How objective are the research methods of sociologists? Is the scientific method more or less bias-free or truthful than other methods? Even assuming that the scientific method is the best or most truthful method presently available to sociologists, how do researchers know which theory to test? This paper, an introductory essay to a college sociology course, raises these and other questions. It is postulated that one reason why sociologists use the scientific method may be that the culture regards the research results of this method as true and that the scientific method may reflect cultural values and leads to a similar inquiry about the nature of educational principles and methods. How has the culture influenced the view of education? Students are encouraged to cast a critical eye at institutions and cultural beliefs, as well as at the theories and practices that make up their own tools in the trade. Two bibliographies are included: one on the sociological foundations of education, the other on the cultural foundations of education. (DB)
SOCIOLOGICAL AND CULTURAL FOUNDATIONS OF AMERICAN PUBLIC EDUCATION:

THE CULTURAL BASIS OF SOCIOLOGICAL FACTS

AN INTRODUCTORY ESSAY

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."
A PREFATORY NOTE TO THE READER FROM THE AUTHOR

This is a paper that I wrote for the benefit of my graduate students at Chicago State University in the Fall of 1988, for a class called "The Sociological and Cultural Foundations of American Public Education." I wrote the paper as a result of my thinking about the possible relation between the sociological and cultural foundations of education. In the paper I examine the method of scientific inquiry, the logic of science, the nature of our culture, and the cultural basis of so-called sociological "facts."
Sociologists may be seen as the "bricklayers" in theory building, building their theories brick-by-brick on the basis of verifiable facts. Some people have written comprehensive theories of learning, others apply these theories in their daily teaching, and still others design their own "pet" theories even if they never read someone else's. The question may be raised, how can we be sure these theories of learning, however convincing they may look on paper, actually work in practice?

Experimental sociologists approach theories about human behavior, including learning behavior, in the same way as scientists in the "hard sciences" approach theories about nature: scientifically. They see a theory about, say, the effectiveness of a certain teaching technique as only a "hypothesis" for further empirical testing with real students in the real world. Their testing techniques allow them to compare the effects which different "variables" may have on learning.

Variables vary depending on what theory or issue the sociologist may be "testing." If a theory claims that teaching method "A" will "cause" the students to learn "more" than teaching method "B," then the sociologist is interested in comparing learning with the variable "teaching method:" He varies the teaching method, and observes and records the learning results. Other variables may include the student's family or economic background, his or her self-esteem, ethnic or religious identity, the teacher's training, the expectations of the school principal, the sex of the student, the wealth of materials in a certain school, curriculum content, and many others.

As a result of their scientific approach, sociologists have overturned many an apple cart of long held educational beliefs or assumptions. In testing the "truth" of a theory, sociologists use such "scientific" (because presumably "objective") techniques as random sampling, control and experimental grouping, and statistical analysis. Even those sociologists who wrote theories in the grand style (e.g., Max Weber and Emile Durkheim) did so only after a lifetime of careful empirical, and therefore presumably "objective" examination of the social facts. Since we can't expect the student in our course to carry out sociological experiments, we at least expect him to know the experimental studies completed by others. For example, although the student in our course has the opportunity to design new theories or arguments from the bottom up, he also has the responsibility to do so on the basis of the "social facts"--of all the available empirical, historical, and cross-cultural facts. Many of these "facts" will be found in the Banks and Boocock books, and in other sources.

It may turn out that on balance, the facts don't justify your claims, in which case you must reconsider your thesis or theory. In other words, you shouldn't leave by the wayside those facts which
seemingly throw doubt on your theory, as you can then make almost ANY theory look "true" by excluding all the non-supporting facts. This is the reason why in your midterm paper and presentation you must also mention all the major arguments AGAINST your position, as you are then more likely to consider ALL the facts, supporting and non-supporting alike, and not just those which support your position. To objectively review all the relevant facts, we cannot selectively, in a "biased" way, weave into our pet theory's fabric only those facts which will hold it together—but test the strength of its fabric against ALL the available facts. You are more likely to be right, not to mention fair, when you allow the chips to fall where they may, than when you unfairly stack them up in your favor.

In our course, we will learn where to find the experimental evidence. We will review hundreds of sociological and multiethnic studies described in the Boocock and Banks books, and visit the library for a review of the relevant research sources (ERIC, annual research yearbooks, journals, and the like). A secondary but not unintended result of this effort will be our learning to review a theory's experimental or "scientific" base before we give it our final verdict, or haphazardly or impetuously apply it in our teaching. We will learn that NO generalization regarding the learning effectiveness of a theory or method is sacred enough to NOT have to be experimentally tested, or "tested" against available historical or cross-cultural evidence.

The question may be raised, how "objective" or "truthful" are the research methods of educational sociologists? Is the scientific method more or less bias-free or truthful than other methods? And even assuming that it is the best or most "truthful" method presently available to sociologists, the question may be asked, how do we know how to choose which theory to test? How do we know that a certain theory which we decided to test or just finished testing is really WORTH testing? We will examine these two issues, the superiority of the scientific method vis-a-vis other methods, and the criteria for selecting a theory for testing, in turn, below.

Why should we assume that the scientific method is more "objective" or more "valid" or more "truthful" than, say, the descriptive or the theological, or the analytic or the metaphysical? Even while testing a theory, sociologists may be assuming another, untested one through the means they employ to test it. Is it possible for sociologists to defend their use of the scientific method without reverting to mere "solipsism," or mere
expressions of personal "likes" or "dislikes?"

If sociologists attempt to TEST the truth of the scientific method, they can test it by either using the scientific method again, or by some other means. If they use the scientific method to test the validity of the... scientific method, then they would be assuming what they need to prove--thus falling into a circular argument: that proves nothing. If they use another method--say the aesthetic method, meaning, the method that says a theory is true if it is aesthetically appealing--then even if they can thus show that the scientific method is "true" or objective or valid, and therefore desirable, to be really valid they must also show that the method they used to test the scientific method (in our example, the "aesthetic" method) is also valid. Obviously, there is no end to how many methods they must prove to be valid in order to show that the scientific method is valid, and therefore there is no way of showing that the scientific method is valid. Ironically, then, while sociologists, or any other "scientist" for that matter, test theories scientifically, there is one theory they seem unable to so test--the theory that in order to discover the truth about other theories, we ought to test theories scientifically. They seem to have adopted an untested, because possibly untestable belief--that is, their belief in the validity or truth or "superiority" of the scientific method. Finally, even if it were possible to show through another method that the scientific method IS valid, the fact that you did so through another method makes that other method also valid, and therefore shows that the scientific method is not the ONLY method that is valid. Consequently, the individual is again faced with a choice between two equally "valid" methods, a scientific and a non-scientific one, and therefore there is no reason why a sociologist, or anyone else for that matter, should use ONLY the scientific method to test the validity of a learning theory. As Thomas Kuhn argued in his well known book The Structure of Scientific Revolutions, the method we use is at bottom a matter of personal preference, and by extension, an expression of the communal beliefs or values or "culture" of the times. Our using the scientific method, then, may say more about our values or culture, than about the "truth" of what we are "testing." We will elaborate more on this point, below.

It should be noted that sociologists would soon be out of work if there were no theories to test, in the first place. We conclude that someone, sociologist or not, must be bold and imaginative and caring enough to at least PROPOSE new theories of learning for
further testing by sociologists. After all, no amount of accumulated facts or verifiable hypotheses have any meaning unless we have already agreed to test or examine them in the context of some theory—or at least try to make some sense or "theory" out of what, if left to themselves, are so many disconnected facts, or so much "nonsense."

If the method sociologists use in research, the scientific method, cannot be "shown" to be "better" than any other method, then why are they using it? One reason why sociologists are using the scientific method may be that our culture is such that we have all come to regard the research results of only this method as "true." Consequently, sociologists, partly because they are part of the larger society, and partly because they themselves may share this value or belief in the scientific method, have come to adopt it in their research techniques. What is the culture, or values, then, which dictate that we use the scientific method? In other words, what are the larger cultural beliefs or values which, when translated to doing research, "become" the scientific method?

The scientific method may represent two important values in our culture: our belief in the primacy of reason in the resolution of conflict or the solution of problems; and our belief in the priority of democratic principles. Our belief in human reason didn’t come out of the blue, but is the result of centuries of constantly changing our beliefs and fundamental principles, shifting from one cultural sphere to another, struggling socially, politically, and economically to bring about desired ends, and fighting psychologically with ourselves to define ourselves—reason versus passion, science versus superstition. All this only to come recently, during the Age of the Enlightenment, to declare that reason should be the basis for our judgements, lifestyles, principles, and institutions. To the writers of the Enlightenment, as also to the Framers of the U.S. Constitution, reason meant "democracy." And according to certain writers, such as, the philosopher John Dewey, both reason and democracy dictated that we use the scientific method. But more on these very complicated issues in our class discussions and lectures...

Since as a nation we decided to live according to the American Constitution, we have also implicitly agreed to abide by such principles as "democracy," equality, and justice for all people. It could be argued that since all people have the ability to verify the truth of EMPIRICAL statements (as contrasted to "theological"
or non-empirical statements), it follows that the scientific method provides all people with the same opportunity to test the truth of certain claims. Consequently, it may be argued that the scientific method has a "leveling" or democratic effect on political authority since it allows all people the same opportunity to realistically test the "truth" of certain claims made by their leaders. This is so assuming people are not denied the ability to exercise the scientific method, as some critics, such as Ivan Illich in his book Convivial Institutions, argue that they unfortunately are.

It is also possible that within this broader democratic context or "commitment" in our society there are many individuals or institutions that are, broadly speaking, "unscientific." Are our educational institutions more or less scientific than other institutions? Jack Nelson and James Shaver apparently think our schools should be more scientific. By "scientific" they mean that we should pay more attention to the research findings regarding learning. For example, in their review of the social studies, they argued, in their paper "On Research in Social Education" (in: Review of Research in Social Studies Education, 1976-1983, edited by W. E. Stanley and others, and published jointly by ERIC and the National Council for the Social Studies) that the actual teaching of social studies in our schools "seems virtually undisturbed by research... remains bound to moralism and prior practice." (page 420)

We conclude that to find out how we came to adopt certain educational principles and methods, we must turn to our culture. What has been the history of our people? What are the beliefs which we hold "dear" in our multiethnic society? How has our culture influenced our view of education? It is only by clarifying our common goals or "culture" as a people that we can give the thousands of scientific research findings meaning and direction. For what good are all the findings if we don't know in which direction to use them, or for what purpose?

There is the second problem, mentioned above: even if we assume or grant sociologists the validity of their methods, scientific or not, we still don't know whether the theories they are testing are worth testing—whether, in other words, we should even bother testing what may be seen as irrelevant or insignificant or "trivial" or even "unethical" theories. In addition, then, to asking why we should subscribe to the scientific method, we are justified in also wanting to know whether the theories we will be
The studies we will be covering in the course are all the "major" experimental studies in the sociology of education that so far were even attempted. Of course if a study is seen as "major" is not sufficient reason why it should also be valuable, for it may lack in worth or substance or significance what it has in terms of size, numbers, or "facts." Nevertheless, the studies we will be studying will cover enough educational terrain (... see "Objectives" in our syllabus) to allow us, as a group, to discuss and evaluate them, and thus to come to a conclusion for ourselves whether what they cover is worth studying, or was worth testing in the first place. Suffice it to mention here that the topics they do cover, especially regarding learning in schools, are the ones which many educators and parents and students, in fact our society at large, usually consider extremely important.

Unlike certain educational "theories" that assume a purpose for educating (for example, in order to maintain our democratic way of life), and therefore allow us to test teaching methods for the extent to which they actually promote this purpose, our own purpose can never be deduced or derived from any or all the sociological facts. In other words, we can't bury our responsibility for living in a certain way inside "facts"—be they historical, economic, social, or "cultural." It is a well known logical truth that the OUGHT (for example, how we ought to live) cannot be deduced or derived from the IS (from present or hypothetical reality). Ultimately, we must take the blame for whatever we do, especially as we become better educated, and therefore cognizant of all the historical forces that shaped us or our culture. Thus, any one of us could state a "higher" or "better" purpose to do things differently, or to test different theories, or, indeed, to even teach differently.

Purpose is a very subjective decision that in the final analysis is the person's own, and can at best be only clarified or amplified by studying the person's culture—but never scientifically "tested." For better or for worse, one is always free to refuse doing or believing in what others are or have been doing or believing in, even if that implies leaving one's culture behind, or trying to change it. The question becomes, is the refusal of our students (to learn, for example) their failure to succeed, or our failure to understand them?
Why do we want to motivate our students to learn to read and write and count, instead of, say, pray and be good citizens and obey their elders? After all, there were times or other places when academic learning ranked only second or third or last to other types of learning or practices—or worse, even suppressed completely. Examples from history or anthropology abound: take, for example, learning during the Middle Ages in Europe, or in Confucian China during its imperial age, or in certain "slaveholding" places in the United States. The fact, then, that we have a goal to help people learn how to read, instead of, say, pray, can't be but the result of breaking with the past as a result of our own free choice. This choice to define our goals, or at least to choose, as a group or a society, among alternative goals or "cultures" presented to us can become our "common ground" from which eventually is formed our culture as a people. It may be compared to what Jean Paul Sartre, the existentialist philosopher, called a "project" (see Sartre's book Being and Nothingness).

We conclude that our EDUCATIONAL purpose may be seen as a means to implementing our larger CULTURAL "project." Our cultural purpose, in turn, is based on what we decide our purpose as INDIVIDUALS should be. Should we value freedom more than money, and therefore value those institutions which allow us to be free more than those that allow us to become wealthy? What should be our broader purpose as human beings? How does living in a multiethnic society influence or effect that purpose? And what should education be like in the context of living our purpose in a multiethnic society? And finally, how should we design our teaching methods and curricula to better serve these goals? These are some of the questions addressed by Banks in his book on Multiethnic Education.

The issues addressed by Banks are controversial. For example, should all ethnic groups in a multiethnic society be equally entitled to have their values taught in school, or should we choose to transmit to all groups the same values—whether these values are those of a dominant ethnic group, or those that are commonly assumed in our democratic society, or both? Secondly, even if we come to a consensus that we should teach the values of all the ethnic groups in a multiethnic society, how do we know that such values are not inconsistent or mututally contradictory with each other? And finally, even assuming we agree on which values to teach in school (whether to collectively teach the values of all the ethnic groups, or the values of only SOME of them), and that no two of these values are mutually inconsistent or "contradictory," how do we go about teaching them? What will be our methods and curricula, and why?
References


Sociological Foundations of Education:
A Selective Bibliography of Books in the
Chicago State University Library


Waller, Willard Walter. The Sociology of Teaching. New York:


