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Hartoonian  A Disclosure Approach to Value Analysis in Social Studies Education: Rationale and Components

Newton  Induction to the New Social Studies

Naylor  A Study of the Perceptions of New Jersey Educators Regarding Nationalistic Instruction

Jantz  An Investigation of the Relationship Between Moral Development and Intellectual Development in Male Elementary School Students

a journal to stimulate and communicate systematic thinking and research in social education
Theory and Research in Social Education

Statement of Purposes and Style for Manuscripts

Theory and Research in Social Education is designed to stimulate and communicate systematic research and thinking in social education. The purpose is to foster the creation and exchange of ideas and research findings that will expand knowledge about purposes, conditions, and effects of schooling and education about society and social relations.

Conceptualizations and research from all of the social sciences, philosophy, history and the arts are needed in clarifying thinking and practice in social education. Manuscripts are welcomed on topics such as those that follow:

- Purposes of social education;
- Models, theories, and related frameworks concerning the development, diffusion, and adoption of curricular materials;
- Instructional strategies;
- The relation of the social sciences, philosophy, history and/or the arts to social education;
- The politics, economics, sociology, social psychology, psychology, anthropology, philosophy, and/or the history of social education;
- Alternative social organizations and utilizations of the school for social education;
- Comparative studies of alternative models of social education;
- Models of and research on alternative schemas for student participation and social action;
- Relationship of different pre- and in-service patterns of teacher training to social education;
- Models of the utilization of objectives in social education and related research findings;
- Implications of learning theory, child development research, socialization and political socialization research for the purposes and practice of social education;
- The relationship of different independent, explanatory variables to educational achievement in the area of learning about society and social relations;
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Abstracts
FROM THE EDITORS

During the last decade we have witnessed the proliferation of materials and ideas related to social studies education. Social studies educators, social scientists, historians, and philosophers have been and are continuing to contribute at what seems an increasing pace to this enterprise of social education. Scores of curriculum development projects and hundreds of educational researchers have bombarded social studies practitioners with competing claims for alternative ends and means, from textbooks to classroom questioning strategies. Despite serious and thoughtful attempts to provide systematic communication concerning theory and research in social education within the context of the journal Social Education the expanding volume of new ideas and research findings has led to demands for additional channels of communication. Theory and Research in Social Education is one response to these developments.

It is true that many other excellent journals provide outlets for articles on social education but their very number tends to diffuse the literature so widely that some important characteristics of a serious, scientific undertaking are lost. When issues in the profession are debated in many different journals, the debate and the issues frequently are not joined, the points are sometimes lost instead of honed and the literature fails to be cumulative. We are often forced to build anew with each fresh project.

A developing profession creates institutions that further its aims. Theory and Research in Social Education is the latest but, we hope, not the last in the institutionalization of systematic thinking and research in social education. A healthy and developing profession is characterized by a critical and sustained flow of ideas and research findings upon which an intellectual structure can be built and tested repeatedly against reality. A professional journal provides a forum in which ideas and research findings can be focused, debated, refined, and developed. Among the functions that a professional journal can perform is in helping the members of its profession avoid false starts and misguided efforts by clarifying purposes, investigating alternative strategies, and maximizing knowledge from professional and scientific advances. The functions of a professional journal, in short, are to increase the rationality of professional activity. Indeed, had such a journal performed these services in the 1960's, some of the myths and misconceptions from our recent past might have died earlier, timelier deaths. What is just as important is that we in the profession would have understood more clearly the reasons for the decline of various pedagogical and epistemological positions.

The College and University Faculty Assembly (CUFA) of the National Council for the Social Studies was formed to provide a serious forum for
discussion by faculty and research personnel about the roles, functions, nature, and consequences of educating students in social scientific, historical, humanistic, and social policy knowledge. The first CUFA meeting was a one-hour session at the 1965 NCSS convention held in Miami, Florida. The CUFA meetings now extend over two days in multiple sessions that include the presentations of fifty to one hundred papers.

A word about our title. We do not intend to separate theory and research. We acknowledge that good research is theoretically grounded and will have theoretical implications. Good theory leads to research and must be subject to empirical testing or it is nonsensical. What we do intend is that, in any given article the author may pay more or less attention to either theory or empirical analysis. Thus, we are not willing to adopt arbitrarily the position that, to be acceptable, an article must be empirically based. Clearly, one area in which our literature has been deficient is in careful logical and linguistic analyses of what we mean when we talk about social education. Theorizing and research are necessarily bound together in the long run, but, in the short run, one activity may receive more attention relative to the other.

A fairly complete statement of purposes of the journal is printed beginning on the inside front cover. In this issue we have three articles and one research note. Abstracts are printed apart from the articles to facilitate their inclusion on note cards in professional bibliographies. We intend to add a book review section, which Jack Nelson will edit and, of course, we will publish communications to the editors. We welcome manuscripts, rejoinders, critiques, and suggestions for our general edification or for the improvement of the journal. Two issues are scheduled for this first year, but we anticipate moving to quarterly publication in the not too distant future.

As in any undertaking of this type there is a need for adequate financing. Membership dues in CUFA provide the basic support. We also offer subscriptions to institutions and urge you to request your library or school to subscribe. As this issue goes to press, the Spring, 1974 number is largely open. We hope to be hearing from you.

Cleo H. Cherryholmes
Jack Nelson
A DISCLOSURE APPROACH TO
VALUE ANALYSIS IN
SOCIAL STUDIES EDUCATION:
RATIONALE AND COMPONENTS*

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Tucson

The first principle is this: people do not behave according to the facts as others see them; they behave in terms of what seems to them to be so. The psychologist expresses this technically as: Behavior is a function of perception. What affects human behavior, we are beginning to understand, is not so much the forces exerted on people from without as the meanings existing for the individual within. It is feelings, beliefs, convictions, attitudes... of the person who is behaving that constitutes the directing forces of behavior.

Arthur Combs

INTRODUCTION

This paper argues for the development of student insight into a most common phenomenon; that is, the understanding that different men "see" the world through different "eyes," and knowledge of this phenomenon is necessary if students are to engage in meaningful value study, leading ultimately to a clearer conception of their own personal values. Concomitant to the notion of different world views, is the realization that this personal world "view" is shaped by what might be called a conceptual framework, mental set or mythic thought. The notion of mythic thought suggests some intriguing questions about the relationship between value study and said mythic thought. For example:

How can we examine and understand our own value position?

How do we undertake an investigation of value positions? (Can we study our own mythic framework or world view directly or must it be done indirectly?)

What kinds of explanatory models seem most appropriate to the task of value study?

In consideration of these questions, this paper is organized in the following way. First of all, a brief delineation is made of the components needed to complement the present "state of the art" relative to value study in social studies education. These include an understanding of certain concept categories, the use of narrative explanation and the utilization of future-oriented stories for the investigation of an individual's mythic framework. Second, an analysis is made of mythic thought and narrative explanation. An argument is made for the appropriateness of the narrative mode of explanation to the development of an understanding of mythic thought. In other words, narratives can give the investigator insight into the mental framework of the author and through the nature of language, which is metaphoric in construction, into his own (the investigator's) mental framework. Finally, an approach to value education will be outlined bringing into focus the use of narratives through which students can investigate value positions (mythic thought) of the author of the narrative and/or actor(s) within the narrative. Using the value concept of justice as an example of the kinds of values that can be examined, "value profiles" of authors and/or actors described in the narratives can be constructed. It is argued that through these narratives students will be metaphorically constructing value profiles of their own mythic thought or mental framework vis a vis the concept of justice. The concept of justice is used because of its place of importance in western thought and its reoccurrence in utopia and dysutopia literature.

VALUE APPROACHES IN SOCIAL STUDIES EDUCATION: SOME INADEQUACIES

In an analysis of several major social studies projects (Hartoonian, 1972, pp. 4-55) it was found that in dealing with values, certain critical areas or concerns about the nature of concepts, the nature of language and the nature of man as a future gazer were not adequately dealt with.

Nature of Concepts Although this problem is discussed in more detail later in this paper, mention is here made of the overall dilemma—namely, the failure to distinguish between disclosure and non-disclosure concepts.
Concepts might be classified into the three categories depicted above: disclosure concepts, picture concepts and a third set made up of a mix between the two larger sets. The significant point in value study is that value concepts are disclosure in nature and cannot be approached in the same way one approaches a picture concept or a concept that carries the attributes of both disclosure and picture. One important difference between disclosure concepts and non-disclosure concepts can be suggested in the way one approaches said concept categories. Non-disclosure concepts can be discovered. For example, the "law of gravity" can literally be discovered (created) through observation, or the "law of supply and demand" can be clearly presented to a student. Disclosure concepts, on the other hand, cannot be discovered, they must be revealed. That is, they must be brought out of "self" and displayed before any analysis or understanding can ensue.

The Nature of Language

Second, little attention has been given to the nature of (common) language which calls attention to metaphoric thought, narrative style and mythic constructs.

The true meaning of any philosophically significant word or phrase is disclosed by looking at the ways we habitually use it in talking about any situation in which it is naturally employed. There is no possibility of distinguishing profitably between meaning and use, and when in our philosophizing any such difference is assumed, we inevitably fall into error. It is both presumptuous and a distortion of our role to suppose that we can discover the sole proper definition of this or that fundamental concept, which will be superior to the network of meaning revealed in the ways in which it is used. (Burtt, 1967, p. 48)

One of the problems with present approaches to value study is the small amount of emphasis placed upon the use of ordinary human narrative. The dynamic character of language is such that attention to what is said can tell us a great deal—it may take account of a large area of human experiences; it may draw phenomena together into a more subtle and consistent fashion; and it may be more fertile in its capacity for continued growth. As we relate this phenomenon of dynamic language to the problem of concept categorization, it is noted that language usage affects values. An example of usage carrying with it certain values is the statement, "His brain is as quick and as accurate as a computer." This statement carries with it the false analogy that a computer and the human brain are similar. As a matter of fact, a whole new science has developed around this presupposition—the science known as cybernetics.

The Nature of Man as Future Gazer

Finally, the concept of man as a future gazer tends to be overlooked by present approaches to value study.
The point here is that man's behavior is, to a large measure, a function of his scan of future alternatives. This means that although man's behavior may be shaped by his past experiences, his view of tomorrow will also determine present actions and movements. Further, man projects into the future those values which are most dear.

Thus, as we look at the present approaches to value study developed in the 1960's and early 1970's, there appears the need to complement these works in the areas of concept categorizations, distinguishing between the disclosure and non-disclosure sets; the nature of narrative (common language) and the nature of man as a future gazer.

THE NARRATIVE IN SOCIAL SCIENCE AND HISTORY: EXPLANATION APPROPRIATE TO VALUE STUDY

Any social inquiry must eventually come to grips with that mode of explanation called narrative. To some social observers (e.g., Gallie, 1968, and Mandelbaum, 1967) the narrative is a necessary but not sufficient component of social commentary. To others (e.g., Danto, 1965, and White, 1951), the narrative is both necessary and sufficient in the enterprise of social inquiry. Traditionally, the technique of narrative has been categorized as applicable only to history, but there is no reason to limit the narrative in this manner for examples of the narrative can be found in the social sciences and the natural sciences as well as in history. Further, and of significant importance here, is the fact that the layman uses narrative as a way of life; as a response to questions, or as he tries to "explain" his state of being. "What did you do in school today, son?" "Charlie, why are you going to invest all your savings in an unstable stock market?" "Well, John, what do you think of our President now?" Questions like these are asked every day by citizens who in effect call upon narrative for explanation. In most cases the above questions will elicit a "story-like" response that places events in sequence and describes a change.

It is important at this point to suggest that in history and social science explanation there is the philosophical dichotomy that, on the one hand, wants to account for the use and potential of explanation in an empirical fashion, and yet, on the other hand, provide insights into the basic nature of man who more often than not operates with additional dimensions. Narrative explanation represents a specific example of the ambivalence found in an area of study like history which explores the nature of man, and thus, is caught between the pull of a clearly scientific mindset which can describe outward behavior but can neither account for nor explain causality.

There seems to be a need (in education) for a mode of inquiry that can effectively pair the processes of description with the processes of explanation. Narrative is, or at least can be, unifying in that it is something in which all
intelligent people indulge. It is true, of course, that intelligent people can indulge in many forms of explanation depending upon the nature of the questions asked. But, narrative seems to have a high propensity for use simply because explanation is tied to personal considerations and the narrative model seems historically to be more in keeping with human nature and human beings who are required to make more subjective decisions based upon accounts or stories or beliefs relative to the situation under consideration. Another way to put it is to suggest a continuum with scientific, deductive explanation on one end and narrative, subjective explanation on the other. This does not mean, by the way, that the one end (deductive explanation) is any better in terms of explanatory power than the other (narrative explanation), it simply means that they are different and perform different functions in response to different questions. The argument here, however, is that in value study within social studies education a higher degree of emphasis should be placed upon the narrative end of the continuum simply because the questions raised tend to be more humanistic than scientific in nature. The narrative is an accurate story about change. The narrative is also universal in that no man is without stories. Further, it is universal because no man is without mythic structure through which he “sees” the world and builds support for his stories. The idea of story development through the use of some mental framework is basic to the larger concept of narrative explanation as it portrays man as mythologizer. Thus, to come to grips with narrative explanation it is imperative that we understand the relationship between man and mythic thought. In other words, the narratives that men build are reflective of their mythic thought and it is this thought which holds promise for value study in that an understanding of man’s mythic conceptions can lead to an understanding of his value positions.

MYTHIC THOUGHT

The concept of mythic thought draws many of its attributes from classical sources. Within the set known as myth can be found certain universals which have major implications transcending any one particular view of the concept. There is, for example, a tendency to merge idea and object. The facticity of thing becomes an extension of idea and actuality. Object does not stand for the idea; the two are one and the same. To prick the voodoo doll with a pin is to do the same to the man. In much the same way, when Vigotsky asked young students whether we could switch names so that a cow would be called ink, and ink cow, the children replied: “No, because ink is to write with and cows give milk.” (Kuhn, 1963, p. 33)

Throughout the study of mythic thought there appears always implicit and
often explicit the notion that the mythic mentality is significantly different from and inferior to scientific thought or empirical thought. It reflects an incomplete and inaccurate view of man and his relations to the various determining elements and forces of life. Irrational in nature and simplistic in design, myth represents the baser element of man's thought. Such a view itself reflects some of those same supposed inadequacies attributable to mythic thought. For instance, it fails to see in the operations of man at any time a sustaining drive for system and order and that system and order's relating to fundamental exigencies of a given context within which man must function. A contemporary science educator observed that the evolution of scientific thought is marked by stages in which one set of lies replaces another set as the theoretical framework from which scientific study operates. In a persuasive argument, T.S. Kuhn lends support to this premise with an elaboration of the nature of scientific evolvement:

...scientific revolutions are inaugurated by a growing sense, again often restricted to a narrow subdivision of the scientific community, that an existing paradigm has ceased to function adequately in the explorations of an aspect of nature to which that paradigm itself had previously led the way. (Kuhn, 1970, p. 92)

In the sense that scientific thought is often posited as the opposite of mythic, the above observation offers an interesting insight. The evolution of scientific thought as a series of tradition bound periods punctuated by occasionally serious breaks, rather than a simple piling-up of scientific knowledge is a revolutionary idea; an idea which calls into play major group commitments. The nature of scientific insights which obtain from any given group paradigm are shaped then by the lenses of social context and sense-data interpretation integral to that paradigm; hence, world view elaborations obtained are true or accurate largely within the context of the closed system of that paradigm itself. There appears, however, an even more fundamental question to be considered. Ernst Cassirer hinted at it when he asked, "Does myth not signify a unity of intuition, an intuitive unity preceding and underlying all the explanations contributed by discursive thought." (Cassirer, 1966, p. 69)

S. Langer in a slightly different and perhaps more suggestive vein offered, Ideas first adumbrated in fantastic form become real intellectual property only when discursive language rises to their expression. That is why myth is the indispensable forerunner of metaphysics; and metaphysics is the literal formulation of basic abstractions, on which our comprehension of sober facts is based. (Langer, 1966, p. 173)
In short, it is quite possible to view a conception of mythic thought as opposed to scientific thought as being anomalous. A more viable and functional conception is one which sees in mythic thought a modality of forms and structure which provides both a spiritual unity of essence and an imaginative sense of configuration from which all thought and consequent behavior arises. It is strongly intertwined with the incredible human drive to symbolize; to derive reality in modes of symbolic configuration. Rooted in rite and ritual, symbolic forms nevertheless find in myth their finest base of explication and in mythic thought their most satisfying mode of extension. Language, of course, has to be the most sophisticated expression of the notion of symbolic forms, for it is both a reflection of the inevitability of man's symbolic roots and a source of symbolic generation of new form conceptions. Here, however, the concern is primarily with its latter role. That is, in those broader aspects of mythic thought as they relate to man's efforts to find a unity and purpose in existence. It is indeed within the rubric of these fundamental aspects of mythic thought where one can find a generative source from which springs all thought and behavior of man, scientific and otherwise. The anomaly of delineation of thought form these roots, then, appears conspicuously obvious. As Max Mueller observed,

Mythology is inevitable; it is an inherent necessity of language, if we recognize language as the outward form of thought; it is...the dark shadow which language casts on thought and which will never vanish as long as speech and thought do not fully coincide, and this can never happen. Mythology in the highest sense of the word is the power which language exerts on thought in every possible sphere of cultural activity. (Mueller, 1955, p. 21)

Symbolization is the essence of all intellection and as such knows no bounds which keeps it from pervading all thought patterns of man's cultural forms, scientific paradigms, social models and exemplars. Language itself is only one attribute of the mythic extensions of symbolic forms and serves to reinforce the broader and more subtle thrusts of that principle.

Before moving ahead to a delineation of a disclosure approach to value analysis, it might be useful to restate the significance of narrative explanation and mythic thought to this type of value study. First of all, it should be pointed out that mythic thought is the structure upon which one develops a narrative. And, a careful look at the narrative can make explicit certain mythic structures or value positions of the author. It is this manifestation of a value position that will provide the foundation upon which to build a value study approach that will, because of the metaphoric nature of language, ultimately allow the investigator to make manifest his own value position.
COMPONENTS OF A DISCLOSURE APPROACH TO VALUE ANALYSIS

A disclosure approach to value analysis in social studies education calls attention to the following six important components: The explanatory power of the narrative and concomitant mythic thought of the author, the use of metaphor, the nature of value concepts, the construction and use of value continua, the development of a value profile, and the augmentation of personal definitions of justice. These components, in turn, suggest a useful process or procedure for the investigation and clarification of personal values. What is described below, then, is a process for dealing with values that is consistent with the nature of value concepts, as well as the nature of man (his languages, myths and explanatory potential). This approach will take a student through certain processes (experiences) that will allow him to augment his concept of justice. To be sure, other value concepts will also be clarified, but the primary concern is the development of an individual, personal value profile (value position) that will help the student to better understand the general value concept of justice in juxtaposition to his own value profile. The processes involved in this approach include:

1. **Recognition of a disclosure concept.** It is imperative that teachers and students be able to recognize disclosure concepts from non-disclosure concepts. Such concepts as God, love, happiness, sportsmanship, citizenship and justice are examples of disclosure concepts that call attention to the procedures discussed below.

2. **Use of Metaphor.** The recognition of a disclosure concept calls for the use of metaphoric analysis, since disclosure concepts will not allow for direct personal investigation. That is, if an individual is to come to a clearer understanding of his own position vis a vis a disclosure concept, he will need to approach the concept metaphorically. This does not mean that disclosure concepts have no attributes that are held in common; it simply suggests that a very effective way to think about disclosures is through the use of metaphor since many attributes are, indeed, not held in common.

3. **Narrative explanation.** Since metaphoric analysis is the appropriate mode through which the study of disclosure concepts can be facilitated, it is the narrative which can provide metaphorically rich situations for analysis; particularly narratives about the future.

4. **Value continua.** A series of value continua is suggested which, after being explained to students, will provide a schema for plotting the “value profile” of the person or group discussed in the narrative.
5. **Constructing a value profile.** Students will construct a value profile from the three value continua provided in the disclosure approach to value analysis.

6. **Value profiles and the concept of justice.** Finally, the student will consider the value profile which he constructed from the narrative using the three continua with general definitions of justice.

**DISCLOSURE CONCEPTS**

Disclosure concepts are not descriptive miniatures, neither are they picture enlargements. Disclosure points to mystery, to the need to live as best we can with uncertainties. Disclosure concepts make extensive use of narrative modes of explanation and rely upon metaphoric language for extensional potential. These concepts see no intrinsic positive value in reductionism—that desire to quantify all phenomena; suggesting that if “n” is quantifiable it is good; and if “n” is non-quantifiable it is bad. They also see no positive value in suggesting that social scientists are just a few years behind mathematicians and natural scientists and they will soon “catch up” if they (the social scientists) only learn to be better quantifiers. The point of difference which disclosure concepts and semantical models make relative to “picturing” (reductionist) models is that of asking a different question about the nature of man. That question, simply stated, asks whether or not the subjective nature of the human being is appropriate to the picture model of explanation—e.g., the objectifiable, quantifiable model of reductionism. To observe man as fitting into this picture of reductionism belies many characteristics of being human and reduces explanation relative to human behavior to such levels of simplicity which ultimately renders them useless. Take, for example, the two concepts of “act” and “movement.” As Ramsey suggests, by treating act and movement as synonymous (or indeed, not bringing up the distinction in the first place) we can overlook the distinction between participant and observer. “To act is to participate; but what the observer observes and all he observes is movement—more or less complex, more or less expressible in roles. But to participate and to observe are rarely equivalent—to participate in a kiss, for example, is vastly different from merely observing one.” (Ramsey, 1964, p. 25)

The point of this argument is, of course, that there is a need in any approach or model that deals with people to provide insight into ourselves. This claim suggests that there is no observable data that can ever be adequate in social explanation. Ramsey suggests that this claim is justified because:

...this insight into ourselves, this self-disclosure, is the source for each of us of that subjectivity which is logically demanded by the objectivity of all the behavioralists’ data. There can—and it is
a logical "can"—be no objects without a subject which cannot itself be reducible to objects. The ideal of logical completion is never a third-person assertion; it is a first-person assertion. He does x necessarily carries with it a pair of invisible quotation marks, so that it is to be set in some frame as "I am saying..." and without this wider frame the third-person assertion is logically incomplete. (Ramsey, 1964, p. 26)

In making the point another way, it can be argued that the concept of "organism" is out of place with human explanation. Peter Winch raises the question this way: "Would it be intelligent to try to explain how Romeo's love for Juliet enters into his behavior in the same terms as we might want to apply to the rat whose sexual excitement makes him run across an electrically charged grid to reach his mate? Does not Shakespeare do this much better?"

A DISCLOSURE APPROACH TO VALUE ANALYSIS:
OPERATIONS AND PROCEDURES

Again, it should be noted that the present approach to value analysis calls attention to four kinds of considerations on the part of the teacher:

1. the nature of disclosure;
2. the utility of metaphoric thought;
3. the explanatory power of the narrative; and
4. the clarification potential of value criteria.

The procedures that the student will experience can be listed as follows:

1. An explanation of the value continua is given. The teacher may (or may not) want to use the five clarification questions that are listed below. If these questions are used, the class should be divided into groups of about five members each. The teacher can then discuss each continuum (each continuum is discussed in detail below) with the students. The five questions are then passed out to the students who are now working in a small group. Each group must come to a consensus true or false answer to each question. The discussion in the small groups should help students further define the end points in each continuum.

2. Second, the narrative (metaphor) is presented and the students are asked to pay particular attention to the person or group within the narrative who is under study.

3. Next, the student is asked to place the person or group from the narrative on the three criteria, constructing a "value profile" for the actor(s).
4. Finally, the student is asked to compare the "value profile" of the actor(s) with given definitions of justice—for example: an appropriate division of social advantages or rights and responsibilities.

This approach operates, then, in four phases. Phase one presents an explanation of the three criteria and suggests the use of a series of true-false questions which are related to each of the three categories of the classification scheme for value analysis. These questions are considered and answered through consensus within small (student) groups. This exercise is carried out before the model is applied to any narrative so students can clarify any definitional problems that might subsequently interfere with the functioning of the model. The questions will also serve as discussion starters.

Phase two encompasses the application of the three continua to a narrative. The narrative reflects the mythic thought of the author and/or actor(s) described therein. In Phase three of the approach the student is asked to formulate a "value profile" (make visible a disclosure) for the author, actor or actors (and metaphorically for himself), and in Phase four the student will compare his constructed "value profile" with the general value concept of justice.

A Classification Scheme for Value Analysis Utilizing Clarification Questions for Use in Small Groups

I.

| self orientation | orientation toward obedience and punishment | orientation toward universal and logical principles or conscience | other person (mutual respect and trust) orientation |

Does the behavior of the actor(s) (including what he says) manifest itself in a commitment to personal wants and avoidance of punishment or in self-accepted principles and a concomitant concern with the establishment of mutual respect and trust?

**True-False**

1. An individual can behave only in accordance with personal well being.
2. There is appreciably no difference between principles of personal conscience and principles of norm conformity when decisions are made.

3. It is more just to base behavior upon principles of mutual respect and trust than on principles of obedience.

4. It is easier to live with self-condemnation than it is to live with group condemnation.

5. It is more likely that an individual will be more creative, and therefore, more human, if he adheres more closely to universal principles of conscience than to social rules or role behavior.

II.

<table>
<thead>
<tr>
<th>situational</th>
<th>general</th>
</tr>
</thead>
<tbody>
<tr>
<td>(honesty in a particular situation)</td>
<td>(honesty)</td>
</tr>
</tbody>
</table>

Does the behavior of the actor(s) (including what he says) manifest itself in consistent adherence (at all times and in all places) to a particular explicit or implicit set of rules, or is the behavior contextual or situational relative to modes of conduct?

**True-False**

1. Always adhering to a mode of conduct, for example, "always honest," is consistent with the highest values of human dignity and worth.

2. It is impossible to establish rules of conduct for future situations.

3. The behavior that is most consistent with human dignity and worth is behavior that is situational in nature—that is, following no pre-established modes of conduct.

4. If an individual's behavior is situational relative to particular modes of conduct, it is reasonable to assume that he is following the dictates of his conscience and not the dictates of the group.

5. Since man lives in a society that is constantly changing, it is important that he become flexible and situational in his ethical positions.
III.

goal (terminal values)\textsuperscript{5} \hspace{2cm} modes of personal conduct (instrumental values)\textsuperscript{6}

(major goals in a person's life which may or may not be end states of existence)

Does the behavior of the actor(s) (including what he says) manifest itself toward an established (explicitly or implicitly) goal; or is the behavior more consistent with personal conduct which may or may not help in the attainment of said goal?

**True-False**

1. If a goal such as equality, freedom or salvation is, in reality, unobtainable, it makes little sense to pattern behavior toward the achievement of such goals.

2. Modes of personal conduct are always dependent upon goals.

3. Goals are always dependent upon modes of personal conduct.

4. Societal goals are always generalized personal goals.

5. Modes of conduct based upon principles of norm conformity are more consistent (and beneficial) to societal goals than those modes of conduct which are based upon principles of conscience.

The purpose of this series of true-false questions is, of course, to foster the kinds of discussion that will draw attention to the spectrum of intra and interpersonal values that abound within individuals and within groups of individuals. Second, they will make personally manifest various value perceptions that are held relative to the three continua. It is argued that this experience of self-searching is prerequisite to the application of the model to a narrative. It is important to place significant emphasis upon discussion\textsuperscript{7} for it provides the opportunity to foster clearer understandings of value positions.

As for the use of the value continua, let us now consider them individually and then as a functioning whole. First, however, the question of rationale for continuum usage needs to be discussed. We can consider the (use of) continuum as a method of analysis which calls attention to three important and
related attributes. First, there is the quality of "dynamic logic." That is, the continuum offers a logic which can handle continuous change. By suggesting that human nature is too subtle for Aristotelian logic, the claim can be made that there is a demand for a law of the included middle; e.g., a thing can be both p and not-p. Second, the continuum provides a setting for the use of metaphoric thought which helps us view the world from different vantage points. It also helps us pair different ideas, which can reflect fresh synthesis and new insights into the nature of value incongruencies that exist in our lives. Finally, there is the attribute of humanism or holisticism, which suggests that value (human) analysis demands a command of the whole scale (as opposed to a single value) of motives and values before a given event, person or situation can be realistically evaluated.

At any rate, humanism is an effort to place all doctrine on an appropriate scale, to see it in relation and in degree instead of as isolate truth or vagrant error, to provide a perspective in which dualistic aspects may again be seen as aspects of a whole—the organic whole that is the included middle. The yes and no constantly asserted in daily behavior are naturally translated into right and wrong, good and bad; but we can make choices without becoming Manichaeans. (Muller, 1962, pp 36-37)

**VALUE PROFILES**

An important aspect of the disclosure approach is the delineation of a value profile of an individual or group under consideration, and ultimately, to illuminate the value profile of the investigator to himself. A value profile is a value position viewed by the investigator using the classification schemes of the three continua. Value profiles may be consistent as an actor moves from one situation to another, or they might be changeable or relationally inconsistent. The only claim here is that the investigator using the model should be able to locate the actor on the three continua and obtain a "view" of his values in situation S.

The use of the continua (seen normally as quantifying tools) might seem out of place when dealing with a disclosure concept, but it is argued that there is in all disclosure concepts some degree of commonality that will allow for communication. Concept "commonalities" can be advanced through this disclosure approach and thus is the only claim made relative to "operational definitions," that is, the clarification of those attributes held in common or consistent with a definition based upon an intellectual or cultural heritage.

A further consideration of this approach has to do with its ultimate usefulness relative to helping students discuss and, hopefully, come to a better understanding of the nature of justice—that ultimate virtue or moral
principle upon which our present values of equality, fairness, reason, rightfulness and righteousness are derivatives. The position taken here is that acquaintance with the concept of virtue as a drawing out process calls attention to exposing value conflicts.

The first step in teaching virtue, then, is the Socratic step of creating dissatisfaction in the student about his present knowledge of the good. This we do experimentally by exposing the student to moral conflict situations for which his principles have no ready solution. Second, we expose him to disagreement and argument about these situations with his peers. (Kohlberg, 1970, p. 82)

A disclosure approach for value analysis should ultimately, then, help the student reveal and see his or her value profile of the one moral principle, which in this case is justice. The demand for a "clear picture" of justice, thus, seems to imply that there is some conception in which all applications of the work meet like lines converging to a common center, or, in more concrete terms, that there is some principle whereby human life might be so organized that there would exist a just society composed of just men. A society so composed and organized would be ideal, in the sense that it would offer a standard of perfection by which all existing societies might be measured and appraised according to the degrees in which they fell short of it. Any proposed reform, moreover, might be judged by its tendency to bring us nearer to, or further from this ideal. Justice, of course, is at the center of most philosophical questions dealt with by western writers, and self-disclosure of the concept is important to civilized man. The concept of justice, then, will serve as the focal point around which this disclosure approach will be applied.

Let us now look at the individual facets of each continuum.

I.

<table>
<thead>
<tr>
<th>self orientation</th>
<th>other person (mutual respect and trust) orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>orientation toward obedience and punishment</td>
<td>orientation toward universal and logical principles or conscience</td>
</tr>
</tbody>
</table>

Does the behavior of the actor(s) (including what he says) manifest itself in a commitment to personal wants and avoidance of punishment or in self-accepted principles and a concomitant concern with the establishment of mutual respect and trust?
Continuum #1 reflects the work of Lawrence Kohlberg who has analyzed moral conduct and has constructed the following three levels and six stages:

Level I—Premoral
Stage 1.—Obedience and punishment orientation. Egocentric deference to superior power or prestige, or a trouble-avoiding set. Objective responsibility.
Stage 2.—Naively egoistic orientation. Right action is that instrumentally satisfying the self's needs and occasionally other's. Awareness of relativism of value to each actor's needs and perspective. Naive egalitarianism and orientation to exchange and reciprocity.

Level II—Conventional Role Conformity
Stage 3.—Good-boy orientation. Orientation to approval and to pleasing and helping others. Conformity to stereotypical images of majority or natural role behavior and judgment of intentions.
Stage 4.—Authority and social-order-maintaining orientation. Orientation to "doing duty" and to showing respect for authority and maintaining the given social order for its own sake. Regard for earned expectations of others.

Level III—Self-Accepted Moral Principles
Stage 5.—Contractual legalistic orientation. Recognition of an arbitrary element or starting point in rules or expectations for the sake of agreement. Duty defined in terms of contract, general avoidance of violation of the will or rights of others, and majority will and welfare.
Stage 6.—Conscience or principle orientation. Orientation not only to ordained social rules but to principles of choice involving appeal to logical universality and consistency. Orientation to conscience as a directing agent and to mutual respect and trust. (Kohlberg, 1966, p. 7)

In the Kohlberg schema, the individual makes decisions in terms of personal wants and avoidance of punishment. He then seeks approval by conforming to norms and authority for their own sake. If and when he matures, he develops self-accepted principles and is concerned with the establishment of mutual trust and respect.

Kohlberg's analysis of moral development suggests that the teaching of values is a matter of helping individuals grow into increasingly advanced stages of personal organization, enabling them to mediate their needs and those of others. Kohlberg sees a direct interrelationship between value education and personal development. The attractiveness of defining the goal
of moral education as the stimulation of development rather than as teaching fixed virtues is that it means aiding the child to take the next step in a direction toward which he is already tending, rather than imposing an alien pattern upon him.” (Kohlberg, 1966, p. 19)

No claim is made here of moving the individual toward “higher levels of moral development.” Although this might, indeed, happen, the purpose of this continuum of the model is to help the investigator determine the “value position” of the actor(s) under investigation, and ultimately his own (the investigator’s) value position with respect to Continuum #1. The hope is that through the investigation of value positions the individual will come to appreciate the various positions from which any situation can be judged and, perhaps, ultimately develop ideals that embrace alternative positions and give a basis for action. Seeing alternative value positions in the narratives under study, the individual will be less inclined to see (and adopt) value positions as rigid, simplistic rule systems. He will, on the other hand, be better able to build concepts that accommodate different stances or provide negotiation among them. He will also be more willing to structure his own inquiry or to see himself as a transactor within the complexity of situations that is the milieu of life.

In dealing with the dichotomy of self- (obedience and punishment) orientation and other person (mutual trust and respect) orientation, it is important to discuss some of the mutual influences that exist between the individual and the group. One’s first impression is to suggest that all behavior is based upon principles of personal conscience, as all decisions are personal. Or, as Allport (1924) suggested, there is no psychology of groups which is not essentially and entirely a psychology of individuals. This, however, belies the research of many persons such as Lewin that suggests a great deal of behavioral influence is exerted by “the group.”

If recognition of the existence of an entity depends upon this entity’s showing properties or constancies of its own, the judgment about what is real should be affected by changes in the possibility of demonstrating social properties...The taboo against believing in the existence of a social entity is probably most effectively broken by handling this entity experimentally....(Lewin, 1947, pp. 5-41)

One can always ask, when does personal orientation become group oriented? And, when does group oriented behavior become personal? Analysis begins, for our purposes, here when distinctions can be made between the concept of self- (obedience and punishment) orientation and the other (mutual respect and trust) orientation. First of all, we must state that an individual’s ability to experience, to decide and to even control his own
behavior is dependent in many subtle and involuntary ways on his relationships with other people. (Hare, 1962, pp. 191-265). This means, of course, that individual behavior is a function of group involvement—yet it is just that, and only that—a function of group involvement. In every instance the individual must call upon innate mental faculties in response to decisions that must be made. Two factors make individual involvement significant: (1) each individual has a unique personal history and (2) unique innate mental abilities. Thus, in any action (or thought) the fact of personal uniqueness is a factor, and although behaviors of individuals can, indeed, must, be viewed against the backdrop of group norms, the ability to obtain a better or clearer view of a person’s value profile depends on seeing him (the actor) as an individual in relationship to others. As we make decisions (live from day to day) we can develop a picture of reliance on self versus reliance on the group. This knowledge will give us a beginning relative to understanding the actor’s value profile, and will also allow us to make better predictions relative to the actor’s future behavior. Ultimately, when this continuum is used with the other two continua of this approach, we may have more clues relative to the actor’s future behavior. Ultimately, when this continuum is used with the other two continua of this approach, we may have more clues relative to the actor’s conception of the moral principle of justice. Beyond this, of course, the process of studying the actor in this way (as applied in a narrative situation) will ultimately help in clarifying the investigator’s value position relative to his orientation toward mutual respect and trust on the one hand versus his orientation toward obedience and punishment on the other. It is suggested that this knowledge should help in illuminating his (the investigator’s) concept of the moral principle of justice.

II.

situational
(honesty in a particular situation)

<table>
<thead>
<tr>
<th>General</th>
<th>general</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(honesty)</td>
</tr>
</tbody>
</table>

Does the behavior of the actor(s) (including what he says) manifest itself in consistent adherence (at all times and in all places) to a particular explicit or implicit set of rules; or is the behavior contextual or situational relative to modes of conduct?

This second continuum is related to and expands the analysis which began with Continuum #1. In the first continuum the investigator defines the point that separates an individual’s commitment to principles of personal con-
Continuum #11 represents analysis from another vantage point by taking the notion of personal versus group value claims and viewing these value claims from a situational versus a general position (relativism—universalism). The dichotomy suggested by Continuum #11 might best be stated in two questions. What should I (the actor) do now? What, in general, are the reasons for this action now? These questions should not be seen as mutually exclusive; for as was stated above, a moral principle is not only a rule of action but also a reason for action. There is also the consideration of a middle ground (as the continuum suggests) between allegiance to general rules or principles and some kind of individual, situational choice. It can be argued, of course, that even existential “choice” is based upon some moral system which the individual accepts.

The present continuum places emphasis upon the concept of reason as an important criteria for judging an actor’s preference for general versus situational commitment. That is, in placing an actor or group of actors on Continuum #11, it is imperative that problems of justification not be ignored. To argue for a particular position means to argue toward consistency with generally held values.

It follows, however, that an actor can also opt for situational positions in his value choice. But, to be rational (as the term is used here) involves a willingness and the skill to weigh that value choice in the light of general societal (group) values. And, vice versa, an actor can opt for a general position in his value choice, but, again, is rational only when he is willing to examine that value choice in the light of a situational orientation.

Thus, analysis through Continuum #11 can occur only when the narrative provides argument of the type that calls attention to the ethical basis of value controversy, e.g., the desire on the part of the actor(s) to persuade his audience that his position is consistent with the general values or principles of man (or at least consistent with the general values of the group he is trying to persuade).

...important reasons exist for not abandoning the search for consistent application of general principles. First, principles used to justify action may be impossible to eradicate from memory. Whether we like it or not, principles of justice seem to remain in our nervous systems. The question becomes “How should such principles be used?” We could also argue that many situations do not differ in the most relevant or salient aspect of moral choice—both the American Revolution and Negro rebellion concern basic human rights and how best to attain them. Making explicit such commonalities among issues helps to clarify the issue over which
people disagree. Comparing situations and testing whether principles of the past can be applied consistently does not necessarily make one a slave to accepting past principles. On the contrary, comparing and distinguishing among situations stimulates rejecting some principles as irrelevant, qualifying others as not sufficiently complete to deal with the new situation, and accepting others as adequate in some instances, no matter how “old” the rules or principles might be. Finally our commitment to rationality, by definition, inevitably leads us to be concerned with consistency and general principles, but it also commits us to making qualifications and fine distinctions that often in effect totally reject many “general principles” that the situationist would evidently prefer not to consider at all. (Newmann, 1970, pp. 103-104)

Continuum #11 then, allows the investigator to determine the value claim of an actor(s) in light of his (the actor's) ability to deal rationally with said value claim, and to place the actor(s) on the scale between the end points of commitment to situational values and commitment to general values.

III.

<table>
<thead>
<tr>
<th>goal</th>
<th>modes of personal conduct</th>
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<tbody>
<tr>
<td></td>
<td></td>
</tr>
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</table>

(major goals in a person’s life which may or may not be end states of existence)

Does the behavior of the actor(s) (including what he says) manifest itself toward an established (explicitly or implicitly) goal; or is the behavior more consistent with personal conduct which may or may not help in the attainment of said goal?

With Continuum #III we expand further the disclosure approach for value analysis bringing into consideration the complex notion of goals. The concept of goals (goal oriented behavior) rests upon a consideration of alternatives—alternative and conflicting goals, as well as various modes of conduct.

Clearly, we have occasions in life when decisions have to be made not only between or among conflicting goals, but also between goals and modes of conduct (or stating it differently between instrumental and terminal values). There may be times when certain modes of conduct (honesty, cleanliness) are
dysfunctional to certain goals (becoming rich, joining a hippie commune) and to better understand the rationality or lack of rationality that is made manifest by an actor's decision is most germane to this continuum. The distinction and relationship between modes of conduct and ends or goals might best be explained in the following two examples. Consider the building of a bird house as an expressed end of having a bird house. The ordering of activities is irrelevant as long as the end (a built bird house) is achieved. Clearly, this is a goal that stands apart from an ordering of activities. To be sure, it might be more advantageous to saw the boards before one applies paint, but this is simply technique and not a matter of construction law. Next, consider a dance. The activities related to the dance and their ordering; e.g., rhythm, steps and mood are not instrumental to the dance; they are the dance. This end-state is one with (and logically consistent) the mode of conduct or an ordering of activities. Continuum #III should allow the investigator to determine between these two types of ends—conduct relationships and simultaneously develop insights into the nature of goals—rational ends.

Taken together, these three continua when applied to a narrative, can provide an analytical framework which can make manifest the actor's and the investigator's value profile, and to see that value profile in relation to the moral principle of justice. No claim is made relative to changing value positions of investigators toward any predetermined goal. All that can be said of this approach is that it should help clarify value positions of actors under consideration in relationship to the three continua and through this process a clearer and more realistic view of the investigator's values should emerge.

Three final points need to be made relative to this approach. First of all, it is assumed that the three continua will not be seen to apply equally in all narrative situations. For example, in any given narrative it might be the case that only one or perhaps two of the continua are applicable. However, in those situations where all three continua can be used, it is assumed that this will be done. Second, it is again reiterated that the main function of this model is to illuminate the "value position" of the actor under investigation, and ultimately, the value position of the investigator.

Finally, there is the question: "What value profile (position on the three continua) is most consistent with the concept of justice as defined above?" The following diagram is suggested as the optimum value profile vis a vis the concept of justice. It also suggests further research relative to empirical tests of the value position suggested below as well as other positions and their consistency with the definition of justice.

\[ \text{self orientation} \quad \text{other person (mutual respect and trust) orientation} \]
The reason for the above placement rests on arguments presented above. For example, the position on Continuum #1 (other people oriented) calls attention to the principle of justice as an obligation (moral) to respect the right or claim of another person. The position on Continuum #11 (general or universalism value position) calls attention to the principle of justice as an obligation to rationality involving the willingness and skill to weigh value choices in the light of general societal values. The location on Continuum #111 (midway between terminal and instrumental values) calls attention to the principle of justice as both a reason for action (goal or terminal value) and a rule of action (mode of conduct or instrumental value). Justice implies a balance of the two notions of reason and rule.

A disclosure approach to value analysis attempts to deal with the symbolic activities of man. It attempts to illustrate a non-picture, and thus, becomes an adequate conceptual tool useful in comprehending human values in all their variety and richness. A disclosure approach to value study also suggests a new philosophical synthesis among such concepts as subjective, descriptive, psychological and logical. Above all, this new synthesis calls attention to the heterogeneity of the human organism, individually and collectively. It posits the notion that value(s) cannot be adequately explained any more than the process of cultural function can, without a careful consideration of individual and collective man, including his total cultural and physical environment. Any other position will ultimately yield a study of values which is no study at all, but a sterile catalog of value forms or technique.

CONCLUSION

This paper calls for a conscious development of a more holistic approach to value study. While it does not posit a systematic repression or rejection of Skinnerian objectivism or materialism, it does call attention to the need for a more careful balance between materialist and mentalist models in understanding human values.
One basic argument of the paper has been the contention that man is both a structured and structuring animal whose concepts are developed and augmented not only by outside stimuli, but more importantly, perhaps, by inward or mental mythic thought or paradigms that shape the outside world of things, movements and acts. A second argument has been the metaphoric nature of language and the explanatory power of the narrative for finding out about "self." In other words, through a narrative study of an actor we see not only said actor but also ourselves mirrored in the actor's words and behavior. Finally, the argument was presented that a fundamental difference exists between disclosure and non-disclosure concepts and one appropriate mode for the study of disclosure concepts is the use of value continua; developed out of a consideration for the meaning of "value." In focus, then, the point of value study vis a vis value continua, as here developed, calls attention to the need to come to some self-understanding of value (disclosure) concepts. Value concepts, such as justice, happiness or love, often mean so many different things to different individuals that they tend to leave one in that state of mind which suggests that "the concept that means everything conveys no meaning at all." Thus, the need for concept clarification through value continua is posited as consistent with the nature of disclosure concepts and the need to clarify said concepts in order to communicate more effectively and to develop self-meaning.

Although this paper places emphasis upon the concept of justice, a disclosure approach to value analysis can also be applied to other value concepts such as happiness, success, kindness, etc. It might be interesting, for example, to have students develop an "optimum value profile position" for happiness similar to the one developed above for the concept of justice. As with the value profile for justice, each student would have an opportunity to discuss, compare and contrast his value profile with value profiles of other students. Hopefully, through group processes, students will have an opportunity to come to a better understanding of the value concept under investigation.

In the final analysis, this paper poses not simply an approach or a project but also a problem. It does so because it is far from clear to what extent and by what methods we can probe the value-belief systems of individuals and groups. The standards of such investigations represent an issue that is still, to a significant measure, far from settled.
FOOTNOTES

1 Mythic thought and myth are separate concepts with some common but many different attributes. Our concern, here, is with mythic thought as opposed to mythical thought.

2 It is upon an expansion of the semantical model that this value analysis approach is based (see Kaplan, 1964, and Ramsey, 1964).

3 Future oriented narratives are suggested for use with this approach.

4 Or set of principles.

5 X is good in itself.

6 X is good because it leads to Y.

7 Here again, the point of discussion is self-awareness and students must operate in an atmosphere of trust. The student must be free to "explose" his conceptions to others.

8 Socrates suggests that virtue cannot be taught—however, The Republic makes manifest the nature of virtue as a disclosure concept obtainable through analogy and questioning.

9 For a more thorough discussion of the relativism—universalism dilemma, see Clarifying Public Controversy by Fred Newmann, Boston: Little, Brown and Company, 1970, Chapter 4.

10 It should be pointed out that this approach has been used extensively with teachers and students at the high school level with little observable difficulty relative to the constructing and describing of value profiles. But, it may be the case that the experience of "value profile construction" is only appropriate for students who find dealing with abstract concepts comfortable and at the same time exciting.

REFERENCES


INDUCTION IN THE NEW SOCIAL STUDIES*

Richard F. Newton
Temple University

One of the phrases which became very popular during the sixties was "inductive approach." This phrase, or some variation of it, was applied to every conceivable aspect of social studies education. In this essay the nature of the inductive process will be examined. It will be examined as an epistemological problem. That is, a problem focused around the ways of knowing. Later in the essay some of the materials produced under the rubric "New Social Studies" will be examined in the context of this inductive problem.

It is important to stress how induction and inductive approaches to knowing will be used in this paper. A great deal of the current usage has left us with no secure guidelines around the term. Induction will be used in this paper in the sense of how one knows. This is not the same as saying that one learns inductively. To learn something is essentially a psychological problem whereas knowing is a philosophical problem. This paper addresses itself to the latter.

Another point which demands clarification before any analysis is attempted is the difference between the discovery of knowledge and the confirmation of knowledge. Discovery and confirmation appear to be two separate acts. The failure of social studies educators to differentiate between the two has caused some problems. Essentially the process of discovery is psychological, or as Kuhn in The Structure of Scientific Revolutions pointed out, a sociological one. A scientific discovery may be the result of hard work, a flash of insight, or a stroke of genius. It does not, at any rate, appear to be a strictly logical act.

On the other hand how one comes to justify this discovery as new knowledge is surrounded by an agreed upon set of logical rules. There is reasonably widespread agreement upon a set of guidelines for the justification of knowledge. It is this logic of justification which constitutes the methodology of a given discipline. This methodology is what one refers to when discussing the scientific method. It is only through the methodology of a given science that the various workers come to accept new theories or generalizations. Thus, the first section of this paper will examine induction in some detail in an effort to ascertain what is meant by inductive procedures, or methodology.

*The author wishes to thank all of the many individuals who have reacted to earlier drafts of this paper. Especially helpful was Professor Stanley P. Wronski.
WHAT IS INDUCTION?

One of the most widespread misconceptions is the belief that deductive arguments proceed from the general to the specific and inductive arguments proceed from the specific to the general. This is not true. The following examples will help to demonstrate this.

**Deductively Valid Arguments**

<table>
<thead>
<tr>
<th>general to general</th>
</tr>
</thead>
<tbody>
<tr>
<td>All gorillas are apes.</td>
</tr>
<tr>
<td>All apes are mammals.</td>
</tr>
<tr>
<td>All gorillas are mammals.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>particular to particular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfred is a wolf.</td>
</tr>
<tr>
<td>Alfred has a tail.</td>
</tr>
<tr>
<td>Alfred’s tail is the tail of a wolf.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>particular to general</th>
</tr>
</thead>
<tbody>
<tr>
<td>One is a lucky number.</td>
</tr>
<tr>
<td>Three is a lucky number.</td>
</tr>
<tr>
<td>Five is a lucky number.</td>
</tr>
<tr>
<td>Seven is a lucky number.</td>
</tr>
<tr>
<td>Nine is a lucky number.</td>
</tr>
<tr>
<td>All odd numbers between 0 and 10 are lucky numbers.</td>
</tr>
</tbody>
</table>

In much the same manner inductive arguments go from a set of particular premises to a general conclusion.

**Inductive Arguments**

<table>
<thead>
<tr>
<th>general to general</th>
</tr>
</thead>
<tbody>
<tr>
<td>All economic recessions in the past have come to an end only with the outbreak of war.</td>
</tr>
<tr>
<td>All recessions come to an end only with the outbreak of war.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>particular to particular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boat A is a Chris-Craft, and boat B is a Chris-Craft.</td>
</tr>
<tr>
<td>Both boats have 265 horsepower engines.</td>
</tr>
<tr>
<td>Both boats have the same size and shape hulls.</td>
</tr>
<tr>
<td>Boat A can go 30 knots.</td>
</tr>
<tr>
<td>Boat B can go 30 knots.</td>
</tr>
</tbody>
</table>
general to particular

All emeralds previously found have been green.
The next emerald to be found will be green.

Thus, the difference between inductive and deductive arguments is not to be found in the generality or particularity of premises and conclusion, but rather in the definitions of deductive and inductive.

Having dispensed with the definition which most people use when they talk of induction the question arises; what is induction? Probably the best way to explain the difference between deduction and induction is to show some examples.

Example of a deductive inference:

(I)  
No gourmets enjoy banana-tuna fish souffles.
Mark enjoys banana-tuna fish souffles.
Therefore Mark is not a gourmet. (Skyrams, 1966, p. 7)

(I) is a valid deductive inference. The conclusion follows necessarily from the premises. The form of this inference is such that if the premises are true; then the conclusion must be true. In contemporary logic and philosophy of science, “deductive inference” is used in the sense of necessary (demonstrative) inference; the conclusion is claimed to follow with logical necessity from the premises.

Example of an inductive inference:

(II)  
George is a man.
George is 100 years old.
George has arthritis.
George will not run a four minute mile tomorrow. (Skyrams, 1966, p. 8)

In (II) the conclusion is (at most) only logically probable, not necessary. In an inductive inference, the truth of the premises does not guarantee the truth of the conclusion. If the premises are true, the conclusion may or may not be true. An inductive inference is an inference whose conclusion is not claimed to follow necessarily but only with some degree of probability; hence inductive inference is commonly used interchangeably with “probable inference.”

Before going any further we must make clear the meaning of the term demonstrative inference. It is important that we understand that a demonstrative inference is one whose premises necessitate its conclusion: i.e., if the premises are true then the conclusion must be true. A non-
demonstrative inference is simply one which fails to be demonstrative; thus, its conclusion is not necessitated by its premises. The conclusion could be false even if the premises are true.

As Braithwaite puts it:

Induction is not a demonstrative form of inference like deduction. In deduction the reasonableness of belief in the premises as it were overflows to provide reasonableness for the belief in the conclusion. This happens because the conclusion is a logical consequence of the premises and cannot be false while the premises are true. (Braithwaite, 1968, p. 257)

This source of difference between an inductive and deductive inference is the property of truth preservation. Indeed, this is what demonstrative and nondemonstrative inferences are all about. This truth preservation is achieved by sacrificing any extension of content. "The conclusion of such an inference (demonstrative) says no more than do the premises..." (Salmon, 1967, p. 8) We refer to this type of conclusion as demonstrative because the conclusion cannot be false if the premises are true because the conclusion says nothing that was not already stated in the premises. This is why deduction presents no logical problem.

The case is quite different for induction. "There is no logical impossibility in the premises being true and the inductive conclusion false." (Braithwaite, p. 258) Thus, induction is called ampliative; the conclusion has content not present either explicitly, or implicitly, in the premises.

This characterization is quite different from some of the more traditional definitions of induction. "Induction is not defined as inference from the particular to the general; it is not defined as the inverse of deduction; it is not defined as induction by enumeration; it is not defined as a method of discovery." (Salmon, 1963, p. 346) Rather, induction is defined as a nondemonstrative type of inference whose conclusion is ampliative. It seeks "to establish a conclusion on the basis of premises which do not logically exhaust the content of those conclusions." (Salmon, 1963, p. 347)

HUME'S PROBLEM

David Hume, in the seventeenth century, raised the fundamental question about this inductive method. How do we obtain knowledge of the unobserved? This is really the problem in (II) above. The basic problem with induction is one of obtaining inductive evidence which allows us to predict the future.
Let the course of things be allowed hitherto be ever so regular; that alone, without some new argument or inference, proves not that, for the future, it will continue so. In vain do you pretend to have learned the nature of bodies from your past experience. Their secret nature, and consequently all their effects and influence, may change, without any change in their sensible qualities. This happens sometimes, and with regard to some objects: Why may it not happen always, and with regard to all objects? What logic, what process of argument secures you against this supposition? My practice, you say, refutes my doubts. But you mistake the purport of my question. As an agent, I am quite satisfied in the point; but as a philosopher, who has some share of curiosity, I will not say scepticism, I want to learn the foundation of this inference. (Hume, 1745, pp. 316-317)

The fundamental question is one of justification of conclusions concerning unobserved phenomena, or concepts. The discovery of knowledge, and the justification of knowledge are two entirely different subjects. Confusion arises though, for “when we ask how we can acquire knowledge of the unobserved, it sounds very much as if we are asking for a method for the discovery of new knowledge. This is, of course, a vital problem, but it is not the fundamental problem Hume raised.” (Salmon, 1967, pp. 6-7)

The question is thus: Given that one has “established, or highly confirmed, a certain conclusion according to the accepted canons of scientific justification, on what grounds may we accept this conclusion as embodying knowledge?” (Salmon, 1963, p. 342) When one applies a scientific method it is usually done so in anticipation of gaining knowledge. What David Hume did was to demonstrate exactly how difficult it is to legitimize the cognitive claims of science. Indeed, his analysis was such a searching and probing one that even today no one has really provided universally accepted answers to his questions.

SOME PROPOSED SOLUTIONS TO THE PROBLEM OF INDUCTION

From the time of David Hume’s original criticism people have attempted to solve the problem of induction. No one has yet been successful. What we have are a great many proposed solutions. It is an impossible task to summarize, or examine, all of these. What I have done here is to select a few on the basis of how commonly they are used, and also how effectively they might be integrated into the new social studies. It is this last criterion—effectiveness—that is the most important. While Baye’s Theorem deals with the inductive problem as well as any other proposal, I have not included it
because of the difficulty that would be encountered in effectively introducing it into secondary school studies curriculums.\(^3\) Also left "aside has been the response of... unregenerate deductivists who strive vainly to show Hume's analysis wrong..." (Scheffler, 1963, p. 228)

The reader should be well cautioned not to regard the following proposed solutions as being anywhere near a complete catalogue of attempts to justify induction. Rather, the rest of this section should be seen as a listing which demonstrates the seriousness and extreme difficulty of the inductive problem, as raised by David Hume.

**Uniformity of Nature**

One of the more commonly offered justifications is that nature is uniform. Hume directed a great deal of his efforts at just this point. He explained that one cannot expect inductive inferences to yield true results if nature is not uniform.

All inferences from experience suppose, as their foundation, that the future will resemble the past, and that similar powers will be conjoined with similar sensible qualities. If there be any suspicion that the course of nature may change, and that the past may be no rule for the future, all experience becomes useless, and can give to no inference or conclusion. (Hume, p. 316)

The question now becomes one of attempting to prove that nature is uniform, for if this can be proven then indeed we will have justified induction. The first thing we realize in this quest is that a deductive inference could not possibly prove that nature is uniform in the required sense (past, present, and future) for deduction is nonampliative; it can tell us nothing about the future.

This leaves us then attempting to prove that the world is uniform through an inductive argument. At this point we become open to the challenge as to why we should place our faith in such inductive arguments. We cannot reply, because nature is uniform, for that is what we are trying to prove. Thus, we are left attempting to prove that induction is justified on the ground that we have inductively ascertained that nature is uniform. This cannot be done.

Thus, it cannot be demonstrated, or proven that nature is uniform through either inductive of deductive arguments. "Furthermore, the distinction between valid deduction and nondemonstrative inference is completely exhaustive. Take any inference whatsoever. It must be deductive or nondemonstrative.' ' (Salmon, 1967, p. 20)
Common Sense or Rational Justification

This position holds that inductive arguments are justified if they yield true conclusions from true premises most of the time. This can be established only inductively, or deductively. The reasons for this are the same as were given above; our definition of induction and deduction are exhaustive. An inference must be demonstrative (deductive) or inductive.

A deductive argument could not possibly justify the use of induction for it is nonampliative. Hence one can only make claims about the past and present, not the future. It is the future that we are concerned about. Will any of our inductive inferences in the future hold true?

If we could justify induction deductively we would have proved that the conclusion must be true if the premises are. That would make it necessarily truth-perserving, hence, demonstrative. This, in turn, would mean that it was nonampliative, contrary to our hypothesis. Thus, if an ampliative inference could be justified deductively it could not be ampliative. It follows that ampliative inferences cannot be justified deductively. (Salmon, 1967, p. 11)

A deductive argument can only state that induction has worked in the past and present, not the future.

Likewise we cannot justify any type of ampliative inference inductively. To attempt to justify induction by an inductive argument we are in the position of having to assume that induction is reliable to prove that induction is reliable. Salmon writes that to justify any sort of ampliative inference inductively would

require the use of some sort of nondemonstrative inference. But the question at issue is the justification of nondemonstrative inferences, so the procedure would be question begging. Before we can properly employ a nondemonstrative inference in a justifying argument, we must already have justified that nondemonstrative inference. (Salmon, 1967, p. 11)

Thus, induction cannot "be justified by reference to the past successes of inductive procedures of predictive policies." (Scheffler, 1963, p. 315).

Before leaving this section I wish to look further at one of the more complex attempts to justify induction inductively. Max Black has produced a highly sophisticated and widely discussed attempt to justify induction through the use of self-supporting arguments. The major point in this argument is that the traditional fallacy of circular argument (Petitio principii) entails the assumption, as a premise, that the conclusion is to be
proved. Black holds that the situation is quite different for self-supporting inductive arguments.

He has formulated two inductive rules: (Black, 1954, p. 196)

R₁  To argue from all examined instances of A's have been B to all A's are B.

R₂  To argue from Most instances of A's examined in a wide variety of conditions have been B to (probably) the next A to be encountered will be B.

Each of these has two self-supporting arguments:

(a₁) All examined instances of the use of R₁ in arguments with true premises have been instances in which R₁ has been successful.  
Hence:  
All instances of the use of R₁ in arguments with true premises are instances in which R₁ is successful.

(a₁₁) R₁ has always been reliable in the past.  
Hence:  
R₁ is reliable.

(a₂) In most instances of the use of R₂ in arguments with true premises examined in a wide variety of conditions, R₂ has been successful.  
Hence:  
In the next instance to be encountered of the use of R₂ in an argument with a true premise R₂ will be successful.

(a₂₂): R₂ has usually been successful in the past.  
Hence (Probably):  
R₂ will be successful in the next instance.

"Our task accordingly narrows itself down to determining whether and in what sense either (a₁) or (a₂) is guilty of circularity." (Black, 1954, p. 198) Whatever is present it is not the circularity of petitio principii, for any argument that is circular in this traditional sense must be a valid deductive argument (the conclusion must be true if the premises are true.) Neither (a₁) nor (a₂) are deductively valid; thus the argument cannot be circular.

Both Skyrams (1966) and Salmon (1967) have fairly coherent demonstrations that Black's work, while essentially irrefutable, is nonetheless of little value in solving the problems of inductive justification. Using Black's rules both authors show how it is possible to create
Thus "it sounds as if a self-supporting argument is applicable only to rules we already know to be correct. (Salmon, 1967, p. 16) What all this amounts to is that while Black's argument is interesting and of theoretical significance it does not satisfy the requirements for an inductive justification. A system for justification must give reasons for using that system rather than any other. "Thus if two inconsistent systems, scientific induction and counterinduction..." (Skyrams, 1966, p. 36) can meet the requirements then the system cannot be an adequate definition of justification.

This section has demonstrated that the logical justification of induction, within this type of conceptual framework, is seemingly impossible. It cannot be done through a demonstrative inference since that is nonampliative, and neither can it be done through an ampliative argument since that would be circular (with the exception of Black's formulation, which seems to be of little practical consequence). As Salmon writes:

'It is extremely difficult, psychologically speaking, to shake the view that past success of the inductive method constitutes a genuine justification of induction. Nevertheless, the basic fact remains: Hume showed that inductive justifications of induction are fallacious, and no one has since proved him wrong. (Salmon, 1967, p. 17)

**Hypothetico-Deductive**

One of the more interesting ways of coping with the inductive problem is the hypothetico-deductive approach. This is often regarded as a process which has great usefulness if one assumes that induction presents no problem. It is not often thought of as constituting a pure justification. From a general hypothesis and particular statements of initial conditions a particular predictive statement is formulated. This includes the "deducing [of] the hypothesis in question from higher level hypotheses which themselves have been inductively established." (Braithwaite, p. 261) Also, these hypotheses could be framed on the basis of some experience with empirical data.

Policies for establishing general hypotheses in accordance with inductive principles of inference on the basis of empirical data will be called "inductive policies." They all have the feature in common that they require a basis of experience to build upon; in
this they differ from many non-inductive policies for establishing general hypotheses, e.g., that of deducing them from metaphysical premises. (Braithwaite, 1968, p. 261)

This notion of experience is most important in scientific work utilizing the hypothetico-deductive method.

After the selection of a particular hypothesis, it is accepted, at least for a time, as being true. This statement is now regarded as one having predictive value. By careful observation it is determined whether the predictive statement turned out to be true. It is this idea of predictive value which is most important, in that it provides a motive for using a scientific model of explanation. The reason scientists use the inductive policies that they do use is the predictive value of these policies—their success in yielding hypotheses from which testable consequences can be deduced. This is the justification for following a particular inductive policy... namely, that following this policy yields hypotheses which are in fact confirmed and not refuted by experience. Good inductive policies are those which do what we require of them; they enable us to predict, and thereby partially to control the future. (Braithwaite, 1968, p. 264)

With this model man proposes hypotheses and nature decides on their truth, or falsity. If by observation we determine that a particular hypothesis has no predictive value, i.e., it turned out to be false, then we say that this hypothesis is disconfirmed. A point that has caused some discussion is the idea of rejecting an hypothesis. Many hold that one contrary instance is not adequate for the rejection of a hypothesis. There are generally only two cases where it might indeed be the case that the proponent of a hypothesis would continue to hold his hypotheses after encountering contrary evidence.

The first of these cases may be where "the thesis is a statistical hypothesis where the rejection of the hypothesis on the evidence of a set of observations is always a provisional rejection which may have to be cancelled on the basis of further evidence." (Braithwaite, 1968, p. 260) This would be where one established acceptance, or rejection, at the .05 or .01 levels of significance. The second case does not involve a statistical hypothesis as such, but nonetheless the hypothesis might "be treated as a statistical one in that it is to be rejected (and only provisionally rejected at that) only if the contrary instances show deviations from the value asserted in the hypotheses which exceeds a certain amount." (Braithwaite, 1968, p. 260) This might be found in some functionalist explanations where certain conditions are thought to be necessary for a specific type of activity to be carried out, but this is expressed in a nonstatistical manner.
If the observation reveals that the statement is true, or of predictive value, we then say that the hypothesis is confirmed to some extent. The important idea here is that the hypothesis is not conclusively proved by any one or more positively confirming instances. It may only become more highly confirmed.

Since the conclusion of an induction is a general hypothesis, there is no time at which it is conclusively proved. The hypothesis may, of course, be established by the induction, but its establishment at one time will not prevent its refutation at a later time if contrary evidence occurs. (Braithwaite, 1968, pp. 265-266)

The question "naturally arises at this point whether we ever have or ever can have adequate evidence." (Danto, 1968, p. 132) What is usually the problem at this point is that there exists a misunderstanding of the difference between understanding and knowing. To understand something is to only be a party to a convention. This is quite different from "'Knowledge' in the epistemological sense." (Danto, 1968, p. 133) Danto sees this as a problem in the adequacy of language and feels the first step should be concentrating on the difference between understanding and knowing. For our purposes here it will suffice to say that no hypothesis can ever be totally confirmed. This is the skeptical position assumed in most scientific investigation.

The question is often asked as to why this model is viewed as an inductive one? It is because the inference from the original observation to the hypothesis is surely not deductive. This inference cannot possibly be thought of as a demonstrative one, hence it must be non-demonstrative or inductive. Another distinction is that: "A pure deductive system, like that of arithmetic hangs from its summits and can be indefinitely extended downwards; an impure deductive system, like that of a natural science, is supported on its empirical basis and can be indefinitely extended upwards." (Braithwaite, 1968, p. 354)

It took a long time for scientists to realize that the hypothetico-deductive inductive method of science was epistemologically different from the prima facia similar deductive method of mathematics; and that, in properly imitating the deductive form of Euclid's system, they were not ipso facto taking over his deductive method of proof. (Braithwaite, 1968, p. 353)

The big difference between math and science is that in math, and logic, the propositions are logically necessary, while in the sciences they are only logically contingent. In the next section we will return to this hypothetico-deductive system and see how several of the social studies projects have made use of it.
Even though this system is, or can be, both effective and elaborate it does not refute Hume's charge. The hypothesis of the hypothetico-deductive is still ampliative; the conclusion is a statement whose content exceeds the observational evidence. Indeed, this is why we can never say that a hypothesis is true, but rather must be satisfied with a highly confirmed, or falsified hypothesis.

**Pragmatic Justification**

This attempt seems to be quite fruitful even though it does not fully solve the problem. The pragmatic approach accepts Hume's argument up to the point of agreeing that it is impossible, *a priori*, to establish that any inductive inferences will ever again have true conclusions. This position holds, as with Hume, that we cannot validly show either *a priori*, or *a posteriori*, that nature is uniform in the sense of past, present, and future, prior to a justification of induction.

At this point the advocate of the pragmatic justification would claim that even if induction cannot be justified on logical grounds, and hence its success as a method of prediction cannot be established in advance, induction can be shown to be superior to any alternative method of prediction. As we stated above it cannot be demonstrated that nature is uniform, but advocates of this position argue that we can examine two possibilities: Nature is uniform or nature is not uniform. "It is fairly clear that inductive inferences will successfully establish knowledge of the unobserved if nature happens to be uniform, and that they will fail if nature should turn out to be chaotic and lawless." (Salmon, 1963, p. 354)

This in no way guarantees that we shall be successful in any particular instance considered but only says that in repeated applications the number of successes would be greater than if we acted against inductive conclusions. What comes from this is the following table. (Salmon, 1963, p. 354)

<table>
<thead>
<tr>
<th>Nature Uniform</th>
<th>Nature not Uniform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Induction Employed</td>
<td>Success</td>
</tr>
<tr>
<td>Other Method Employed</td>
<td>Success or Failure Possible</td>
</tr>
</tbody>
</table>

Most important is the last entry in the table for here it is asserted "that even the alternative methods will fail if nature is not uniform." (Salmon, 1963, p. 355). Hans Reichenbach, (1938), the major proponent of the pragmatic method, reasons that the continued success of any alternative method would
constitute a uniformity, contrary to the principle of nonuniformity. Thus, if this other method worked then induction would also work.

Hence induction will be successful if any other method could succeed. "We have, therefore everything to gain and nothing to lose by induction." (Salmon, 1963, p. 355) If induction is destined to failure then so also is any other method. Reichenbach, in working through this, essentially uses induction to mean induction by enumeration, rather than induction by elimination. Induction by enumeration is where we wish to go from an observed sample of a class to an inference which governs the entire class. He couples the rule we discussed above to a frequency interpretation of probability. He then holds that the limit of the relative frequency of the finite sequence equals (or is closely approximate to) the relative frequency of the sequence as it nears, or reaches, infinity. (Reichenbach, 1949).

This pragmatic method of inductive justification is rather successful, but it is not a justification; that is, a justification in the sense that it provides a reason for logically making inductive decisions. It is a justification only in the sense that it provides a motive for using inductive policies. The major difficulty is that it is a formidable task to state a principle of uniformity that is strong enough to assure the success of inductive inferences and weak enough to be plausible. This is a variation of the Goodman paradox. (Goodman, 1965). Uniformity of nature is not an all-or-none affair; it seems to exist in degrees and this is where the pragmatic method for inductive justification becomes unsatisfactory. Still it offers many possibilities and if it is possible to overcome the paradox concerning the uniformity of nature it will become even more useful.

A Probabilistic Approach

One of the approaches to solving the problem of induction that has found great favor is the probabilistic method. It begins with the belief that Hume's original search for the justification of induction was misconceived. The problem begins when people try to find a way of proving that inductive inferences with true premises will always have true conclusions. This is seen as the task of deduction. The only thing that an inductive argument does is establish a conclusion as probable.

As used by philosophers of science probability has two basic meanings. They are: (I) probability refers to the degree of confirmation, and (II) probability refers to the long run relative frequency. (Carnap, 1959, p. 334) Each notion of probability has its own set of advocates. The frequency interpretation is usually associated with von Mises, (1957), Reichenbach, (1949 and 1959), and Feigl (1949). Probability when conceived of in terms of the degree of confirmation is best represented by Jeffreys (1939), and Keynes (1921).
Neither side views the other as having much to offer and hence they reject all other theories but their own. Carnap believes that this "controversy between representatives of different conceptions of probability is due to the blindness on both sides with respect to the existence and importance of the probability concept on the other side." (Carnap, 1959, p. 335) We need not concern ourselves here with this mutual disagreement except in that it allows us to speak of two distinct meanings of the concept of probability.

Probability viewed as a theory of frequency essentially says: That which has happened often in the past, and is now happening often in the present, will continue to happen often in the future. The claim is not that inductive inferences will always be true, but rather that they will frequently be so. If X has happened frequently in the past it will probably happen at about the same frequency (or rate of regularity) in the future. This, as a form of inductive justification, clearly does not suffice. Hume has already shown that this claim cannot be substantiated. There is no question that inductive inferences cannot be expected to lead to the truth in all cases. This was hardly the point of Hume's argument. Instead he argued that we not only "cannot justify the claim that every inductive inference with true premises will have a true conclusion, but further that we cannot prove that any inductive inferences with true premises will have a true conclusion." (Salmon, 1968, p.30)

When probability is thought of as the degree of confirmation of a proposition the position is taken that the calculus of probability is formulated in terms of statements. It is often thought of as the logical interpretation of probability. The notion of whether or not a statement is probable is tied closely with the notion of decision making. Thus, probability is viewed as some sort of degree of rational belief. This raises the whole idea of evidence, and what constitutes evidence.

Under this idea of probability to ask if we should accept conclusion X is to ask if we should believe, or accept, the evidence. Salmon feels that this is tantamount to asking if we should be rational. (Salmon, 1968, pp 30-31) He then formulates a problem and sets up three inductive rules concerning the evidence. Depending on which rules one selects there are three possible outcomes. Now the question becomes which conclusions are acceptable. "Whether a given conclusion is supported by evidence—whether it would be rational to believe it on the basis of given evidence—whether it is made probable by virtue of its relation to given evidence—depends upon selection of the correct rules from among the infinitely many rules we might conceivably adopt." (Salmon, 1968, p. 31)

Now the question of what does it mean to be rational becomes an important question. Is it rational to believe on the basis of evidence as defined by one rule as opposed to another rule? What indeed constitutes evidence? The inductive problem still exists. It is simply reformulated as a problem
concerning the provision of adequate ground for the selection of inductive rules. "It is easy to show that inferences which conform to our accepted inductive rules establish their conclusions as probable. Unfortunately, we can find no reason to prefer conclusions which are probable in this sense to those which are improbable." (Salmon, 1967, p. 52) These questions are essentially a reformulation of the original problem. "Introduction of the concept of probability does not dissolve the problem of induction though it may lead to some interesting reformulations." (Salmon, 1963, p. 353)

Concluding Remarks on Induction

In no way should the preceding positions on induction be seen as a complete catalog of the attempted solutions. We have not even touched on the postulational approach of Bertrand Russell, (1948), nor Kant's (1950) doctrine which holds that there are synthetic a priori truths. Neither have we gone into the work done by John Stuart Mill (1874). Rather what I have attempted is to show the difficulty of the problem Hume has presented. His argument has so far withstood all attacks. The problem concerning the validity of judgments about future or unknown cases remains. Essentially the problem is that "what has happened imposes no logical restrictions on what will happen." (Goodman, 1965, p. 59)

THE NEW SOCIAL STUDIES AND INDUCTION

Having now looked at the problem of induction the attention will now focus on how the new social studies deals with this phase of social-scientific methodology. There is though, one problem in such an analysis. The social scientist is seldom very concerned with the underlying philosophical problems in his discipline. Kaplan has written that this detachment between problems of a philosophical nature and how research actually gets done is characteristic of philosophical methodology. "It affects science only very indirectly." (Kaplan, 1964, p. 23) Social studies being at least one step removed from the social sciences feels the effect of philosophical problems even less.

Thus it should be of no surprise to find that the various programs in the new social studies seem to be little concerned with the problem of induction. Of course, different projects and people handle induction differently, just as they are aware of the problem to a greater or lesser extent. One of the most interesting items must be the fact that the problem is dealt with at all, even if in an obtuse manner. While the inductive problem is not totally neglected, it is relegated to a rather low level of priority in many of the materials.
Part of this was due to the nature of the new social studies projects themselves. As was earlier mentioned, they were usually a joint venture between social scientists and educators. Since neither one of these groups has been overtly, and overly, concerned with the problems of methodology it was to be expected that these new programs might also reflect this lack of concern. Of course this was not equally true of all programs. Actually at this point we are almost twice removed from the original problem of induction.

Since to look at all of the programs, and leaders, which have come under the rubric new social studies would prove to be an impossible task I have selected a few which seem to be representative of the field. It is a slightly ironic twist that in a critique of induction, as used by the social studies, that at this point we suffer from the problem of induction. We must select a sample from the total population, which hopefully is somewhat representative of the whole. This has been done on the basis of attempting to look at a broad selection of the various types of material available for today's schools.

Edwin Fenton

Professor Fenton must be considered one of the leading figures in the new social studies. In this essay I have simply limited my critique to those materials and publications which bear the name of Edwin Fenton. There is no doubt that he had a great deal of responsibility for all the Carnegie-Mellon materials, but so also did a great many others. Since it is impossible to separate the work of Alfred Hall, or John Good, from that of Edwin Fenton I will look only at material Fenton has personally authored. This poses no real problem as he has written a fair amount, and is rather explicit in describing how he personally feels the social studies should be organized. The fact that his views may be different at the present time from what they were when most of his writing was done is of little consequence for this analysis.

Fenton uses the term induction to mean the type of argument which goes from the specific to the general and is nondemonstrative. In his scheme the important thing is that the teacher ask the proper analytical question. For Fenton "the type of questions a teacher asks as he leads a student to look at the logical implications of his position holds the key to success." (Fenton, 1967, p. 44) As the student becomes more skilled in the process of inductive inquiry the teacher becomes less important. He believes that "a student knows how to use analytical questions as a part of thinking only when he can do so independently." (Fenton, 1967, p. 48)

The structure of a discipline is the "analytical questions which historians and social scientists put to data in order to make it meaningful." (Fenton, 1966a, p. 326) This is quite different from what others in social studies
education mean when they refer to the structure of a discipline. Without going into too much detail it can simply be said that many others see structure as being the main body of concepts and generalizations which make up the discipline. For our purposes here the most important thing about Fenton's definition is that these analytical questions generate hypotheses. (Fenton, 1966a, p. 326) Fenton is not particularly clear on what exactly constitutes a hypothesis. Nonetheless one could not be too far wrong in assuming that he intends nothing unusual here from the standard definition of hypothesis.

The next step is the validation, or confirmation of the hypothesis. Fenton considers this to be a very important idea.

The development and validation of hypotheses constitute the heart of the mode of inquiry in both history and the more rigorous social sciences. (Fenton, 1966a, p. 326)

The social studies projects devote much of their efforts to teaching the rules by which social scientists verify, modify or reject hypotheses. (Fenton, 1967, p. 15)

A well trained student ought to be able to state specifically the steps required in the process of developing and validating a hypothesis. (Fenton, 1966c, p. 188)

We increase our store of useful knowledge in both our personal and professional hypotheses. (Fenton, 1966b, p. 5)

Fenton is never very clear on how he views the logic of validation. After giving the validation of hypotheses a place of importance in the course of study he quickly moves on to other aspects of the curriculum. Even when he gives sample lessons it is still almost impossible to determine what exactly is meant by the logic of validation. This weakness occurs in all of his writings. One must agree with Fenton that the process whereby social scientists modify, verify or reject hypotheses are important, but one would prefer that this receive more clarification.

It must be surmised that Fenton is using the hypothetico-deductive model of explanation. (Fenton, 1967) He goes from the hypothesis back to the data in search of confirming evidence. From this step one then decides what to do with the hypothesis. It may be modified, accepted, or rejected. Fenton is not too clear on either the status of a hypothesis which has been confirmed or one which has been rejected. He does not discuss the notion that a hypothesis is never fully confirmed—confirmed to the extent that we may have fully guaranteed results. Nor is he clear on when we should reject a hypothesis.

This comes from his apparent lack of concern about the nature of evidence, and the place of unobserved instances when one makes a
generalization. It is extremely difficult to find an instance where Fenton discusses the nature of future cases in a law-like generalization. Neither does he talk of the difficulties of going from a sample to the entire population of whatever one is discussing. Fenton gives the impression that the process of validation is not too difficult. As we have previously shown though, it is extremely difficult. Fenton does not mention, or even allude to, the problem with induction that Hume formulated. Even though he is using a hypothetico-deductive mode of explanation he does not bring this out, nor does he clearly explain why one uses such a pattern of explanation.

**Massialas and Cox**

Two individuals who achieved a certain degree of prominence in the new social studies were Byron Massialas and C. Benjamin Cox. Massialas and Cox (1966) prefer the term inquiry to that of induction, or analytic question, and draw heavily from the work of John Dewey. If one were inclined to complain at the free and easy use of terms of Edwin Fenton then the work of these two authors might prove to be much more enjoyable, not to mention being more informative. In *Inquiry in the Social Studies*, the probabilistic nature of induction (inquiry) is made very clear. Also, rather than lightly dismissing the problem of induction the authors feel it must be dealt with. This is probably best done by the rigor with which students analyze problems.

Massialas and Cox work within a definite empiricist framework, and are skeptical of the orderliness of the universe.

Contrary to an accepted myth, science makes no assumption of an absolutely orderly universe. Were this the case, scientists could state their findings in more definitive terms than they do. (Massialas & Cox, 1966, p. 92)

The problem of making an inference from the sample to the population, or the process of inferring something from a number of known cases to the unknown cases, is also dealt with. This presents itself as a problem in the formulation of laws. The only problem is that

the exact nature of the law will never be known for certain since all possible cases and instances can never be accounted for. While science and the scientific method yield reliable knowledge, both the conclusions and the methods are open-ended and self-correcting—i.e., they are subject to continuous revision and confirmation. (Massialas and Cox, 1966, p. 92)

This represents one of the clearest statements that might be found in social
studies on the nature of the hypothetico-deductive approach to the inductive problem. That Massialas and Cox are utilizing the hypothetico-deductive approach to the inductive problem should be quite obvious, since they seem to emphasize the idea that an answer may never become true, but only highly confirmed. Also, the fact that an answer is always subject to continuous revision if some of the empirical facts change is typical of the hypothetico-deductive approach to the inductive problem.

For Massialas and Cox a hypothesis "is the primary declarative general statement of explanation or solution..." (Massialas and Cox, 1966, p. 117) Working from this the student collects and arranges his data to see whether or not the hypothesis is tenable. This data which is marshalled is "offered as evidence to support, qualify or refute the hypothesis under consideration." (Massialas and Cox, 1966, p. 115) If the evidence is generally supportive to the hypothesis under consideration then a generalization is arrived at.

If the evidence marshalled for the consideration of a hypothesis is largely supportive, then the concluding generalization will be similar or even the same as the hypothesis.... If the discussion produces certain data which is true only under qualified conditions, then it is reconstructed so that the conclusion reflects these conditions. (Massialas and Cox, 1966, p. 132)

Most important for our analysis here is the tentative aspect of the conclusion reached. This conclusion takes the form of a generalization and it represents the most tenable solution to the problem based on all available evidence. The generalization however is never taken to represent a final truth. Its tentative nature is recognized. (Massialas and Cox, 1966, p. 119)

The aspect of tentativeness is raised several times in this book.

It must be borne in mind that the final conclusion does not constitute an absolute—even though all possible data have been brought to bear on its proof—is always considered as tentative and as an approximation of reality. (Massialas and Cox, 1966, pp. 119-120)

Massialas and Cox thus offer an excellent discussion on the problems of induction. The nature of the problem is fully explained without getting overwhelmed by purely technical problems. They could, though, bring out the point that only one solution is being applied (stressing that results may be subject to change in the future) to the basic problem. Also, what is called inquiry, or induction, is only one type of probabilistic inference. A probabilistic inference, which is nondemonstrative, and goes from the
general premise to a general conclusion is not discussed. Neither is a type of nondemonstrative inference which goes from a general set of premises to a specific conclusion discussed. Nonetheless enough material is included in this work, designed for an undergraduate methods course, assuring that the future teacher receives an adequate introduction to the problem of induction.

Sociological Resources for the Social Studies

The various episodes produced by SRSS may be placed under five different broad classifications. These are:

1. Methodology
2. Demography
3. Social Structure
4. Social Change, Conflict, and Deviance
5. Social Psychology

For our purpose here two episodes have been selected: Testing for Truth: A Study of Hypothesis Evaluation and The Difference Between Two and Three: Family Size and Society. The first comes under the topic of methodology and the latter under demography.

This project, as do many of the others in the new social studies, emphasizes inductive techniques.

From its inception, SRSS has emphasized inductive procedures, both in teaching and in dealing with sociological problems. To sociologists and high school teachers designing our materials we said: ‘...all SRSS materials must be organized around the data of actual empirical investigations, which point toward significant theoretical conclusions.’ (SRSS, 1967, p. 3)

For this project induction is defined as “reasoning from the particular to the general...” (SRSS, 1967, p. 3) They would begin the process with questions which would lead to “thinking through to plausible answers and getting the evidence—assembling and analyzing the data that enables a choice among plausible answers first preferred.” (SRSS, 1967, p. 4) This is quite in keeping with our definition of induction that was given earlier in this work. The main difference being that the SRSS prefers a narrower type of definition.

The first episode to be examined is the one entitled The Difference Between Two and Three: Family Size and Society. This episode which has not yet been made available commercially has as one of its stated purposes the illustration of “some methods and concepts used by sociologists and demographers to study human behavior...” (SRSS, 1968, p. 1) “The teaching strategy suggested is an inquiry approach.” This episode consists of two sets of exercises. The first is
...designed to enable the student to see how social standards—norms—effect not only people's attitudes about what a good family size is and how many children they themselves expect to have, but also the number of children actually born. (SRSS, 1968, p. 3)

The second set of exercises is arranged so that students can determine the numerical potential of various family sizes for population and growth in the United States. (SRSS, 1968, p. 2)

One possible criticism that may be leveled against this episode is the one so often made against many of the new programs in the new social studies. A student must inquire in such a manner so that he reaches a conclusion which has already been designed into the material. The data presented to the student, along with several readings seems pointed toward getting the student to accept certain value positions. The teacher should use this material not as an exercise demonstrating open inquiry, but rather an example of one exercise which deals with the logic of validation. The episode rather than saying the students "will use an inquiry approach to reach their conclusions," might better state that a certain mode of inquiry (inductive) will be used to demonstrate the logic of validation. The purpose of this episode should be to show how inductive validation is carried out within certain types of explanation. This exercise is not meant to be an open-ended type of activity which allows all manner of answers; rather it is best used as an example of inductive explanation working within an empirical framework.

This episode does little though to point out that inductive arguments contain conclusions which are, at best, only highly probable. It tends to leave one with a feeling of certainty in the conclusions. The episode also uses inquiry in the somewhat restricted sense of an inductive argument which goes from particular premises to a generalized conclusion. As was earlier pointed out inductive arguments are not limited to this one type. Another problem with this episode is that throughout, the emphasis is on technique rather than on methodology. The student is given a set of questionnaires which has already been filled out by another class, and all the student working with the episode must do is organize the data on predesigned worksheets. The data is then transferred to worksheet 2, a predesigned graph. The emphasis seems to be on data collection and the tabulation of this data. Thus, even though the word inquiry is used in defining the purpose of the episode it should be clear that technique application might be a better term. Very little, if any, material is designed to show the student the logic, or procedure, whereby the social
scientist validates his conclusion. Inductive problems are discussed very little; instead the emphasis is on the utilization of demographic techniques. Another episode, *Testing for Truth: A Study of Hypothesis Evaluation*, does an outstanding job in the very area which drew so much criticism in the previous episode. As in the other episode the mode of explanation is empirical. The instructor's guide explains that the student

will state hypotheses, predict behavior, construct and administer a questionnaire, tabulate and analyze data, test their hypotheses, draw conclusions and generalize. (SRSS, 1969, p. 5)

The stated aim of this episode "is to introduce students to one method of scientific inquiry." (Instructor's Guide, p. 3) Early in the episode the material mentions the notion of verification and reliable knowledge. The teacher's guide points out that "this exercise should provide the contrast between the easy generalization of everyday life and the careful (and skeptical) search for reliable knowledge the social scientist pursues as he sets up hypotheses as targets for testing." (p. 11)

One of the problems in induction is generalizing from the sample to a population. This is always a problem in that the generalization is not demonstrative, or necessary. This episode asks the student: "Suppose we had drawn a different sample.... How probable is it that we would have obtained similar results." (Instructor's Guide, p. 7) This is essentially the problem of induction which was raised by Hume. Here the student is asked to cope with it. Also, the notion of induction being an argument whose conclusion is, at best, probable, is clearly brought out. The student is cautioned that he "should always be prepared to say how probable it is that your sample is representative of the whole population being studied." (Instructor's Guide p. 7)

The episode ends by pointing out the difficulty involved in stating a causal connection between two variables. What is usually done is the familiar correlational study. This entire episode is an excellent example of how the problem of induction may be presented to students in secondary schools. The entire problem of making inferences from sample to population and the notion of the predictive value of hypotheses are examples of this. In this episode the student receives a complete introduction to the hypothetico-deductive style of explanation. Thus, the student should become quite aware of the nature of the inductive problem.

**Harvard Social Studies Project**

This program, under the direction of Donald W. Oliver, developed a program based on the analysis of public controversy. Its objective was to train students to examine and analyze the kinds of controversies that give rise
to social conflicts. The material has been designed to encourage students to consider situations and problems in the light of social science theories and explanations. The materials are now presently produced by American Educational Publications.

The object of each case study "is to gather detailed information about a relatively small class of phenomena, such as the growth of a corporation, the decision to drop the atom bomb, the living conditions of a Negro family in an urban slum, or the behavior of a politician seeking election." (Oliver and Newman, 1968, p. 8) It is then "assumed that examination of a limited incident will yield conclusions applicable to a more general class of incidents." (Oliver and Newman, 1968, p. 8)

It is interesting that the material points out that the "inductive (or 'discovery') approach allows students to search for and reach conclusions on their own..." (Oliver and Newman, 1968, p. 9) Methods of discovery and validation are two different things. Discovery of new knowledge is not the same as the justification of an inductive inference; yet here the writers seem to be using the two interchangeably. It could well be that they are stating their belief that there is an inductive method of discovery, or possibly, the authors are simply using the most popular word in the new social studies. The complaint is not with their methods, but rather with the looseness which they give to the term induction. It would have been much better had they stayed with the term discovery, for it describes the approach better and would have resulted in less confusion.

In Teaching Public Issues in the High School, which grew out of the Harvard Social Studies Project, Oliver and Shaver point out that there are three levels of disagreement in the study of public issues. (p. 89)

1. The values surrounding the disagreement are in conflict.
2. The facts around the conflict are not in agreement.
3. The meaning of the words surrounding the conflict need clarifying.

In elaborating the second category, the authors discuss one aspect of the problem of induction.

Whether or not a claim is actually true depends upon the quality and quantity of evidence supporting it. Because evidence is always limited we never know for sure whether a claim is absolutely correct or absolutely false. (Oliver and Shaver, 1966, p. 110)

Based on what evidence is available we may refer to a knowledge claim as a fact, probably true, false, beyond reasonable doubt, probably false, and doubtful or controversial. It is this problem of ascertaining what a knowledge
claim's status is which helps in the clarification public issues. Thus, we can easily see how the problem of induction enters into the handling of value conflicts. Unless one is reasonably sure of the factual areas in a disagreement then the value conflict cannot go to another level. Oliver and Shaver seem to be working in a kind of empirical framework when talking of this problem, and the hypothetico-deductive model for explanation is the one used. The idea of never attaining perfect certainty and also of a gradient of confidence is common to both the Harvard materials and what has been called the hypothetico-deductive approach in this paper.

In the AEP materials, the problem of ascertaining the status of a knowledge claim is brought out when the student is asked questions concerning the facts of a case. This is done before the student is asked questions concerned with valuation and normative standards. This then is where the inductive problem enters into the Harvard materials. It is not referred to as such though. It might have been better if they had simply dropped the use of the term induction, at least as it was used, and replaced it with the term discovery. The way the Harvard Social Studies Project materials used the word induction simply seemed to add confusion. It is almost as if the term induction was used solely on the basis of its popularity. The materials do though deal with the problem of drawing conclusions from the premises in an inductive inference, they simply do not label the problem as a logical one.

SUMMARY

We have now viewed induction, and how it was used in some of the new social studies materials. The only conclusion that one can come to is that presentations of the inductive problem vary widely. Another conclusion might be that almost all of the programs could have done a better job in dealing with inductive problem. If programs are going to call themselves inductive, and utilize inductive inferences, then they ought to acknowledge, and cope with, the problem of the verification of inductive conclusions. Also students should be introduced to the nature, and attempted solutions, of this problem. To not do this, is to fall into a trap which has ensared many educators. Picking up a title of a method and tacking it on things which are quite different from the original. Educators are often very guilty of believing in some type of verbal magic. At times we do not seem to care as much about what we are doing as we do about whether or not it sounds good. Induction is not immune to this ailment.

All of the projects in the new social studies identified induction as being the type of argument which goes from a set of specific premises to a general conclusion. This is quite different from the way people involved in the philosophy of science define induction. As was shown in the early part of this
paper, induction today is regarded as a nondemonstrative ampliative inference. It may be an argument whose premises are either general or specific and whose conclusion may also be general or specific. Most important though is the nature of the inductive conclusion; it is at best only probabilistic. This is where much of the material in the new social studies is found lacking. The nature of the conclusion is too often left in such a manner that the student may well think that it may not be subject to change in the future.

This brings us to another weak point in almost all the new social studies materials—methodology. The one point which the new social studies often proclaimed the loudest—"We teach the methods of social science, not just facts,"—was often the weakest point. Too little was done to explain to the student that there are several types of methods at work in the social sciences. Even the materials which have done the best jobs, such as the episode on hypothesis testing, produced by the SRSS, are weak. This particular unit almost overwhelmingly consists of techniques, with doses of methodology as needed. Little is done to explain the difference between the two. To confuse methodology with technique is to add confusion to an area which needs little more.

To return to our original question: How well do the new social studies handle induction? We might answer: "It depends." It depends on which new programs one is talking about and even what parts within a total program. The picture is not really bleak for some do a very good job of introducing the student to induction. Others do a rather poor job. Still others seem to call their programs inductive because it is a fashionable term.

Why should the student become aware of the inductive problem?

At this point some people might be asking: Why must the student be aware of the inductive problem? If the scientist seems to be little bothered by it, as some claim, then why must teachers and students be concerned with Hume's formulation of the inductive problem? Essentially there are two reasons for this and each of these will be briefly developed. In no way does the order in which they are given reflect the order of importance attached to them. I am sure each person will see them in a different order and this is quite acceptable.

The Inductive Problem is a Problem in Social-Scientific Inquiry and Should Therefore be a part of Inquiry Training

The new social studies placed a great deal of emphasis on the teaching of how the social scientist operates rather than on what he has discovered and
written about. There was more stress placed on the process of social-scientific inquiry than simply on the product. In this process the social scientist is confronted with the inductive problem whenever he attempts to formulate a generalization. They essentially have two ways of coping with this problem depending on the mode of explanation they are using; i.e., functionalist or empirical. In a functionalist explanation it is assumed that nature is uniform and orderly. (There is, as was earlier demonstrated, no way of proving this.) If one is working within an empirical framework, and using a hypothetico-deductive model, then one assumes that the answer, or hypothesis, is tentative and can never be absolutely true. In either case the social scientist is confronted with a methodological problem. Thus, if the student is to learn how the social scientist procedes within the context of validation he must confront this problem.

Not to introduce the student to the problem of induction, and some of the attempted solutions, is to shortchange the student. It is to say that one is teaching social-scientific methodology, when in reality one is doing no such thing. This type of activity (pretending to do something when you really are not) has been seen quite often in the past. It has also been greatly criticized in the past, and rightly so. We are now in the situation of allowing the same thing to happen to social-scientific inquiry approaches in the new social studies. Teachers must be aware of standard scientific methodology, and not allow themselves to blindly teach the rote application of techniques. They must fully understand, and communicate to the student, methodological problems.

The Teaching of the Inductive Problem
May Foster a Spirit of Inquiry

The student is too often given answers to questions he has not formulated, or questions which he could care less about. One of the supposed advantages of the inquiry, or discovery approach, is that it allows the student to formulate his problems and work them through utilizing inductive methods. This usually results in the student being more motivated, since he can become more involved in the search for a probable answer. All this should happen, we hope, through the utilization of inquiry strategies. More than likely this will prove to be true, but only if we actually have the student work with inductive methodology and not prearranged puzzle games.

There is a definite tendency for the materials to allow the student to inquire only so far but that he can not avoid coming up with the right answer. This was the situation in the episode on family size, produced by the Sociological Resources for the Social Studies, which was examined earlier. The path of inquiry, in that case, was prearranged to such an extent that the student could hardly miss being hit over the head with the conclusions of the
authors. The student will not get a spirit of inquiry from this type of material. Rather, he will probably become as bored with this material as he has been with the traditional textbook; the one which contains all the right answers in the teacher's edition.

Much better is the episode on hypothesis testing, also produced by SRSS. Here there is no prearranged conclusion which the student must understand. Rather, he learns some of the ways in which the social scientist goes about obtaining reliable knowledge about society and its institutions. From this type of materials the student should acquire an appreciation of the fact that not all the answers are to be found in colored ink in the teacher's edition of the text. The student may also come to understand that not all questions can be answered with definitive answers. If the student gains an appreciation of the fact there is no guarantee that empirical phenomena will continue into the future, as they have in the past, then he may not be so anxious about right answers. Hopefully the student will develop a critical attitude toward all knowledge claims, and he will also be better prepared to evaluate and weigh the varying evidence. All of this should result in a less dogmatic attitude on the student's part toward his own, and others, knowledge claims. This is not to say that he should always take the position of the extreme skeptic; rather, he must learn to walk the narrow path between the chasms of overskepticism and dogmatism.

Up to this point the discussion has been centered on the student. Another benefit that might arise by improving the material is that the teacher will also become more critically minded. In order for this to happen the materials must realistically cope with the inductive problem. Some teachers are dogmatic. Often the materials these teachers work with encourages the notion that the teacher knows the facts and all of the answers to every varying claim that might occur in the classroom. After all if the experts admit that generalizations based on limited evidence are difficult to make, then perhaps the classroom teacher will find it easier to admit he also is fallible. In a unit such as the one on hypothesis-testing the teacher is no better off than the students; both are immersed in the problems of methodology. Both are confronted with the problem of inductive knowledge. Hopefully both student and teacher will become more critically minded when dealing with knowledge claims. Both may develop a more skeptical attitude towards knowledge claims, thus becoming more critically minded about society, and also social scientific procedures in general.

The problem of induction is real. This is attested to solely by the fact that so many people have attempted solutions since David Hume first presented the problem. It is also an extremely difficult problem, as demonstrated by the fact no one has yet found a widely accepted solution. Also, the inductive problem is of concern to the social scientist as evidenced by the different
types of methodological solutions which allow one to circumvent the problem: A postulate holding nature to be uniform in functional explanations, and the always tentative nature of the hypotheses in empirical explanations. If one of the aspects of the social studies is that they should in some way acquaint the student with the process of social-scientific inquiry, then, the inductive problem becomes important for the social studies.

The first requirement is that social studies educators become aware of what induction is. Rather than defining induction as simply going from a set of specific premises to a generalized conclusion, the nondemonstrative nature of induction must be made more explicit. Then more programs must point out how certain modes of explanation work with this problem in their operations. From these two steps the student will hopefully achieve a much greater awareness of the immense problems involved in stating inductive conclusions.

The student will likewise become more aware of the complexity of methodological problems if materials are developed which give the inductive problem more prominence. Students using material of this sort may come to be less dogmatic in their conclusions regarding matters of knowledge. Today's students will undoubtedly see a great many knowledge claims revised, and overthrown, in their lifetimes. Today's student must be flexible for tomorrow. The new social studies, or the post-new social studies, must aid the student in achieving this flexibility. We are running a great risk with the new materials if we will not allow for this flexibility. We may be guilty of presenting the new materials in the same straightforward way as the old (here is a problem, find the solution). By explaining exactly how difficult it is to verify a knowledge claim concerning the future, or unexamined cases, it will be possible to accomplish the goals set out above. The problem of induction is real, it is tough, and it is not being handled by the new social studies as well as it could be. Work must now be done on seeing that better efforts are made in including the inductive problem into the new social studies.
FOOTNOTES

1 In spite of all of the acclaim Professor Kuhn has received for his notions regarding paradigms and paradigm shifts his more fruitful contribution may well be his demonstration of the social and psychological foundations of scientific explanation. In this respect “Kuhn provides a necessary stimulus and a welcome challenge to the logician's theories of science.” Ian I. Mitroff, “The Mythology of Methodology,” Theory and Decision, 2 (1972), pp. 278.

2 “It must be observed that this time-characteristic of inductive inference, which is sometimes mentioned in the definition of it, is of no essential importance, and that induction may also proceed from past cases to other unexamined instances belonging to the past.” Georg Henrik von Wright, The Logical Problem of Induction, 2nd ed. rev., (London: Basil Blackwell, 1957), p. 1.


4 A similar statement is found in Clarifying Public Controversy: An Approach to Teaching Social Studies, (Boston: Little, Brown and Co., 1970), p. 239. “For the most part the teacher should use an inductive approach by stimulating and guiding the student in reaching his own conclusions, rather than transmitting to the student conclusions that the teacher has previously determined to be correct.”

REFERENCES


A STUDY OF THE PERCEPTIONS OF NEW JERSEY EDUCATORS REGARDING NATIONALISTIC INSTRUCTION*

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"The new social studies," less concerned with the transmission of traditional factual knowledge and more concerned with the processes involved in identifying and dealing with matters of significance to the individual student, present a dilemma to the social studies teacher. That dilemma, concisely described by Dale Brubaker in *Alternative Directions for the Social Studies*, finds the social studies teacher in a situation where the tradition of nationalistic instruction in the public schools seemingly contradicts the premises on which much of "the new social studies" is based.

One of the major concerns of the social studies has long been that of citizenship education. Although, particularly within the past decade, considerable debate has developed with regard to the nature and relationship of citizenship education to the social studies, and despite its somewhat nebulous character, citizenship education continues to be regarded as one of the principal concerns of the field, particularly by those involved with the public schools.

Frequently citizenship education is narrowly perceived as a means of imparting the "right values," of developing a strong, oftentimes unquestioning allegiance to the nation. Such a conception of citizenship education should, however, be more properly regarded as nationalistic instruction. For nationalistic instruction, that instruction designed to instill love and respect for one's country, consists both of the encouragement and cultivation of certain ideas, attitudes and practices considered supportive or pro-national, and the discouragement and prohibition of certain ideas, attitudes and practices considered non-supportive or contra-national. Such instruction is concerned with studying national history in a sympathetic or "patriotic" manner, respecting national symbols, celebrating special events and heroes, singing special songs, reading special addresses, and developing an adherence to certain chosen principles.

Fostering closed as opposed to open induction, nationalistic instruction emphasizes the importance of pre-determined outcomes. As Jack L. Nelson observed:

The result of a tradition of nationalistic education which emphasizes controlled textbooks, curricula and teachers is a cult

*This study was supported by the Center for Social Education, Rutgers University.
of nationalism without inquiry—indoctrination to pro-nationalism and against anything viewed by powerful pressure groups as contra-national (Nelson, 1969, p. 14).

Nationalistic instruction lacks an inquiry orientation for it does not permit the student to seek “truth” but rather permits him to “discover” that discrete subject matter considered most appropriate for good citizenship.

A number of studies attest to the existence and the extent of nationalistic instruction in the public schools. Investigations of state legislative control of the curriculum by Flanders (1925), Pierce (1926), Beale (1936), Brudney (1941), Nelson (1968) and Sadler (1968) point to the extent to which legislators have sought to indoctrinate with requirements for specific courses to be taught, specific topics to be discussed and even specific outcomes to be attained. Analyses of textbooks by Beale (1936), Pierce (1930), Billington (1966), Noah, Prince and Riggs (1962), England (1963) and Nelson and Roberts (1963) reveal the decidedly pro-national content of textbooks used in the public schools. Works dealing with restrictions on and actions taken against public school educators such as those of Beale (1941), Pierce (1926) and Zeigler (1969), as well as those dealing with the impact of pressure groups on the school including Beale (1936, 1941), Pierce (1933), Gellerman (1938), Raup (1936) and Nelson and Roberts (1963) offer additional testimony. And, the overall dominance of a pro-national, emotionally-oriented thrust is further affirmed in political socialization studies including those of Easton and Dennis (1969), Hess and Torney (1968) and Greenstein (1969).

But, such an approach to citizenship education is not universally accepted. Some, including Beale (1936, pp. 55-57), Smith and Patrick (1967, p. 116), Hess and Torney (1968, pp. 120-32; 242-51), Cleary (1971, pp. 98-107), Horton (1963, pp. 56-57) and Jennings and Niemi (1968, 177-78), have suggested that the outcomes of nationalistic instruction may not be effective citizenship at all but rather defective citizenship for such instruction may lead to ethnocentrism, apathy, political naiveté, cynicism, excessive conformity and authoritarianism.

What is called for is a different conception of citizenship education, a more vigilant, inquiring and dynamic type of citizenship education quite apart from the conception inherent in nationalistic instruction. As Jack L. Nelson has written:

... any ideas, interpretations, and concepts are open to inquiry in a rational and forthright manner. This would not exclude education about heroic events and individuals nor agreement on the nature, intents and identification of national enemies. It does not however, mandate or imply that decisions in these areas are
made for and taught to students. Instead, students would be considered free, with dignity and rights, capable of contributing to and dealing with social change. The role of schools in this form of nationalistic education would be to provide students with analytic and synthesizing tools with which data, attitudes, and other types of evidence can be weighed (Nelson, 1969, p. 4).

As attested to by Smith and Patrick (1967, pp. 105-27), Massialas and Cox (1966), Oliver and Shaver (1966), Hunt and Metcalf (1968) and Engle (1964, pp. 28-34), it is this kind of citizenship education which is very much a part of "the new social studies."

THE PROBLEM

The problem is thus both theoretical and practical—theoretical as to the character of nationalistic education and practical as to the nature of instruction the school will permit. Are nationalism and patriotism closed areas or is an open examination of those areas possible in the public schools?

The crucial factor seems to be the public school educators themselves. They must make judgments about both the nature of the school and the nature of the curriculum. Yet, while there is a significant body of literature with respect to legislation, school regulations, textbooks, pressure groups, and teacher restrictions, relatively little information exists with respect to how public school educators perceive the school with regard to nationalistic education. Harmon Zeigler's observation, "We know something about what students think ought to happen in class, but very little about what teachers think ought to happen" (Zeigler, 1969, p. 95), is particularly applicable to this question.

Do public school educators perceive the school as receptive to open inquiry in areas involving nationalistic education? Do they feel that the school should be more receptive to such inquiry than it is at the present time? These are crucial questions; they serve as the basis of this investigation.

HYPOTHESES

Both Beale (1941, pp. 237-44) and Zeigler (1969, 93-143) have advised that educators hold views or positions apart from the views or positions held by the school and are inhibited in their expression of such views. Studies dealing with the school and the treatment of controversial issues such as those of Lunstrum (1964, pp. 178-86) and McAulay (1969, 326-30) have pointed to teacher reluctance to deal with controversy. Greenstein (1969, 31-35), Hess and Torney (1968, pp. 120-32; 242), Easton and Dennis (1969, pp. 273-85) and Cleary (1971, 129-39) have suggested that the elementary school is
particularly prone to nationalistic instruction. Spindler's speculations about the personal characteristics of educators (Spindler, 1963, pp. 132-47) and Waller's observations with respect to the institutional characteristics of schools (Waller, 1967, pp. 375-416) further confirm and suggest reasons for the existence of a lack of openness in the school environment.

Thus it is clear that a significant body of literature exists suggesting that the school is inhospitable to open inquiry, particularly when dealing with aspects of nationalistic education. It is on the basis of such literature and the author's ten years of experience as a teacher in the public schools that the following hypotheses were generated.

The major hypothesis of this study was that New Jersey suburban school educators would perceive that the school would act in a significantly less tolerant way than they would perceive the school should act in situations involving aspects of nationalistic instruction. Other hypotheses were generated using the following variables: (1) school district; (2) position in the school; (3) length of experience in education; (4) tenure; and, (5) highest degree attained.

**Hypothesis #1**: New Jersey suburban school educators would perceive that the school would act in a significantly less tolerant way than they would perceive the school should act in situations involving aspects of nationalistic instruction.

**Hypothesis #2**: Public school educators in one school district would not differ significantly from those in the other three school districts either in their perceptions of how the school would act or how the school should act in situations involving aspects of nationalistic instruction.

**Hypothesis #3**: Administrators and secondary (9-12) school teachers would differ significantly from elementary (K-8) school teachers in their perceptions of how the school would act in situations involving aspects of nationalistic instruction. Administrators and elementary school teachers would differ significantly from secondary school teachers in their perceptions of how the school should act in these situations.

**Hypothesis #4**: Public school educators with from ten to twenty and those with over twenty years of experience would differ significantly from public school educators with from one to three and from four to nine years of experience in education in both their perceptions of how the school would act and in their perceptions of how the school should act in situations involving aspects of nationalistic instruction.
Hypothesis #5: Public school educators with tenure would differ significantly from public school educators without tenure in both their perceptions of how the school would act and in their perceptions of how the school should act in situations involving aspects of nationalistic instruction.

Hypothesis #6: Public school educators with bachelor degrees would differ significantly from public school educators with master degrees in both their perceptions of how the school would act and should act in situations involving aspects of nationalistic instruction.

PROCEDURE

A situational questionnaire was devised with the intent of ascertaining the perceptions of public school educators in situations having nationalistic bias. Derived from an extensive literature survey, the questionnaire contained seventeen situations involving aspects of nationalistic instruction and the public schools.

The questionnaire was sent to two hundred fifty-eight randomly selected public school educators in four New Jersey suburban school districts. Each school district included grades K-12 under one board of education and was located within a forty mile radius of New York City. For each situation two responses were required. Each educator was asked first to indicate what he perceived would occur in his school district and then what he perceived should occur in each situation. On a five-point skewed scale—i.e., no zero point—responses ranged in identifiable behavior from that which would be considered less tolerant or less open to that which would be considered more tolerant or more open. Hence, an overall score of seventeen represented an extremely intolerant or closed position whereas an overall score of eighty-five represented an extremely tolerant or open position.

The data were analyzed with a series of analysis of variance tests. When a significant F ratio at the .05 level was found, Scheffe's post hoc test for significant contrasts was employed. A total of two hundred and thirty-seven (92%) of the public school educators responded, although only one hundred and ninety-two (74%) actually completed the entire questionnaire. The disparity between responses and completed questionnaires is attributable to fourteen educators (5%) who failed to complete the questionnaire properly and thirty-one (12%) educators who chose not to participate in the study.

RESULTS

Table 1 contains the means and standard deviations of both "would" and "should" responses for all respondents.
Table 1 indicates that a significant difference did exist in what educators perceived would occur in their school and what they felt should occur in situations involving aspects of nationalistic instruction.

Table 2 contains the means and standard deviations for the various independent variables.

### Table 1
**Means and Standard Deviations for all Respondents**

<table>
<thead>
<tr>
<th>Response</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
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</thead>
<tbody>
<tr>
<td>Would</td>
<td>192</td>
<td>55.59</td>
<td>11.43</td>
</tr>
<tr>
<td>Should</td>
<td>192</td>
<td>66.48</td>
<td>11.09</td>
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</table>

### Table 2
**Analysis of Variance for all Respondents**

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<tr>
<th>Source of Variation</th>
<th>df</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between</td>
<td>1</td>
<td>11,386.15</td>
<td>11,386.15</td>
<td>89.76*</td>
</tr>
<tr>
<td>Within</td>
<td>382</td>
<td>48,456.08</td>
<td>126.85</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>383</td>
<td>59,842.23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Indicates significance at p < .01.

Table 3 contains the means and standard deviations for the various independent variables.
TABLE 3
Means and Standard Deviations for Various Independent Variables

<table>
<thead>
<tr>
<th>Group Variable</th>
<th>Would</th>
<th></th>
<th></th>
<th>Should</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>S.D.</td>
<td>Mean</td>
<td>S.D.</td>
</tr>
<tr>
<td>By School District</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>District A</td>
<td>56</td>
<td>54.77</td>
<td>13.02</td>
<td>66.30</td>
<td>12.78</td>
</tr>
<tr>
<td>District B</td>
<td>35</td>
<td>53.20</td>
<td>11.14</td>
<td>65.11</td>
<td>12.05</td>
</tr>
<tr>
<td>District C</td>
<td>50</td>
<td>55.80</td>
<td>10.58</td>
<td>65.60</td>
<td>10.51</td>
</tr>
<tr>
<td>District D</td>
<td>51</td>
<td>57.55</td>
<td>10.58</td>
<td>68.59</td>
<td>9.08</td>
</tr>
<tr>
<td>By Position</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrator</td>
<td>23</td>
<td>60.70</td>
<td>9.55</td>
<td>65.43</td>
<td>10.90</td>
</tr>
<tr>
<td>Elementary Teacher</td>
<td>79</td>
<td>52.25</td>
<td>11.60</td>
<td>64.43</td>
<td>12.37</td>
</tr>
<tr>
<td>Secondary Teacher</td>
<td>90</td>
<td>57.22</td>
<td>10.93</td>
<td>68.56</td>
<td>9.60</td>
</tr>
<tr>
<td>By Length of Experience</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-3 Years</td>
<td>42</td>
<td>52.40</td>
<td>11.82</td>
<td>68.52</td>
<td>8.89</td>
</tr>
<tr>
<td>4-9 Years</td>
<td>54</td>
<td>53.00</td>
<td>10.86</td>
<td>67.89</td>
<td>12.08</td>
</tr>
<tr>
<td>10-20 Years</td>
<td>62</td>
<td>60.16</td>
<td>9.44</td>
<td>67.90</td>
<td>8.94</td>
</tr>
<tr>
<td>Over 20 Years</td>
<td>34</td>
<td>54.74</td>
<td>12.10</td>
<td>59.29</td>
<td>12.63</td>
</tr>
<tr>
<td>By Tenure</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Tenured</td>
<td>56</td>
<td>52.73</td>
<td>11.06</td>
<td>68.02</td>
<td>9.36</td>
</tr>
<tr>
<td>Tenured</td>
<td>136</td>
<td>56.51</td>
<td>11.29</td>
<td>66.00</td>
<td>11.52</td>
</tr>
<tr>
<td>By Degree*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>94</td>
<td>53.29</td>
<td>10.93</td>
<td>65.67</td>
<td>10.53</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>94</td>
<td>57.23</td>
<td>12.39</td>
<td>68.03</td>
<td>11.08</td>
</tr>
</tbody>
</table>

*Four educators were excluded since two had attained a Doctor's degree and two did not possess a Bachelor's degree.

Table 4 shows a summary of analysis of variance tests for the various independent variables.
The results of these tests confirmed the hypothesis that there were no significant differences in the perceptions of public school educators on the basis of school district. Public school educators in one school district did not differ significantly from public school educators in the other three school districts either in their perceptions of how the school would act or how the school should act in these situations.

For the other four variables, however, significant differences in perception did occur. When asked to respond to the question, “In your school system, which of the following would most likely occur?”, significant differences appeared on the basis of position held in the school district, length of experience in education, tenure, and highest degree attained.

The hypothesis with respect to position in the school district was confirmed. There were significant differences in the perceptions of administrators, secondary school teachers and elementary school teachers. Use of the Scheffé post hoc procedure to test for significant contrasts revealed that both administrators and secondary school teachers perceived the school would act in a significantly more tolerant manner in situations involving aspects of nationalistic instruction than did elementary school teachers.

Significant differences were also in evidence for the variable, length of experience in education, although the hypothesis was not confirmed. While educators with from ten to twenty years of experience in education did

### TABLE 4

Summary of Analysis of Variance Tests for Various Independent Variables

<table>
<thead>
<tr>
<th>Group Variable</th>
<th>F Ratio (Would)</th>
<th>F Ratio (Should)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School District</td>
<td>1.14</td>
<td>.89</td>
</tr>
<tr>
<td>Position</td>
<td>7.02*</td>
<td>3.09*</td>
</tr>
<tr>
<td>Experience</td>
<td>5.93*</td>
<td>6.42*</td>
</tr>
<tr>
<td>Tenure</td>
<td>4.52*</td>
<td>1.35</td>
</tr>
<tr>
<td>Degree</td>
<td>5.37*</td>
<td>2.24</td>
</tr>
</tbody>
</table>

*Indicates significance at p <.05.
perceive the school as significantly more tolerant or open than educators with less than ten years of experience, educators with more than twenty years of experience did not.

The hypotheses with respect to tenure and highest degree attained were also confirmed. Public school educators with tenure perceived that the school would act in a significantly more tolerant way than did those educators without tenure and public school educators with master degrees perceived the school would act in a significantly more tolerant way than did those educators with only bachelor degrees.

When asked to respond to the question, “In your opinion, which of the following should occur?”, significant differences in perceptions were observed only on the basis of position held in the school district and length of experience in education. On the basis of tenure and highest degree attained, significant differences in perception of how the school should act in these situations did not appear. Thus, the hypotheses for the latter two variables were not confirmed.

While significant differences in perception did appear on the basis of position held in the school district, the hypothesis was not confirmed, for both administrators and secondary school teachers perceived the school should act in a significantly more tolerant manner than did elementary school teachers. Likewise, while significant differences in perception of how the school should act in these situations were evident on the basis of length of experience in education, the hypothesis was not confirmed. Educators with less than twenty years of experience perceived the school should be more tolerant in these situations than those with more than twenty years of experience.

Thus, position held in the school district did produce significant differences in the perceptions of public school educators. Both administrators and secondary school teachers perceived the school would be and should be significantly more tolerant or open than did elementary school teachers.

Length of experience was also a significant variable for both “would” and “should” responses. But, while educators with less than ten years of experience perceived the school would be significantly less open or tolerant in these situations than did educators with from ten to twenty years of experience and perceived the school should be significantly more open or tolerant than did educators with more than twenty years of experience, they did not significantly differ with all educators having more than ten years of experience for both “would” and “should” responses as had been hypothesized.

Public school educators with tenure perceived that the school would act in a significantly more tolerant way than did educators without tenure but no
significant differences were discerned in their perceptions of how the school should act in these situations. And, while public school educators with master degrees perceived the school would act in a significantly more tolerant way than did public school educators with only bachelor degrees, no significant differences appeared in their perceptions of how the school should act in these situations.

DISCUSSION

The major hypothesis—there would be a significant difference in what public school educators perceived would occur and what they perceived should occur in situations involving aspects of nationalistic instruction—was confirmed. Not only is the mean of all respondents, as shown in Table 1, higher for their “should” response, but, without exception, as shown in Table 3, the mean of every group’s “should” response is higher than its respective “would” response. This suggests that, indeed, public school educators do not perceive the school as being as open or tolerant as they perceive it should be.

The results of the current study support the observations of both Beale (1941) and Zeigler (1969) that educators hold views or positions apart from those held by the school and are inhibited in the expression of their views. As indicated by the disparity in “would” and “should” responses for situations involving aspects of nationalistic instruction, the public school is not particularly hospitable to open inquiry in areas of nationalism and patriotism, certainly not as hospitable as public school educators perceived it should be.

Studies dealing with the school and the treatment of controversial issues have suggested that teachers are reluctant to deal with controversy. Not only might this be attributable to an inability to recognize the debatable nature of the “truths” teachers propound, but these studies, such as those of Lunstrum (1964) and McAulay (1969), suggested that such reluctance is due to: (1) a prevalent belief among both the general public and educators themselves that the school should function as a transmission agency reinforcing the status quo; (2) uncertainty, confusion and feelings of inadequacy on the part of educators in dealing with controversial issues; and (3) the threat of sanctions from inside or outside the school.

The findings of this study lend support to such studies, particularly with respect to the fear of sanctions whether those sanctions be real or perceived. It appears that public school educators do perceive the school to be more restrictive than it should be. If, indeed, one’s perception of reality is more important than reality itself as sociologist W.I. Thomas suggested in his statement, “if men define situations as real, they are real in their consequences” (in Merton, 1968, p. 475), then one would expect to find the
school reflecting more of a closed than an open inquiry approach, at least in the area of nationalistic instruction. That is, one would expect to find the school reflecting more of the "would" perceptions rather than the "should" perceptions with educators acting accordingly.

In further analysis of the independent variables, significant differences were found to exist on the basis of position in the school district. Not only did elementary school teachers perceive the school to be significantly less tolerant than either secondary school teachers or administrators, but, when queried as to what the school should do in these situations, the responses of elementary school teachers were significantly less tolerant than secondary school teachers and administrators. This suggests that the elementary school may be less open than the secondary school, less willing to entertain disparate views. Thus, curricula which seek a more critical examination of society at the elementary school level must face the reality of reluctance on the part of elementary teachers to entertain a critical examination of the status quo in their classrooms, at least as it affects aspects of nationalistic instruction.

Findings with respect to experience in education are also instructive. It appears that public school educators with less experience are more likely to perceive the school as being less tolerant or less open than public school educators with more experience in education. Educators with less than ten years of experience did perceive the school to be significantly less tolerant than educators with from ten to twenty years of experience, though this was true of educators with more than twenty years of experience as well. When asked what they perceived the school should do in these situations, educators with less than twenty-one years of experience perceived the school should be significantly more tolerant than those with more than twenty years of experience. And, it should be noted that non-tenured educators perceived the school as significantly less tolerant than tenured educators, although no significant differences appeared in their perceptions of what the school should do in these situations. Hence, while the findings are not altogether clear here, they do suggest some support for Willard Waller's observation as to the effects of the school environment on public school educators.

When the teacher has internalized the rules which bind him, he has become truly a teacher... When conformity is the most natural thing for him, and he conforms without thought, the teacher is free, for freedom is only an optical illusion that results from our inability to see the restrictions that surround us (Waller, 1967, p. 420).

This study has attempted to provide further insight into the perceptions of public school educators in terms of what they perceive the schools are and
what they perceive the school should be, particularly as those perceptions relate to inquiry in areas involving nationalistic instruction. If, as Donald Oliver and James Shaver have contended, students are to be "allowed wide latitude in developing their own standards and tastes—i.e., their own definitions of human dignity" rather than be forced to accept "some agreed-upon substantive definition of right" (Oliver and Shaver, 1966, p. 13), they must be able to freely inquire into topics and situations as basic as those involving aspects of nationalism and patriotism. However, the findings of this study suggest some of the difficulties that confront attempts to implement such a curriculum based on "the new social studies," particularly at the elementary school level. And, they may also help to explain the great difficulty that many large social studies faculties have in agreeing on a common curriculum or approach.

This study was limited to four New Jersey suburban K-12 school districts. Caution, therefore, must be observed when attempting to generalize from its findings. Yet, the finding that public school educators in each of the four participating school districts, districts located in three different counties of the state and subject to four different boards of education, did not differ significantly from each other in their perceptions of what should occur in these situations or, more importantly, in their perceptions of what would occur in their respective school districts should be noted.

Perhaps the most important value of this study was the development and subsequent refinement of the situational questionnaire itself. Its use in this study was encouraging and it promises to be an instrument which can be used with a certain degree of confidence in other locations and at other times for these and similar purposes.
REFERENCES


AN INVESTIGATION OF THE RELATIONSHIP BETWEEN MORAL DEVELOPMENT AND INTELLECTUAL DEVELOPMENT IN MALE ELEMENTARY SCHOOL STUDENTS

Richard K. Jantz
University of Maryland

Lawrence Kohlberg and Jean Piaget have indicated that a close relationship exists between intellectual development and moral development. Kohlberg has contended that cognitive development is a necessary tool, though not a sufficient condition, for moral development. He has stated that there is a generalized maturity factor in moral development similar to a generalized intelligence factor, and that this maturation is reflected by different levels or stages of moral thinking (Kohlberg, 1970, p. 70-73).

Piaget has written about the "parallelism existing between verbal and intellectual development" (Piaget, 1965, p. 398). The structures of the intellect define the level of development and determine the nature of logical thinking on moral problems.

For Piaget a reciprocal relationship exists between moral and intellectual development in terms of logical thought and action: "logic is the morality of thought just as morality is the logic of action" (Piaget, 1965, p. 398). According to Piaget both kinds of reciprocity are evident when the intellectual and moral egocentric natures of young children develop and "gradually yield to the pressure of collective logical and moral laws through contact with the judgments and evaluations of others (Piaget, 1965, p. 401)."

Piaget has identified two stages of moral development. He identified these stages as a morality of constraint and a morality of cooperation. Relationships of constraint are characterized by an authority of superiors and restraint by adults. Relationships of cooperation are characterized by an authority of equals and cooperation with peers. According to Piaget, the shift from one level of moral thinking is very gradual and occurs somewhere between the primary (K-3) and intermediate (4-6) grades.

Other researchers (Bandura, 1963; Crowley, 1968; Cowan, 1969; Hebble, 1971; and Costanzo, 1973) have investigated the moral judgments of young children. Their findings lend support to Piaget's and Kohlberg's theories of different levels of moral thinking.

Kohlberg and Piaget have indicated that a close relationship exists between intellectual development and moral development. Research is needed to provide additional descriptions of this relationship.

METHOD

It was the purpose of this study (1) to investigate the relationship between intellectual development and moral development as reflected by responses to
two specific tasks, (2) to investigate differences in responses to the interactions between the intellectual and moral development tasks, and (3) to investigate differences in grade level responses to the intellectual and moral development tasks.

Population  The population of the study was composed of seventy-two male elementary school students. All of the students attended the same school which was located within the beltway of the greater Washington, D.C. metropolitan area. Twelve students, six white males and six black males, were selected from each grade level. Four students, two black and two white, were chosen from each of three different classrooms for each grade level. Each classroom teacher selected the four boys from her room to be included in the study. Only those students who had not been retained or advanced a grade were to be selected.

Procedure  The subjects in the study were individually interviewed at the school and their responses tape recorded. Students from Grades One and Six were interviewed on the first day, students from Grades Two and Five on the second day, and students from Grades Three and Four on the third day. The complete responses of each subject were typed from the tape recordings and then analyzed. The data was collected in the spring.

The measure of intellectual development was the pupil responses to a Piagetian conservation task. Each subject was given two balls of clay of equal size. The subject was instructed to return one to the investigator and “roll the other one out like a snake.” He was then asked a series of questions: (1) do you have more clay than me? (2) do I have more clay than you? (3) do we have the same amount of clay? and (4) why did you answer that way? On the basis of the subject’s responses he was classified as either a non-conserver (C) or a conserver (C). Non-conservers replied that there were unequal amounts of clay when the size of one ball of clay was changed. Conservers (C) replied that there was no change in amount, only in form.

The measure of moral development was the subject’s responses to a Piagetian type paired-story situation involving intentional behaviors and final outcomes. Each student was told the two stories in the order presented.

Story 1

Two classes are playing a game to see which class could make the most baskets. All the children in both classes have had their turn except Mike. So far his class is losing, but if Mike can make the basket, his class will win. Mike takes careful aim and shoots the ball with all his might. The ball goes bouncing across the playground, and smacks a little boy in the face and breaks his glasses.
Story 2

Henry and his class are shooting baskets when the bell rings. The teacher says "Recess is over, let's go back to the classroom." Henry didn't have a turn at shooting the ball, so when the teacher is lining up the children, Henry kicks the ball to the far corner of the playground and someone has to go and get it.

Each subject was then asked (1) which boy was naughtier? and (2) why do you believe he was the naughtier? On the basis of the subject's responses he was classified as characteristic of a morality of constraint (MC) or a morality of cooperation (MC). Those classified as characteristic of a morality of constraint did not mention intention in their decisions and said Mike was the naughtier because he broke the glasses. Those classified as characteristic of a morality of cooperation indicated that Henry was the naughtier because his intentions were "bad" and with Mike it was an accident.

Data Analysis

The design of the study suggested testing the following null hypotheses at the .05 level of confidence:

1.0 There is no significant relationship between responses to the paired-story and responses to the conservation task.

2.0 There is no significant difference in grade level responses to the paired-story.

3.0 There is no significant difference in grade level responses to the conservation task.

4.0 There is no significant difference in grade level responses to the interaction between the paired-story and conservation task.

The first null hypothesis employed the Phi Coefficient and was tested for significance by using a z score conversion technique. (Glass and Stanley, 1970, p. 315). The second and third hypotheses were tested using the ANOVA for dichotomus data with a Newman-Keuls procedure to test for differences between grade levels. (Winer, 1962, p. 33 and 138). The fourth hypothesis was tested using the ANOVA for unequal N's and employed an adaptation of the Newman-Keuls procedure for use in making tests on differences between all pairs of means. (Winer, 1962, p. 96-102).

FINDINGS

A significant relationship ($\phi = .29$) was found between the subject's responses to the paired-story situation and the conservation task. Data for
calculating the Phi Coefficient can be found in Table 1. Over half \((n = 37)\) of the total population \((n = 72)\) were classified as characteristic both of a morality of cooperation \((MC)\) and a conserver \((C)\). Seventeen percent were classified as characteristic of both non-conserver \((\bar{C})\) and a morality of constraint \((\bar{MC})\). Other such percentages can be calculated from the data in Table 1.

### TABLE 1

**Contingency Table for Relationship Between Responses to Paired-Story Situations and Conservation Task**

<table>
<thead>
<tr>
<th></th>
<th>Non-conservers ((\bar{C}))</th>
<th>Conservers ((C))</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morality of Cooperation ((MC))</td>
<td>15</td>
<td>37</td>
<td>52</td>
</tr>
<tr>
<td>Morality of Constraint ((\bar{MC}))</td>
<td>12</td>
<td>8</td>
<td>20</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td>27</td>
<td>45</td>
<td>72</td>
</tr>
</tbody>
</table>

Significant differences were also found in the mean grade level responses to the interactions between the paired-story situation and the conservation task. \((F_3, 68 = 12.01)\) the mean grade level responses for those characteristic of a morality of constraint \((\bar{MC})\) and non-conservers \((\bar{C})\) was 1.83 while a mean grade level score of 4.35 was found for those classified as characteristic of a morality of cooperation \((MC)\) and conservers \((C)\). This difference was significant. Significant differences were also found between other pairs. Summary data for the mean scores and Newman-Keuls is found in Table 2.

### TABLE 2

**Summary of Newman-Keuls, Means Scores, and Numbers for the Interactions Between Responses to the Paired-Story and Conservation Task**

<table>
<thead>
<tr>
<th>Interactions</th>
<th>((MC-\bar{C}))</th>
<th>((\bar{MC}-C))</th>
<th>((MC-\bar{C}))</th>
<th>((\bar{MC}-C))</th>
<th>Numbers</th>
<th>Mean Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td>((MC-\bar{C}))</td>
<td>* *</td>
<td>* *</td>
<td>* *</td>
<td>* *</td>
<td>12</td>
<td>1.83</td>
</tr>
<tr>
<td>((\bar{MC}-C))</td>
<td></td>
<td>* *</td>
<td></td>
<td></td>
<td>8</td>
<td>2.25</td>
</tr>
<tr>
<td>((MC-\bar{C}))</td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td></td>
<td>3.40</td>
</tr>
<tr>
<td>((MC-C))</td>
<td></td>
<td></td>
<td></td>
<td>37</td>
<td></td>
<td>4.35</td>
</tr>
</tbody>
</table>

** Significant at the .05 level.
Other scores can be calculated from the data in Table 2. The mean grade level score for those classified as characteristic of a morality of constraint was 2.00 while the mean score was 2.70 for those classified as non-conservers. A mean score of 3.98 was found for those classified as conservers and a mean score of 4.08 for those who were characteristic of a morality of cooperation.

When responses were compared by grade levels, significant differences were found in reactions to both the paired-story situation \((F_5, 55 = 7.5)\) and the conservation task \((F_5, 55 = 2.67)\). Responses of pupils to the paired-story in Grades Four, Five, and Six clustered together and were significantly different from those in Grades One and Two. Grade Five responses to the conservation task were significantly different from Grade One responses. No significant differences were found between other grade level pairs. Summary data for the Newman-Keuls is found in Table 3.

**TABLE 3**

<table>
<thead>
<tr>
<th>Grade Level</th>
<th>Paired-Story</th>
<th>Conservation Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>** ** **</td>
<td>**</td>
</tr>
<tr>
<td>2</td>
<td>** ** **</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Significant at the 0.5 level.

**DISCUSSION**

The results of this investigation lend support to the contention that a positive relationship exists between intellectual development and moral development, but that those characteristic of the higher level of intellectual
development are not necessarily the same ones reflecting a higher level of moral thinking.

Piaget has indicated that a shift from non-conserving to conserving behavior occurs somewhere between the primary and intermediate grades. He has also indicated that a shift in the level of moral thinking occurs approximately between those grades. From this one might expect those classified as characteristic of a morality of constraint to be non-conservers and those categorized as typical of a morality of cooperation to be conservers. Sixty-eight percent of the population under study followed that pattern. Approximately one-third had one attribute, but not the other. Forty-four percent of those classified as non-conservers were also classified as typical of a morality of constraint. Seventy-one percent of those classified as characteristic of a morality of cooperation were also classified as conservers.

Grade level differences were also found in responses to the two tasks. There were more significant differences between paired grade levels for the moral development task than the conservation task. For the moral development situation statistical significant differences were found between pupils in Grades Four, Five, and Six, and pupils in Grade One and Two. For the intellectual development task, statistical significance was found only between Grade Five and Grade One. This may suggest that responses to moral questions are more polarized in the elementary school than are responses to conservation tasks. The difference between mean grade level scores for morality of constraint and morality of cooperation responses was 2.1 while the difference was 1.3 between non-conservers and conserver responses.

The relationships between intellectual development and moral development are not clearly defined, but do seem to exist. Questions then arise as to whether moral judgments can be integrated into intellectual developmental tasks to facilitate both intellectual and moral growth. For example could moral judgments become an integral part of teaching time and chronological concepts or the different aspects of critical thinking? Research is needed to determine if focusing on moral development also enhances intellectual development, or if an emphasis on intellectual developmental tasks can also enhance moral thinking. Can the integration of intellectual and moral thinking lead to productive decision-making? Further research is needed along these lines to assist those involved in curriculum development for young children.
REFERENCES


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This paper presents a rationale for an approach to value study which takes account of the subjective nature and symbolic activities of human beings. Growing out of this rationale, a model for value study is developed through a consideration of the distinctions which exist between value and non-value concepts; the nature of narrative (explanation) language; and the nature of man as a mythologizer and future gazer. Central to the approach developed here is the need to discriminate between disclosure and non-disclosure concepts. Value concepts are disclosure in nature, and, as such, cannot be examined in the same way one would study non-value concepts. Also, the nature of language with such attributes as metaphoric thought, narrative style and mythic structures is considered as an integral part of this disclosure approach. This paper calls for a conscious development of a more holistic approach to value study. While it does not posit a systematic repression or rejection of objectivism or materialism, it does call attention to the need for a more careful balance between materialistic and mentalistic models in understanding human values.


One of the problems that the New Social Studies was supposed to avoid was the certainty which students attach to knowledge. This was to be done through the utilization of inductive procedures. The problem was that little attention was paid to the nature of the logical problem raised by David Hume. Essentially the problem concerns the making of accurate predictions based on past experience. It is logically impossible to do so. Few of the materials and writers in the sixties dealt with this problem. Even more serious was the limiting of induction only to those inferences which go from a particular set of premises to a general conclusion. A far more accurate definition is that induction is a non-demonstrative inference whose conclusion is ampliative. A deductive inference is one which is demonstrative and whose conclusion is non-ampliative. Thus, the source of difference between an inductive and deductive inference is the property of truth preservation.
The social organization, climate, cohesion of schools and other school characteristics as independent, explanatory variables predicting to general educational achievement.

The areas listed should neither be construed as exhaustive nor restrictive. The journal is a vehicle to increase communication about social education among social educators, curriculum developers, social scientists, philosophers and historians in addition to providing a means for serious and systematic communication between other professional educators. The journal will attempt to capitalize on the virtues of eclecticism, in that professional social studies educators will benefit from insights on schooling and education that spring from different disciplines and perspectives. Insofar as possible the vices of eclecticism, including diffuse and non-relevant writing, will be avoided by maintaining the focus of the journal clearly on social education albeit broadly construed. Where applicable authors should consider developing practical exemplars that illustrate their arguments, but this is neither a necessary nor sufficient condition for accepting or rejecting manuscripts. All manuscripts submitted will be anonymously reviewed by two referees.

Form for Submission of Manuscripts

In order to facilitate the processing of manuscripts, authors are asked to follow the procedures noted below:

1) Manuscripts should be typed with a dark black ribbon, clearly mimeographed, or multilithed. Authors should avoid submitting ditto copies of articles unless clearly legible. Some corrections in dark ink will be accepted. Copies containing numerous corrections will be returned for retyping.

2) Three copies of each manuscript should be submitted. This will speed up the reviewing process and guard against loss of manuscripts.

3) Everything should be double-spaced including footnotes and references.

4) Since manuscripts will be sent out anonymously for reviewing and due to the fact that the abstracts will be published, the author’s name and affiliations along with an abstract of approximately 150 words in length not exceeding 200 words should appear on a separate covering page. Information identifying the author, position, and institutional affiliation should appear on a separate page.

5) Manuscripts will be considered for publication that range in length

"The new social studies" present a dilemma to the teacher for he is confronted with a tradition of nationalistic instruction which seemingly contradicts the premises on which much of "the new social studies" is based. Do educators perceive the school as receptive to open inquiry in areas involving nationalistic education? Do they perceive the school should be more receptive to such inquiry? The major hypothesis was that N.J. suburban school educators would perceive the school would act in a significantly less tolerant way than it should act in situations involving aspects of nationalistic instruction. Differences were hypothesized for both "would" and "should" perceptions for several independent variables. A situational questionnaire was devised and sent to educators in four N.J. suburban, K-12, school districts. Data were analyzed with analysis of variance tests, using Scheffe's post hoc test for significant contrasts. The data confirmed the major hypothesis. Educators did perceive the school differently, both in terms of what it would do and what it should do in these situations. Implying the school is not hospitable to open inquiry, the findings suggested some of the difficulties that confront attempts to implement a curriculum based on "the new social studies," particularly with respect to nationalistic instruction.


It was the purpose of this study (1) to investigate the relationship between intellectual development and moral development as reflected by responses to two specific tasks, (2) to investigate differences in responses to the interactions between the intellectual and moral development tasks, and (3) to investigate differences in grade level responses to the intellectual and moral development tasks. The measure of intellectual development was the pupil responses to a Piagetian type conservation task. The measure of moral development was the subject's responses to a Piagetian type paired-story situation involving intentional behaviors and final outcomes. Seventy-two male elementary school pupils, twelve from each grade, were included in the study. A significant relationship was found to exist between the two tasks, and significant differences were found within the interaction of the two tasks. The mean grade level responses for those characteristic of both a morality of constraint and non-conserving behavior was 1.83 while a mean grade level score of 4.35 was found for those classified as characteristic of both a morality of cooperation and conservers. Significant grade level differences were also found in responses to the two tasks.
from approximately 15 to 50 double-spaced typewritten pages although there is no minimum length on articles that will be reviewed and published.

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**Manuscript Style**

1) When citations are made, the author's name, publication date, and page (where necessary) should be enclosed in parentheses and located directly in the text. The complete reference will be included in a "References" section at the end of the article. For example, "Another problem arises if inductive methods are used to teach a generalization. The generalization may be reified, treated as a fact, when all generalizations, empirical or theoretical, are, as Popper argues, only corroborated for the time being (Popper, 1959)."

2) Do not cite references by means of footnotes.

3) Only substantive footnotes should be sequentially numbered within the text and located at the end of the manuscript.

4) References should be alphabetized and located at the end of the manuscript. They should take one of the following forms:


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6) Each table should be placed on a separate page and placed in a separate section at the end of the manuscript. Arabic numbers should be used for numbering tables; they should be numbered consecutively throughout the manuscript. Show where they belong in the text by the following note:

   Table One About Here
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8) Send Manuscripts to:

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