents appear *as* meaning something. Experience is not indistinct and unstructured chaos; it appears as differentiated and structured. Phenomenological research is the search for those processes of consciousness that give the objects that appear in awareness meaning, clarity, and discrimination.

Phenomenological *philosophers* are primarily concerned with providing descriptions of the universal structuring processes of consciousness. They are interested in the structures that produce a common appearance and similar characteristics to each person's experience. Their investigations are directed to the level of universal structures—for instance, those that constitute a differentiation among the appearances of natural objects, persons, and self. Although the specific experiences of human beings are culturally and historically variable, experience appears to have a primary and basic common structure.

Psychological research does not usually focus on these universal structures; instead, it examines the level of structures that constitute psychological meanings in particular contexts or situations. If a psychology researcher were to collect descriptions of "the experience of being in a classroom," the focus of interest in the analysis of the experience of this situation would be placed on its psychological structures. The same descriptions could possibly be used to analyze the sociological or anthropological structures of the experience.

A Search for Lived-Structures or Essences

Various terms have been used to designate the process through which the researcher moves from a collection of naive descriptions to a structural description. Husserl (1913/1931) calls the process the eidetic *epoché*. (This *epoché* differs from the phenomenological *epoché* where the question about the independent existence of the contents of consciousness is suspended). The eidetic (essence) *epoché* (abstention) is a "bracketing" of interest in the particular and specific instances of an experience in order to grasp its structural principles. It is also referred to as the "reduction" or "reducing" of specific descriptions to their fundamental structures. The use of the term *reduction* in this context is unfortunate because positivistic science refers to *reduction* as a type of explanation that accounts for characteristics of an object by providing descriptions of its most primitive parts. The purpose of Husserl's reduction is to disclose a nonreductive structure that unites the invariant elements of an experience into a whole.

Van Kaam (1969) refers to the process used to grasp the essential structure of an experience as "explication." He states: "By explication, implicit awareness of a complex phenomenon becomes explicit, formulated knowledge of its components" (p. 316). The term *thematization*, borrowed from qualitative research, has also been used to describe this process; in phenomenological research, it denotes that the search for essential structures involves identifying the constituents or themes that appear in the descriptions.

The Steps in the Analysis

The movement from a collection of protocols to an accurate, clear, and informative structural description can be a complex and difficult process. Because a whole protocol or a collection of protocols cannot be analyzed simultaneously, they have to be broken down into manageable units, and a process of sequential steps must be delineated that can assist the researcher in developing general structural descriptions.

The type of steps used in the phenomenological anal-

ysis of a set of subject descriptions can be understood by reviewing the development of the methods of protocol analysis. This section will summarize three studies that portray the development of psychological research methods based on phenomenology. The studies to be reviewed are van Kaam's (1969) study of "really feeling understood," Colaizzi's (1978) study of "being impressed by reading something to the point of modifying one's existence," and Giorgi's (1975a, b) study of "what constitutes learning for ordinary people going about their everyday activities."

Van Kaam's study was originally completed in 1958 as a doctoral dissertation at Western Reserve University, and its publication as part of his *Existential Foundations of Psychology* (1969) was influential in the revival of qualitative research in psychology. The study retains aspects of research based on content analysis with its use of a large number of subjects, intersubjective concurrence of judges, and attention to the percentage of protocols in which a constituent occurs. Van Kaam, who was a faculty member at Duquesne University, did not continue with the development of phenomenological research methods. Instead, this work was undertaken by another group of scholars at Duquesne. Under the leadership of Giorgi, and working independently of van Kaam, this group sought to develop methods more directly grounded on phenomenological philosophy. The procedures outlined in Colaizzi's (1978) study are representative of the work of the Duquesne group during the 1960s. The procedures in Giorgi's (1975a, b) study are the further outgrowth of his work with the Duquesne group and of his own reexamination of the phenomenological literature undertaken during his 1969 stay in Europe. The direction of the evolution of procedures for phenomenologically grounded psychological research has been toward a stance more completely grounded in phenomenological insights and away from positivistic assumptions. The process of development remains open-ended and unfinished.

Van Kaam (1969, pp. 325–328) used six steps or operations in his study of "really feeling understood":

1. *The classification of the data into categories.* A "sufficiently large random sample of cases" is taken from the pool of protocols, and a list is developed that contains "every basically different statement made by the subjects." Van Kaam suggests that the use of several judges drawing selections from the same data can help "insure the validity of this procedure." The final listing must be agreed on by the judges. The list consists of the concrete, vague, intricate, and overlapping expressions as they occur in the protocols. Examples given by van Kaam are "I feel a hundred pounds less heavy" and "[I have] a load off my chest." In addition to creating a list of the various statements, van Kaam also calculates the percentage of the protocols in which each item on the list has appeared.

2. *The reduction and linguistic transformation of the selections into more precisely descriptive terms* (p. 326). The shift from the subjects' original language given in the raw data to descriptions in the words of the researchers is a crucial procedure in the analysis of qualitative data. The transformation is not accomplished by technical procedures as it is in quantitative analysis, such as the transformation of a group of raw scores into standard deviation and mean scores. Linguistic transformation is carried out by means of the ordinary human capacity to understand the meaning of statements. One can move from a statement to its referent—the experience to which it points—and redescribe that experience from a different perspective. In this case, the experience is redescribed from a perspective concerned with precise description, and it shows how the experience relates to the topic under investigation—the feeling of being understood.

In van Kaam's example, the original protocol statements identified in Step 1, "I feel a hundred pounds less heavy" and "A load off my chest," are transformed by identifying them as instances of "a feeling of relief." The move in this step is to reduce the lists given in the language of the original transcriptions to a list in the language of the researchers describing elements that might be parts of the experience of feeling understood. To increase the intersubjective validity of these transformations, van Kaam has sought the agreement of judges that the "reduced elements" are accurate reflections of the original selections. (Van Kaam uses *elements* and *constitutents* interchangeably; in Giorgi's nomenclature presented later they have distinct meanings.) The percentage of protocols containing these reduced elements have then been calculated—for example, "perceiving signs of understanding from a person" occurred in 87% of the protocols.

3. *The elimination of those reduced statements developed in Step 2 that are probably not inherent in the experience of feeling understood.* Elements that merely express aspects of the experience that relate to a specific situation and elements that are a blending of several parts are removed from the reduced list.

4. *The first hypothetical identification.* After the first three operations—classification, reduction, and element elimination—are completed, the resulting list is taken as the first hypothetical identification and description of the experience.

5. *Application.* The hypothetical description of Step 4 is applied to randomly selected protocols. The description is tested to determine if it contains more than

the necessary and sufficient constituents of the topic under investigation. It may also be that some of the protocols contain elements inherent to the experience that have been left out of the hypothetical description. In such instances, the hypothetical description is revised to reduce or expand its elements. Step 5 may have to be carried out several times with the hypothetical description undergoing changes until it characterizes the inherent elements in the structure in a new random sample of protocols.

6. *Valid identification.* When the previous steps have been carried out successfully, the hypothetical description can be considered to be a valid identification and description of the experience. Van Kaam reminds the researcher that "it is evidently valid only for the population represented by the samples" (p. 327). The validity lasts until new cases of the experience can be shown not to correspond to the necessary and sufficient constituents contained in the formula.

Colaizzi (1978, pp. 58–62) describes his use of similar steps in his study of the experience of "being impressed by reading something to the point of modifying one's existence." After reading all the protocols to "acquire a feeling for them," he extracts the phrases or sentences that directly pertain to the experience. The next step he describes is similar to van Kaam's reduction in which the phrases as they appear in the protocol are transformed into the words of the researcher. In Colaizzi's version, the meaning of each protocol statement is extracted, and the result is a list of "meaning" or "significant" statements reflecting the essential point of each original statement. Regarding this step, Colaizzi writes:

> This is a precarious leap because, while moving beyond the protocol statements, the meanings he [the researcher] arrives at and formulates should never sever all connection with the original protocols; his formulations must discover and illuminate those meanings hidden in the various contexts and horizons . . . in the original protocols. (p. 59)

Colaizzi's next step is to cluster the individual themes to produce a further reduction into general themes (theme clusters) that are common to all the subjects' protocols. The clustering process is similar to van Kaam's Step 5 in that it makes use of a zigzag procedure. The researcher moves back and forth between the meaning statements and the successive revised hypothetical "exhaustive" lists until the themes are accurately reflected in the clusters. The final result of the zigzag process is the finding of the research, the essential structural definition. The following is a portion of Colaizzi's final description of the experience of "changes through reading":

> The already known becomes seen in a new light, allowing hidden meanings of the familiar to emerge. . . . Regardless of the book's content, it ultimately refers back to the reader himself. . . . The ordinary is all radically restructured, and for a long time afterward the reader is occasionally reminded of the extraordinariness of the commonplace in some area, about which he is convinced that the author has established some truth, and to which he is converted, at least temporarily. (p. 65)

A final step, missing in van Kaam's formulation, is added in Colaizzi's method of analysis. The researcher returns to each subject and asks, "How do my descriptive results compare with your experiences?" and "Have any aspects of your experience been omitted?" Any relevant new data that emerge from these follow-up interviews are worked into a revised, final description. Colaizzi, unlike van Kaam, did not use independent judges in the analysis of his data and thus did not include the aim of intersubjective concurrence in the reductive steps. He also did not calculate the percentages of the occurrence of statements across the protocols.

Giorgi's (1975a,b) account of his study of "what constitutes learning for ordinary people going about their everyday activities" offers another set of steps to be taken to produce a description of a general structure of experience. Giorgi, instead of seeking universal essences, emphasizes the psychological perspective of his research and his interest in structures that are context-related or relevant for typical situations or typical personalities. This move introduces a dependency on contingencies that universal essences do not have and makes the structural descriptions more subject to change; nevertheless, his research remains within the phenomenological framework because it produces descriptions that transcend the specific experiences on which they are based.

In the description of his study of learning, Giorgi describes the six steps he used in working with a single protocol (for example, the transcribed text of one complete interview). The protocol he uses to illustrate the steps was generated in an interview with a woman who selected as her example of learning the insights she gained about interior design from her friend:

1. The researcher reads completely through the protocol to get the sense of the whole.

2. The researcher reads through the protocol again and divides the transcript into units (blocks) that seem to express a self-contained meaning from a psychological perspective. This is accomplished by recording each time a transition in meaning is perceived—for instance, a change in subject matter or a change in activities being described. This is not an automatic or technical process; it requires the researcher's judgment. Although the researcher reads from the perspective of his or her discipline's interests (in this case, psychology), care must be taken to treat the text as a naive and nontheoretical presen-

tation of the subject's experience and to seek those divisions that are part, in fact, of the subject's own experience. The divisions are to be those that naturally cohere in the text rather than those imposed by the expectations of a researcher's theoretical position. Each block is referred to as a "meaning unit." The meaning units are constituents of the experience, not elements, in that they retain their identity as contextual parts of the subject's specific experience. In the example, the meaning refers to learning about interior design by this person at this time, not to learning in general. (An element implies a contextless discrimination and results from a reduction of a constituent.)

Giorgi (1975b) found that the woman's protocol (the one he used as an illustrative example) divided into 15 meaning units. The opening meaning unit was the following portion of the protocol:

> [In response to the question, "Could you describe in as much detail as possible a situation in which learning occurred for you?"] The first thing that comes to mind is what I learned about interior decorating from Myrtis. She was telling me about the way you see things. Her view of looking at different rooms has been altered. She told me that when you come into a room you don't usually notice how many vertical and horizontal lines there are, at least consciously, you don't notice. And yet, if you were to take someone who knows what's going on in the field of interior decorating, they would intuitively feel there were the right number of vertical and horizontal lines. [The next sentence of the protocol was marked as the beginning of a second meaning unit.] (pp. 88–89)

3. In Giorgi's third step, after having delineated the natural meaning units, the researcher tries to state, as simply as possible in his or her own language, the meaning that dominates the natural unit. This is a concise description of the meaning unit and is the first transformation of the data from the subject's words to the researcher's words. The researcher tries to express in an explicit way the implicit psychological aspects of the meaning unit and then writes out a sentence in his or her own words that expresses this discovery. These transformations, stated in the third person, retain the situated character of the subject's initial description and are the psychological equivalents of the meaning units of Step 2 that were originally expressed in the subject's own words.

Where van Kaam and Colaizzi move directly from the delineation of the protocols' natural meaning units to a search for the essential elements of the general experience under investigation, Giorgi's transformations (Steps 3 and 4) and first synthesis (Step 5) retain the situated context in which the experience has occured to an individual subject. Only after developing a situated structural description of the experience for each subject does Giorgi move to a general transsituational description of it (Step 6).

In the third step of the example, Giorgi identified the constituent in the opening meaning unit as "role of vertical and horizontal lines in interior decorating." At this point, the analysis has produced a division of the protocol into 15 units, each accompanied by the statement of its situational theme in the words of the researcher.

4. The next step is to interrogate each meaning unit and its theme in terms of the specific topic of the study. The researcher works with the meaning units (Step 2) and their first transformations (Step 3). The question of the study (in this case, "What is learning?") is put to each unit and its accompanying first transformation. This is a second transformation in which the researcher draws out from each unit of the protocol those aspects that are related to the topic under investigation and redescribes these aspects in the language from the perspective of psychological science (in this case, in the psychological terms related to learning).

Even though the subject's original description has been given in response to the research question, it often contains sections unrelated to the question. If there is nothing explicit about the topic in a meaning unit, the researcher can pass it over. Giorgi's (1975b) description of the central meaning about learning found in the first meaning unit is:

> The awareness of vertical and horizontal lines and their importance for interior decorating as described by a friend was the content and one of the goals of the learning experience. (pp. 91–92)

5. Once the meaning units have been transformed into psychological language, the researcher works to synthesize and tie them together into a descriptive statement of essential, nonredundant psychological meanings. The transformed meaning units are related to each other and to the sense of the whole protocol. This structural description continues to include the concreteness and the specifics of the situation in which the subject's learning took place. The description answers the question, "What is the psychological structure of learning as it presented itself to this subject in this particular situation?" The description of the situated structure of learning developed for the whole protocol being considered here is:

> S[ubject] becomes aware through a friend that rooms have vertical and horizontal lines and that these lines are important for interior decorating. Having acquired this knowledge, S[ubject] looks for and perceives the lines in her own living room and then rearranges the furniture in the room in accordance with her perception of the lines. Afterwards the room really looks different to her and this fact is confirmed by her husband, who however, does not know why the room looks different. S[ubject] describes her own learning as knowledge application, and a certain way of looking, and implicitly acknowledges that there may be levels of learning. Explicit awareness of specific

> criteria for determining the proper room rearrangement were not present; only the general intention to rearrange the room. The readiness to learn about the relationship between lines and interior decorating made possible the recall of relevant past experiences about European cathedrals and their lines. (pp. 94–95)

6. Only after completing the situated descriptions does the researcher develop a description at the general level from the protocol. The construction of the general structural description leaves out the particulars of the specific situation reported in the protocol. Instead, it centers on those aspects of the experience included in the protocol that are transsituational or descriptive of learning in general. Although the description does not claim to be of a universal structure of consciousness, it does claim a general validity beyond the specific situation of the subject. The general description of the situated structure derived from the example protocol is:

> Learning is the ability to be present to, or exhibit the "NEW" according to the specific context and level of functioning of the individual. This awareness of the "NEW" takes place in an interpersonal context and it makes possible the sustained appreciation of a situation in a fuller way, or the emergence of behavior that reaches a different level of refinement in a sustained way or both. (pp. 94–95)

Giorgi's example finishes with the analysis of this single protocol. For this reason he retains the delimiting term *situated* in the title of the general description. He does, however, advocate the use of multiple subjects in phenomenological psychological research. In addressing the point of multiple subjects, Giorgi (1985a) writes:

> One would rarely conduct research of this type with only one subject. It is important to realize this because it is most difficult to write an essential general structure with only one instance. The more subjects there are, the greater the variations, and hence the better the ability to see what is essential. (p. 19)

The researcher moves through six steps with each subject's protocol, developing a separate general description of the situated structure for every one. If the researcher begins, however, with multiple protocols, Giorgi allows that producing a general description for the situated structure for each protocol may not be necessary.

7. Thus an additional step is required to produce a single general structural description. For this final description, the term *situated* can be dropped if all of the subjects "can be subsumed under one typology" (p. 20). In this step, the researcher directly synthesizes the transformed meaning units from the various protocols into a final general description.

Giorgi's steps, like Colaizzi's, do not include van Kaam's percentages or the comparative validity of multiple judges. All three researchers, however, employ a similar series of steps: (a) The original protocols are divided into units, (b) the units are transformed by the researcher into meanings that are expressed in psychological and phenomenological concepts, and (c) these transformations are tied together to make a general description of the experience.

The Transformation and Synthesis of the Data

Transformations

One of the most difficult aspects of the data-analysis process to explain is the transformation of a meaning unit, which is given in a subject's everyday langauge, into a statement using psychological terms to describe the phenomenon being investigated. The transformations are necessary because the original descriptions given by subjects are usually naive regarding psychological structures and often include multiple and blended references.

The transformation is not accomplished through abstraction or formalization. It does not remain at the level of the linguistic expressions, as does traditional content analysis with its use of word counts (Krippendorff, 1980), but focuses on the experiences to which the language refers. The transformation "goes through" the everyday linguistic expressions to the reality they describe, and then it redescribes this reflective reality in the language appropriate to a phenomenologically based psychology. One difficulty for this redescription is the current vocabulary of psychology. This vocabulary is tied to nonphenomenological perspectives—for instance, behaviorism and psychoanalysis. Thus phenomenological psychologists generally use the language of commonsense enlightened by a phenomenological perspective for their redescriptions.

"Going through" concrete expressions to the experience itself is accomplished by two thought processes: reflection and imaginative variation. The process of reflection involves a careful and sensitive reading of an expression to answer the questions, What is truly being described in the meaning unit? and What is absolutely essential to understand the psychological dynamic operating here? The researcher then tests the answers he or she first proposes by imaginative variation.

Imaginative variation is a type of mental experimentation in which the researcher intentionally alters, through imagination, various aspects of the experience, either subtracting from or adding to the proposed transformation. The point of free variation is to imaginatively stretch the proposed transformation to the edges until it no longer describes the experience underlying the subject's naive description. The use of these processes is to enable the

researcher to produce meaning transformations on which there is consistent intersubjective agreement. Van Kaam's study did not use imaginative variation and thus is closer to a logical deduction from the given protocols than a phenomenological analysis of a structure of experience.

A test of the correctness of a meaning transformation is that one can work backward from the transformed expression to the original naive expression. An adequate transformation should not be simply an idiosyncratic process in which the results are unique to the particular researcher producing the redescription. They must be publicly verifiable so that other researchers will agree that the transformed expression does describe a psychological process that is, in fact, contained in the original expression. (Giorgi, 1985b, reports that when the transformation is carried out on the same protocol by different individuals and the results are compared, the degree of "intersubjective agreement is surprisingly high" [p. 73].)

Synthesis

Transformations are redescriptions of meaning units. Synthesis involves tying together and integrating the list of transformed meaning units into a consistent and systematic general description of the psychological structure of the experience under investigation. Synthesis is the process of phenomenological eidetic reduction. It involves an intuitive "grasping" of the essential psychological elements that incorporate the redescribed psychological meanings, and it is thus different from an inductive or simple generalization procedure. Van Kaam's study derived its final synthetic description by collating the predominant features of the experience. The phenomenological process of synthesis is different from a process that adds or lists together elements; it requires an eidetic seeing of the whole. In the grasp of the whole, the elements are understood.

The procedure of synthesis calls for the researcher to read through the redescribed meanings and then to formulate what might be a general description of the structure underlying the variations in the meanings. The researcher again conducts "thought experiments" in which proposed formulations are imaginatively varied to the point at which an imagined structural description no longer fits the meanings. The proposed formulation is then compared to the transformed meanings again to see if it is supported. This procedure of zigzaging between the transformed meanings and a proposed general description goes through several rounds, the formulation becoming more refined each time until the meanings clearly support the final general description.

As in the case with the transformations, the synthesis can be tested by other researchers. By examining the redescribed meanings along with the final general description, other researchers should be able to agree that the product of the synthesis is accurate and clearly presents a possible description of the essential structured elements of the experience being investigated.

EXPRESSIONS OF THE FINDINGS

The finding of a phenomenological study is the general structural description. In phenomenological research, the researcher has the freedom to express the finding in multiple ways. Giorgi (1985a) makes the point that "to a large extent how the findings are presented [depends] very much upon the audience with whom one is communicating" (p. 20). The same essential findings are expressed in each case, but they are geared to the background and vocabulary of the audience.

Fischer and Wertz's (1979) study, referred to previously, investigated the experience of "being criminally victimized." Because their project called for dissemination of their results at public forums, they produced five expressions of their findings, all responding to the different communicative needs of their various audiences. For example, the first expression of their findings was a typical description of the general structure, which they called "general condensation." It was four paragraphs in length, and "evolved from half a dozen drafts, each giving up more detail, and varying the way of presenting each constituent [feature] so as to evoke its relation to the whole" (p. 150). They concluded that, because of its succinctness and compactness, the general condensation necessarily lost the richness and concreteness contained in the raw data. Although the general condensation was too dense and technical for use at public presentations and nonprofessional discussions, it provided the basis for the more useful reporting formats.

As a second expression, they distributed individual case synopses. (The example they used in their report was two and a half pages in length.) Each case synopsis, produced by using the person's own words or a very close approximation of them, described what was "personally critical to a particular victim's experience" (p. 140) and was intended to provide the audience "with concrete examples that reverberate with their own lives" (p. 143).

The Research Report

The phenomenological research report must include a description and documentation of the procedures em-

ployed by the researcher to collect the data (including a description of the subjects used in the study) and the steps applied to move from the raw interview data to a general description of the experience under investigation. Examples should be provided of original protocols and transformations, and arguments should be given to support the synthetic conclusions. Readers can then follow the researcher's analytic process and thus understand how the transformed meanings and structural description have been arrived at. Although the documentation does not *prove* that the conclusions of the study are correct, they can allow the reader to check to see if the general description is indeed supported by and derived from the data.

The research report should also include a review of the previous research and theory pertaining to the topic. This is done to set the scholarly context in which the study will be carried out and to justify why an additional study, using phenomenological methods, is needed on the topic. The implication of the phenomenological findings for psychological theory and application should conclude the report.

Issues of Validity

The phenomenological researcher needs to be concerned throughout the investigative process with whether the findings are "valid"—that is, whether or not the findings can be trusted and used as the basis for actions and policy decisions. The concept of validity ordinarily refers to the notion that an idea is well-grounded and well-supported and thus that one can have confidence in it. Some confusion exists in the literature about how to apply the notion of validity to phenomenological research. In mainstream social science research, measuring instruments (including questionnaires) generate types of data that can be analyzed by using statistical procedures. There the concept of validity has been specifically delimited to refer to confidence in the measuring instruments. Are they measuring accurately what they claim to measure?

Phenomenological research, however, approaches validity from a more general perspective—as a conclusion that inspires confidence because the argument in support of it has been persuasive. Not all arguments persuade with the same power, though. A "sound" argument persuades because it is able to resist attack. A "convincing" argument is stronger than a "sound" one; not only can it withstand attack, but it can also silence the opposition. A "conclusive" argument is still stronger; it puts an end to all doubt or debate. For example, the syllogism is a "conclusive" argument: Conclusions derived from syllogistic arguments (given the acceptance of the premises) cannot be doubted. The degree of validity of the findings of a phenomenological research project, then, depends on the power of its presentation to convince the reader that its findings are accurate.

Researchers must persuade readers (including the community of scholars) that the two types of inferences that they have made in reaching their findings are powerfully supported: (a) the transformation of the raw data into phenomenological, informed psychological expressions and (b) the synthesis of the transformed meaning units into a general structural description. The reader must be able to follow the thought processes that have led to the conclusions and to accept them as valid. In those cases where the phenomenon is one that the readers have experienced, the findings must also correspond to the readers' own experiences of the phenomenon.

The validity of phenomenological research concerns the question, "Does the general structural description provide an accurate portrait of the common features and structural connections that are manifest in the examples collected?" The doubts to be addressed include:

1. Did the interviewer influence the contents of the subjects' descriptions in such a way that the descriptions do not truly reflect the subjects' actual experience? (See Mishler, 1986, for a survey of the research on interview outcomes.)
2. Is the transcription accurate, and does it convey the meaning of the oral presentation in the interview?
3. In the analysis of the transcriptions, were there conclusions other than those offered by the researcher that could have been derived? Has the researcher identified these alternatives and demonstrated why they are less probable than the one decided on?
4. Is it possible to go from the general structural description to the transcriptions and to account for the specific contents and connections in the original examples of the experience?
5. Is the structural description situation-specific, or does it hold in general for the experience in other situations?

The phenomenological researcher works in the linguistic realm and cannot draw on a reader's commitment to the conclusive power of statistically expressed arguments. Thus reports of phenomenological research need to include reasoned and convincing responses to the questions that responsible readers are expected to ask of the research and to make explicit the philosophical ground and specific world view on which the research is based.

The Usefulness of Phenomenological Research

Natural scientific research aims to produce the kind of knowledge that allows one to predict and control the topic under investigation. Phenomenological research is quite different; it seeks understanding for its own sake and addresses the question *what?* not *why?* Productive phenomenological research supplies a deeper and clearer understanding of what it is like for someone to experience something. The research results amplify our understanding of these experiences and lead to several consequences: (a) we can appreciate and be more sensitive to those involved in these experiences, a particularly significant consequence for those in the helping professions; (b) some of the understandings derived from logical-mathematical theories and research can be enlarged on, deepened, and, in some cases, corrected; and (c) social action and public policy can be amended so as to be more responsive to the way in which we experience various situations.

One of the reasons I chose to use Fischer and Wertz's (1979) study of the experience of being criminally victimized is that it provides an example of how the results of phenomenological research can affect policy changes. Fischer and Wertz's results were useful in several ways:

1. Their descriptions helped other victims of crime to understand and to come to terms with their own experiences.

2. Their results helped counselors who work with crime victims to be more sensitive and responsive to their clients. For example, victims typically respond first by taking action—they call insurance companies, change locks, arrange for replacements of licenses and credit cards, and so forth—and only later—days, weeks, sometimes months—are they ready to reflect on what has happened to them and what it has meant to them and to society. Without this reflection, victims do not fully recover a sense of being in charge of their lives. This finding implies that counselors should make themselves available later in the process of adjustment and not limit their presence to the initial police response.

3. Their results provided authorities with information on the type of response victims previously thought they would receive. For example, victims expected the police to investigate reported crimes immediately and were disappointed and angry when this did not happen. Thus the findings make it clear that victims should be told just how long they can expect to wait before the police will begin their investigation of a crime.

4. The purpose of the illustrated narratives was to provide public officials with "an immediate sense of the full sweep of the personal meaning of being criminally victimized" (p. 145). This understanding has increased the officials' motivation to instigate changes in public policy and has provided them with insight into what policies need to be changed. For example, "it is apparent that if the victim is to integrate, i.e., overcome, the experience, he requires something different than such current efforts as financial compensation and child care services while testifying in court" (p. 150). Assistance needs to include community members with whom the victim can talk about the experience, and the community agencies need to understand victims' feelings of vulnerability and guard against victimizing them further through inconsideration or ineptitude.

It is important to include in the phenomenological research report an implication section where the significance of the findings for practice and policy is spelled out. Wertz (1984) has written about the need for an implication section: "A further moment [extention] of research is required to relate the findings to various sectors of the lifeworld within which the research is situated" (p. 45). He mentions that, in addition to consequences for public policy, phenomenological researchers often relate their findings to other psychological theories and practices. Giorgi's (1975b) and Colaizzi's (1973) studies on the "experience of learning" imply that changes are needed in the convention pedagogical strategies used in schools. Aanstoos's (1983) research on thinking carries critical implications "for information processing theories" and Wertz's (1982) study of perception for visual theories.

In addition to the findings of phenomenological research, participation in the process itself can be useful for subjects. Wertz (1984) has described the beneficial effects that sometimes accrue to the interview participants in the research. In his study with Fischer (1979) on victimization, the process of engaging in the interview was itself helpful for the subjects in restoring their broken sense of community.

The phenomenological research methods reviewed in this chapter are designed to yield clear and accurate descriptions of the structures of consciousness that constitute what appears in human experience. The research methods of other sciences are constructed to produce information about objects and human activities as they exist in themselves, outside of their appearance in human experience. Phenomenological methods are devised to investigate another realm of reality, the realm that comes into being at the intersection of consciousness and the world—human experience. Phenomenological methods have characteristics whose purpose it is to provide researchers clear access to this realm. These methods are also designed, however, to produce knowledge that meets the commitment to truth shared by all the sciences. The development of psychological research methods based in

phenomenology is in a beginning phase. With more experience and effort, these methods will gain in sophistication and clarity.

RECOMMENDED READING

In recent years, an extensive body of literature has developed that contains psychological studies that are based on the phenomenological perspective and that include discussions of phenomenological methodology. I suggest that those who want to learn more about the phenomenological perspective on psychological research go directly to this literature. The two primary sources are the *Journal of Phenomenological Psychology* and the four volumes of the *Duquesne Studies in Phenomenological Psychology* (Giorgi, Fischer, & von Eckartsberg, 1971; Giorgi, Fischer, & Murray, 1975; Giorgi, Knowles, & Smith, 1979; Giorgi, Barton, & Maes, 1983). Papers from the biennial meetings of the International Association for Qualitative Research are published regularly as *Qualitative Research in Psychology* (Giorgi, 1986). Additional edited books include Spiegelberg's papers in *Doing Phenomenology* (1975); *Exploring the Lived World: Readings in Phenomenological Psychology,* edited by Aanstoos (1984); *Phenomenology and Psychological Research,* edited by Giorgi (1985a); and von Eckartsberg's survey of phenomenological methods, *Life-World Experience: Existential-Phenomenological Research Approaches in Psychology* (1986) A new journal, *Methods,* is another source for articles that addresses the methodological issues of phenomenological research.

REFERENCES

Aanstoos, C. M. (1983). A phenomenological study of thinking. In A. Giorgi, A. Barton, & C. Maes (Eds.), *Duquesne studies in phenomenological psychology: Vol. 4* (pp. 244–256). Pittsburgh: Duquesne University Press.

Aanstoos, C. M. (Ed.). (1984). *Exploring the lived world: Readings in phenomenological psychology.* (West Georgia College Studies in the Social Sciences, Vol. 23). Carrollton: West Georgia College.

Aanstoos, C. M. (1986). Phenomenology and the psychology of thinking. In P. D. Ashworth, A. Giorgi, & A. J. J. de Konig (Eds.), *Qualitative research in psychology* (pp. 79–116). Pittsburgh: Duquesne University Press.

Ashworth, P. D., Giorgi, A., & de Konig, A. J. J. (Eds.). (1986). *Qualitative research in psychology.* Pittsburgh: Duquesne University Press.

Bakan, P. (1978). Two streams of consciousness: A typological approach. In K. S. Pope & J. L. Singer (Eds.), *The stream of consciousness* (pp. 159–184). New York: Plenum Press.

Bellah, R. N., Madsen, R., Sullivan, W. M., Swidler, A., & Tipton, S. M. (1985). *Habits of the heart: Individualism and commitment in American life.* New York: Harper & Row.

Bogdan, R., & Taylor, S. J. (1975). *Introduction to qualitative reserach methods.* New York: Wiley.

Casey, E. S. (1976). *Imagining: A phenomenological study.* Bloomington: Indiana University Press.

Colaizzi, P. F. (1973). *Reflection and research in psychology.* Dubuque, IA: Kendall Hunt.

Colaizzi, P. F. (1978). Psychological research as the phenomenologist views it. In R. S. Valle & M. King (Eds.), *Existential-phenomenological alternatives for psychology* (pp. 48–71). New York: Oxford University Press.

Coles, R. (1967). *Children of crisis* (Vol 1). Boston: Little, Brown.

Crane, J. G., & Angrosino, M. V. (1974). *Field projects in anthropology.* Morristown, NJ: General Learning.

Erikson, E. H., Erikson, J. M., & Kivnick, H. Q. (1986). *Vital involvement in old age.* New York: W. W. Norton.

Fischer, C. T., & Wertz, F. J. (1979). Empirical phenomenological analyses of being criminally victimized. In A. Giorgi, R. Knowles, & D. L. Smith (Eds.), *Duquesne studies in phenomenological psychology: Vol. 3* (pp. 135–158). Pittsburgh: Duquesne University Press.

Friedman, M. (Ed.). (1964). *The worlds of existentialism.* Chicago: University of Chicago Press.

Gardner, H. (1985). *The mind's new science: A history of the cognitive revolution.* New York: Basic Books.

Giorgi, A. (1975a). Convergence and divergence of qualitative and quantitative methods in psychology. In A. Giorgi, C. T. Fischer, & E. L. Murray (Eds.), *Duquesne studies in phenomenological psychology: Vol. 2* (pp. 72–79). Pittsburgh: Duquesne University Press.

Giorgi, A. (1975b). An application of phenomenological method in psychology. In A. Giorgi, C. T. Fischer, & E. L. Murray (Eds.), *Duquesne studies in phenomenological psychology: Vol. 2* (pp. 82–103). Pittsburgh: Duquesne University Press.

Giorgi, A. (Ed.). (1985a). *Phenomenology and psychological research.* Pittsburgh: Duquesne University Press.

Giorgi, A. (1985b). The phenomenological psychology of learning and the verbal learning tradition. In A. Giorgi (Ed.), *Phenomenology and psychological research* (pp. 23–85). Pittsburgh: Duquesne University Press.

Giorgi, A., Fischer, W. F., & von Eckartsberg, R. (Eds.). (1971). *Duquesne studies in phenomenological psychology: Vol. 1.* Pittsburgh: Duquesne University Press.

Giorgi, A., Fischer, C. T., & Murray, E. L. (Eds.). (1975). *Duquesne studies in phenomenological psychology: Vol. 2.* Pittsburgh: Duquesne University Press.

Giorgi, A., Knowles, R., & Smith, D. L. (Eds.). (1979). *Duquesne studies in phenomenological psychology: Vol. 3.* Pittsburgh: Duquesne University Press.

Giorgi, A., Barton, A., & Maes, C. (Eds.). (1983). *Duquesne studies in phenomenological psychology: Vol. 4.* Pittsburgh: Duquesne University Press.

Halling, S. (1979). Eugene O'Neill's understanding of forgiveness. In A. Giorgi, R. Knowles, & D. L. Smith (Eds.), *Duquesne studies in phenomenological psychology: Vol. 3* (pp. 193–208). Pittsburgh: Duquesne University Press.

Heidegger, M. (1962). *Being and time* (J. Macquarrie & E. Robinson, Trans.). New York: Harper & Row. (Original work published in 1927)

Hirai, T., Izawa, S., and Koga, E. (1959). EEG and Zen Buddhism: EEG changes in the course of meditation. *EEG Clinical Neurological Supplement, 62,* 76–105.

Husserl, E. (1931). *Ideas toward a pure phenomenology and*

phenomenological philosophy (W. R. B. Gibson, Trans.). New York: Humanities. (Original work published in 1913)

Husserl, E. (1964). *The phenomenology of internal time-consciousness* (J. S. Churchill, Trans.). Bloomington: Indiana University Press. (Original work published in 1928)

Husserl, E. (1970). *The crisis of European sciences and transcendental phenomenology* (D. Carr, Trans.). Evanston, IL: Northwestern University Press. (From original work published in 1936)

Ihde, D., & Silverman, H. J. (1985). *Descriptions*. Albany: State University of New York.

Jager, B. (1979). Dionysos and the world of passion. In A. Giorgi, R. Knowles, & D. L. Smith (Eds.), *Duquesne studies in phenomenological psychology: Vol. 3* (pp. 209–226). Pittsburgh: Duquesne University Press.

Kohák, E. (1978). *Idea and experience*. Chicago: University of Chicago Press.

Konig, A. J. J. de (1979). The qualitative method of research in the phenomenology of suspicion. In A. Giorgi, R. Knowles, & D. L. Smith (Eds.), *Duquesne studies in phenomenological psychology: Vol. 3* (pp. 122–134). Pittsburgh: Duquesne University Press.

Kosslyn, S. M. (1980). *Image and mind*. Cambridge: Harvard University Press.

Krippendorff, K. (1980). *Content analysis: An introduction to its methodology*. Beverly Hills, CA: Sage.

Kvale, S. (1983). The qualitative research interview. *Journal of Phenomenological Psychology, 14,* 171–196.

Merleau-Ponty, M. (1962). *Phenomenology of perception* (C. Smith, Trans.). New York: Humanities Press. (Original work published 1945)

Mishler, E. G. (1986). *Research interviewing: Context and narrative*. Cambridge: Harvard University Press.

Mruk, C. J. (1983). Toward a phenomenology of self-esteem. In A. Giorgi, A. Barton, & C. Maes (Eds.), *Duquesne studies in phenomenological psychology: Vol. 4* (pp. 137–149). Pittsburgh: Duquesne University Press.

Reynolds, H. T. (1977). *Analysis of nominal data*. Beverly Hills, CA: Sage.

Richer, P. (1978). A phenomenological analysis of the perception of geometric illusions. *Journal of Phenomenological Psychology, 8,* 123–135.

Ricoeur, P. (1967). *The symbolism of evil* (E. Buchanan, Trans.). New York: Harper & Row. (Original work published 1960)

Romanyshyn, R. D. (1982). *Psychological life: From science to metaphor*. Austin: University of Texas Press.

Rorty, R. (1979). *Philosophy and the mirror of nature*. Princeton: Princeton University Press.

Rubin, L. B. (1983). *Intimate strangers: Men and woman together*. New York: Harper & Row.

Sartre, J. (1966). *Psychology of imagination* (B. Frechtman, Trans.). New York: Washington Square. (Original work published 1940)

Schwartz, H., & Jacobs, J. (1979). *Qualitative sociology*. New York: Free Press.

Spiegelberg, H. (1976). *The phenomenological movement: A historical introduction* (2nd ed., Vols. 1 and 2). The Hague: Martinus Hijhoff.

Stevick, E. L. (1971). An empirical investigation of the experience of anger. In A. Giorgi, W. F. Fischer, & R. von Eckartsberg (Eds.), *Duquesne studies in phenomenological psychology: Vol. 1* (pp. 132–148). Pittsburgh: Duquesne University Press.

Strasser, S. (1969). *The idea of dialogal phenomenology*. Pittsburgh: Duquesne University Press.

van Kaam, A. (1969). *Existential foundation of psychology*. New York: Image Books. (Original work published 1966)

von Eckartsberg, R. (1986). *Life-world experience: Existential-phenomenological research approaches in psychology*. Washington, DC: University Press of America.

Wertz, F. J. (1982). Findings and value of a descriptive approach to everyday perceptual process. *Journal of Phenomenological Psychology, 13,* 169–195.

Wertz, F. J. (1984). Procedures in phenomenological research and the question of validity. In C. M. Aanstoos (Ed.), *Exploring the lived world: Explorations in phenomenological psychology* (pp. 29–48) (West Georgia College Studies in the Social Sciences, Vol. 23). Carrollton: West Georgia College.

Yin, R. (1984). *Case study research*. Beverly Hills, CA: Sage.