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EDUCATIONAL RESEARCH AS HUMAN PRAXIS: CONCEPTIONS OF QUALITATIVE METHODS

The Ohio State University

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PH.D. 1980
EDUCATIONAL RESEARCH AS HUMAN PRAXIS:
CONCEPTIONS OF QUALITATIVE METHODS

DISSERTATION

Presented in Partial Fulfillment of the Requirements for
the Degree Doctor of Philosophy in the Graduate
School of The Ohio State University

By
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The Ohio State University
1980

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In Memory of

H.R.L.

In fulfillment of a promise
ACKNOWLEDGMENTS

Merleau-Ponty, in The Prose of the World, wrote that philosophy "adds to my personal obligation the obligation to understand situations other than my own and create a path between my life and the life of others, that is, to express myself." Many people have helped me in creating this dissertation which represents a path between others and myself. Within the university, the members of my committee guided and supported my work: Ojo Arewa helped me explore the philosophical fringes of social science and provided the perspective of the accomplished qualitative researcher; Phil Smith introduced me to the rigors of philosophy and helped to ensure the academic integrity of Chapters I through III; Paul Klohr planted the intellectual seeds for my work five years ago and lovingly nurtured their growth; and Ray Williams, my advisor, not only assisted me in creating a path but he encouraged me to enter a wilderness virtually unknown to educational researchers.

At various times I have shared a path with many others at Ohio State: Evie Freeman, Al Neff, and Matia Finn and Exie Ashburn not only provided intellectual stimulation, but more importantly, they offered their friendship and personal support; Nancy Graham gave me strength and confidence in times of self-doubt; finally Debra Moorehead, Barb Fincher and Chet Ball helped me prepare the last draft.

I know now that I started on this path long before I entered Ohio State. My family deserves a special thanks for showing me, very early, the importance and value of education. Their guidance and support has been essential.
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INTRODUCTION

I have set two goals for this work. The first is to examine and then criticize the important philosophical assumptions upon which research in the social sciences and education is based. The second is to develop a sound basis and then propose a reconceptualization for modes of inquiry in educational research. The attempt to accomplish these goals reflects a commitment toward resolving an intellectual, professional, and personal crisis.

This crisis is initially intellectual, having its origins in a rejection of positivism. It is professional, growing out of the current methodological debates among social science and educational researchers over quantitative versus qualitative methodology. But, primarily the crisis is personal. It has emerged through my attempts to come to grips with questions in philosophy and social science which are not within the traditional scope of the educational researcher.

Dealing with certain issues in philosophy and social science has resulted in several chapters which some might consider to be out of the ordinary for a dissertation in education. For example, Chapter I begins in 19th century Europe with an overview of Auguste Comte's positive philosophy. Comte, known primarily as the "father of sociology," is perhaps unknown to most educational researchers, yet, as a major proponent of positivism he has deeply influenced our conceptions of researchable phenomena and our methodologies. However, based on my professional training, it is evident that there is seldom a requirement for researchers to
examine the intellectual origins which influence their methods. By examining Comte's positive philosophy, I try to recover the basic assumptions which guide our more traditional research efforts.

Having made these assumptions explicit in the first chapter, I set out to criticize them in Chapter II. The criticisms of positivism developed here are based on the work of F.A. von Hayek. Hayek's work, like Comte's, is an unlikely subject to be included in a dissertation on educational research. Hayek is an economic theorist—not an educational researcher or even a "true" social scientist. Yet, his analysis of positivism in social science, what he calls the "scientistic attitude," is so insightful and clear that he has made an important contribution to our understanding of the limits of positivist social science. But despite Hayek's powerful criticisms of positivism, his alternatives are not sympathetic to the conception of research which I am trying to develop. To provide a basis for "qualitative research," Chapter III moves from a criticism of the uncritical adoption of the scientific method for conducting research in the social world to an examination of phenomenology.

My interest in phenomenology is probably much older than I realize. I must admit that when I first heard the term five years ago I had no idea what it meant. My ignorance then is typical of what most people know about phenomenology. The third chapter of this work is an attempt to generate some understandings of a phenomenological view of the social world and implications for doing research. Like the first two chapters, the ideas and terminology may be unfamiliar to educational researchers. In order to help overcome this barrier to understanding, Chapter III
includes discussions on the origins of the phenomenological movement in philosophy, beginning with its founder, Edmund Husserl; the phenomenological method; and several distinctions between the positivist and phenomenological view of the social world.

The discussions in these first three chapters are necessary for a variety of reasons, one of which concerns my conception of scholarly responsibility. During the past few years, within the social science and educational research communities, there has been a growing criticism of traditional research. The watchword of these critics or reconceptualists has been the call for "qualitative" research methodologies. At some point in these pleas for new methodologies the term "phenomenology" is always heard. However, many individuals calling for a phenomenological orientation toward educational research have little knowledge or understanding of the tradition which they advocate. For example, in 1979 I attended a roundtable session on phenomenological research in education at the Annual Meeting of the American Educational Research Association. At the outset, the presenter indicated that use of philosophically technical terms would be avoided. This seemed reasonable, given the nature of the audience. However, after the presentation, several questions were asked which demanded explicit knowledge about technical aspects of the phenomenological method. My suspicions that the presenters knew very little about phenomenology was confirmed when they said, "I think I've heard of Husserl."

In addition to my personal requirements for scholarly responsibility, there are other important reasons for including a chapter on phenomenology in a work on educational research. The most significant of these is to
demonstrate that valid intellectual traditions exist, other than positivism, to which educational researchers can turn for support of alternative conceptions of research.

The first three chapters, as I have described them, do not deal explicitly with the concerns of educational research. They are designed to serve as a basis for understanding our traditional conceptions of research, the weaknesses in them, and the possibilities for new conceptions and methodologies for educational research. The final two chapters extend these discussions into the domain of education. Specifically, the goal of these chapters, and the major goal of this work, is to develop a sound, context-specific basis for rethinking the nature and methods of educational research.
CHAPTER I

THE ELEMENTS OF POSITIVISM

The influence of the natural sciences on the methods of inquiry in the social sciences is, in large part, due to the development of what is today called positivism.1 "Positivism," writes Douglas (1970), "is the dominant theoretical perspective in the social sciences in the twentieth century" (p. 226). To understand the pervasiveness of positivism requires a description of its origins.

Origins of Positivism

It is generally agreed that modern social science, traditionally sociology, had its beginnings during the early 19th century in the writings of Henri Saint-Simon. However, it was Saint-Simon's young secretary, Auguste Comte, whose later works laid the foundation for modern social science inquiry. The aim of social science as described by Comte (1864), was to discover the natural laws of society enabling man to predict and control the progress of civilization. Comte's influence on the development of the study of social phenomena, while largely indirect, is among the most pervasive. This influence is based on the two key elements of his positive philosophy: (1) the Law of Three Stages and (2) the Hierarchy of the Sciences.2

*Superscript numbers refer to footnotes found at the end of this dissertation, pp. 54-57.
The Law of Three Stages

The Law of Three Stages states that all human knowledge has passed through three successive stages: the theological, the metaphysical, and the positive. In the theological stage, man's explanations of phenomena are based in the supernatural. In the metaphysical state, supernatural explanations are replaced by the idea of abstract forces. In the positive stage, man gives up his search for ultimate causes and explanations of phenomena and begins to describe the laws of phenomena through direct observation and logic. These descriptions of observable phenomena are considered by Comte as the highest form of knowledge, which is science.

For Comte and later positivists there is no real problem about the relation of this philosophy to the social sciences. Comte (1864) writes, "The fundamental character of all positive philosophy is to regard all phenomena as subject to invariable natural laws, whose precise discovery and reduction to the smallest number possible is the aim of our effort" (p. 16). The task of this philosophy is to clear up conceptual confusions and lay down standards of scientific adequacy. Since these standards are universal, they apply equally to the natural and the social sciences.

The Hierarchy of the Sciences

The Law of the Three Stages is complemented by Comte's second thesis, the Hierarchy of the Sciences. For Comte, the first sciences, those modes of thought which were first to enter his positive stage of knowledge, were those fields of study which were furthest from man's control. Beginning with mathematics, and then astronomy, the sciences were arranged in a single linear order of decreasing generality and increasing
complexity. The last science, according to Comte's scheme, was social physics. It was the least general, most complex, and, therefore, the "final" science.

As in any hierarchical scheme, each element in the hierarchy is in some way related to those elements which precede it. Like his Law of Three Stages, where each science must pass through the preceding stage before moving to the next, Comte's Hierarchy of the Sciences assumes that each science is based on those preceding it, making use of all the results of the prior sciences, plus some new elements of its own. It is not surprising, then, that the methods of inquiry, and forms of explanation, of each positive science are also closely related in a hierarchical manner. Positive methods of inquiry and forms of explanation of social phenomena rely heavily upon the methods used to produce positive explanations of physical phenomena.

The general characteristics of these methods is "to abandon, as necessarily vain, all search for causes, be it primary or final, and to confine itself to the study of the invariable relations which constitute the effective laws of all observable events" (Comte, 1864: 599). Beyond this general characteristic, it is difficult to identify discrete components of these methods except for one: observation. "True observation," writes Comte (1864) "must necessarily be external to the observer" (pp. 402-403). It is through this method of true observation that modes of natural or social inquiry attain the status of positive science.

The importance of Comte's writing extends far beyond his Law of Three Stages and the Hierarchy of the Sciences. These ideas are more a matter of the history of social science, rather than a description of its
practice. However, as Hayek (1955) points out, "While Comte's direct influence remained confined to comparatively few individuals it is through these few individuals that it extended exceedingly far" (p. 188). By examining the fundamental assumptions of positivism in the social sciences, Comte's influence on prevailing attitudes becomes clear.

The Tacit Assumptions of Positivism

The basic premise for Comte's positive social science is the unity of scientific methods. This means that the way in which positive knowledge is acquired is essentially the same in all investigations, whether they be of the natural or social worlds. This notion is implicit in Comte's Law of Three Stages and the Hierarchy of the Sciences.

Growing out of the idea of the unity of scientific methods are what Kolakowski (1972) identifies as the three tacit assumptions of positive philosophy. (1) The first assumption is identified as the Rule of Phenomenalism. This rule states that there is no real difference between essence and phenomenon or attribute, therefore, only that which is actually manifested in experience can be recorded and counted as knowledge. Experience is the basis for substantive knowledge. (2) Tied to this is what Kolakowski (1972) identifies as the Rule of Nominalism. This rule maintains that "we may not assume that any insight formulated in general terms can have any real referents other than individual concrete objects" (Kolakowski, 1972: 16). (3) The final tacit assumption upon which positive social science is based is a logical consequence of the conjunction of these two rules. The last assumption maintains an essential difference between descriptive statements and of value statements. Since statements of value or normative statements cannot be
sensorily observed, they can have no empirical content and, thus, cannot be considered as knowledge.

These assumptions, according to Spurling (1977) have gained wide acceptance from most scholars who embrace positivism. Without attempting to establish the actual links between Comte's writing and these tacit assumptions it is important to note that they complement each other in important ways which clarify the intellectual context in which social science has developed. Out of this context has emerged the domination of the social sciences by these methods, the aim of which is to show that "there are laws governing the development of the human race as definite as those determining the fall of a stone" (Comte, 1870: 138-139).

This domination of social science by these methods requires the social scientist to acknowledge their debt to positive philosophy and to make assumptions about the nature of social phenomena. Giddens (1974) identifies three of these assumptions: (1) "the phenomena of human subjectivity...does not offer any particular barriers to the treatment of social conduct as an object on a par with objects in the natural world" (p. 13); (2) "laws or law-like generalizations of the same kind as those which have been established in relation to natural reality" (p. 13) exist in the social world; and (3) the laws of the social world are neutral and "do not carry any logically given implications for practical policy or the pursuit of values" (p. 13).

The work of the Belgian astronomer and statistician Quetelet, a contemporary of Comte, is the first and perhaps most powerful example of the social science which emerges from these assumptions. It should
be noted that while Comte and Quetelet were contemporaries, their works were developed independently. However, it has been asserted by Hayek (1955) that they shared many of the same assumptions. It was Quetelet who was the first to apply the normal curve of error to the analysis of statistical data and used this method to study social phenomena. In order to ensure the validity of his method, he viewed the social world as a phenomenon of mass, much the same as a natural scientist views the physical world. As a result, notes Walker (1929), he was able to make such statements as this: "We might enumerate in advance how any individuals will stain their hands in blood of their fellows, how many will be forgers, how many will be prisoners, almost in advance we can enumerate how many births and deaths there should occur" (p. 40).

It is not the purpose of this study to trace the influences of these early positivists through the entire history of social science, but rather to describe the beginning of positivist thought and to identify the assumptions upon which its methods of inquiry about the social world are based. Since the assumptions which have been identified are the same as those which the natural scientist makes about the physical world, it is important to recognize the extent to which the positive social scientist relies on the assumptions and methods of the natural scientist.
References


CHAPTER II

A CRITIQUE OF POSITIVISM

The positivist's approach to social investigation has been challenged by a number of eminent scholars and, in particular, philosophers, who have taken exception to the domination of the imitated methods of the natural sciences in the social sciences. Perhaps the earliest opponent to the domination of social science by positivist methodology was Wilhelm Dilthey (1914). Like Comte, Dilthey's primary influence was exerted through the work of his students. While many of his positivist contemporaries were attempting to create a positive social science, Dilthey (1914) was attempting to construct a theoretical framework for the objective study of man. However, the tacit assumptions upon which Dilthey based his theory were quite different from those made by his contemporaries. According to Rickman (1976), "his theories are based on his recognition that the human world, with which the social sciences deal, differs significantly from the physical world which is the subject matter of such sciences as physics, chemistry or biology" (p. 6).

Dilthey's opposition to the imitated methods of natural science in the social sciences can be traced through the works of many prominent philosophers and social scientists: "Husserl, the founder of phenomenology; Heidegger and Jaspers, the originators of modern Existentialism; the philosopher and psychologist, E. Spranger; and last but not least, Max Weber," (Rickman, 1979: 1) are examples.
While these individuals, as well as others, openly acknowledge debt to Dilthey, there is one individual whose writings have not acknowledged such a debt, but nevertheless has presented an exceptionally clear and insightful critique of positivism. This individual is Freidrich August von Hayek.5

Hayek's Critique of the Scientistic Attitude

Hayek, by training and profession, is an economic theorist. He received his formal education in Austria and earned two Ph.D.'s from the University of Vienna in 1921 and 1923, respectively. He has held positions at the Universities of Vienna, London, Chicago, Freiburg, and Saltzburg, in fields ranging from economics, at the London School of Economics, to the moral and social sciences, at Chicago. In 1974 he shared the Nobel Prize in Economics with Gunnar Myrdal. It was in his Nobel Memorial Lecture that Hayek pointed to the focus of his work during the past thirty years; that is, an explanation of why it is inappropriate for social scientists to uncritically imitate the methods of inquiry in the natural sciences. Hayek (1974) wrote, "It is an approach which has come to be described as the scientistic attitude --attitude which, as I defined it some thirty years ago, is decidedly unscientific in the true sense of the word" (p. 1).6 The scientistic attitude, as distinguished from the scientific,

involves a mechanical and uncritical application of habits of thought to fields different from those in which they have been formed...(it) is not an unprejudiced but a very prejudiced approach which, before it has considered its subject, claims to know what is the most appropriate way of investigating it (Hayek, 1955: 16).
Hayek's ability to distinguish between "science" and "scientism" is based on the nature of the phenomena which each seeks to investigate.

The world in which Science is interested is not that of our given concepts or even sensations. Its aim is to produce a new organization of all our experience of the external world, and in doing so it has not only to remodel our concepts but also to get away from the sense qualities and to replace them by a different classification of events... When a scientist stresses that he studies objective facts he means that he tries to study things independently of what men think or do about them (Hayek, 1955: 23).

Scientists are able to view their work in this way because they are not as persons, a part of that world. The nature of the natural world is essentially distinct from the human world of the scientist. The scientist is primarily interested in the relationships between things.

To approach the study of human relationships and human actions scientistically (that is, uncritically using the methods of the natural sciences) is in error, according to Hayek (1955), for any number of reasons. The less important reasons he identifies as: (1) that the natural sciences primarily study inanimate matter; (2) that they study non-human material; and (3) that they, primarily, use controlled experimentation. These reasons indicate essentially that positivism fails to deal with the subjective nature of the data of the social sciences. Unlike the physical sciences, which deal with the relations between things, the social sciences focus on the relations between persons and things and, more importantly, humans and humans. Hayek (1955), like many other scholars, describes this difference as that between the objective and the subjective:
social sciences) deal in the first instance with the phenomena of individual minds, or mental phenomena, and not directly with material phenomena. They (social sciences) deal with phenomena which can be understood only because the object of our study has a mind of a structure similar to our own (p. 28).

Scientism, according to Hayek (1955), requires that the social scientist uncritically adopt what might be called an "objectivist" approach toward studying social phenomena. The objectivism of the scientistic approach to the study of man and society requires the social scientist to stand outside themselves and society, and to view the social world in the same way the physical scientist stands outside of physical phenomena. It is the objectivism of the scientistic approach, "the tendency to look for the real attributes of the objects of human activity," (p. 50) that Hayek (1955) cites as the first of three major faults of positivism social science.

Fault One: Objectivism

Hayek (1955) describes two fallacies in the reasoning of scientistic objectivism. First, he maintains that the attempt to attain scientific objectivism in the social sciences is futile. For example, to be scientific would require the social scientist to study the reactions of persons to identical stimuli. "He ought not to study the reactions of persons who are shown a red circle," writes Hayek (1955), "but solely the effects of a light wave of a certain frequency on a particular point of the retina of the human eye. No behaviorist, however serious, contemplates doing so" (p. 45).

The first fallacy, that of behaviorism, is illustrated in this way: that while the physical sciences may show that several different objects
have no common physical properties, these objects may nevertheless mean the same thing to different people. "The significant point about the object of human activity with which we are concerned in the social sciences," concludes Hayek (1955), "is that in interpreting human activities we spontaneously and unconsciously class together as instances of the same object or the same act any one of a large number of physical facts which may have no physical properties in common" (p. 46). What the objects or acts mean to humans is not based exclusively on physical properties which can be studied scientifically, but their meaning is derived because they are treated as members of the same class by our senses and/or minds. The objective requirement of scientific behaviorism reduces these mental classes or categories to physical ones. To study the formation of mental classes as a physical process (to substitute physical facts for mental entities), while of course logically possible, is in no way a sufficient prerequisite for conducting scientific inquiry, or for generating understandings of the social world.

The second fallacy of scientific objectivism which Hayek (1955) identifies "is the common tendency in the study of social phenomena to attempt to disregard all the merely qualitative phenomena and to concentrate on the model of the natural sciences, on the quantitative aspects, on what is measureable" (p. 50). While this tendency to quantify attributes of physical phenomena is perhaps essential to the task of the natural scientist, that task being "replacing the picture of the world in terms of sense qualities by one in which the units are defined exclusively by their explicit relations," (Hayek, 1955: 50)
the essentials of the social world consist of a system of relationships whose qualities cannot be quantified because of their being-in-consciousness. The objective use of quantitative measurements in the social world is inappropriate because the conditions which give it importance in the natural sciences are not present in the social sciences. Trying to quantify what cannot be quantified writes Hayek (1955), "is probably responsible for the worst aberrations and absurdities produced by scientism in the social sciences" (p. 50).

At this point a brief discussion of the most common manifestations of the objectivism of the scientistic approach, measurement and statistics, may be helpful as a summary of the criticisms made thus far. It will also serve as an introduction to the second error of the scientistic approach which Hayek identifies as "collectivism."

In order to imitate the natural sciences as closely as possible, the social scientist has adopted a theory of measurement which demands the assignment of numbers to observable characteristics of social phenomena. These data are then analyzed by manipulating these numbers. This process of manipulation is labeled statistics. Through the use of statistical analyses, many social scientists attempt to objectify and explain essentially complex phenomena. "Because statistics is designed to deal with large numbers it is often thought that the difficulty arising from the large number of elements of which complex structures consist can be overcome by recourse to statistical techniques" (Hayek, 1964: 8). For Hayek the error of using statistics to explain complex phenomena is obvious. It results from the social scientists' misunderstanding of the nature of the power of statistics to deal with complex phenomena.
Rather than deal with the problem of complexity and the interrelatedness of social phenomena, statistics "avoids the problem of complexity by substituting, for the information on the individual elements, information on the frequency with which their different properties occur in classes of such elements" (Hayek, 1964: 9).

Statistics fail to provide insight into the nature of the social world because they can only be used to provide information about elements, not about connected wholes. Statistics cannot be used to study connected wholes, because, according to Hayek, statistics depend on our ability to assign numbers to those things or elements which we observe. "These wholes and their properties are not given to our observation," (Hayek, 1955: 62) and as a result cannot be objectified.

Fault Two: Collectivism

This first fault accounts for only part of the errors of the scientistic approach. Closely related to the error of the objectivism is the "collectivism" of the scientistic approach. The collectivist tendency is "to treat wholes...as definitely given objects about which we can discover laws by observing their behavior as wholes" (Hayek, 1955: 58). The collectivist tendency in positive social science is, perhaps, most clearly exemplified by Comte's (in Hayek, 1955) statement, "The whole of the object is certainly much better known and more immediately accessible than its constituent parts" (p. 58).

Methodologically, the collectivist tendency of the scientistic approach is manifested in the social scientists' procedure of attempting to directly observe social phenomena. By treating social phenomena as wholes, in the same way the natural scientist seeks to uncover empirical
regularities of relatively complex phenomena, the social scientist is attempting to gain an equally distant and comprehensive view in the hope that thus regularities will reveal themselves which remain obscure at closer range...it is always the same endeavor to get away from our inside knowledge of human affairs and to gain a view of the kind which it is supposed would be commanded by somebody who was not himself a man but stood to men in the same relation as that in which we stand to the external world (Hayek, 1955: 59).

Rather than concede that this view is macroscopic, as argued by its supporters, Hayek (1955) contends that "it would probably be better called the telescopic view...since its aim is deliberately to ignore what we can see only from the inside" (p. 59).

Hayek's critique of the collectivism of the scientistic approach results from the fallacy of conceptual realism, the ascribing of objectivity to conceptual cognitions. At the heart of this fallacy is the failure of the positive social scientist to recognize "that the wholes as such are never given to our observation but are without exception constructions of our mind" (Hayek, 1955: 54). These mental constructions (that is, collective wholes) may not always be composed of stable collections of sense attributes. In fact, Hayek (1955) states that, "social wholes are not given to us as what we may call natural units which we recognize as similar with our senses, as we do with flowers or butterflies," but rather they are a "pattern or order in which different things may be related to each other" (p. 55).

For Hayek (1955), then, the task of the social scientist cannot be to objectify wholes. "This belief that the total view will enable us to
distinguish wholes by objective criteria, however, proves to be just an illusion" (p. 59). This, he would claim, is not possible. Rather the task of the social scientist is to "constitute the whole by constructing models from their familiar elements--models which reproduce the structure of relationships between some of the many phenomena which are always simultaneously observed in real life" (Hayek, 1955: 56).

Fault Three: Historicism

The third and final fault of positive social science, as identified by Hayek (1955), is the historicism of the scientific approach. The historicism which Hayek describes views history as the only path which leads to a theoretical science of social phenomena; that is, that the history of anything is a sufficient explanation of it. "Scientific historicism...attempts to make history a science and the only science of social phenomena" (Hayek, 1955: 64). The historicism of the scientific approach asserts that the law of history is the only law which operates in a social world and is deterministic.

The error of historicism results from one's inability to "grasp a whole in the sense of all the different aspects of a real situation" (Hayek, 1955: 70). The object of study, as discussed previously, can never be the totality of the phenomena at a certain place and time. Rather, it must be certain selected aspects of the phenomena. This leads to an important consequence, "that a historical period or process is never a single definite object of thought but becomes such only by the questions we ask about it...a single historical event can become any number of different objects of thought" (Hayek, 1955: 70).
Summary

The objectivism, collectivism and historicism of the scientistic approach constitute a set of essential errors in positivistic social science thought. Yet, despite these errors, which Hayek has made explicit, the prestige of natural science methods continues to dominate social science. This domination of the mechanical and uncritical application of habits of thought of natural science to social science may be attributed to the theoretical, as opposed to the technological, accomplishments of the natural sciences in justifying and systematizing phenomena that are perceived as diverse and heterogeneous. It is this success which tempted Comte and others to adopt science as the basis for conducting social science inquiry.
References


CHAPTER III

PHENOMENOLOGY, POSITIVISM AND SOCIAL SCIENCE

Hayek's work is rarely cited as contributing to the critique of mainstream social science research methodology. The force of his critique has received little attention even in his own field of economics, despite his Nobel Prize. Still, his critique of positive social science is worth citing because it clarifies and supports the criticisms made by phenomenologically oriented social scientists. There are, however, some essential conceptual differences between Hayek and the phenomenological tradition. These differences extend Hayek's critique of scientism and are the focus of this chapter.

Origins of Phenomenology

Edmund Husserl (1859-1938), the undisputed founder of the phenomenological movement, was not a social scientist. Except for the last few years of his life, Husserl was a very typical German academic devoted exclusively to philosophical study of the world of the "natural attitude;" that is, "the world in which we find ourselves at every moment of our life, taken exactly as it presents itself to us in our everyday experience" (Gurwitsch, 1974: 113). This world is commonly referred to by phenomenologists as the "life-world."

Despite his high regard for natural science, Husserl doubted the ability of the scientific method to establish true knowledge of the life-world. He was convinced that only a philosophical method could establish
such true knowledge. Natanson (1973) characterizes Husserl's view of philosophy as "the search for radical certitude" (p. 5). This search, he says, "is the effort to locate in experience the kind of necessity which mathematics has, but a necessity which is a function of our life-in-the-world rather than of the postulations and definition of an axiomatic method" (Natanson, 1973: 5).

To carry out this search, Husserl developed the phenomenological method. In its purest Husserlian form, the method consists of a series of complex philosophical maneuvers, called reductions, beginning with the suspension of the natural attitude and ideally ending with the "transcendental reduction." A description of the intricacies of these reductions is beyond the scope of this discussion. However, the tasks for which Husserl designed and redesigned this method is central to the development of a phenomenological or interpretative, as opposed to positive, social science. This task was, and continues to be, the search for the essence of phenomena. It is important to point out that these phenomena are not assumed to be real but rather objects of intentional acts. The essences of these objects of intentional acts are simply aspects or qualities of the objects-as-intended. Not that Husserl did not believe in real physical things, but rather that physical objects are different from our consciousness of them.10

Husserl's ontological view (that is, his theory of what is) and its relationship to the exploration of the ways in which we know, have become the foundation for the study of "the cognitive work of producing the factual character of the social world" (Leiter, 1980: 39). This phenomenologically conceived social science searches for the essence
of lived experience, as opposed to the scientistic explanation of that essence. Husserl's works, particularly his epistemological views, to which we now turn, form the basis for the development of phenomenological social science, and more generally for qualitative social science research methodology.

Husserl's theory of the nature of knowledge and the phenomenological method are important for the social scientist who is trying to escape scientism, since these allow for the examination of the way in which the interpretation of experience varies with the understanding of the essence of phenomena. It is the difference between the raw facts of experience and the meaning of experience which is, to many social scientists the reason for rejecting positive social science. Natanson (1973) characterizes this view as allowing for the study of the epistemological status of reality: "The phenomenological orientation discloses itself here not so much by ensuring analysis of social action as, the insistence on a return to what is basic to science, its grounding in reality taken for granted both by the learned and the vulgar" (Natanson, 1973: 115).

It is important to remember that Husserl's main concern was philosophy; the previous discussion of his ontological and epistemological views is not intended to define phenomenology. As Spiegelberg (1976) points out, "the Phenomenological Movement is more than Husserl's phenomenology. While it is true that Husserl is the founder and remains the central figure of the Movement, he is also its most radical representative...he was always the most extreme member of his Movement and hence became increasingly the loneliest of them all" (p. xxviii). The intent of the discussion thus far has simply been to focus on the intellectual and philosophical
character of what many social scientists consider to be the foundations for non-positivistic social science.

It must further be noted that while all versions of phenomenology have something in common, they vary widely. Spiegelberg (1975) has identified at least six possible wide-ranging answers to the question: What is phenomenology? Even if a single answer could be found that would be acceptable to both phenomenologists and their critics, it may not be very useful in accomplishing our immediate goal, that of discerning the relationships between the previously presented critique of positivism, phenomenology and a new structure for social science inquiry. To examine these relationships requires an overview of three features related to the development of phenomenology and a new structure for social science inquiry. First, as Spiegelberg (1975) notes, "It may also be helpful to bring out the distinctive essence of phenomenology by confronting it with some of its philosophical neighbors" (p. 11). Identifying these philosophical neighbors will help uncover the tacit assumptions which connect the various phenomenologies in much the same way that the varieties of positivism are related. Finally, this will lead to a discussion of a methodological core for a phenomenologically-based social science.

Spiegelberg (1975) identifies six philosophical neighbors of phenomenology: traditional empiricism, phenomenalism, rationalism, analytic philosophy, linguistic analysis, and existentialism. All but the last, existential philosophy, are immediately relevant to this discussion. All share common elements; however, it is the differences
which exist between phenomenology and its philosophical neighbors which helps to illuminate phenomenology's distinctive essence.

To begin with, traditional empiricism, which Spiegelberg (1975) notes shares a common respect "for the positive data of experience," (p. 11) restricts these data to include only sense-related experience. Phenomenology, on the other hand, includes intuitive, nonsensuous data as experiential data. In strictly philosophical terms, phenomenology recognizes the possibility of synthetic a priori knowledge; that is, substantive knowledge which is acquired independently of experience. In contrast to phenomenalism, which in its narrowest interpretation views the phenomena as all there is, phenomenology casts some doubt on such a view, noting the need to examine "the complexities of the intentional structure of our consciousness of the phenomena" (Speigelberg, 1975: 11). Phenomenology's third neighbor, rationalism, has its basic contention the primacy of conceptual reasoning. All forms of experience, including the intuitive, are sacrificed. "Phenomenology insists on the intuitive foundation and verification of all formal concepts" (Speigelberg, 1975: 11). Unlike analytic philosophy, which stresses the substitution of simplified constructions of phenomena, phenomenology insists on looking at and analyzing phenomena for what they are and in their own terms. Finally, while sharing more in common with linguistic analysis than any of the preceding philosophical positions, such analysis, it is claimed by phenomenologists is not "a sufficient basis for studying the phenomena in all their complexity" (Spiegelberg, 1975: 12).
Phenomenology and Understanding the Social World

With this brief survey of the context in which phenomenology is founded, the core of a phenomenologically oriented social science can now be presented in a richer and more meaningful mode. These assumptions can be presented as a contrast between the positivist and phenomenological views of knowledge of the natural and social worlds.

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<thead>
<tr>
<th>Social World</th>
<th>Natural World</th>
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<td><strong>Positivist</strong></td>
<td><strong>Phenomenologist</strong></td>
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<td>Subjective: the social world</td>
<td>Subjective/Objective:</td>
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<td>can only be understood if</td>
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<tr>
<td>Subjective: the social world</td>
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<td>must be understood in its</td>
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While there may be little else that the positivist and the phenomenologist might agree on, both would acknowledge a distinction between the social and the natural worlds. Both are interested in coming to terms with reality; social reality being whatever is real as a result of people's coming together, and natural reality being that which exists independent of people's interactions. The positivist, as earlier discussed, is convinced that explanations can be accomplished only through objective study. Knowledge is not the result of the perceiving or thinking subject, external to the mind. The positivist believes that the natural world is objective, and that it can be known only through experience. The social world, however, is subjective. It belongs to the thinking subject. If it is to be known at all, and some positivists would doubt that it can, it must be reduced to the natural world so that
it can be studied objectively. The phenomenologist, on the other hand, states that objectivity is a function of a subjective act requiring that the social world be understood in its total subjectivity. They would most likely concede the objective character of the natural world, but claim that it is known a priori.

The difference between positivist and phenomenologically oriented social scientists lies in the way each goes about gaining knowledge of the social world. The key to this difference is found in the distinction between knowledge gained through explanation and knowledge gained through understanding. Denton (1979) summarizes this distinction with the following series of contrasts:

Explanation requires...that the event to be explained be subsumed under a general law. The conclusion, then, is the relationship between the event and the general statement; it is a single perspective. Understanding, on the other hand, requires a multiplicity of perspectives (p. 12).

With the first (explanation) one arrives at a conclusion; with the second (understanding) one's understanding is always open to new perspectives and interpretations (p. 13).

Explanation claims predictive power; the necessary and sufficient causal conditions can be made explicitly. With understanding, the necessary conditions can be identified, but knowledge of sufficient conditions is denied (p. 13).

For explanation the most exact language possible is sought, mathematics being ideal. For understanding, metaphorical description is considered to be, in many cases, the more valid (p. 13).
For the positivist then, the social world can be explained only if it can be reduced to the natural world. Such a commitment to explanation requires the imposition of specific modes of inquiry and the acceptance of certain tacit assumptions about the social world; that is, those previously identified in Chapter One. These characteristics of explanation made by positive social science are part of a world view in which the object world is divorced from the interpretative procedures of its members. In contrast, the basis for an other-than-positive social science, particularly a phenomenologically oriented one, is founded in a view of the world as being a product of human intention and interpretation.

According to Phillipson (1972) "the peculiar character of the social world--that which differentiates it from the natural world--is its inherent meaningfulness" (p. 87). Only phenomenological world view, maintains Phillipson (1972), posits a social world constituted and sustained through meaning. To gain knowledge of this world requires that new methodologies be developed consistent with the idea of understanding. Speigelberg (1975) has identified six variations on phenomenology which are capable of providing understandings, as opposed to explanations, of the social world: (1) Descriptive Phenomenology - the direct study of phenomena free from unexamined presuppositions; (2) Existential Phenomenology - the search for essences and essential relations among phenomena; (3) Phenomenology of Appearances - the examination of perspectives, or modes of presentation of phenomena, to consciousness; (4) Constitutive Phenomenology - the study of how phenomena become established in consciousness; (5) Reductive Phenomenology - the
suspension of belief in the reality of phenomena; and (6) Hermeneutic Phenomenology - the unveiling of concealed meanings in phenomena. These variations on the theme of phenomenology, while significant as differences, help us to understand the common core of all phenomenology: a fresh approach to the study of phenomena leading "to the things themselves".

The approaches identified by Speigelberg (1975) are variations of a methodology developed for philosophical study of phenomena. For most philosophers conducting phenomenological inquiry, especially Husserl, the phenomenon to be investigated is consciousness. It is the phenomenological investigation of consciousness that has given rise to the specialized language of phenomenology, what Ihde (1979) has called "essential obscurity" (p. 17). Several of the concepts expressed through this specialized language, are common of all phenomenological inquiry in the social world. These are:

- intersubjectivity: seeing as another or as others see
- intentionality: the necessity for consciousness always to be directed toward something
- constitution: the make-up of thought objects
- life-world: the everyday world in which persons operate

Phenomenological inquiry into the social world is rooted in the search for methods consistent with the nature of the phenomenon, specifically the social actors' consciousness of the intersubjectively constituted life-world. It is the attempt to develop such internal understandings of the essence of phenomena that poses the demand for new methodology for inquiry into the social world.
References


CHAPTER IV
QUALITATIVE RESEARCH IN EDUCATION

The presentation thus far has focused on three topics: (1) the tacit assumptions of positive philosophy as the basis for social science, (2) the criticism of these assumptions as guides for conducting research in the social, as opposed to the natural world; and (3) the philosophical basis for reconceptualizing investigations of social phenomena. The purpose of this chapter is to extend the criticisms of positivism and to discuss the potential of phenomenological social science as the basis for restructuring educational research methodologies. To accomplish this task two assumptions about the nature of most research dealing with educational phenomena need to be made. The first deals with the philosophical origins of educational research methodologies. The second concerns the nature of educational phenomena.

Assumption One: Positivism and Educational Research

The tacit acceptance of positivism in education has forced educational researchers to strive for scientific credibility in positivistic terms. In this process, their research has stressed objectivity and the discovery of truth, or certain knowledge. Perhaps, the clearest and most familiar research of this sort is evidenced in classroom research, particularly one dominant type of observational methodology, that is, interaction analysis. As Delamont and Hamilton (1976) note, "Interaction analysis is a research tradition true to the behavioral (positivistic) assumptions of American psychology" (p. 6). That such systems
attempt to be scientific, and therefore dependent upon positivistic assumptions about the nature of phenomenon and inquiry, should be self-evident.

Observational research is based, according to Delamont and Hamilton (1976), on three recognizable positivistic assumptions. First, the advocates of these observational research methodologies claim the methodologies to be objective and "provide unambiguous data uncontaminated by observer bias" (Delamont and Hamilton, 1976: 9). This objectivity is ensured, the proponents argue, by making a second assumption that a rigid distinction exists between the observer and the observed. Finally, in effort to generalize their findings, these researchers often study large numbers of classrooms which allow for statistical analysis and credibility. The inherent "scientistic" weaknesses of these observational research methodologies, as exposed by phenomenological assumptions about the social world, provides an opportunity to explore the shortcomings of educational research methodologies.

The first and strongest criticism of interactional research as a representation of the scientistic attitude is its concern with observing only behavior. Implicit in this positivistic concern is the denial of the subjective nature of behavior. Stated phenomenologically, there is within positivism a denial of the subjective nature of the intentionality of social actors. The second criticism of this positivistic conception of educational research is closely related to the denial of individuals' subjective intentions. Interaction research focuses only on that which can be measured. By limiting researchable phenomena in
this way, the qualitative features of interactions are reduced and atomized. This means that the researcher can examine only fragments of observable behavior.

The quantity of data which such study generates can be impressive and abundant. To make sense of these data, as Delamont and Hamilton state, they "must be linked either to a complex set of descriptive concepts--customarily the original categories--or to a small number of global concepts built up from these categories" (p. 8). The process of making sense of the data leads to a third criticism of the scientistic attitude in educational research, that criticism being its inability to generate explanations that go beyond prespecified categories. The limits imposed by prespecification may render explanations circular or true by definition, and therefore nonsubstantive.

The final criticism of mainstream educational research, as exemplified by schemes of interaction analysis, is more philosophical in nature. It deals with the denial of the temporal (historical) and spatial (social) aspects of phenomena. The failure to consider the contextual setting of social phenomena glosses over many aspects of these phenomena which may inform and revise their interpretation.

A final note should be made in this particular set of qualifications regarding the prevasiveness of positive philosophy and the scientistic attitude guiding educational research. During the 1980 Annual Meeting of the American Educational Research Association a symposium of past presidents of the association was conducted[1] The theme of this symposium was directions for educational research in the 1980's. Despite some exceptions, the common thread which ran through most of the presentations
was that educational research has made considerable progress during the past thirty years.\textsuperscript{12} Nate Gage (AERA: 1980) dismissed criticisms of educational research as nothing more than "the mauldings of tired old men." The optimism which Gage (AERA: 1980) expressed for educational research in the 1980's was attributed to the development of new, more powerful strategies for conducting research in the field. In his comments, Robert Glaser (AERA: 1980) exemplified this optimism using an example for effective classroom practice research. "Models are now being developed that attempt to explain the variation obtained in achievement measures in terms of initial student requirement, classroom process variables and the interaction between the two. This work is being facilitated by new statistical and methodological techniques...these should contribute to systematic definitions of important dimensions of classroom instruction" (Glaser, AERA: 1980). More generally Fattu states: "Only by inspired, sustained and systematic research in education, similar to that which has guided the other sciences can education become truly effective."\textsuperscript{13} Stanley, echoing Fattu's advice, contends: "If we are to advance beyond the dark eyes of education prescience we must emulate the experimental proficiency and zeal of colleagues in other behavioral sciences."\textsuperscript{14} 

Assumption Two: The Nature of Educational Phenomena

There is little doubt that positivism and the scientific attitude still dominate the methodologies being used and developed by educational researchers. Admittedly, pointing to the methodological weaknesses of these approaches to research does not make explicit the essential structures of educational phenomena, structures which are the foundation for
a reconceived educational research. The task of uncovering and describing the essential structures of educational phenomena requires a second assumption, one which moves beyond criticisms of methodology. This assumption is that what is to be researched in education are not phenomena of the natural world, but rather belong to a world created and sustained through the meaningful and intentional actions of social beings. Ebel (AERA: 1980) agrees that "The process of education is not a natural phenomenon of the kind that has sometimes rewarded scientific investigation. It is not one of the givens of our natural universe. It is man-made, designed to serve our purposes and serve our needs. It is not governed by any natural laws."

To view phenomena in education as natural phenomena has given rise to the development of scientistic methodologies for conducting educational research, which in turn requires the denial of the subjective character of experience and, therefore, the reality itself. Curtis (1978) uses the following example to illustrate this point.

However, it might seem that giving an account of what it is to be a grown-up person is not radically different from saying what a fully-grown oak tree is, for example. Persons are just as much part of the natural world as oak trees, it might be claimed and the best account we have of the natural world is that provided by the natural sciences. Natural science is both a taxonomy of the kinds of things there are in the world and explanatory in that it distinguishes things in terms of the ways they affect one another by being efficient causes of changes. Although people are obviously far more complex than trees, it might be thought that eventually natural science will distinguish in detail between all different kinds of people and explain how they have been caused to become the persons they are. According to this view, if we are ever to understand education, the slow process of change from
baby to adult it will be through the natural sciences (p. xi).

That this analogy is fraught with problems should be obvious. Very few social science and educational researchers, even the most staunch advocates of the scientific method, would be willing to reduce the human maturation process solely to the physical growth of a tree. The attempt would be not only humorous but, more importantly, considered to be bad science, even within positivism. Yet, by adopting scientific methodologies, researchers tacitly reduce educational phenomena to the natural world. This is not the case. It is our experience-in-the-world, not scientific knowledge, which serves as the ultimate basis for the realization that methodologies must be developed which complement the nature of the phenomena to be examined.

Methodological and Theoretical Crisis

There is then what amounts to a crisis in educational research which is a result of a thoughtless acceptance of positivism and an uncritical acceptance of the assumption that educational phenomena can be reduced to the natural world. This crisis is an aspect of the more general crisis in the social sciences.

It must be emphasized that the crisis, both in educational research and social science, is not due to methodological immaturity. Rather, it reflects a fundamental misconception of the nature of the social world. "The crisis of social science," write Rabinow and Sullivan (1979), "concerns the nature of social investigation itself. The conception of the human sciences as somehow necessarily destined to follow the path of modern investigation of nature is at the root of this crisis....For the
human sciences both the object of investigation and the tools by which
the investigation is carried out share inescapably the same pervasive
context that is the human world" (pp. 4-5).

A parallel interpretation applies to educational research. For
educational research, as well as social science research generally, the
crisis is manifested in methodological issues, but is based on philosophi­
cal errors. New research methodologies, particularly qualitative ones,
are crucial to the resolution of this crisis.

Qualitative Research Preliminary Considerations

The goal of this reconceptualized research orientation, or what will
be referred to as qualitative research, is "aimed at eliciting meaning
and uncovering various qualities of human experience, thought and produc­
tion" (Bussis, 1976: 15). Methodologies emerging from this orientation
do not take for granted, as traditional research does, that that which
is observed by one individual has a similar meaning for another person.
Rather, these research strategies are intended to provide descriptions
and generate understandings of "the person's meanings, interpretations,
and ways of constructing a situation" (Bussis, 1976: 15).

Certain broad distinctions among the varieties of qualitative research
orientations which can be identified need to be mentioned. Some qualita­
tive research methodologies, share the assumptions of positivism.
These methodologies are often considered to be qualitative not because
they oppose positivism, but simply because they make no attempt to express
data with numbers. The case study in psychology is an example. There
are other research methodologies included under the characterization of
qualitative that share the assumptions of neither positivism nor
phenomenology. Many of these grow out of a Marxist orientation or perhaps more accurately, they are part of what is now called Critical Theory. Even some of the methodologies which rely exclusively on description (for example, traditional anthropological ethnographies) are not included in this discussion of qualitative research methodologies.

In addition to these distinctions among qualitative methodologies, two additional points need to be made before discussing the specifics of methodology. First, as suggested by Karabel and Halsey (1977), little educational research in the United States has been carried out in the phenomenological or interpretive tradition. In fact, they note research of this nature has been carried almost exclusively out in Great Britain. That so much of the qualitative research literature comes from Britain requires a second notation.

Qualitative educational research in Great Britain has a history of nearly twenty years, compared to its very recent emergence in the United States. In 1970 this "movement" manifested itself in a collection of readings, edited by M.F.D. Young (1971) titled, Knowledge and Control. More than any previous work in philosophy or social science, this volume served as the key to unlocking the shackles of positivism dominating educational research in Great Britain. This "new sociology of education," as it has come to be known, challenges the view of treating what it is to be educated as unproblematic, objective phenomena. Rather, the view of educational phenomena held by Young (1971), recognizes the subjective, intentional, and problematic character of the reality to be studied.

While drawing on the work of the new sociologists of education, this is not to be a history of the movement; nor will the work of the problems
they study be examined. The specific contributions of the "new sociology" of education to the development of qualitative research has been, according to Karabel and Halsey (1977), "more successful in criticizing existing research than in producing their own body of substantive propositions" (p. 55). It is now our task to develop these propositions.
References


CHAPTER V
GENERAL PROPOSITIONS OF QUALITATIVE RESEARCH

Discussions of research methodologies usually fall into two categories. Discussions in the first category are an attempt to produce a step-by-step guide designed to help the uninitiated quickly and painlessly master techniques of research design, data collection, and analysis. The second category of methodological discussions is typically aimed at a narrow audience of research specialists and focus primarily on techniques of data analysis. The purpose of this chapter is to produce neither a step-by-step guide for the uninitiated nor suggest new data analysis techniques to research specialists. Rather, the goal is to develop a set of general propositions which serve as a guide for understanding the significance of qualitative approaches to educational research along with examples of how these propositions might influence research methodologies in educational studies. These "General Propositions of Qualitative Research" have originated in my personal synthesis of scholarly literature in a variety of fields; in my experience in developing research and evaluation proposals; and in discussions with colleagues.

General Proposition I: Proposition of Multiple Perspectives

This proposition holds that perceptions of social reality are dependent upon the meaning of the social actors' experience. Therefore, the researcher must accept these "multiple perspectives" as basic data.
This proposition has a dual origin. Traditionally, it is part of the anthropological tradition which requires that anthropologists attempt to see and understand the world from the viewpoints of those they study. More recent, and perhaps more consistent with the theme of this work, is the phenomenological contribution to this proposition made by Alfred Schutz. Rather than use the terminology, "multiple perspectives," Schutz (1970) uses the phrase "multiple realities" to characterize his demand for accepting as legitimate perceptions of social reality dependent upon the meaning of our experiences. For Schutz, realities can vary according to what an individual is attending to.

There are many problems with much of Schutz's work in phenomenological sociology including his concept of multiple realities. As Douglas (1977) suggests Schutz's concept of multiple realities "did not mean various orientations or interpretations of reality" (p. 301). Rather, Schutz (1970) contends that everyone shares the same basic realities. Douglas (1977) notes that Schutz is mistaken on this point and suggests further research. Maloy's (1977) article, "The Don Quixote Problem of Multiple Realities in Schutz and Castaneda" is an example of the research Douglas suggests. This research demonstrates that valid accounts of alternative realities can exist and these realities can be described by individuals researching social phenomena. To succeed in empathetically accepting this reality requires the adoption of a second general proposition.

**General Proposition II: Suspension of Preconceptions**

This proposition holds that the researcher must temporarily "give-up" their previous understandings and/or biases in order to ensure minimum
distortion in their descriptions of social phenomena.

In its purest form, the suspension of one's preconceptions about the nature of reality or phenomena grows out of Husserl's phenomenological method. He called the method for accomplishing this task "bracketing." To suspend or bracket one's preconceptions about anything—social or natural—is probably a physically, mentally and even philosophically impossible task. However, the method has significant merit if the proposition is not taken literally, but rather, is interpreted to mean that one must attempt to make explicit and critically examine their preconceptions or presuppositions about the phenomena to be described and understood. Its value for conducting qualitative research is in allowing for the personal and professional biases of the researcher to be understood and then accepted, abandoned, or transformed. This allows for minimum distortion in describing the essential structures of the social phenomena being examined. Researchers must remember that while they are required to examine and act on their presuppositions, they may not assume that those they study do so.

This critical examination of one's preconceptions or presuppositions is not to be confused with the disclaimer of researcher bias which often accompanies reports of scientific research findings. These disclaimers are not designed to challenge the preformulated premises upon which the research was conducted. Rather these serve as a means of predefining the research context "so that a set of rules can be worked out that somehow account for the observed phenomenon" (Watson-Franke, 1975: 251). The general proposition of the suspension of preconceptions focuses on
helping researchers to generate the right questions as opposed to helping them find the right answers.

**General Proposition III: Contribution to Knowledge**

This proposition holds that the researcher has a commitment to the generation of understanding.

By acknowledging the existence of multiple realities and through a suspension of preconceptions about the nature of social phenomena, there is an inherent danger that the researcher may "go native." Put another way, there is the possibility that researchers may become so totally involved that they become an uncritical part of the phenomenon. In traditional philosophical terms, this may be characterized as the problem of the appearance-reality distinction.

This represents a particular problem for educational researchers, since most have been members of a group similar to the ones they study. The tendency exists for researchers to become so involved in the educational phenomena that they lose the perspective of researchers and their ability to critically examine these preconceptions altogether. "If we lost ourselves head over heels," according to Glassner (1980), "we should no longer be expanding our phenomenological grasp" (p. 42).

**Implications for Research in Education**

Each of the above propositions has a variety of important conceptual and methodological implications for conducting educational research. By summarizing an educational study, purported to be naturalistic—not qualitative—the importance of the above propositions for conducting research about educational phenomena may become clearer. The study used as an illustration is a pilot study, "Race Effects in Day Care Observation," conducted by Jane Stallings and Andrew Porter.19 (Appended)
There are two components to the Stallings and Porter study: (1) observations in a natural setting and (2) observations in experimentally structured situations. The observations conducted in the natural settings serve as the basis for the discussions. These observations took place on two mornings for two hours each. The activities (behavior) were coded on the Adult Behavior Code Instrument. The purpose of the study was to test the procedures and instruments which were to be used in the National Day Care Home Study and would "examine possible differences in the perception and interpretation of behavior by black and white observers in homes where caregivers were of the same or of a different race as the observers" (Stallings and Porter, 1977: 1).

The criticisms of the methodological inadequacies of the Stallings and Porter study, when expressed in terms of the general propositions of qualitative research, are far more significant than the actual findings of the study. Several weaknesses inherent in the naturalistic methodologies used by Stallings and Porter have been identified in the earlier critique of observational schemes. Rather than repeat these criticisms, the remainder of this discussion will explore the relevance of the general propositions for qualitative research as a basis for restructuring the methodologies utilized by Stallings and Porter.

General Propositions I and II are particularly useful in guiding the restructuring of research methodologies to be used for conducting observational studies in natural settings. For example, General Proposition I, acknowledging and utilizing multiple perspectives, demands that researchers develop strategies which lead to describing and understanding "meanings-as-intended" by social actors, rather than simply impose a
scheme for recording and coding observable behaviors. To do this the researcher must identify the significant others having perspectives and determine if these others hold perspectives of one or multiple realities. In restructuring the Stallings and Porter study the implications of this proposition are significant in that rather than assuming that the sole or most valid perspective is that of the home daycare provider, the researchers must acknowledge the legitimacy of perspectives held by others. Included in this group of significant others would be the daycare children, the providers' family members, and even individuals not present, such as the parents of the daycare children. The researchers are also obliged to identify their own perspectives.

To generate accurate and informative descriptions of multiple perspectives (perhaps multiple realities) requires more than a mere acknowledgement that they exist. Such descriptions are likely to be long, very complex, unusually detailed, and variable in content. Patton (1980) suggests the use of two general categories of methodological tools to generate descriptions which reflect, and allow for understanding of, the world as viewed by the social actors: the unstructured interview and observation.20

The first methodological tool, the unstructured interview, allows the researcher to describe how others organize their worlds. It captures the participants in their own terms by helping the researcher learn the categories they use for rendering explicable and coherent the flux of raw reality. This type of interview differs significantly from other open-ended interview methods by allowing the researcher to "access the perspectives of the person being interviewed" (Patton, 1980: 196).21
Rather than putting things in peoples minds, such an interview is conversational in nature with questions flowing from the context and from observations made by the researcher. The only structure imposed is the framework which the researcher provides to allow for conversation that accurately and thoroughly represents the participants' perspectives. As a result, the data collected are likely to be more relevant, although somewhat overwhelming.

The second tool available to the qualitative researcher is observation. Like interviewing, there are many techniques of observation, some of which are consistent, and others which are inconsistent, with the concept of qualitative research being developed in this work. An example of techniques which are inconsistent with these concepts is manifested in the Stallings and Porter study. Rather than being preoccupied with observing and explaining behavior in terms of prespecified categories, observation techniques consistent with the critique of positivism and based on phenomenological assumptions about the nature of the social world, focus on describing "the setting that was observed; the activities that took place in that setting; the people who participated in those activities; and the meanings of the setting, the activities and their participation to those people" (Patton, 1980: 124).

Unstructured interviewing and observation are perhaps the most significant elements in the methodological repertoire of the qualitative researcher which can contribute to restructuring the Stallings and Porter study, especially in terms of identifying, describing, and understanding the various perspectives and/or realities of the participants. However, conducting these interviews and observations without considering the
second general proposition, the suspension of preconceptions, may result in descriptions which do not lead to an understanding of the phenomenon, but rather an attempt to explain it. Critically examining and making explicit researcher preconceptions, prior to and during the course of the research, is important for three reasons. First, it helps to ensure that the interview and observational data collected portray the perspectives and realities of the participants as accurately as possible. Second, it allows those reading the research account to gain insight into the perspectives held by the researcher as well as those of the participants. Third, and most importantly, the suspension of preconceptions allows the researcher to maintain maximum flexibility and keep the focus of the research consistent with that of the participants.

Conclusion

The discussion of the general propositions of qualitative research and interviewing and observation as two of the methodological tools consistent with these propositions, has served to underscore the underlying principle of qualitative research; that is, the importance of context and intentionality in the difficult process of generating phenomenological descriptions and understandings social phenomena.

Rather than present a "methodological cookbook," the purpose of this study has been to examine the assumptions, goals, and perspectives which influence traditional research methodologies, especially those used by educational researchers. This examination has attempted to de-reify (that is, question and criticize) the assumptions, goals, and
perspectives that guide most educational research in an effort to reconceptualize the foundations which underlie the conceptions of qualitative methods.

The foundations for the conceptions of qualitative methods are expressed in this work in the discussions on phenomenology and, in particular, in the general propositions of qualitative research. The conceptions of methods growing out of these foundations are intended to provide both descriptions and understandings of educational realities as experienced by the social actors. These conceptions of method do not explicitly lead to what is traditionally considered as an analysis of how and why educational realities exist in particular ways. This purported missing level of analysis is, to many persons, a limitation of qualitative research which is of significant importance. However, such a limitation need not be considered only in negative terms. By not constructing an analytic framework as part of the research design, the qualitative researchers must accept and use the social actors analytical tools for making sense of and giving meaning to the data. This type of analysis can be particularly useful to the various consumers of educational research. It provides them with many valid interpretations of the same or multiple realities.

While this alternative mode of analysis may help to answer how and why realities are constructed in particular ways, Sarup (1978) points to the remaining problem; that is, "even when we come to understand how we see the world we still have to know how to transcend it. What should we do about it?" (p. 103) This question, or criticism, is complex and difficult to deal with. To determine what is to be done with the
descriptions, understandings, and analyses generated by qualitative methods requires work well beyond the scope of this discussion. This work would begin an examination of the use of research as a basis for developing or altering educational realities and trace the relationship between method and the concept of prediction and control.
References


FOOTNOTES

1There are two types of positivism which have been identified over the years and are quite distinct. One is "social positivism," which is the focus of this discussion. The other is "evolutionary positivism," which is based solely on nature, particularly physics and biology. The primary spokesperson of this version is Herbert Spenser. The Encyclopedia of Philosophy distinguishes a third, critical type of positivism which includes logical positivism and neopositivism.

2The two key elements of Comte's positive philosophy are discussed in his own work Cours. Hayek (1955) provides a detailed insight into the life and work of Comte in a June 1951 article in Measure Science. He notes Harriet Martineau's The Positive Philosophy of Auguste Comte (1893) as an excellent condensed version of Comte's positivism. In addition, the "Positivism" article in the Encyclopedia of Philosophy (1967) contains a good review of positivism.

3References to the "natural world" are found throughout this work. For the reader who is familiar with philosophy this term is synonymous with the "physical world." The use of the former term is employed to be consistent with the phenomenological tradition.

4Dilthey's critique of positive social science is much more substantial and vehement than indicated here. His contribution to creating alternative social science methodology was also significant. However, as Rickman (1976: 1) points out Dilthey's works are often overlooked by scholars because he wrote so much on so many topics. The best general overview of Dilthey's work is Dilthey: Selected Writings, by Rickman (1976).

5The work containing the most complete overview of Hayek's writing, thought, and life is Essays on Hayek (1976), edited by Fritz Machlup. The "Notes from the Editor," Chapter 3 and the two appendices are particularly relevant to understanding Hayek's study of social science.

6The work in which Hayek defined the term "scientistic" was originally published in Economica, Vol. IX, No. 35, August 1942. Later, this and other works were reprinted in a volume titled The Counter Revolution of Science: Studies in the Abuse of Research (1955). Part I of this work, "Scientism and the Study of Society" is the basis of this chapter.

8Evidence of this lack of attention can be pointed to in the sparsity of book reviews of The Counter Revolution of Science. In fact only three significant reviews appeared. They were in The Journal of Philosophy, Vol. 49, August 1952; Ethics, Vol. 54, October 1953; and the Journal of the History of Ideas, Vol. 14:45, June, 1953. These journals are not widely used by social scientists.

9There have been several significant works on Husserl's life and thought. Two particularly informative works are Edmund Husserl: Philosopher of Infinite Tasks (1973) by Maurice Natanson; and Husserl: An Analysis of his Phenomenology (1967) by Paul Ricoeur. Both are published by Northwestern University Press as part of the series "Northwestern University Studies in Phenomenology and Existential Philosophy." In addition, while difficult to read, 3 of Husserl's own works provide a valuable insight into his phenomenology: Cartesian Meditations: An Introduction to Phenomenology, The Hague: Nijhoff, 1960; The Crisis of European Science and Transcendental Phenomenology: An Introduction to Phenomenological Philosophy. Evanston, Illinois: Northwestern University Press, 1970; and "Phenomenology" in Encyclopedia Britannica, 14th ed., 1927, XVII, 699-702.

10The language of phenomenology is technical, complex, and obscure. The terms mentioned here are very important to any understanding of Husserl and other phenomenologists. The following are concise definitions of selected terms. More complete definitions may be found in Spiegelberg (1976).

- reductions - This term is confusing for it does not mean to reduce phenomena in an atomistic manner. These three maneuvers which Husserl identifies as the eidetic, the philosophical, and the transcendental are means for revealing the essence of phenomena. By completing these reductions over a period of time a map of relations and structures within our systems of ideas will emerge.

- suspension (bracketing) - to temporarily give up or set aside one's beliefs.

- natural attitude - an unreflective or uncritical belief and/or acceptance in the existence of the world.

- essence - "the whatness of things as opposed to their thatness" (Speigelberg, 1976: 716).
phenomenon - one of the most important, most used and least understood phenomenological terms. It is used here as reality constituted in consciousness.

intentional acts - part of the concept of intentionality; i.e., that, all consciousness is consciousness of something. Husserl credits his teacher, Brentano, with developing this idea and identifies it as the cornerstone of his phenomenology. Simply put, these are conscious experiences referring to objects, not necessarily active experiences.

Participants in this symposium were presidents of AERA over the past 15 years and included W. James Pophen, Fred N. Kerlinger, Robert L. Thorndike, Robert L. Ebel, Robert Glaser, Robert M. Gagne, David R. Krathwohl, Benjamin S. Bloom, and Nathan Gage. The session was chaired by Ellis B. Page and Frank H. Farley. Maxine Greene, President Elect-Elect was asked just prior to the session to deliver her comments on the 1980's.

Participants offering alternative perspectives and criticisms were Robert Ebel, James Popham and Maxine Greene. Professor Greene's comments were the most sympathetic to the theme of this work.


"Critical Theory" is a term which is to be associated with the Frankfurt School and particularly Jurgen Habermas. There are two excellent reviews of Habermas' work, one is included in Richard Bernstein's The Restructuring of Social and Political Theory (1976) and the other is Thomas McCarthy's The Critical Theory of Jurgen Habermas (1978). For an interesting application of critical theory as a basis for an educational research methodology see "The Intents of the B.C. Social Studies Curriculum Guides: An Interpretation," by Ted T. Aoki and Edward Harrison in Summary Report: British Columbia Social Studies Assessment, 1977. For a history of the Frankfurt School see Phil Slater's Origin and Significance of the Frankfurt School: A Marxist Perspective (1977).

Schutz's theory of multiple perspectives was a very small part of his work which has been very important in the critique of modern social science and in developing new methodologies, particularly one set of methods falling under the label "ethonomethodology." No adequate treatment of his life or work can be provided in the scope of this work. Those readers who wish to learn more of Schutz's contributions to phenomenological social science are directed to his Collected Papers:

17Most philosophers who study and practice phenomenology would probably not accept this broad interpretation bracketing.

18The phrase "go native" is borrowed from anthropology. Within that discipline, it is used to describe field workers who become members of the culture they are studying and do not return to their own culture.

19This study was reported at the 1977 ABT Conference on "Evaluation of Day Care." A copy of the report, without tables, is included as an appendix.

20Unstructured interviews and observations are only two of many methodological tools available to the qualitative researcher. In an unpublished paper on Documentation for The Ohio State University/South-Western City School District Teacher Corps Project, this author has identified and described the following additional tools: survey methods, sociometrics, modified case study, histography and visual anthropology/sociology.

21It is possible for other types of open ended interviews to be conducted which are not sympathetic to the concept of qualitative research being developed here. Two common techniques are of this nature: the interview guide approach and the standardized interview schedule. In the first instance, while some flexibility exists, the design is to predetermine, explicitly, the topics and issues to be discussed. The flexibility offered is that the manner and sequence in which the interview questions are raised are contextually bound. However, because the researcher has specified the topics and issues in advance, there is little opportunity for subjects which the participants view as important to be discussed, unless these fall within the parameters set by the researcher.

The standardized open-ended interview schedule is even less desireable in terms of generating descriptions of the participants' perspectives and/or realities. With this interview technique, not only are the issues and topics prespecified, but all participants are asked the same questions in the same order. Such rigidity severely impairs the ability of the researcher to relate the interview to the individuals' perspectives or realities and ultimately assumes that only one perspective and/or reality exists.
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RACE EFFECTS IN DAY CARE OBSERVATION

by Jane Stallings and Andrew Porter

1977 Abt Conference on Evaluation of Day Care
Purpose

The general purpose of the National Day Care Home Study (NDCHS) is to describe day care homes in metropolitan settings; specifically, its purpose is to examine caregiver and child behavior and practices in different types of home care.

The purpose of the pilot study was to test on a small scale each of the procedures and instruments intended for use in the National Day Care Home Study. In addition, the pilot study was designed to examine possible differences in the perception and interpretation of behavior by Black and White observers in homes where caregivers were of the same or of a different race as the observers.

Contexts for Observing Behaviors

Observations of caregivers' and children's behavior were to be conducted in two contexts: the natural situation and three experimentally structured situations. In the natural situation, caregivers and children were observed as they went about their usual activities for approximately two hours on each of two mornings. We expected that these natural observations would provide the best evidence of the activities and behaviors that normally characterize the day care home, although we acknowledged that the presence of an observer could very well distort the picture in unknown ways. Another disadvantage of natural observations is that the observer deliberately relinquishes all control over the kinds of activities that ensue while she observes. Unless many observations are carried out, similar activities are not likely to be observed in all homes, so one may not know the reactions of caregivers or children in particular homes to a given situation. To overcome this disadvantage, experimentally structured
situations were used in this study to supplement the natural observations. Two of the structured situations are:

**Play Doh Factory.** In this task, the caregiver is asked to show the children how a machine and/or cookie cutters can be used to make shapes out of Play Doh. The main purpose of this task is to observe (1) the caregivers' approach to teaching a skill involving fairly complex eye-hand coordination and nonverbal reasoning, and (2) her methods of encouraging prosocial behavior and discouraging anti-social behavior in children. Since usually only one child can use the factory at a time, this situation should provide many opportunities to observe how the caregiver encourages prosocial behavior such as taking turns, helping, sharing, and showing interest in other children's products, and how she discourages antisocial behavior such as squabbling, grabbing, hoarding, and disparaging another person's efforts.

**Play Village.** In this task, the caregiver is asked to give the children a Play Village with which they can all play simultaneously. The Play Village is large and has many different manipulable parts and accessories that are appealing to children over a wide age range. Our expectation here is that the caregiver will introduce the Play Village to the children briefly and then leave them to play with it on their own, intervening perhaps only when squabbles occur. It is expected that this structured situation will simulate a natural situation in adult and child behaviors.

**Description of Instruments**

**Adult Behavior Codes (ABC)**

The ABC coding system focuses on the behavior of the caregiver. Her behavior is observed for 3 s and coded in the next 27 s, with a complete observe/code sequence occurring every 30 s. These intervals are signaled
by a beeper, an electronic device with an earplug. In natural situations and in the village situation, the observer codes the ABC for 5 min. at a time. She then spends 5 min. coding the SNAP (described below) and completes six 5-min. ABC and six SNAP observations each hour.

The main purpose of the ABC codes are to record:

Which caregiver is interacting with children (for homes with more than one adult);

The child or children with whom the caregiver interacts;

How the caregiver interacts with them through using strategies likely to facilitate their activity, restrict their activity, or some other strategy;

The type of activity that the caregiver facilitates, restricts or is otherwise involved in with the children;

The caregiver's expression of positive, negative, or neutral feelings toward children; and

The caregiver's use of language in her interactions with children.

The conceptual framework of the ABC system is similar to that employed by Carew in her previous research on children in home and day care centers (1975, 1976a, b) and by Golden, et.al. (1973) in their ongoing study of infant day care in New York City. These instruments differ from the ABC in that their target of observation is the individual child rather than the caregiver. However, the caregiver's behavior is also covered in considerable detail in Carew's and Golden's procedures, and most of these codes are incorporated in the ABC system.

Who. This dimension codes which of several possible caregivers is the target of the observations. The observer always codes the behavior
of the caregiver with the main responsibility for the children (M1) unless she has temporarily left the children in the charge of another regular caregiver (M1, M2), adult (AD), or older child (OC).

To Whom. This dimension codes the identity of the other person(s) with whom the caregiver interacts. Three children are selected beforehand as target children, C1, C2, and C3, representing different age groups between one and five years and including one of the caregiver's own children, if any are present in the home and are between ages one and five. The code C1, C2, or C3 is used when the caregiver interacts individually with any of these target children. Other codes are used when the caregiver interacts with any other child age zero to five years (YC), with any child over age five (OC), with an adult (AD), or with a group of two or more children (GP). These codes thus enable us to construct profiles of the interactive experiences that three representative target children have with the caregiver.

Emotion. This dimension encodes the affect expressed by the caregiver as positive, negative, or neutral. The positive and negative codes are defined to pick up clear evidence of affect; mild displays or affect are coded as neutral. The decision to narrow the definition was made because our experience in previous research indicated that while observers usually agree on how to code behaviors falling toward the extremes of this dimension, they often disagree in coding intermediate behaviors, despite elaborate training.

Language. This dimension codes whether the caregiver spoke four or more words during the observation unit (L), less than four (S) or no words (no). Admittedly, this is a simple way of characterizing the language
milieu provided by the caregiver, a factor that many previous studies single out as very important to the cognitive development of children. More sophisticated psycholinguistic distinctions might be incorporated in this dimension, but it was finally decided that this would place too great a burden on observers unless they were offered specialized training. Consideration was also given to distinguishing the various functions for which the caregiver uses language. Distinctions among these functions are an important part of the ABC and are included in the remaining dimensions of the ABC rather than in the language section.

The four dimensions just described are always coded unless the caregiver is out of range (OR) or is involved in housekeeping or other non-child (NC) activities. The remaining seven dimensions of the ABC are grouped under three headings that refer to the type of technique used by the caregiver in interacting with the child: facilitate, restrict, and other. The observer first decides whether the caregiver's technique is facilitative, restrictive, or other. When the caregiver uses a facilitative technique, the observer codes the particular technique in the "How" column under "Facilitate," the activity that the caregiver is facilitating in the "What" column, and the child's response to the caregiver's technique in the "Child Response" column. Similarly, if the caregiver uses a restrictive technique, the observer codes the particular technique in the "How" column under "Restrict," the child's activity that is being restricted in the "What" column, and the explanation that the caregiver offers to the child in the "Explain" column. Techniques not included under "Facilitate" or "Restrict" are coded in the "Other" column.
Facilitate-How. Listed in this column are six strategies that caregivers commonly use to promote/guide/participate in activities with children and to foster their learning of skills and concepts. These caregivers' behaviors are very similar to those employed in Carew's research and include teaching (TE), playing/participating (PP), helping (HP), reading (RE), suggesting (SG), and praise (PR). The element common to these techniques is that the caregiver takes the time and makes the effort to involve herself directly and positively in the child's activities. Her purpose may be to teach, to convey relevant information, to listen to the child's ideas, to share in the activity, to help a child who is having difficulty, to encourage a child to undertake an activity, or to show approval for an activity. In so doing, she often helps to create, sustain, guide, and structure the activity for the child, thereby strongly influencing its character as distinguished in the "What" codes.

Facilitate-What. Listed under this heading are 11 categories of activity that caregivers tend to facilitate for children. These include the teaching of language and the conveying of nonroutine information (LI); activities involving complex eye-hand coordination and nonverbal reasoning (FS); exploratory play using the small muscles (FE); dramatic play (DP); music and dancing (MD); gross motor play (GM); household chores (WK); physical care of the body (PN); watching educational TV programs (ET); watching non-educational TV programs (NT); and prosocial behavior (PS).

The distinctions made among activities in the "What" columns are very similar to those employed in Carew's studies of children in the home and in day care centers. In both of these studies (1975, 1976), Carew
reported that the frequency of the caregiver's facilitation of three types of activities for children between ages one and three—language information (LI), complex eye-hand coordination (FS), and dramatic play (DP)—strongly predicted children's scores on cognitive tests including the Stanford Binet, a test of spatial skills/nonverbal reasoning, and a test of receptive language. Thus, to the extent that caregivers in this study are observed to facilitate these three specific types of activities, one can say with some confidence that they are helping the children to learn the skills and concepts that are assessed in commonly used cognitive tests and are regarded as important by preschool educators and developmental psychologists.

The remaining categories of activities in the "Facilitate-What" columns are included simply because these are activities in which caregivers frequently become involved with children, and variation in their occurrence from caregiver to caregiver tells us something about what activities she considers worthwhile.

One other category of interaction, prosocial behavior, is of special interest because it indicates the caregiver's attempts to guide and encourage the child to consider the needs and wishes of others and to understand and conform to social rules. It is not unreasonable to assume that the caregiver's facilitation of prosocial behavior in children fosters their social development.

Child Response. In this column the observer codes whether a child's behavior in interaction with the caregiver is active-attentive (AC), passive-attentive (PS), inattentive (IA), or mixed (MX). Whether the attentive child is active or passive in a learning activity with the
caregiver is a theoretically important distinction. For example, Piagetian theory emphasizes the need for the child to operate actively on materials and to construct his own learning experience through attempts at mastery. Traditional learning theory on the other hand views the child's reception of well-structured input from others as a major way in which children learn.

Restrictive-How. In this column, the observer codes the intensity of the caregiver's restrictive behavior as simply restrictive (R) or particularly harsh (HR). Research results are mixed on the effects of caregiver restrictiveness on the development of children. Results seem to depend to a great extent on the social class and culture of the research sample. However, most studies agree that, regardless of social class or ethnicity, the frequent use of harsh methods (e.g., physical punishment) is negatively related to cognitive and social development in young children. Bearing these findings in mind and anticipating considerable class and cultural heterogeneity in the NDCH study, we decided to simply contrast methods of restriction that are likely to be universally regarded as harsh with others that are not likely to be so perceived.

Restrict-What. Here the observer codes the type of activity that the caregiver restricts, including dangerous behavior (DC); antisocial behavior (AS); wild, noisy, disorderly behavior (WL); other activities (AV); and requests by the child for help, information, materials, or permission (RQ). It is expected that competent caregivers will restrict dangerous, antisocial, and disruptive behavior, although the frequency of such restrictions may depend greatly on age and other child-characteristics.
**Restrict-Explain.** In this category, the observer codes whether the caregiver offers any reasonable explanation to the child for her restriction.

**Other.** In this column, the observer codes those caregiver behaviors that have not been included under the "Facilitate" or "Restrict" headings. The first three categories, affection-giving (AF), comfort-giving (CM), and social conversation (CV), describe caregiver behaviors that are positive and have a clear socioemotional intent. The remaining two categories, supervision (SV) and non-child (NC), describe behaviors that are frequently observed but involve no direct interaction with the child.

In constructing the ABC, the question of multiple behaviors occurring in the 3-s observation interval was given serious consideration. In the early stages of developing the ABC, longer observation intervals (15 s, 10 s, 5 s) were tried because these seemed to match better the natural length of activity units and to give the observer more time to judge the quality and topic of the interaction. This advantage, however, was greatly offset by the concomitant increase in multiple behaviors. An observational unit of 3 s was finally agreed upon, but even with this short interval multiple behaviors still present a problem. For example, while reading a story to a child (RE-LI), the caregiver may give him a kiss (AF); or she may encourage one child to pedal his tricycle (SG-GM) while engaging in social chit-chat with another (CV); or she may participate in a fine-motor structured activity with one child (PP-FS) while preventing another from interfering in the activity (R-AV). Thus, not only can two or more specific behaviors occur within 3 s, but these
behaviors may refer to different activities or be addressed to different children, or both. When asked to advise on this problem, consultants suggested the use of multiple coding (for example, using more than one coding frame per observational unit) since the ability to do several things at once was a significant aspect of caregiver behavior. However, other consultants (and those of us who were most involved in developing the system) felt that this solution would engender major difficulties for the data analysis and for coders because experience indicated that 27 s was barely enough time to code all the dimensions of one frame. In the end, therefore, we decided to eliminate multiple coding by using rules that gave one behavior or class of behaviors precedence over others. These rules are built into the format of the ABC:

1. The behavior of the main caregiver takes precedence over that of other caregivers.

2. Facilitative behaviors take precedence over restrictive behaviors, which take precedence over other behaviors.

3. In the "To Whom," "Facilitate-How," "Facilitate-What," "Restrict-What," and "Other" dimensions, categories placed higher in the list for that dimension take precedence over categories placed lower.

These rules necessarily introduce certain biases into the data. For example, Rule (2) biases the data toward representing positive, facilitative interactions rather than negative, restrictive interactions or noninteractive behaviors (supervision and nonchild). Unfortunately, this rule also may cause observers to underrepresent socio-emotional interactions (affect-, comfort-giving, and social conversation), a bias that now concerns us greatly and that we hope to remedy in the post-pilot
revision of the ABC. Rule (3) introduces another set of biases into the data. Following this rule, the observer selects the category listed higher in a dimension when multiple behaviors belonging to the same dimension occur. The rank ordering of categories within a dimension reflects as far as possible our ideas as to which categories are likely to have the strongest positive effect on the child's intellectual, social, or emotional development. The rationale for this order comes from Carew's research, which demonstrates that the caregiver's facilitation of the first three activities* is much more strongly predictive of children's test scores than her involvement in the other categories of activity. Similarly, in the "Restrictive-What" dimension, restrictions of dangerous (DG), anti-social (AS), and disorderly (WL) behavior are placed before restrictions of the child's general activity (AV) or requests to the caregiver (RQ). The rationale here is that by restricting dangerous activity the caregiver is ensuring the child's survival and that by restricting antisocial and disorderly behavior she is promoting positive social development. Although the ordering of some categories within dimensions is arbitrary, our expectation is that the biases thus introduced into the data will be both conceptually and quantitatively trivial.

*In the formatting of the ABC, dramatic play was inadvertently placed fourth rather than first in the "Facilitate-What" dimension. Observers are alerted to this mistake in training.
Snapshot (SNAP)

The SNAP is used alternately with the ABC in the natural situation and in the village structured situation. The observer watches the behavior of the first target child for 3 s. She then codes his activity, with whom he is interacting, and his use of language, in the next 27 s. She then watches in a set sequence the behavior of the second target child, the third target child, and each other child whom she can conveniently locate.

The main purpose of the SNAP is to describe briefly the activities of all children present in the day care home. The SNAP is a necessary supplement to the ABC because the latter procedure does not record the activities of children unless they are interacting with the caregiver. In developing the SNAP, serious attempts were made to develop a more elaborate instrument in which child behavior could be recorded in as much detail as caregiver behavior in the ABC. Two major problems stymied these efforts. First, many different children, often of very different ages and capabilities, had to be observed. Second, although we tried to make the child behavior codes similar in definition and format to the ABC, familiarity with the ABC tended inevitably to interfere with learning the behavior codes, and vice versa. In the end, therefore, we decided to adopt the simpler SNAP system described here, recognizing that after the pilot study this instrument might be further elaborated in time for Phase II.

In using the SNAP, the observer codes categories on three dimensions: (1) child's activity (categories in this list are identical or very similar to those included in the ABC); (2) the person with whom the child
is interacting (self, another child, the main caregiver, another adult); and (3) whether the child uses intelligible language. A sample SNAP coding form is found in Appendix C, and the reader is referred to the SNAP manual for more detailed definitions and examples.

**Results of Field Data Analysis**

The field data were used to assess the overall reliability of the several dimensions and codes within dimension of the ABC as used by the observers trained in the pilot study. The data also provided a picture of the frequencies of the caregiver behaviors in the sample of 46 day care homes and were in that sense perhaps a preview of some of the findings in the major study to come. As described earlier (Figure 3) the field study was designed such that it was possible to assess the extent to which the reliability of the ABC and SNAP were dependent upon a match between race of observers and/or race of caregiver.

**Reliability of Individual ABC Codes and Their Frequency of Occurrence**

There are many alternative ways to describe interrater agreement for the ABC used in a natural home day care environment. Four different indices were used, each providing somewhat different information (Table 2). In each case the value reported is across all pairs of raters and all settings. The index in the first column, "Dimension exact codes," described the proportion of agreement where the base was the total number of frames observed. The letters refer to the cells in a contingency table 1. This index reflects the proportion of times that two raters were in agreement on whether an activity was either present or not. Thus, this index will necessarily be high for low frequency events. The index in the third column, $A/A+B+C$, describes the proportion of agreement...
where the base was the total number of frames either one or the other or both raters selected the code. This index has as an upperbound the value of the index in the second column. It does not reflect rater agreement to not select a code. The index in the fourth column, $\phi$, is the traditional phi correlation between two dichotomous variables. It should be remembered when interpreting values of the $\phi$ index that it has an upper limit less than one except when the marginal proportions to code were equal for the two raters. Further, the depression of the upper limit becomes greater as the marginal proportions deviate from .5. Since these conditions held for virtually all of the data reported here, in that sense the phi coefficient underestimates the actual interrater agreement. Still, it is a traditional index and so may provide a useful baseline for comparison to other studies. The last column is not an index of agreement but rather the proportion of total frames observed for which both raters agreed the coded activity was present.

Considering first the data in Table 2 at the dimension level, several findings are apparent. First, the Restrict dimension was coded by both observers only 1.5 percent of the time. While the low frequency of Restrict behaviors on the part of the caregiver was a surprising finding, it must be remembered that when multiple events took place within a 3 sec. interval Facilitate was given Priority over Restrict. This would appear to have had the effect of not coding Restrict acts of the type "stop it," "sit down," and the like. The other ten dimensions of the ABC seemed to have functioned well in that they were coded a meaningful percentage of the time. Consistent with the low frequency of occurrence, the three Restrict dimensions had relatively low indices of agreement ($\phi$ approximately
.5) with the exception of the A+D/A+B+C+D index which included agreeing not to code. From the point of view of interrater agreement the Child Response dimension was most problematic. Despite occurring 30.6 percent of the time the Dimension Exact Code agreement was .49 while all other dimensions for that index (including the 3 Restrict dimensions) were .70 or higher. The probable reason for the relatively low reliability of the Child Response dimension was that it focused on child behavior while the remainder of the ABC focused on care given behavior. Perhaps it is too much to expect an observer to accurately code so much within a single 3 sec. interval.

Going within the dimension to the specific code levels revealed some interesting patterns. The Who dimension codes were all reliably observed. It would appear, however, that the second Aide, Other Child, and Other Adult codes are not going to be useful since they never occurred in the pilot.

The To Whom dimension codes all functioned and were coded with quite high reliability. The A+D/A+B+C+D indices were all above .88 and the phi coefficients were above .70 (with one exception, .66 for Group). The most frequent situation was a caregiver working with a group (two or more children) which was coded by both observers 16 percent of the time.

Two of the six codes within the Facilitate How dimension did not appear to function well in that they occurred less than one percent of the time (Read and Praise). Despite its low frequency of occurrence, Read was quite reliably coded, e.g., \( \phi = .84 \). Using the standard of A+D/A+B+C+D, all codes were agreed upon by the two raters 92 percent of the time or more.
Using the standard of occurring one percent or less of the time, several of the Facilitate What codes did not function well. More work is needed to decide whether those low frequency events should be aggregated in some way, redefined, given a different priority when occurring with multiple events, discarded or kept as they are because of special importance. It should be noted that despite their typically low frequency of occurrence the codes were quite reliably coded (Ø approximately .5 or higher). In addition it is important that coders did not feel the need to use the "catch all" code of Other very often. This supports the inclusive nature of the set of specific codes.

As noted before, the Child Response dimension was problematic and so were the codes within. In particular the code for Inattentive did not appear to function.

The uniformly low frequency of Restrict codes was noted before. Clearly, the conceptualization of this dimension needs more work.

Inspection of the code level data for the Other dimension indicated that a considerable amount of caregiver time is spent in Supervision and Non-Child related activities, 12 and 19 percent respectively. Conversation was also a fairly frequent event, 9 percent. Even the low frequency events of Affection and Comfort were reliably coded (Ø approximately .6 or higher).

Almost all of the frames coded for Emotion were seen as Neutral and the reliability was high. All three Language codes functioned and all but Short Language was coded reliably.
On the whole it can be concluded that the observers trained in the pilot study were able to code the ABC in natural day care home environments quite reliably. The index which described rater code agreement at the code level, where both decisions to code and decisions not to code were considered, never dropped below 80 percent and was typically in the mid to high 90's. At the same time it was learned that for at least the forty-six homes studied several of the codes did not occur at a meaningful frequency.

**Match Between Race of Observers and/or Race of Caregiver**

A split plot design was used to test several hypotheses about correlations between the independent variables

- race of primary observer,
- race of reliability observer,
- race of caregiver,
- day of observation,

and the dependent variable of interrater agreement on code selected within a dimension (the index reported in the first column of Table 2). The independent variables for race of observer and caregiver were represented by two levels, Black and White. There were also two days of observation. Five observers were nested within each level of the race of primary observer. Primary observers were crossed with the remaining three independent variables. Unfortunately the reliability of observers represented are an extraneous source of variation. For example, a primary observer may also be a reliability observer elsewhere in the design. Finally, observer pairs were assigned to homes in a nonsystematic but not necessarily random way within the above mentioned design constraints.
The hypotheses of particular interest were interactions between race of primary observer (P) and race of reliability observer (R) and interactions between P, R and race of caregiver (C). A P x R interaction could be significant for either of two reasons both of which would have implications for the quality of observer training. First, the P x R interaction would be significant if the trained observers of one race coded a set of behaviors differently than the trained observers of the other race. Such a difference in validity of coding would result in mixed race pairs of observers agreeing at a lower rate than matched race pairs. Second, the P x R interaction would be significant if matched pairs of one race had an average rate of agreement different than matched pairs of the other race. The P x R x C interaction reflected the extent to which the interrater agreement was correlated with a match between race of observer and race of observed. There were, of course, many other hypotheses that could be tested but their interpretation was difficult. It should be noted that the factors of race of primary observer (P) and race of reliability observer (R) have the same substantive interpretation since the distinction was only artificial to allow a test for a P x R interaction. The day of observation (T) may be like a first trial versus remaining trials distinction which is common to learning research. Unfortunately, the design did not afford a test of this interpretation since there were only two levels.

Thirteen separate univariate analyses of variance were calculated for the balanced split plot design. The balanced nature of the design was important since the percentage of rater agreement dependent variable clearly violated the assumptions of analysis. The first eleven analyses
were for the eleven dimensions of the ABC used to describe caregiver behavior in a natural environment. The twelfth analysis was for the overall reliability of SNAP used with the structured village. Since the structured village was done only once in each home, day of observation was not a factor in the analysis.

The results of the thirteen analyses of variance are reported in Table 3, where rows represent sources of variation and columns represent the thirteen different dependent variables. At the top of each column is the grand mean for interrater agreement and is consistent with data reported in the first column of Table 2. Entries in the table are calculated values of an F test statistic which had in each case 1 and 8 degrees of freedom. The sheer number of F tests calculated make formal rules for tests of significance suspect. Still, some may find that comparison to a tabled critical value is a useful rule of thumb for sorting through the results. The critical value of F with 1 and 8 degrees of freedom is 5.32 and 11.26 for Type I error rates of .05 and .01 respectively. Whichever criterion is used, the overall error rate will be higher but of an indetermined value.

The entries in Table 3 for sources of variation PR and PRC are uniformly small. None of the entries exceeded the critical value at the .05 level despite the liberal nature of the criterion for the total set of 26 tests. The sample size was small, however, and the lack of significance may reflect a lack of statistical power. The means for interrater agreement are reported in Table 4, where the first twelve columns represent the first twelve dependent variables for Black caregivers and the last twelve columns represent the same twelve dependent variables for White
caregivers. The table is admittedly difficult to read but careful inspection will reveal small and somewhat inconsistent differences across cells for a given dependent variable. Table 5 reports the same data averaged across dependent variables. The first entry in a cell is the mean across dependent variables and the second entry in a cell is the standard deviation across dependent variables. A useful baseline for interpreting differences within the table is formed by comparing the entries in the two middle rows. The middle two rows provide independent estimates of the same situation, i.e., observer pairs not matched on race. Clearly, the differences between these two rows are as large as the differences between their average and the other two rows and supports the lack of significance for the PR and PRC interactions. Further, the differences of interest are small and in most cases less than 5 percent. Thus, there was no reason to believe that for the observers trained in the pilot study, interrater agreement was correlated with race. There were, however, a few scattered large values of F. In some cases the large F's were a function of extremely powerful tests of significance. For example, the race of caregiver main effect produced large F's for the Who and Emotion dimensions. The observed differences in mean agreement were about one percentage point. The grand means of .98 and .97 respectively make clear that there was almost no variance for those variables.

The race of caregiver by day of observation source of variation did produce several large values of F across the dependent variable. Means for the CT interaction are provided in Table 6, where the first twelve columns represent the first twelve dependent variables for the first day
and the last twelve columns the same twelve variables for the second day. Considering just the second through fourth and eleventh dependent variables (for which there were large values of 7) reveals a pattern that has White caregivers observed most reliably on the first day and Black caregivers most reliably on the second day. The differences within a day were slightly larger than 5 percent. When data were averaged across all dependent variables, Table 7, the pattern changed slightly to reflect differences between race of caregiver for only the first day. Interpretation of these results is not straightforward. As noted previously, this may have represented something like a trial effect.