DOCUMENT RESUME

ED 456 536 EA 031 226

AUTHOR	Peca, Kathy
TITLE	Positivism in Education: Philosophical, Research, and Organizational Assumptions.
PUB DATE	2000-12-00
NOTE	33p.
PUB TYPE	Opinion Papers (120)
EDRS PRICE	MF01/PC02 Plus Postage.
DESCRIPTORS	*Educational Philosophy; Educational Sociology; Elementary Secondary Education; *Organizational Theories; Postsecondary Education; *Social Science Research; Social Scientists; Social Theories; *Sociology

ABSTRACT

The basic concepts of the positivistic paradigm are traced historically in this paper from Aristotle through Comte, the Vienna Circle, empiricism, Durkheim, sociobehavioral theory, and organizational theory. Various concepts have been added, deleted, and transformed through positivism's history, but its fundamental basis has remained the same: Objective reality exists that can be known only by objective means. Underlying this reality are organizational principles, and, thus, reality is inherently ordered. The ultimate purpose of positivism is to control and predict human and natural phenomena. Sociobehavioral and organizational theory apply positivism's basic concepts to the study of society and organizations. Under this paradigm, sociobehavioral theorists view society as an independent entity with inherent order underlying society and individual behavior. Human behavior is studied as a natural type of behavior via the empirical method in order to control and predict human social behavior. Positivistic organizational theorists posit that organizations that are inherently ordered are independent entities that can be studied as a type of social structure by empirically testing organizational behavior with the ultimate goal of controlling and predicting organizational behavior. (Contains 35 references.) (RT)

POSITIVISM IN EDUCATION:

PHILOSOPHICAL, RESEARCH, AND ORGANIZATIONAL

ASSUMPTIONS

by

Dr. Kathy Peca
Professor of Educational Administration
Eastern New Mexico University
Portales, New Mexico

December, 2000

POSITIVISM IN EDUCATION: PHILOSOPHICAL, RESEARCH, AND ORGANIZATIONAL ASSUMPTIONS

Due to its historical positioning in educational administration, positivism is the theoretical position against which other theoretical positions are compared and contrasted. Theorists who espouse emergent paradigms focus on the inability of the positivistic paradigm to communicate reality adequately because its research methodology explores only that reality which is objective and measurable. Because positivism is the historical basis for traditional sociobehavioral, organizational, and educational administration theory, positivism assumes a central position in paradigmatic discussions. In order to understand the arguments against positivism, one must first understand positivism.

Positivistic Philosophical Assumptions

The positivistic paradigm is characterized by the view of reality as being independent of the knower. This ontological position can be traced historically to Aristotle's conception of reality as being independent of a person's volition. An objective reality does exist and is knowable. This reality is outside of a person and an individual can at the same time be knower and the known. A person is the knower because the reality exists regardless of the person's desires and he is known as the object of knowledge by another person (Berger & Luckmann, 1966).

Aristotelian Philosophy

Because an objective reality exists, Aristotle believed that regularities exist which people can discover. Thus, the means of knowing this objective reality is to find the organizational principles upon which reality is based (Brumbaugh, 1966). When one has discovered these organizational principles of reality, one is able to explain and predict reality. For Aristotle, these principles could be either regularities or causal relationships. In this assumption, Aristotle moved conceptually beyond the epistemology of a general meaning for reality to an explanation of relationships between its constituent elements. Brumbaugh summarized this position: "To truly know reality, man must be able to discover the interaction between its components" (p. 198).

In the Aristotelian conceptual framework, truth is that which corresponds to reality. Knowledge and truth are questions of correspondence. As Smith (1983) indicated: "A statement will be judged as true if it corresponds to an independently existing reality and false if it does not" (p. 9). For Aristotle, this truth only could be discovered by inferring generalizations about reality from specific facts. Thus, truth is a product of induction. Reality only can be stated to be true after one has made observations of objective reality (Tiryakian, 1978). This is termed a posteriori knowledge--knowledge obtained after experience.

The Aristotelian perspective is one of an objective reality which can be known through the inductive method. This position became the philosophical basis for the positivistic perspective as developed by Auguste Comte in the 1800s.

Comtean Philosophy

Auguste Comte utilized the Aristotelian conceptual framework in his elaboration of positivism by accepting three fundamental ideas: objective reality is the only knowable reality; regularities in reality exist; these regularities can be discovered through the inductive method. Like Aristotle's, Comte's philosophy was predicated on reality being objective; however, Comte's work was based on an epigenetic conceptual structure. Comte viewed people as evolving conceptually. This evolution occurred not only for the entire human race, but also for each individual person. Comte (1855) posited three systems of philosophy which were mutually exclusive and through which both science and the individual mind must move to reach the highest level of positivistic thought. The first system of philosophy was the theological in which the human mind directs its researches mainly toward the inner nature of beings. The second system was metaphysics in which reality is viewed as personified abstractions. Unlike Aristotle, Comte did not deny the reality of metaphysical reality, but considered it to be a lower level of conceptualization. In earlier forms of human development, theological and metaphysical knowledge were equated with truth (Tiryakian, 1978).

Philosophy evolved until it reached its third and highest state, that of positivism. Comte (1855) defined positivism as : "The philosophical state in which one discovers by

reason and observation the actual laws of phenomena" (p. 2). Comte viewed the discovery of these laws as the unification of knowledge as opposed to what Tiryakian (1978) termed "the negative knowledge of theology and metaphysics which sought to analyze and dissolve the unity of knowledge by basing knowledge on the belief of the unknowable" (p. 34). Comte saw the human race as ready to evolve beyond the useless endeavors of speculative philosophy to penetrate beyond appearances to a philosophical state of certainty and precision.

This certainty and this precision were to be established because reality is not randomly ordered. Regularities do exist in reality. As Comte (1855) clarified;

> The fundamental character of the positive philosophy is to consider all phenomena as subject to the invariable natural laws. The exact discovery of these laws and their reduction to the least possible number constitute the goals of all our efforts. (p. 8)

Thus, Comte agreed with Aristotle's concept of organizational principles of reality to be discovered, but built a further conceptual structure which produced the beginnings of the formal study of people through sociology.

Comte (1975) posited six fundamental sciences: mathematics, astronomy, physics, chemistry, physiology, and sociology. The most basic science was mathematics and truth-seeking proceeded through the other sciences until scientific study reached its pinnacle in the study of the human race. Each level of science involved a higher order of knowledge which included the levels below but was still different in kind. Comte viewed

the science of sociology as "more complicated than any other of which we are cognizant" (p. 368). Tiryakian (1978) explained Comte's conceptual difference between the study of nature and the study of man:

> Sociology deals with a reality, that of social existence which cannot be reduced to biological and physiological existence, much less to the reality of chemical or physical being. It is a reality of intersubjective consciousness, manifested in what Comte terms human consensus, differentiating human society from animal society by its spontaneous and volitional elements. (p. 35)

For Comte, the study of people or sociology has as its purpose not only the discovery of the regularities of human life but also the utilization of these regularities to systematize the art of social life.

Comte (1975) saw that once the established laws of nature were revealed, man's moral life would be affected:

> The objective reality basis thus discovered for human effort reacts most beneficially on our moral nature. Forced as we are to accept it, it controls the fickleness to which our affections are liable, and acts as a direct stimulus to social sympathy. (p. 356).

Therefore, positivism was to improve the human race by the discovery of the natural laws under which people function.

The means of discovering these laws was the scientific method. While Comte viewed the knowledge of each level of science as being conceptually different, the means to

discover the laws of nature at each level would be the same. Comte (1975) perceived that the only way to modify human behavior would be by the scientific study of the natural order because: "We can thereby greatly diminish the partial deviations, the disastrous delays and the grave inconsistencies to which so complex a growth would be liable were it left entirely to itself" (p. 8). For Comte, the ultimate goal of the scientific study of people was to control and predict the individual's and society's behavior in order to improve human moral behavior. As Tiryakian (1978) indicated: "Comte saw in positivism more than a new cognitive system of knowledge which could unify society; he also saw it as a religion, a religion not grounded in revelation but in sociological observations" (p. 34).

Positivism thus promised a betterment of the human condition by applying the scientific method to the study of people. This study, called sociology by Comte, would use the method of the lower-level sciences, but the results would be on a higher level due to the complexity of human life. The regularities of all reality, including human behavior, could be discovered through the scientific method.

The positivistic paradigm adheres to the knowing of objective reality in an objective manner. Truth occurs when what is known corresponds to objective reality. The positivistic theorist assumes that subjectivity in knowledge does not lead to truth because between the object known and the knower, there exists no relationship. The positivistic paradigm posits an inherent order in objective reality which can be discovered in an objective manner and the discovery of such order ultimately will produce laws by which people can understand the world.

Summary

The philosophical assumptions upon which the positivistic paradigm is based are as follows:

Aristotelian Assumptions

1. Reality exists independently of human volition.

2. Underlying reality are organizational principles which can be discovered.

3. Truth is defined as correspondence to existing reality.

4. Truth is obtained through induction by deriving generalizations from specific observations of reality.

Comtean Assumptions

5. The laws of all phenomena are discovered through reason and observation.

6. The scientific method can be used to discover the laws of both natural and human phenomena.

7. The goal of research into human phenomena is to control and predict human behavior.

Positivistic Research Assumptions

Empiricism, the scientific method upon which Comtean philosophy is based, was rapidly evolving as "the" scientific method in the late 1800s and early 1900s. Empiricism is a philosophical doctrine that all human knowledge is derived from experience (Theodorson & Theodorson, 1979). The regularities sought in human behavior only can be considered as valid when tested by objective techniques or, stated more fundamentally, objective reality only can be known by objective methods and the only way that a method

could be considered as objective is by the experience of the senses. As Comte had postulated, the evolution of philosophy was historically ready to move to the study of people because of the development of empiricism.

Empiricism

Empiricism is based on the same ontological and epistemological assumptions of Aristotelian and Comtean philosophies. Reality is viewed as existing independently of human volition and regularities are assumed to exist which can be discovered by the inductive method. The existence of objective reality makes the study of this reality possible. If reality exists independently of human volition, then people can act independently of that reality. Smith (1983) clarified this non-interaction between the object studied and the person studying the object:

> In the philosophical tradition of positivism, ontological questions concerning what is can be kept separate from the epistemological questions about how we come to know. . . . the activity of investigation does not affect what is being investigated. (p. 8).

This investigation of natural phenomena, including human phenomena, has as its ultimate goal the discovery of regularities.

In scientific investigation, these regularities are termed laws. As Braithwaite (1955) explained:

> The function of a science is to establish general laws covering the behavior of empirical events or objects with which the science in question is concerned,

and thereby enable us to connect together our knowledge of the separately known events, and make reliable predictions of events as yet unknown. (p. 1)

However, mere observation will not automatically result in laws. Laws must be discovered through proper objective methodology which the empirical school termed the scientific method.

Kerlinger (1973) equated law with theory, but a theory which has been tested over time and accepted by experts. For Kerlinger, the aim of science is to generate theory and theory is empirically defined as "a set of interrelated constructs, definitions and propositions that present a systematic view of phenomena by specifying relations among variables, with the purpose of explaining and predicting the phenomena" (p. 9). This definition by Kerlinger is consistent with the regularities sought by Aristotle and the natural laws posited by Comte.

Theory is generated by a systematic method of inquiry. The scientist first must propose a generalization. This generalization is based on observation and may be unique or derived from an already existing theory. From this generalization, a hypothesis is drawn. A hypothesis is a conjectural statement about a relation between two or more phenomena (Kerlinger, 1973). Thus, scientific inquiry begins with induction. From specific observations, a statement generalizing a relationship is made. In the next step, the scientist must deduce the results of the relationship between the phenomena. This deduced relationship then is tested through observation and/or collection of data.

The result of the inquiry is to accept or reject the hypothesis. Continued hypothesis acceptance will lead to theory development. Rejection of hypotheses derived from a theory can lead to alteration or refutation of a theory. As Kerlinger (1973) indicated, the scientific method has a cyclic aspect because theories generate hypotheses which can substantiate or alter existing theories or generate new theories.

The findings of empirical study are always the acceptance or rejection of a hypothesis. Since the hypothesis only is a tentative proposition, the results of investigation are always tentative. Horkheimer (1983) clarified this tentative nature of scientific results: "A theory always remains a hypothesis. One must be ready to change it if its weaknesses begin to show as one works through the material" (p. 38). A theory remains conjecture and, if not refuted, is accepted as approaching truth. Theories are never proven; theories are supported by not being proven false. If a theory cannot be rejected, then it is accepted. Popper(1965) elucidated this seeming conundrum:

> Only if we cannot falsify them in spite of our best efforts can we say that they have stood up to severe tests. This is why the discovery of instances which confirm a theory mean very little if we have not tried, and failed, to discover refutations. (p. 35)

This method of confirmation by lack of refutation is due to the conjectural nature of theory.

Since the goal of empirical inquiry is to discover regularities, the hypothetico-deductive method is proposed by empiricists as the only means to discover these

regularities. Regularities can only be viewed in comparison and contrast. As Bronfenbrenner (1976) indicated: "The systematic juxtaposition of the similar but different constitutes the core of the experimental method and creates it magnifying power" (p. 6). The goal of science is to continue to search for these regularities through the empirical method.

Thus, for Comte, the empirical method could be applied not only to the study of natural phenomena, but also to the study of people. However, his philosophy posited that the resulting generalizations would be different because the laws governing people would be on a higher conceptual level due to the complexity of human behavior. The goal of inquiry would be to improve people and not just to generate theory. In the 1920s a group of philosophers, scientists, and mathematicians, called the Vienna Circle, sought to negate Comte's epigenetic view of science and truly incorporate science and sociology.

Logical Positivism

The Vienna Circle came into existence after Moritz Schlick, a professor of philosophy at the University of Vienna, led a seminar in 1923 on the topic of the scientific study of human behavior. According to Willower (1996), the Vienna Circle was composed of a changing group of scholars that included philosophers and physicists and lasted until 1936 when Schlick was assassinated by a student on the steps of the University of Vienna. Schlick and his fellow academicians coined the term "logical positivism" to indicate their new scientific study of human behavior. Ayer (1959) described the difference between Comte's positivism and logical positivism:

> The Vienna Circle rejected the view that there is a radical distinction between the natural and the social sciences. The scale and diversity of the phenomena with which the social sciences dealt made them less successful in establishing scientific laws, but this was a difficulty of practice, not of principle. (p. 21)

Thus the Vienna Circle answered the critics of the use of the empirical method in sociology by stating that the scientific method needed clarification and refinement and that the scientific method was appropriate for sociology. If any criticism of past sociological inquiry could be made, it was that this inquiry was not objective enough.

In order to have sociological inquiry be more objective and thus more productive, the logical positivists embraced empiricism. As Phillips (1983) clarified: "Logical positivism is a form of empiricism" (p. 6). In it, one discovers the philosophical concepts of Aristotle and Comte, without the epigenetic structure, stated in empirical terms.

The originality of the logical positivists lay in their making the impossibility of metaphysics depend not upon the nature of what could be known but upon the nature of what could be said (Ayer, 1959). A sentence became the focal point of what was knowable. If a sentence did not express an observable object, then the sentence held no meaning. As opposed to Comte, who held that metaphysical reality existed but was of a lower order to positive reality, the logical positivists saw metaphysics as meaningless and held that only observable objects were to be viewed as reality. This reality is expressed in a statement and this expression alone makes communication meaningful.

The statement which the logical positivists raised to primacy was the hypothesis. The hypothesis must be descriptive of observable variables and the basis for empirical testing. This importance of the hypothesis was clarified by Schlick's (1959) description of the relationship between the hypothesis and reality:

> All physical hypotheses can refer only to empirical reality, if by this we mean the knowable. In fact, it would be a self-contradiction to assume hypothetically speaking something unknowable. For there must be definite reasons for setting up an hypothesis. (p. 102)

Objective and not subjective reality makes communication possible. This objective reality and its regularities are what is studied in empirical sociobehavioral inquiry.

Empiricism posits that the general can be derived from the specific which is the inductive method, while the deductive method posits that the study of the general leads to understanding the specific. This basic difference is most noted in the distinctive treatment of error variance by empirical and deductive methodologies. According to Schutz (1966), the empiricist defines error as "the product of chance which is the influence of innumerable uncontrolled factors determining an experimental result" (p. 150). Advocates of deductive methodology hold that such acceptance of generalizations which ignore deviations does not reflect true reality.

Positivistic theorists place primacy on objective reality being known only in an objective manner. Such objectivity of research was sought and discovered in the empirical methodology espoused by logical positivists. By means of induction, specific controlled

instances of reality are investigated and the results of such study are generalized into theories which can lead to laws. As Bates (1980) explained, "The aim of scientific investigation is to understand how the construction of reality goes on at one time and place to compare with what goes on in different times and places" (p. 7). Such extrapolation of the specific to the general is possible because of positivism's assumption of underlying laws of reality which the researcher seeks to discover in order to control and predict natural and human phenomena.

Summary

The following assumptions are the bases for positivistic research methodology:

Comtean Assumptions

1. Objective reality can be known only by objective methods.
2. No interaction between the object studied and the researcher exists.
3. The goal of empiricism is to discover the natural laws underlying both natural and human phenomena.
4. The purpose of empiricism is to predict and control both natural and human phenomena.
5. Objective research methodology begins with induction which generates hypotheses of possible relationships; these hypotheses are tested by their ability to correspond to observable reality.
6. Theory is a systematic view of phenomena which specifies relations among variables.
7. Metaphysics is a lower form of knowledge than positivism.

Logical Positivism

8. Metaphysics is meaningless in research.

9. Only observable phenomena are real and can be stated in the form of an hypothesis.

Positivistic Sociobehavioral Assumptions

Sociology, as a science, developed in the late 1800s and early 1900s under the tutelage of Emile Durkheim. Durkheim was greatly influenced by Comte's positivistic view toward the study of people. Burrell and Morgan (1979) perceived this influence as embedded in the "Comtean notion of a concrete social reality capable of rational scientific investigation" (p. 44). Thus, Durkheim viewed the study of people as one which should be empirically based and focused not only on the individual person but also on society as a whole.

Durkheim's Influence on Sociobehavioral Inquiry

Bendix (1970) summarized the three basic assumptions of Durkheim's sociological inquiry: (1) social phenomena cannot be explained by less complex or nonsocial phenomena; (2) sociology is a study of groups; (3) society must be observed as a collective form. The pivotal point of Durkheim's assumptions is the concept of society. The individual is viewed as important, but, to understand social life, one must study society as a whole because the individual person does not exist in isolation but is influenced by and influences other people. Thus, to truly understand a person's actions, one must come to know the society in which this person interacts.

Durkheim posited that the reality which each person experiences is a dual product of individual consciousness and collective consciousness. Each consciousness is equal to the other and both interact throughout each person's life (Tiryakian, 1978). The collective conscious was a concept unique to Durkheim in that prior to Durkheim's development of this assumption, society was viewed as isolated individuals who affected each other. For Durkheim, society could be seen as a whole, and society constrained the individual by imposing external cultural norms (Bendix, 1970). Therefore, people must be studied in the context of the society of which they are members.

Durkheim's method of study was empirical. Bendix (1970) clarified Durkheim's basic assumption on the methodology of social inquiry: "All actions of the individual must be reduced to their elementary components" (p. 9). These elementary components of human behavior are then categorized into generalizations of action which Durkheim called natural types. The purpose of such study was to bring society closer to a solution of social problems. "By recognizing the similar social constraints to which all these individuals are subject, we can explain their actions in terms of cause and effect" (Bendix, p. 56). To understand the individual, one must the study the relation between that individual and the society in which the individual exists. For Durkheim, a group of individuals forms an entity which has an identity equal to an individual identity. Therefore, society's problems only can be solved by discovery of the natural types of individual behavior and how this behavior is formed by the entity known as society.

The basis of society, for Durkheim, was order. Societal norms and beliefs constrained the individual into participating in this order. An individual who opposed societal expectations is brought back to the accepted standards by appropriate societal sanctions. As Burrell and Morgan (1979) noted, Durkheim viewed the lack of societal order as "a pathological deviation from the normal course of development" (p. 45).

The later development of sociobehavioral research and theory was greatly influenced by Durkheim's adaptation of Comte's philosophical position, Durkheim's concepts of society as an existing entity, human behavior as natural types, society as an orderly and regulatory constraint on the individual, and logical positivism's scientific study of objective reality. Social theorists who assisted in developing sociological inquiry incorporated these concepts until, today, the radical concepts of Comte, Durkheim, and the Vienna Circle are accepted as the foundation for sociobehavioral inquiry.

Modern Sociobehavioral Theory

Today, sociology is considered a science. The person who engages in sociological inquiry is called a social scientist. The logical positivist position of applying the scientific method equally to all study, whether of natural or human phenomena, is viewed as essential to traditional sociological inquiry. Giddens (1977) clarified this perspective: "The science of society has to share the same logical form as the other sciences, as it is cut from the residue of metaphysics" (p. 34).

Durkheim's concept of the necessary orderliness of society also is intrinsic to modern sociobehavioral theory. This marriage of the concepts of societal orderliness and empirical methodology was explained by Burrell and Morgan (1979):

> Science provides a frame of reference for structuring and ordering the social world, a frame of reference which emphasizes an order and coherence similar to that found in the natural world. The methods of science are used to generate explanations of the social world consistent with the nature and philosophy of science itself. Science . . . becomes a tool for imposing order and regulation upon the social world--order and regulation from the standpoint of the observer. (p. 107)

The positivistic sociobehavioral theorist posits society as inherently ordered, as is reality. According to Greenfield (1975), "Social reality is usually construed as a natural and necessary order which, as it unfolds, permits human society to exist and people within it to meet their basic needs" (p. 76).

In order to discover this societal order in a scientific manner, social scientists observe facts and events which refer to human action and construct generalized behavioral pattern statements based upon these observations. According to Weber (1968), these empirical uniformities of action are "found to be wide-spread, being frequently repeated by the same individual or simultaneously performed by different ones" (p. 13). Weber continued on to assert that sociological investigation is concerned with these typical modes of action. Behavior is abstracted and generalized so as to apply such behavior to all

common types of behavior. Sociological inquiry utilizes the scientific method of seeking the typical behavior of the majority while allocating the deviations from this typical behavior to chance. Thus, the strength of ascertaining such typical behavior is based upon frequency and repetition which are basic scientific criteria.

Modern sociological inquiry posits the basis for the orderliness of society in rationality. As Popper (1965) explained:

> In most social situations, if not in all, there is an element of rationality. Admittedly human beings hardly ever act quite rationally, but they act, none the less, more or less rationally; and this makes it possible to construct comparatively simple models of their actions and interactions, and to use these models as approximations. (p. 40)

That human beings act according to reason or in a logical manner is intrinsic to traditional sociological theory.

While traditional sociological inquiry views rationality as its basis for understanding human behavior, some social theorists, such as Max Weber, have attempted to explain the possible subjective element in knowledge. This is known as "Verstehen". Abel (1977) defined Verstehen as "an intervening process located inside the human organism by means of which we recognize an observed or assumed connection as relevant or meaningful" (pp. 85-86). Abel continued in his definition of Verstehen by indicating that it consists of the act of bringing to the foreground the inner-organic sequence intervening between stimulus and response. Verstehen does not add to one's knowledge

because it is the application of knowledge already possessed. It is an operation which is made possible by prior observations; it is not subjective knowledge equal to objective knowledge. As Abel summarized: "The probability of a connection can be ascertained only by means of objective, experimental and statistical tests" (p. 91). Thus, for the positivistic social scientist, the basis for possible subjective knowledge remains objective knowledge.

For the positivist, the question of how one ought to act does not relate to morality or ethics. Scientific inquiry provides the means to discover what one ought to do. As Schon (1983) clarified, ought could be reduced to an instrumental question about the means best suited to achieve one's ends. As causal relationships emerged from scientific understandings, one could select the means appropriate to one's ends by applying the relevant scientific theory. Therefore, science-based technique replaced metaphysical questions of morality and ethics.

The objective study of society is drawn from Durkheim's concept of social consciousness. Beginning with Durkheim, society is viewed as an existing entity which, while composed of individual persons, is equal to the individual. The development of sociobehavioral theory, according to Applebaum (1970), is not to help individuals understand themselves but to further the knowledge of individuals and their relationship to society in order to predict behavior and maintain societal order. This view of society as an independent entity can be traced to its inception in Comte's theory of mankind progressing

toward perfection with progress based on order. Durkheim expanded this concept into a true evolutionary theory of sociology which Eisenstadt (1968) explained:

> All societies in all spheres of social life, pass through similar stages of development (unless arrested), moving from simpler, less complex, less differentiated to more complex and differentiated states. This development culminates in the modern industrial, secular society. (pp. 11-12)

While this view of society's progress is similar to Comte's in being epigenetic, the movement of society for the traditional social scientist is towards complexity while Comte's progress ended in a philosophical state whereby people could discover the laws of human and natural phenomena and, thus, social life would become less complex.

Applebaum (1970) explained a more current view of society, the equilibrium theory. While evolutionary social theory posits its culmination in modern industrial society, homeostasis social theory views modern society as a given. Social order is regulated by the goal of equilibrium because society must maintain a state of homeostasis. Any deviation from the norm causes society to react is such a way as to neutralize the deviation. Thus, society is self-regulating and the order of society is governed by the nature of society itself.

Modern sociobehavioral theory, based on traditional positivistic concepts, assumes the following: (1) social science is equal to natural science and the same methodology is maintained for both; (2) order underlies social behavior; (3) social behavior is studied by

discovering typical behavior patterns; (4) social behavior is rational; (5) society is an existing entity equal to the individual person.

The positivistic social theorist studies social structures as entities which have an independent objective reality. As such, social structures and human behavior within these structures are viewed as abstractions in that typification of behavior is posited in the roles of person within the structures. The purpose of social structures from the objective perspective is efficiency with the goal of maintaining the structures' inherent order.

Summary

The following assumptions, derived from the sociological work of Durkheim, are the premises upon which positivistic sociobehavioral inquiry is based:

1. A collective consciousness exists which can be studied independently of individual consciousness.
2. Collective consciousness and individual consciousness interact.
3. Human behavior can be generalized and thus studied as natural types through the empirical method.
4. Society is inherently ordered.
5. Society imposes sanctions on individuals to maintain inherent order.
6. The basis for societal orderliness is the inherent rationality of human behavior.
7. The goal of sociobehavioral inquiry is to predict and control human behavior.

Positivistic Organizational Assumptions

These assumptions of sociobehavioral inquiry are clearly manifest in positivistic organizational theory which evolved from sociobehavioral theory. Consistent with its assumption of objective reality which is independent of the knower, the positivistic position assumes organizations as having an independent and objective existence. As society is viewed as an existing entity to be objectively studied by social scientists, an organization also is viewed as an existing entity, a social substructure in society which also can be objectively studied. Parsons (1956) defined this positivistic view of the relationship between an organization and society: "An organization is defined as a social system oriented to the attainment of a relatively specific type of goal which contributes to a major function of a more comprehensive system, usually the society" (p. 63). Parsons further elaborated on this relationship by explaining that

> an organization is the principal mechanism by which, in a highly differentiated society, it is possible to "get things done", to achieve goals beyond the reach of the individual and under circumstances which provide a relative maximization of effectiveness. (p. 45)

An organization, as viewed from the positivistic perspective, is an existing social entity which includes individuals as members of its social system, but which can be studied as an entity in itself. As Perrow (1972) explained, an organization is separate from its members:

> One cannot explain organizations by explaining the attitudes and behavior of

> individuals or even small groups within them. We learn a great deal about psychology and social psychology but little about organizations per se in this fashion. (p. 143)

Thus, organizations are objectively existing social substructures.

Organizational Theory

The organization is defined by the specific goals which it attempts to achieve. Simon (1964) defined organizational goals as "value premises that serve as inputs to directions" (p. 3). Goals are

seen as the directing force in an organization, but these organizational goals are not the accumulation of goals of its individual members. Organizational goals are separate from member goals and may agree with or conflict with member goals. Goals, according to Thompson and McEwen (1958), are defined as the "desired relationships between an organization and its environment" (p. 23). The members of the organization must accept its goals or, as Griffith (1979) indicated, "there will exist a pathology that must be corrected" (p. 46). The purpose of such goals is efficiency. If sociobehavioral theory adheres to an underlying order in society, the goals of an organization provide such an order in the social substructure known as an organization. Positivistic organizational theory assumes organizations as being inherently ordered, and organizational pathology is viewed as any deviation from the norm which must be rectified by organizational sanctions.

Within the organization, its members assume certain specified positions which enable the organization to effectively attain its goals. The embodiment of the position which individuals assume is their role. According to Simon (1964), "A role must be understood not as a specific, stereotyped set of behaviors, but as a program for determining the course of action to be taken over the range of circumstances that arise" (p. 13). Goals direct the organization and roles assumed by its members provide the means to attain these goals. Such an organization is ordered and this underlying order enables organizational researchers to utilize scientific objective means in studying organizations.

Organizational theory as evolved from sociobehavioral theory has adopted the five basic tenets of positivistic sociobehavioral theory: (1) equality with natural science and utilization of empirical method; (2) underlying orderliness; (3) typification of behavior; (4) rationality of behavior; (5) existence of social structures as entities in themselves. These characteristics can be traced through the historical development of organizational theory.

Classical organizational theory, according to Mayntz (1964), sought to develop maxims which, when adhered to, maximized efficiency. The functionalist view of organizations, as explained by Giddens (1979), was based upon concepts of the biological growth or evolution of an organization as it adjusted to its environment. Perrow (1961) clarified the rational model as one in which management uses rational means to pursue goals while the worker is governed by nonrationalistic orientations. And systems theory provides a view of organizations which includes the interactions of the substructures of the

organization with each other and of the whole system with its environment. Such examples of organizational theory adhere to the positivistic sociobehavioral characteristics which were previously indicated.

Summary

Positivistic organizational inquiry is based on the following assumptions:

1. An organization is a social entity which exists independently of its members.
2. Organizations are inherently ordered and sanctions maintain order.
3. The purpose of an organization is the efficient accomplishment of a goal.
4. Goals give direction for action and provide structure for order.
5. Organizational goals are independent of member goals.
6. Roles are assumed by members to attain organizational goals.
7. Organizations and role behavior can be studied through empirical methodology.

Overview

The basic concepts of the positivistic paradigm have been traced from Aristotle through Comte, the Vienna Circle, empiricism, Durkheim, sociobehavioral theory, and organizational theory. These concepts have undergone interpretation by individuals and by those who have molded the basic concepts into their own philosophical positions. While various concepts in the paradigm have been added, deleted or transformed, the fundamental basis for positivism remained the same: objective reality exists which only can be known objectively.

Philosophically, positivism adheres to the premise that reality exists independently of people's volition and that only the observable is real. Underlying this reality are organizational principles and, thus, reality is inherently ordered. Because truth is the correspondence to reality, the method to discover the underlying principles of reality is to derive generalizations from specific instances of reality by generating theory through hypothesis testing and, eventually, to expose the laws of reality. The ultimate purpose of positivism is to control and predict human and natural phenomena.

Sociobehavioral and organizational theory, under the positivistic paradigm, apply the basic concepts of positivism to the study of society and organizations. Under the positivistic paradigm, sociobehavioral theorists view society as an independent entity with inherent order underlying society and individual behavior. Human behavior is studied as a natural type of behavior via the empirical method in order to control and predict human social behavior. Positivistic organizational theorists posit that organizations which are inherently ordered are independent entities which are studied as a type of social structure by empirically testing organizational behavior with the ultimate goal of controlling and predicting organizational behavior.

References

Abel, T. (1977). The operation called verstehen. In F. R. Dallmayr & T. A. McCarthy (Eds.), Understanding and social inquiry. Notre Dame, Indiana: University of Notre Dame Press.

Applebaum, R. P. (1970). Theories of social change. Chicago: Markham Publishing Company.

Ayer, A. J. (1959). Logical positivism. Glencoe, Illinois: The Free Press.

Bates, R. J. (1980). Educational administration, the sociology of science, and the management of knowledge. Educational Administration Quarterly, 16(2), 1-20.

Bendix, R. (1970). Embattled reason. New York: Oxford University Press.

Berger, P. L., & Luckmann, T. (1966). The social construction of reality. Garen City, New York: Doubleday and Company, Inc.

Braithwaite, R. B. (1955). Scientific exploration. Cambridge: University Press.

Bronfenbrenner, U. (1976). The experimental ecology of education. Educational Researcher, 5(9), 5-15.

Brumbaugh, R. S. (1966). The philosophers of Greece. London: George Alen and Unwin, Ltd.

Burrell, G., & Morgan, G. (1979). Sociological paradigms and organizational analysis. London: Heinemann Educational Books Ltd.

Comte, A. (1855). Introduction to positive philosophy. Carlisle, Pennsylvania: Dickinson College, The Library of Liberal Arts.

Comte, A. (1975). A general view of positivism. New York: Robert Speller and Sons, Inc.

Eisenstadt, S. N. (1968). Comparative perspectives on social change. Boston: Little, Brown and Company.

Giddens, A. (1977). Studies in social and political theory. London: Hutchinson and Co., Ltd.

Giddens, A. (1979). Central problems in social theory: London: The MacMillan Press.

Greenfield, T. B. (1975). Theory about organization: A new perspective and its implications for schools. In M. Hughes (Ed.), Administering education: International challenge. London: Athlone Press, University of London.

Griffiths, D. E. (1979). Perspective: Intellectual turmoil in educational administration. Educational Administration Quarterly, 15(3), 43-65.

Horkheimer, M. (1983). Traditional and critical theory. In H. Giroux (Ed.), Critical theory and educational practice. Victoria, Australia: Deakin University.

Kerlinger, F. N. (1973). Foundations of behavioral research. New York: Holt, Rinehart and Winston, Inc.

Mayntz, R. (1964). The study of organizations. Current Sociology, 13, 95-155.

Parsons, T. (1956). Suggestions for a sociological approach to the theory of organizations - I. Administrative Science Quarterly, 1(1), 63-85.

Perrow, C. (1961). The analysis of goals in complex organizations. American Sociological Review, 25(6), 854-866.

Perrow, C. (1972). Complex organizations. Glenview: Scott, Foresman and Company.

Phillips D. C. (1983). After the wake: Postpositivistic educationa thought. Educational Researcher, 12(5), 4-12.

Popper, K. R. (1965). Unity of method in the natural and social sciences. In D. Braybrook (Ed.), Philosophical problems of the social sciences. New York: The MacMillan Company.

Schlick, M. (1959). Positivism and realism. In A. J. Ayer (Ed.), Logical positivism. Glencoe, Illinois: The Free Press.

Schon, D. A. (1983). The reflective practitioner. New York: Basic Books, Inc.

Schutz, R. E. (1966). The control of 'error' in educational experimentation. School Review, 74, 150-158.

Simon, H. A. (1964). On the concept of organizational goal. Administrative Science Quarterly, 9(1), 1-22.

Smith, J. K. (1983). Quantitative versus qualitative research: An attempt to clarify the issue. Educational Researcher, 12(3), 6-13.

Theodorson, G. A., & Theodorson, A. G. (1979). A modern dictionary of sociology. New York: Barnes and Noble Books.

Thompson, J. D., & McEwen, W. J. (1958). Organizational goals and environment: Goal-setting as an interaction process. American Sociological Review, 23(1), 23-31.

Tiryakian, E. A. (1978). Durkeim and Husserl: A comparison of the spirit of positivism and the spirit of phenomenology. In J. Bien (Ed.), Phenomenology and the social sciences: A dialogue. The Hague: Martinus Nijhoff.

Weber, M. (1968). On charisma and institution building. Chicago: University of Chicago Press.

Willower, D. J. (August, 1996). Inquiry in educational administration and the spirit of the times. Educational Administration Quarterly, 32(3), 344-365.

U.S. Department of Education
Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

REPRODUCTION RELEASE

(Specific Document)

I. DOCUMENT IDENTIFICATION:

Title: Positivism in Education: Philosophical, Research, and Organizational Assumptions	
Author(s): Kathy Peca	
Corporate Source: Eastern New Mexico University	Publication Date: December 2000

II. REPRODUCTION RELEASE:

In order to disseminate as widely as possible timely and significant materials of interest to the educational community, documents announced in the monthly abstract journal of the ERIC system, *Resources in Education* (RIE), are usually made available to users in microfiche, reproduced paper copy, and electronic media, and sold through the ERIC Document Reproduction Service (EDRS). Credit is given to the source of each document, and, if reproduction release is granted, one of the following notices is affixed to the document.

If permission is granted to reproduce and disseminate the identified document, please CHECK ONE of the following three options and sign at the bottom of the page.

The sample sticker shown below will be affixed to all Level 1 documents	The sample sticker shown below will be affixed to all Level 2A documents	The sample sticker shown below will be affixed to all Level 2B documents
PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 1	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE, AND IN ELECTRONIC MEDIA FOR ERIC COLLECTION SUBSCRIBERS ONLY, HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2A	PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL IN MICROFICHE ONLY HAS BEEN GRANTED BY Sample TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC) 2B
Level 1	Level 2A	Level 2B
☑	☐	☐
Check here for Level 1 release, permitting reproduction and dissemination in microfiche or other ERIC archival media (e.g., electronic) *and* paper copy.	Check here for Level 2A release, permitting reproduction and dissemination in microfiche and in electronic media for ERIC archival collection subscribers only	Check here for Level 2B release, permitting reproduction and dissemination in microfiche only

Documents will be processed as indicated provided reproduction quality permits.
If permission to reproduce is granted, but no box is checked, documents will be processed at Level 1.

I hereby grant to the Educational Resources Information Center (ERIC) nonexclusive permission to reproduce and disseminate this document as indicated above. Reproduction from the ERIC microfiche or electronic media by persons other than ERIC employees and its system contractors requires permission from the copyright holder. Exception is made for non-profit reproduction by libraries and other service agencies to satisfy information needs of educators in response to discrete inquiries.

Sign here, please

Signature: Kathy Peca	Printed Name/Position/Title: KATHY PECA - PROF EDAD
Organization/Address: ENMU School of Ed - #25 Portales, NM 88130	Telephone: (505) 562-2782 FAX: (505) 562-2523
	E-Mail Address: Kathy.Peca@enmu.edu Date: 1-26-01

(over)

III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:
Address:
Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant this reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:
Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

ERIC Clearinghouse on Educational Management
1787 Agate Street
5207 University of Oregon
Eugene, OR 97403-5207

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2nd Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com