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AN ANALYSIS, IN LIGHT OF THE TWO-CULTURES THEORY, OF THE
THEORETICAL CULTURE OF AMERICAN PUBLIC SCHOOLS

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ABSTRACT

The purpose of the study was to explicate, analyze, and evaluate, in light of the two-cultures theory, the metaphysical assumptions regarding the nature of humankind, which underlie the theoretical culture of American public schools. The author's thesis was that most professional people involved in the construction of public schooling become bearers of a conglomerate phenomenological and behavioristic theoretical culture and are unaware of the conflicting natures of the two positions.

The basic structure and form of the two-cultures theory was first identified in the study. The extent and persistence of the conflict of the two cultures was emphasized. Two models of humankind, the behavioristic and the phenomenological models, were described, discussed, and linked to the two-cultures theory. The epistemologies of the two cultures were explored. Then the two-cultures theory was related to present psychological and educational theory.

Next the study used the procedures of content analysis to provide an empirical account and analysis of the two models of humankind as they appear in four national task force documents on the improvement and reform of American education. The topic of concern required group members to use language indicators reflecting a personal theoretical culture of education.

The results of the content analysis indicated that overall the theoretical culture of public education is more behavioristically

oriented than it is phenomenologically oriented. Interestingly the behavioristic slant did not apply to the group of teachers. The document of the "Teachers" group reflected significantly greater philosophical disorganization.

In relation to the above results, the author discussed the teacher's inadequate professional philosophical education. A relationship was inferred between the teacher's experience of anxiety and of loss of meaning in her/his work and the philosophical disorganization disclosed in the study. In the following conclusions the author suggested an approach for contending with the philosophical dilemma: (1) to educate professionals about the two cultures, (2) to accept as valid both models of humankind, and (3) to partition the educational situations to which each model applies via procedural consensus. The author maintained that solutions to present educational problems must be founded on clear philosophical insight into the assumptions of the theoretical culture of education.

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CHAPTER I

INTRODUCTION

Concerning significant change in the public schools of the United States, John Goodlad reports in his latest study on schooling that: "We have failed, rather consistently, to recognize the nature and magnitude of the tasks involved."¹ Goodlad recognizes the structure of the school and the school culture as powerful forces which have long been disregarded by many whose stated purpose is the improvement of the public schools.

Ideas developed, refined, and packaged remote from their intended targets do not necessarily flourish in the culture of school.²

The structure of the school serves as a powerful force to maintain the status quo in classrooms.³

Because the school culture and the structure of the school is often overlooked, the basic problems of American schools go unexamined. A report by the National Commission on Excellence in Education, 1983, A Nation At Risk, claims that it "seeks to generate reform of our

¹ John Goodlad, "What Some Schools and Classrooms Teach," Educational Leadership, XL (April, 1983), 19.

² John Goodlad, "Improving Schooling in the 1980s: Toward the Non-Replication of Non-Events," Educational Leadership, XL (April, 1983), 4.

³ John Goodlad, "A Study of Schooling: Some Implications for School Improvement," Phi Delta Kappan, LXIV (April, 1983), 557.

educational system in fundamental ways."⁴ The Commission neglects, however, to recognize the fundamental issue of the school itself and focuses instead on four specific aspects of the educational process: content, expectations, time, and teaching. They "conclude that declines in educational performance are in large part the result of disturbing inadequacies in the way the educational process itself is often conducted."⁵ The Commission's approach to educational problems is the persistent approach of rhetoric and patchwork panaceas. While surface issues attract the attention of both practitioners and lay citizens, the fundamental problems of American schools often escape notice.

This dissertation has grown out of what the author sees to be one unrecognized, significant, and basic problem in the public school systems of the United States: that educators in the public schools are being caught in a theoretical point of view which accepts unquestioningly a conglomeration of assumptions regarding the nature of humankind. The purpose of this dissertation is to explicate, analyze, and evaluate, in light of the two-cultures theory, those metaphysical assumptions regarding the nature of humankind, which underlie the theoretical culture of American public schools. The theoretical culture is defined here as the educational theories on which are based the basic beliefs and modes of behavior recommended and/or employed in the operation of schools.

⁴The National Commission on Excellence in Education, A Nation At Risk: The Imperative for Educational Reform (Washington, D.C.: U.S. Government Printing Office, April, 1983), p. 6.

⁵National Commission, p. 18.

Because metaphysical assumptions influence the choice of particular values in the same way that values influence subsequent choices, assumptions can be considered and studied in the same manner as values.⁶ The present study follows, then, Nicholas Rescher's guidelines for the systematic study of the value system of persons or groups. He states:

. . . three diverse but interrelated tasks have primary importance: (1) the analytic task of characterizing, classifying, and explicating the concepts of the various "values" that are at issue (2) the descriptive task of applying the value concepts so clarified to the specific, concrete setting of the person or group of persons at issue, and (3) the normative task of evaluating this specific pattern of value subscription.⁷

The analytic part of the study, Chapter II, is the exposition of the two-cultures theory with its two models of humankind. It makes explicit the relationship of the assumptions underlying the two-cultures theory to the assumptions underlying present educational theory. The descriptive task of applying the assumption sets to public school professionals is reported in Chapters III and IV. This second segment of the study provides, via a content analysis of the recommendations of four National Field Task Forces on the Improvement and Reform of American Education, an empirical account and analysis of the two models of human nature implicit in the theoretical culture of American public schools. The evaluative section of the study, contained in Chapter V, brings together the results of the philosophical investigation: (1) to

⁶ Cora Dubois, "The Dominant Value Profile of American Culture," American Anthropologist, LVII (1955), 1233.

⁷ Nicholas Rescher, Introduction to Value Theory (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969), p. 128.

appraise the consequences of philosophical disorganization and conflict for the subsequent development of public schools in the United States and (2) to suggest a new viewpoint, which has many implications for a wide range of practical problems confronting public schools, for contending with the philosophical dilemma.

The study is based on four assumptions:

1. The two-cultures theory, the phenomenological and behavioristic psychological models of humankind, the humanistic and scientific conflict in the academic community, and the humanistic and behavioristic educational theories are all variations on the same theme.

2. The structure of the theoretical culture of U.S. public schools is strongly influenced by humanistic and behavioristic groups in education.

3. The four task force documents used in the content analysis reflect the American theoretical culture of professional educators.

4. People would not knowingly recommend conflicting actions.

The significance of this dissertation lies in its philosophical diagnosis of the current condition of the theoretical culture of public school staffs. Public school professionals are an influential population affecting, either directly or indirectly, most lives in the United States. That the presuppositions underlying the theoretical culture of this group have not previously been made the object of critical research is both surprising and foreseeable. Saul Alinsky observed, "It is that strange paradox that the things we primarily take for granted are the

last to be questioned."⁸ It may be, then, that educators are less likely to be aware of, much less to research, deep-lying assumptions of theoretical culture "since everyone has the same ones and we have no ground from which to gain perspective toward them."⁹ Or it may be that the lack of research in this area results from "the attraction of panaceas over the fundamental processes of planning, gathering data, considering alternative solutions, and the like."¹⁰ Also we presently have "a school culture where how and what one teaches are not matters for peer-group analysis, discussion, and improvement."¹¹ Only a sliver of the needed research identified above is filled by the present study. The truth of Max Black's position in the following statements is ever more strongly reaffirmed:

All serious discussion of educational problems, no matter how specific, soon leads to consideration of educational aims, and becomes a conversation about the good life, the nature of man, the varieties of experience. But these are the perennial themes of philosophical investigation. It might seem a hard thing to expect educators to be philosophers, but can they be anything else?¹²

The need for educators to be philosophers is also apparent in the practical affairs of the public schools. As the Philosophy of Education

⁸Saul Alinsky, Reveille for Radicals (Chicago: University of Chicago Press, 1946), p. 33.

⁹Arnold Rose, "Sociology and the Study of Values," British Journal of Sociology, VII (1956), 12.

¹⁰Goodlad, "Improving Schooling in the 1980s," p. 6.

¹¹Goodlad, "A Study of Schooling," p. 557.

¹²Max Black, "A Note on Philosophy of Education," Harvard Educational Review, XXVI (Spring, 1956), 155.

Society maintains,

Philosophy of education is not a statement about current or proposed policies and practices, such as "all pupils should be treated with equal care and concern" or "we believe in the dignity of each individual." Philosophy of education includes critical scrutiny of such slogans for the purpose of formulating and justifying operationally relevant educational purposes.¹³

Once in a large meeting of various school personnel, the group was instructed at the morning session to accept a child's individual abilities and seek to help him/her develop his/her potential as a human being. The importance of self-directed learning and of learning to be a person was stressed. Then in the afternoon of the same day another lecturer emphasized the teacher's accountability in insuring that every child achieve 80 percent proficiency on each behavioral objective established in the curriculum. Each lecture's underlying philosophical assumptions regarding the nature of humankind were in direct conflict with the assumptions of the other. For the school personnel attending this meeting, however, the two views were presented as compatible. Those in attendance were to believe that the principles of both views could be simultaneously effected.

The situation above exemplifies the special kind of value-conflict (in this case, conflict of assumptions) with which this study is concerned. The problem of value-conflict in the above anecdote is not a difference in logical contradiction between values and in contradiction

¹³Philosophy of Education Society, "Standards for Academic and Professional Instruction in Philosophy of Education," Educational Theory, XXX (Fall, 1980), 266.

in application. Value hierarchy partly explains the fact that values can be in logical contradiction without coming into contradiction in application. A value hierarchy orders values from the least important to the most important. Conflicting values can be placed on the hierarchy, but they will be applied in action according to the rank given them by the individual. The conflicting assumptions underlying the theoretical culture of public school professionals are not vertically ordered, however, but instead are equally ranked. Additionally, the conflict is not that one group is exclusively identified with one set of assumptions and another group with the other. Although the writers of educational theory usually can be classed on one side or the other of the conflict, the readers and listeners (the ranks of professional educators) are not divided by the issue. The conflict on which the study is focused results, then, because all groups accept both sets of assumptions in general.¹⁴ The conflict of the study is that conflict of assumptions within an individual's accepted educational theory. The thesis of this study is that the blind acceptance of conflicting assumptions regarding the nature of humankind is a fundamental characteristic of the theoretical structure in which public school personnel find themselves.

The structure of the theoretical culture of public schools in the United States is strongly influenced by two distinct academic groups in education. Each group holds its own set of basic assumptions and

¹⁴Ralph H. Turner, "Value Conflict in Social Disorganization," Sociology and Social Research, XXXVIII (1954), 301.

beliefs and corresponding methodology regarding humans and their education. That the two groups operate not only from different, but also conflicting, basic assumptions is the source of a cleavage within the theoretical culture of the academic community and is the source of the philosophical conflict identified as a fundamental feature of the theoretical culture of American public schools.

The following descriptions present succinctly the two positions of belief regarding the nature of humankind:

1. Humankind can be described meaningfully in terms of his/her behavior; (s)he is predictable; (s)he is an information-transmitter; (s)he lives in an objective world; (s)he is rational; (s)he has traits in common with other persons; (s)he may be described in absolute terms; his/her characteristics can be studied independently of one another; (s)he is a reality; and (s)he is knowable in scientific terms.

2. Humankind can be described meaningfully in terms of his/her consciousness; (s)he is unpredictable; (s)he is an information-generator; (s)he lives in a subjective world; (s)he is arational; (s)he is unique alongside millions of other unique personalities; (s)he can be described in relative terms; (s)he must be studied in a holistic manner; (s)he is a potentiality; and (s)he is more than we can ever know about him/her.¹⁵ It will be useful to have a name by which to refer to each of these models of humankind. Since the two models are directly related to the contemporary controversy over the conflicting ideals

¹⁵William D. Hitt, "Two Models of Man" (unpublished paper, Columbus Laboratories of Battelle Memorial Institute, n.d.), p. 3.

of the sciences and the humanities, they could be labeled "scientific" and "humanistic." The author of this study wishes, however, to avoid the positioning of the sciences and the humanities as antipodes and accepts the terms "behavioristic" and "phenomenological" to refer, respectively, to the above descriptions of models of humankind.

Versions of these two models of human nature have, for many years, caused recurrent conflict among philosophers and among scientists as well as conflict between philosophers and scientists. In order to understand the import of the dissonance as it emerges in educational theory, one must be aware of the extent of the conflict of cultural ideals concerning human nature. Chapter II presents a synopsis of the pertinent battle between the sciences and the humanities, especially noting the division of the social sciences into two schools—"one modeled upon the natural sciences and the other upon the humanities. Psychology offers a telling example of this division."¹⁶ The proponents, such as B. F. Skinner, of the behavioristic model of human nature place more value on what Michael Polanyi terms focal knowledge where attention is turned to the particular parts of a whole. Their attention is on a person's particular parts in and of themselves. The proponents, such as Carl R. Rogers, of the phenomenological model of humankind, however, place more value, using Polanyi's terms, on subsidiary knowledge where attention is turned to the whole only, by reducing one's awareness of the

¹⁶ Otto A. Bird, Cultures in Conflict: An Essay in the Philosophy of the Humanities (Notre Dame: University of Notre Dame Press, 1976), p. 119.

particulars to the contribution they make to the whole. The phenomenologists' attention is on the whole person, but they are aware of the parts.¹⁷

From the above explanation a graphic illustration of the conflict of the two positions can be developed. When one tries to use the sense of sight to focus on a whole object and simultaneously to focus on a particular part of that object, one is forced to choose whether the whole object or the part of the object will actually be in focus. The same situation of forced choice exists mentally when one is confronted with the behavioristic and phenomenological models of humankind. With the behavioristic model one must view a person in terms of particular behaviors; with the phenomenological model one must view a person in terms of total being. Educational theories have been built on the assumptions of each model. The philosophical investigation into the background of these two models provides the insight needed to understand why in some cases the correct principles of one educational theory are antagonistic to the correct principles of another.¹⁸ In The Mind's I Douglas Hofstadter emphasizes "the tricky shifts of point of view as one swings back and forth between the level of wholes and the level of their parts."¹⁹ Moving from the phenomenological model to the behavioristic

¹⁷ Michael Polanyi, The Study of Man (London: Routledge and Kegan Paul, 1959), p. 32.

¹⁸ Chris Argyris, Personality and Organization (New York: Harper Bros., 1957), p. 8.

¹⁹ Douglas R. Hofstadter, The Mind's I: Fantasies and Reflections on Self and Soul (New York: Bantam Books, 1982), p. 196.

model requires a "shift of frame of reference that can induce a shift of perceptions and concepts—a shift in ways of perceiving causes and effects."²⁰

Many of the participants of the elite academic community recognize the antagonism which exists within the theoretical culture of education. The masses of future public school personnel, however, can complete their undergraduate programs and never become conscious, much less question why, the idealistic division regarding human nature exists. One reason for this educational deficiency is that in the colleges there exists intellectual imperialism—"when one form of knowledge lays claim to the exclusive title to all knowledge and thereby denies the value of any other form."²¹ As representatives of each school of thought struggle to make their view dominant, they attempt to convert the listening population by persuasive definitions and unquestionable Truths. (Future educators may hear, for example, that: "Logic and science alone yield knowledge;" and that ". . . knowledge is ultimately a personal experience of reality.")²²

Educational theorists who hold the assumptions of the behavioristic model of humankind believe that education can best be described as a technique; those who hold the assumptions of the phenomenological model

²⁰Hofstadter, The Mind's I, p. 196.

²¹Bird, p. 4.

²²Anand Malik, Comparative Theories of Knowledge: An Essay on the Education of Existential Man (New Delhi: East-West University Publications, n.d.), pp. 28, 137.

believe that education can best be described as an odyssey. The central proposition of this dissertation is that the great masses of people involved in the construction of public schooling become the bearers of a conglomerate phenomenological and behavioristic theoretical culture but are ignorant of the conflicting natures of the two positions.

The amalgamation of the two views of education in the public school world is observed by C. A. Bowers in his article "Emergent Ideological Characteristics of Educational Policy." He writes:

Discussions of social processes and individual experience are becoming increasingly objectified and thus de-problematized, except for the technological solution being sought.²³

Reflection of the taken-for-granted sets of assumptions and of the lack of consciousness of their contrary natures is seen also in the following quote:

. . . there is, in fact, a yawning gap between educational slogans about open classrooms and child-centered learning and the development of the technologies of teaching which might turn them into a reality.²⁴

The writer's assumption is that child-centered learning and technological teaching can be a peaceable philosophical combination. No conflict surfaces when the theories behind such concepts are not analyzed because the conflict involves concepts that are just taken for granted in common educational theory.

²³C. A. Bowers, "Emergent Ideological Characteristics of Educational Policy," Teachers College Record, LXXIX (1977), 39.

²⁴William A. Reid and Decker F. Walker, editors, Case Studies in Curriculum Change, Great Britain and the United States (Boston: Routledge and Kegan Paul, 1975), p. 250.

The fusion of the conflicting assumptions as the theoretical basis for public schooling is an anomalous phenomenon. The framework described by Chris Argyris in Personality and Organization for analysis of such phenomena proves useful for assaying the philosophical montage in question. He says that when components are separate, their identities are distinct; but when they are combined, the combination which results is different from each of the components.²⁵

Chapter V speculates about such a combination—the combination of humanistic goals and behavioristic technology. Is such a combination genuinely possible? Stephen Margaritis thinks so:

Because philosophical positions greatly influence all phases of curricular development, educators should strive deliberately toward the creation of a unity or synthesis of those diverse principles from various schools of thought which survive critical evaluation.²⁶

In light of the examination of the assumptions involved in the two models of human nature, however, the author of the present study thinks Margaritis' position is unrealistic. Assumptions from both models of human nature would surely "survive critical evaluation," and yet they would still be contradictory. The problems of the philosophical conflict in educational theory and of the conflict in public school theoretical culture cannot be considered in terms of defects to be remedied by synthesis or agreement. As David Riesman says in "Values

²⁵ Argyris, p. 8.

²⁶ Stephen C. Margaritis, In Search of a Future for Education: Readings in Foundations (Columbus, Ohio: Charles E. Merrill Publishing Co., 1973), p. 1.

in Context," "The attempt to enforce [agreement on fundamental values] seems to me a good way to bring on civil war."²⁷ This study concludes that the conflict must first be recognized as a reality; then it must be "grappled with and built upon." As John Goodlad contends, "Any measure of success one has in improving something depends heavily on understanding it."²⁸

In order to rectify some of the problems of public schooling in the United States, the complicated theoretical network in which public school personnel in general, and teachers in particular, find themselves cannot be ignored. Those concerned with improving public schooling must comprehend that the responsibility for everything that happens in the classroom is not located in the individual teacher and is not a sole function of his/her attributes, abilities, interests, and motives. The philosophical disorganization and conflict disclosed in this study as a characteristic of the theoretical culture of public schools, supports the conclusion that the source of trouble in the public schools is a more illusive and fundamental problem than that of individual characteristics and actions or that of specific issues such as content and time spent in the classroom.

The conclusion of the study, as well as the other segments, is approached philosophically. The author hopes the study accurately reflects, in its small way, Martin Heidegger's description:

²⁷ David Riesman, "Values in Context," American Scholar, XXII (1952), 30.

²⁸ Goodlad, "What Some Schools and Classrooms Teach," p. 8.

What philosophy essentially can and must be is this: a thinking that breaks the paths and opens the perspectives of the knowledge in which and by which a people fulfills itself historically and culturally, the knowledge that kindles and necessitates all inquiries and thereby threatens all values.²⁹

At the same time, the positive influence of the stress placed by both anthropologists and sociologists on objectivity in the study of values is acknowledged. In the article "Currents of Anthropological Theory and Value Concepts," Bernard Siegel states that an anthropologist

. . . insists upon a great degree of detachment and objectivity in the study of values, and the eschewing, for the purpose of understanding, of all judgments or preconceived notions about better or worse.³⁰

The study was also guided by Arnold Rose's admonishment:

We cannot eliminate choices, values, or biases from scientific research, but we can specify them, so that other scientists can perceive our limitations and be able to specify alternative choices.³¹

Along with the methodology of philosophy, sociology, and anthropology, the author of this study wishes to recognize the importance to the study of what Michael Polanyi terms indwelling. Siegel states it as a necessity:

To probe beneath the level of overt behavior and understand the valuational mainsprings of any culture one must, at least for the purposes of investigation, develop a considerable degree of empathy for it and for its carriers.³²

²⁹ Martin Heidegger, An Introduction to Metaphysics, trans. by Ralph Manheim (New Haven: Yale University Press, 1957), p. 10.

³⁰ Bernard J. Siegel, "Currents of Anthropological Theory and Value Concepts," South-Western Journal of Anthropology, IV (1948), 199.

³¹ Rose, p. 11.

³² Siegel, p. 204.

The importance is stressed again in Otto Bird's discussion of experience versus judgment:

The experience in any given case may or may not suffice by itself to support and validate a true judgment. More than it by itself may be needed. Yet of itself it remains fundamental and indispensable.³³

This dissertation thus emerges from the author's thoughts stimulated by readings in general philosophy, the social sciences, and educational foundations; by research on the topic; and by experience in the public school systems within the United States.

³³Bird, p. 130.

CHAPTER II

VARIATIONS ON THE SAME THEME

The first part of the study is concerned with identifying the basic morphology of the two-cultures theory, with underscoring the historical endurance of its underlying controversy, and with assessing its presence in the current philosophy of psychology and in present educational theory. Chapter II incorporates the analytic tasks of the study in three sections. The first section characterizes general conflicts in cultural ideals related to what is presently called the two-cultures theory and classifies specific points in each conflict as representative of that dichotomy. It also relates the aspects of the various conflicts which contribute to the two models of humankind used in this study. In the second section an overview of the philosophical division of the social sciences is framed. Conflicting psychological theories of learning and definitions of knowledge lead into the chapter's third section which connects the assumptions underlying present educational theory to the discordant patterns of assumptions developed in the first two sections of the chapter.

As the historical background of the two-cultures theory is winnowed from several different conflicts of ideals, it brings into focus the similarities of the conflicts. In Cultures in Conflict, Otto Bird states:

The conflict of cultural ideals has been a recurrent one, and there are certain constants that keep appearing in the issues that are the cause of the controversy.¹

The conflict between Matthew Arnold and Thomas H. Huxley concerning the importance of literature and science in the education of the young is not, of course, identical to the conflict between Carl Rogers and B. F. Skinner concerning how students learn. The constants of which Bird speaks, however, are there; and they form the thread which appears in separate sets of conflicts and which links one to another.

The first conflict to be discussed is the one that most recently occurred and the one from which the term "two-cultures theory" originated. The central figures in the controversy were C. P. Snow and F. R. Leavis. Snow wrote an essay in which he maintained the existence of two cultures—one scientific, the other literary or humanistic. (He was not satisfied with either of the second labels.) Snow's use of the word culture was attacked, but is explained well by Martin Green:

. . . some say that the word can only be used of a society as a whole; others that the intellectual and imaginative habits shared by scientists are not general enough in their implications to deserve the name. But this is, as Leavis implicitly admits, pedantry. There are fifty meanings for the word "culture." Snow uses it to mean fragments of a whole-society culture. England has two cultures in the sense that our two main sets of intellectual habits and efforts have so little contact and interaction.²

¹Otto A. Bird, Cultures in Conflict: An Essay in the Philosophy of the Humanities (Notre Dame: University of Notre Dame Press, 1976), p. 5.

²Martin Green, Science and the Shabby Curate of Poetry: Essays about the Two Cultures (London: Longmans, Green and Co. Ltd., 1964), p. 8.

Snow also asserted that the two cultures are polarized groups between which exists little mutual comprehension and that the division is leading to chaos in the society. He stated:

Persons educated with the greatest intensity we know can no longer communicate with each other on the plane of their intellectual concern. This is serious for our creative, intellectual, and above all, normal life. It is leading us to interpret the past wrongly, to misjudge the present, and to deny our hopes of the future. It is making it difficult or impossible for us to take good action.³

Yudkin writes that Leavis did not dispute Snow's main three points:

. . . [1] that there exists a mutual failure of contact and comprehension between scientists and non-scientists . . . cannot be seriously doubted; [2] for scientists and non-scientists to understand one another's work requires a huge stretching of the intellect, and the effort becomes constantly greater. [3] The idea that this is universally to be regretted has scarcely been disputed; . . .⁴

Leavis did, however, hostilely attack Snow's suggestion that scientific knowledge is our best and most fundamental knowledge. Snow had said that scientists have the future in their bones.⁵ Leavis was concerned about a human future other "than that which talks in terms of productivity, material standards of living, hygienic and technological progress."⁶ He stressed the importance of "a basic living deference

³Charles Percy Snow, Two Cultures: And a Second Look (New York: Cambridge University Press, 1968), p. 60.

⁴F. R. Leavis and Michael Yudkin, Two Cultures? The Significance of C. P. Snow (London: Chatto and Windus, 1962), p. 35.

⁵C. P. Snow, pp. 10-11.

⁶Leavis and Yudkin, p. 19.

towards that to which, opening as it does into the unknown and itself unmeasurable, we know we belong."⁷ Leavis defined the most important culture as that of the third realm—the realm of that which is neither merely private and personal nor public in the sense that it can be brought into the laboratory. This is the realm to which all that makes us human belongs—in other words, the realm of the humanities. Quoting Leavis,

You cannot point to a poem; it is "there" only in the recreative response of individual minds to the black marks on the page.⁸

He maintained that this process is a "collaborative-creative process in which the poem comes to be established as something 'out there,' of common access in what is in some sense a public world."⁹ The most important culture is then, according to Lewis, this cultural consciousness of humanity.

Snow, on the other hand, believed with Bertrand Russell that:

In science men have discovered an activity of the very highest value in which they are no longer, as in art, dependent for progress upon the appearance of continually greater genius, for in science the successors stand upon the shoulders of their predecessors; where one man of supreme genius has invented a method, a thousand lesser men can apply it. No transcendent ability is required in order to make useful discoveries in science; the edifice of science needs its masons, brick-layers, and common laborers as well as its foremen, master builders, and architects. In art nothing worth doing can be done

⁷Leavis and Yudkin, p. 26.

⁸Leavis and Yudkin, p. 28.

⁹Leavis and Yudkin, p. 28.

without genius; in science even a very moderate capacity can contribute to a supreme achievement.¹⁰

The Snow-Leavis controversy was, as Martin Green says, "an isolated and belated skirmish in a larger battle."¹¹ The battlelines between the humanities and the sciences began to be drawn near the beginning of the seventeenth century, although the tension leading to the eventual confrontation could be sensed even earlier. The tension between the more systematic (scientific and analytical) studies and the humanities can be delineated without interruption back to Plato and Isocrates.

Plato's thinking strikes us now as more scientific, and yet Isocrates' speeches command our respect for championing the truth-uncovering power of rhetoric, that is, of disciplined communication. Neither, it would seem, could grasp the validity of the other's standards of truth.¹²

In one of the first formulations of the humanities,

. . . the ideal envisioned the union of word and reason, of eloquence and philosophy, and the basic program comprised mathematical as well as linguistic arts. This distinction was sometimes viewed as one dividing the arts of the real from the arts of words (artes reales et sermocinales). It then contained the seeds of a wider and deeper division as scientists like Galileo came to be convinced that the book of nature was written mostly in the language of mathematics. The arts of the real could then conceivably be sought for their own sake, to the exclusion, if not outright repudiation, of the others as obstacles to the understanding of nature. With this the ground was prepared for a conflict between the sciences and the humanities.¹³

¹⁰David K. Cornelius and Edwin St. Vincent, Cultures in Conflict: Perspectives on the Snow-Leavis Controversy (Atlanta: Scott, Foresman and Company, 1964), p. 108.

¹¹Green, p. 1.

¹²Paul L. Ward, "The Troublesome Differences Among Modes of Knowledge," Soundings, LXIV (Fall, 1981), 290.

¹³Bird, pp. 154-155.

A brief historical review of the philosophy of early modern science will lay bare the key metaphysical assumptions which are rejected by the humanists and by the phenomenologists. As Galileo was convinced of the necessary relationship between the universe and mathematics, he developed his doctrine of primary and secondary qualities. The primary qualities were the real qualities of the universal and could be expressed mathematically. The secondary qualities were those mediated by the senses. Odors and tastes were not then part of the real world. Man himself was no longer an integral and fundamental part of reality because he was not suited to mathematical study. As Burttt says in The Metaphysical Foundations of Modern Science, man's "life of colours and sounds, of pleasures, of griefs, of passionate loves, of ambitious, and strivings"¹⁴ could not be treated, for the most part, by the quantitative method. The real world for Galileo was the world outside of man. The natural world was the most important realm.

Man begins to appear for the first time in the history of thought as an irrelevant spectator and insignificant effect of the great mathematical system which is the substance of reality.¹⁵

The mathematical movement was further advanced by Descartes' thesis that exact knowledge in any science is always mathematical knowledge. Descartes did not dismiss the secondary qualities as Galileo did, but instead, assigned them to the "inner realm whose essence is thinking,

¹⁴E. A. Burttt, The Metaphysical Foundations of Modern Science (Garden City, New York: Doubleday and Company, Inc., 1932), p. 89.

¹⁵Burttt, p. 90.

whose modes are such subsidiary processes as perception, willing, feeling, imagining, etc., a realm which is not extended."¹⁶ This realm of mind exists dually with the world of bodies, extended in space and "knowable only and knowable fully in terms of pure mathematics."¹⁷ The famous Cartesian dualism was thus set, but the mathematical extended world was the part of the metaphysical dualism which most interested Descartes himself.

Like his forerunners, Newton also was eager to reduce the universe of matter to mathematical formulas, but he included in the developing scientific method another aspect which was to become equally prominent with the mathematical--the experimental. For Newton, the world was not necessarily structured on mathematical principles; rather, the world was used to physically verify existing mathematical methods and to guide the expansion of mathematics to describe experience. As Burtt concludes in The Metaphysical Foundations of Modern Science, Newton's work combined "the two important and fruitful movements in the preceding development of science, the empirical and experimental as well as the deductive and mathematical."¹⁸ With Newton the mathematico-mechanical view of reality and the human mind was firmly established in the metaphysical foundations of science.

Man had lost his place of supremacy in the scheme of things to nature. His mind was reduced to a summation of sensations (now reactions). The metaphysical difficulties inherent in the Cartesian

¹⁶Burtt, p. 119.

¹⁷Burtt, p. 118.

¹⁸Burtt, p. 213.

dualism (two independent worlds and their relationship) were somewhat swept aside as a field for exact mathematical analysis was cleared. The ability to mathematically predict an occurrence was accepted as an adequate explanation of the event. In order to not only predict but to control the outcome of an event, the method of analyzing an event into its simpler components was adopted.

Although it is impossible to trace any direct influence of Sir Francis Bacon on the metaphysics of Newton, Bacon's stress on empirical data and the inductive procedure were absorbed by leading men of science in the middle of the seventeenth century. The issues involved in the two-cultures theory began to be debated more intensely during the first two decades of that century when Bacon began to champion the cause of scientific progress. While rejecting the authority and the methods of the "Ancients," Bacon propagandized the superior approach to knowledge taken by science.

Giovanni Vico complained that Bacon's concentration on scientific knowledge based upon verifiable facts and mathematical reasoning led to a nullification of other ways of knowing and the defamation of the humanities. Vico favored the early development of the imagination, memory, and faculty of invention over the early development of mathematical and scientific reasoning.¹⁹ Vico's position was that there were two kinds of knowledge. One type of knowledge was that which contained an explanation of why something was true; the other type of

¹⁹ Giambattista Vico, Vico Selected Writings, edited and translated by Leon Pompa (Cambridge: Cambridge University Press, 1982), p. 68.

knowledge was that in which certainty is experienced even without a causal explanation.²⁰ For Vico the truth of the moral sciences, reached by an internal process, was a more certain truth than that of Bacon's physical sciences. Vico's theory of knowledge asserts

. . . that the human world, being man's creation, is known by man. In this way it raised the knowledge of human affairs, formerly considered merely approximate and probable, to the rank of perfect science; and it expressed surprise that philosophers should so laboriously endeavor to attain to science of the world of nature, which is a sealed book to mankind, while passing over the world of man, the science of which is attainable.²¹

Just as Vico and Bacon could acknowledge the value of both scientific study and literary or poetic study though disagreeing on the relative importance of each, so Matthew Arnold and Thomas Henry Huxley could likewise agree and disagree in a similar debate some two hundred fifty years later. The times had brought about a reversal of positions for science and the humanities. Science was now securely entrenched in educational studies while the humanities held a less favored position. Although the Arnold-Huxley debate is often cited as an earlier occurrence of the present day Snow-Leavis controversy, it did not contain the animosity displayed by the latter writers. The gulf between the two cultures did not seem so wide and so filled with hostility as it appears today.

Although Matthew Arnold and Thomas H. Huxley disputed the relative importance to education of science and the humanities, neither went so

²⁰Vico, pp. 54-55.

²¹Benedetto Croce, The Philosophy of Giambattista Vico (New York: Russell and Russell, Inc., 1964), p. 24.

far as to disregard or insult the contribution of the studies that the other recommended. Matthew Arnold suggested:

Let us therefore, all of us, avoid indeed as much as possible any invidious comparison between the merits of humane letters, as means of education, and the merits of the natural sciences.²²

And Thomas H. Huxley emphasized:

I am the last person to question the importance of genuine literary education, or to suppose that intellectual culture can be complete without it. An exclusively scientific training will bring about a mental twist as surely as an exclusive literary training. The value of the cargo does not compensate for a ship's being out of trim; and I should be very sorry to think that the Scientific College would turn out none but lop-sided men.²³

Yet, as Arnold said in his 1882 Rede Lecture,

. . . I am boldly going to ask whether the present movement for ousting letters from their old predominance in education, and for transferring the predominance in education to the sciences, whether this brisk and flourishing movement ought to prevail²⁴

Matthew Arnold went on in this lecture not only to defend the need of humane letters in education but also to proclaim the superior results of such studies. Science, he found, was lacking in one important thing--"the constitution of human nature."²⁵ Of the scientists he said:

But still it will be knowledge only which they give us; knowledge not put for us into relation with our sense for conduct, our sense for beauty, and touched with emotion by being so put; not thus put for us, and therefore, to the majority of mankind, after a certain while, unsatisfying, wearying.²⁶

²²Matthew Arnold, Representative Essays of Matthew Arnold, edited by E. K. Brown (New York: The Macmillan Company, 1936), p. 204.

²³Thomas H. Huxley, Science and Education Essays (New York: D. Appleton and Company, 1898), pp. 153-154.

²⁴Arnold, p. 190.

²⁵Arnold, p. 197.

²⁶Arnold, p. 200.

Dealing with facts as one does in natural science is a most valuable discipline for everyone said Arnold, but scientific study will not be as valuable to the great majority of mankind as will the study of the humanities which satisfies man's instinct for beauty and for conduct. Arnold predicted that the men of science would not relate the scientific propositions to what it means to be a human being. The establishment of such relationships would fall to the men of humane letters. He concluded:

And the more that men's minds are cleared, the more that the results of science are frankly accepted, the more that poetry and eloquence come to be received and studied as what in truth they really are—the criticism of life by gifted men . . . and their place in education be secured.²⁷

Thomas Huxley dissented from Arnold's assumption that literature alone contains the materials which suffice for the construction of the criticism of life, such criticism which is the essence of culture. If a choice must be made between the studies of natural science and of literature, then the choice must be natural science. Huxley maintained:

For culture certainly means something quite different from learning or technical skill. It implies the possession of an ideal, and the habit of critically estimating the value of things by comparison with a theoretic standard. Perfect culture should supply a complete theory of life, based upon a clear knowledge alike of its possibilities and of its limitations.²⁸

For Huxley the scientific path provided the best development of a cultured mind.

²⁷Arnold, p. 204.

²⁸Huxley, p. 143.

The debate carried on by Thomas Huxley and Matthew Arnold continues today and is recognized by the National Commission on Excellence in Education in the report A Nation At Risk.

Still others are concerned that an over-emphasis on technical and occupational skills will leave little time for studying the arts and humanities that so enrich daily life, help maintain civility, and develop a sense of community. Knowledge of the humanities, they maintain, must be harnessed to science and technology if the latter are to remain creative and humane, just as the humanities need to be informed by science and technology if they are to remain relevant to the human condition.²⁹

A review of present state documents reveals academic goals related to both the sciences and the humanities as well as other goals which pertain to career education, citizenship, and emotional and physical well-being.³⁰ The states' answer to the conflict of cultures is to satisfy all.

The conflict of the cultures is concerned not only with which educational studies best prepare the mind but also with the question of the mind's placement in the world. In The Metaphysical Foundations of Modern Science, Burtt notes that leading to and including the present,

. . . there has been a radical diversity of opinion, and a philosophy which will be fair to all the data and meet all the basic needs clamoring to guide their interpretation is yet to be invented. In general, it may be said that two main directions have been pursued. On the one hand there have been those eager to make mind itself, the

²⁹The National Commission on Excellence in Education, A Nation At Risk: The Imperative for Education Reform (Washington, D.C.: U.S. Government Printing Office, April, 1983), pp. 10-11.

³⁰John Goodlad, "What Some Schools and Classrooms Teach," Educational Leadership, XL (April, 1983), 10.

knower of physical nature, an object of scientific study. To do this with exactitude and objectivity has meant breaking down the dualism by incorporating mind somehow into the world of bodily motions. On the other hand there have been those anxious to substantiate on a basis more acceptable in modern times the medieval accordance to mind of a high place and destiny in cosmic affairs. In general these two trends have been in violent conflict with each other.³¹

With the brief historical review contained in these beginning paragraphs of Chapter II, the roots of the two cultures and of the two models of humankind can be seen. Whether the nomenclature of the two positions be that of scientist versus humanist, behaviorist versus phenomenologist, or behaviorist versus humanist, the thread of conflict running through the positions is of the same color and texture.

Over the last few decades much of the controversy in the philosophy of mind has involved a battle between two seemingly conflicting sets of intuitions. On the one hand there is the intuition that mental states are somehow logically, or conceptually, connected with physical states of affairs, in particular the behaviors that are taken to manifest them. . . . On the other hand there is the intuition that connections between mental states and behavior are, at bottom, contingent³²

The questions are thus posed: (1) Is mind an object of introspection or of cooperative analysis? (2) Is mind determinable by any of the techniques of exact measurement which we apply to the objects of other sciences? (3) Can mind be rendered for exact prediction and control or must it be dealt with as unique since it is

³¹Burt, pp. 319-320.

³²Sydney Shoemaker, "Functionalism and Qualia," in Readings in Philosophy of Psychology, ed. by Ned Block (Cambridge, Mass.: Harvard University Press, 1980), I, 263.

. . . the living perspective of the totality of human experience, the active and focal organization of the entire current of events and their meanings of which we humans become cognizant?³³

The two sets of answers to the above questions are presented in the contrasting models of humankind used in this dissertation. Seen in the earlier conflicts is the development of the two viewpoints. On the one hand is the

. . . scientific interpretation, man is like nature, in the sense that the whole universe, including human behavior, is conceived to be a nexus of reciprocally related occurrences, neutral in character and in principle predictable.³⁴

Likewise in this interpretation,

. . . the event is not unique but is a member of a rather large class of events, related systematically, that is, according to some rule, to another large set of events.³⁵

Douglas R. Hofstadter defines the above position as that of "hard scientists" who support "the idea of predicting the future from the past without regard to 'goals' of organisms."³⁶ He uses the terms "reductionism" and "predictionism" to describe this view of humankind.

On the other hand is the position of Hofstadter's "soft scientists" who support the idea that only inanimate objects can be so predicted as

³³Burt, p. 323.

³⁴W. T. Jones, The Sciences and the Humanities: Conflict and Reconciliation (Berkeley; Los Angeles: University of California Press, 1965), p. 12.

³⁵W. T. Jones, p. 12.

³⁶Douglas R. Hofstadter, The Mind's I: Fantasies and Reflections on Self and Soul (New York: Bantam Books, 1982), p. 197.

hard scientists maintain and that "in the case of animate objects, purposes and goals and desires and so on are essential to explain their actions."³⁷ The terms "holism" and "goalism" are used to describe "soulism," the humanistic view of humankind. The humanistic position stresses the "uniquely human, both as an object and a method of inquiry"³⁸ and standing out and apart from the sciences by its "greater interest in the individual, whether person, event, or work."³⁹

Looking at the models again with a historical perspective, one can see the influence of such men as Galileo, Descartes, Newton, Bacon, and Huxley in the development of the behavioristic model of humankind. Humankind, according to this paradigm, is knowable in scientific terms. In order to meet the terms of science which require objects that can be measured, mathematically described, reduced to simpler parts, and observed in the laboratory, the nature of humankind and behavior are equated. Humankind, then, can be described meaningfully in terms of his/her behaviors. For behaviorists in the field of psychology, even thought is viewed as simply behavior, whether it be verbal or nonverbal, covert or overt.⁴⁰ Introspection and consciousness are gone from this psychological science. Human behavior is predictable say the behaviorists. A person is only as intelligent as the amount of informational input; (s)he is an information-transmitter with the ability to regroup or

³⁷Hofstadter, The Mind's I, p. 197.

³⁸Bird, p. 156.

³⁹Bird, p. 121.

⁴⁰William D. Hitt, "Two Models of Man" (unpublished paper, Columbus Laboratories of Battelle Memorial Institute, n.d.), p. 4.

recombine component information bits. This model of humankind is capable of reasoning and using logic as (s)he operates in a world of facts and data, an objective world. General laws which govern human behavior can be formulated and used to describe, predict, and control humankind, according to the behaviorists. The basic laws of conditioning seem to support the contention that humankind can be described in absolute terms. As he describes this model, William Hitt says that "the many current studies in the area of cybernetics, which point up similarities between man and machine, lend credence to the concept of man as an existing system"⁴¹—a system which is definable and measurable.

On the other side of the two cultures conflict one finds a model of humankind which is completely contradictory to the behavioristic model. This is the model of which Vico, Arnold, and Leavis spoke. In his description of the two models, Hitt calls this model the phenomenological model. (That name is accepted for use in this dissertation because, even though the term is not synonymous with humanistic, the nature of humankind described by this model is in essence the same as that supported by humanists.) Humankind, says the phenomenologists, is more than we can ever know about her/him. An illustration Hitt uses in his paper "Two Models of Man" is:

As the counter argument to placing all emphasis on behavior, Karl Jaspers, an existential psychologist and philosopher, points up the importance of consciousness or self-awareness Jaspers stresses that "Man not only exists, but knows that he exists."⁴²

⁴¹Hitt, p. 9.

⁴²Hitt, p. 4.

Humankind is unpredictable, according to this model. While some success has been experienced in predicting the dominant behavior of a large group of subjects, little success in predicting individual behavior has been recorded. This model maintains that humans generate new information—ideas, problems, theories. A person's world is a subjective world; an individual and private world of feelings, emotions, and perceptions. An individual is guided by values and beliefs that may be arational, not reached by paths of reason and logic. Each person is considered unique. No two people experience the same environment or have the same abilities and personalities. Hitt again well illustrates this idea with the following quote by William James:

An unlearned carpenter of my acquaintance once said in my hearing: "There is very little difference between one man and another; but what little there is, is very important."⁴³

Humankind, then, can only be described in relative terms. The importance of the interactions and interdependencies is emphasized in the phenomono-logical view. Hitt explains:

Support for a holistic view of man is seen in the works of Polanyi and Tielhard de Chardin, to mention only two. Polanyi gives this example: "Take a watch to pieces and examine, however, carefully, its separate parts in turn, and you will never come across the principles by which a watch keeps time." Tielhard de Chardin says: "In its construction, it is true, every organism is always and inevitably reducible into its component parts. But it by no means follows that the sum of the parts is the same as the whole, or that, in the whole, some specifically new value may not emerge."⁴⁴

⁴³William James, Philosophy of William James (New York: Modern Library, 1925), pp. 242-243.

⁴⁴Hitt, p. 8.

Vico is also concerned with the interaction of human nature and different historical and social conditions. To him the content of human nature is relative to the historical period and is not fixed and constant.⁴⁵ Humankind is considered to be more than an existing entity. (S)he is according to the phenomenologist model, a potentiality, and is constantly emerging or becoming.

The heart of the argument of the two cultures is then the existence of two models of humankind. Hitt's summary of the two views is:

The behaviorist views man as a passive organism governed by external stimuli. Man can be manipulated through proper control of these stimuli. Moreover, the laws that govern man are essentially the same as the laws that govern all natural phenomena of the world; hence, it is assumed that the scientific method used by the physical scientist is equally appropriate to the study of man.

The phenomenologist views man as the source of acts; he is free to choose in each situation. The essence of man is inside of man; he is controlled by his own consciousness. The most appropriate methodology for the study of man is phenomenology, which begins with the world of experience.⁴⁶

William Hitt wrote his paper after attending a symposium sponsored by the Division of Philosophical Psychology of the American Psychological Association which "clearly pointed up the cleavage in contemporary theoretical and philosophical psychology."⁴⁷ The contrasting bases for modern psychology, behaviorism and phenomenology, were the subjects of the presentations and discussions at the conference. The division of the social sciences, in both theory and practice, into two schools is noted by Otto Bird in Cultures in Conflict.⁴⁸ One school adopts the

⁴⁵Vico, p. 105.

⁴⁶Hitt, p. 2.

⁴⁷Hitt, p. 1.

⁴⁸Bird, p. 119.

views and methodology of the natural sciences, and the other school prefers the model of the humanities. In the first section of Chapter II, the battle between the sciences and the humanities is surveyed. In the second section the clash within the social sciences is framed. In the first section the focus of concern is how the two cultures differ. In the second section the central issue is why the two cultures exist. As scientists disagree with philosophers, so scientists and philosophers disagree among themselves. Epistemology—the study or theory of the origin, nature, methods, and limits of knowledge—is the topic.

As discussed earlier, Vico's epistemology draws a line between knowledge of nature and knowledge of culture. Truth could be attained by mankind in the world of human affairs, not in the world of nature. This truth "was not static but dynamic, not a discovery but a product, not consciousness but science."⁴⁹ According to Vico,

Mere consciousness of one's thoughts, feelings, motives, and so on, which is all that introspection could give us, would not therefore be knowledge. For the latter we would require also an account of those (historical and social) conditions which cause men to have such thoughts, feelings, and motives.⁵⁰

Vico's path to knowledge requires a mixing of the two processes—thought and experience.⁵¹

Wilhelm Dilthey agrees with Vico that our knowledge of the natural world and our knowledge of the human world were different types of knowledge. He differentiates scientific knowing (kennen) from understanding (verstehen). Dilthey maintains that because of one's

⁴⁹Croce, p. 26.

⁵⁰Pompa, p. 159.

⁵¹Croce, p. 34.

internal experience, one understands what it means to be human in a way that (s)he can understand no other experience. This fact, he says, is the foundation of the humanities and is what causes their separation from the sciences.⁵² He separates the studies into the natural sciences--Naturwissenschaften--and the human sciences--Geisteswissenschaften. Included in the human sciences are both the social sciences and the humanities since he maintains the objects of these studies are the results of man's doing and making.

The ground was thus laid for a comprehensive division in the social sciences. Those who believe humankind is like nature and can be studied as such, model their scientific work after the natural sciences. Those who believe humankind has privileged knowledge of the human self based on her/his fundamental experience of what it is to be human support their methods with a philosophy that is more akin to the humanities.

The treatment of knowledge by each school of thought is characteristically different. According to Bird, Dilthey's work emphasizes:

Because they proceed by means of understanding, the humanities have a much greater interest than the sciences in the singular individual and in history. For science the individual entity is mainly of interest only for what it can tell about its general type so as to lead to the formulation of a general law.⁵³

About the two types of knowledge, Bird goes on to say:

⁵²Wilhelm Dilthey, Pattern and Meaning in History, trans. by H. P. Rickman (New York: Harper Torchbooks, 1961), p. 79.

⁵³Bird, p. 121.

Perhaps the most striking evidence of the division, however, appears in differences in the temporal dimension of knowledge, i.e., in the way that a discipline is related to its past and future. Knowledge that develops cumulatively, consuming the achievements of its past or leaving them behind in a progressive advance, tends to hold that its latest achievements provide the best and fullest account. But for knowledge that is noncumulative, the achievements of the past remain not only as monuments, but as continuing sources of learning and standards of excellence.⁵⁴

Henry B. Veatch also identifies two different knowledges:

- (1) substantive knowledge—a knowledge of ordinary experience
- (2) calculative knowledge—knowledge of a relational network of the mind's own constructing. These knowledges are achieved by two radically different modes of learning. Two logics are operative, a what-logic and a relating-logic; and those logics are effected, respectively, in humanistic and philosophic studies and in science.⁵⁵ Scientific knowledge and humanistic knowledge can be compared, says Veatch, to knowledge of "how to get about in the world" and "knowledge of what the character of the world is."⁵⁶

Michael Polanyi, a physical scientist and philosopher, also writes about two knowledges and ways of knowing. To Polanyi human knowledge is of two kinds: (1) usual knowledge which is formulated, articulate and explicit, (2) tacit knowledge which is unformulated awareness. The logical difference between the two types is that one can critically

⁵⁴Bird, p. 155.

⁵⁵Henry B. Veatch, Two Logics: The Conflict between Classical and Neo-Analytic Philosophy (Evanston: Northwestern University Press, 1969), p. 11.

⁵⁶Veatch, p. 274.

reflect on something explicitly stated but not on tacit awareness. Tacit knowledge, maintains Polanyi, is the dominant principle of all knowledge since the "reorganization of knowledge is a tacit performance."⁵⁷ It is tacit knowledge which is manifested in the process of comprehending. Polanyi does not separate science from the humanities on the basis of knowledge division. He recognizes that even empirical data must be interpreted for meaning. He states:

Nothing that is said, written, or printed, can ever mean anything in itself: for it is only a person who utters something—or who listens to it or reads it—who can mean something by it.⁵⁸

For Polanyi, scientific research is an art—the art of making certain kinds of discoveries. The scientific activities cannot be split off from the scientist's motives and his belief in his own rational power to construct a meaningful picture of reality.⁵⁹ He emphasizes "the measure of choice in our manner of perception" and "the act of interpretation at the most elementary stages of cognition."⁶⁰ The tacit knowing, which he associates with both the sciences and the humanities, appears to be a doing of an individual, lacking the public characteristic of explicit knowledge.

⁵⁷Michael Polanyi, The Study of Man (London: Routledge and Kegan Paul, 1959), p. 24.

⁵⁸Polanyi, The Study of Man, p. 22.

⁵⁹Michael Polanyi, Scientific Thought and Social Reality (New York: International Universities Press, Inc., 1974), p. 23.

⁶⁰Polanyi, Scientific Thought and Social Reality, p. 55.

Another writer on the topic of epistemology, A. W. Levi, delineates three modes of knowing: (1) rational knowledge, (2) empirical knowledge, and (3) intuitionist knowledge. In the first mode, the rationalists believe:

We ought to rely upon that way of knowing by which the mind provides the ultimate principles of thought and by which it reasons to conclusions which are certain.⁶¹

These truths have not been derived from our experience, for they are independent of experience. This means in some sense they precede experience, and that no possible experience whatsoever could ever refute them. For this reason they have sometimes been called universal, necessary, and a priori.⁶²

In the second mode, the empiricists believe:

We ought to rely upon that way of knowing by which our senses observe the conditions which exist in the world, and which formulates experience on the basis of its observability.⁶³

Truths of fact are dealt with by the methods of generalization, classification, and the establishment of causal connection. These methods all "reduce finally to some activity of making observations through our senses."⁶⁴ According to Levi, systematic science replaces crude common sense when our observations need to be recorded and measured more accurately. In the third mode, the intuitionists believe:

We ought to rely upon that way of knowing which gives us deep, direct, and intuitive insight into art and religion, and which enlarges our vision of the world.⁶⁵

⁶¹A. W. Levi, Varieties of Experience: An Introduction to Philosophy (New York: Ronald Press Co., 1957), p. 43.

⁶²Levi, p. 45.

⁶³Levi, p. 43.

⁶⁴Levi, p. 46.

⁶⁵Levi, p. 43.

Those who most respect its claims say that intuition

. . . is direct rather than symbolic, integrative rather than analytic, vision rather than fact, a matter of feeling or sympathy rather than reasoning.⁶⁶

Levi says that passages from Isaiah and Shakespeare, religious prophecy and poetic statement respectfully,

. . . approach the method of intuition, but they fail to exemplify intuitive knowing in one important respect; however vague, metaphorical or symbolic their language, they do speak with words. The ultimate act of intuitive knowing, on the contrary, claims to dispense with language and with symbols.⁶⁷

Artists do provide something comparable to intuitive knowledge although intuitive knowledge itself is an individual enterprise uniting a person's spirit with the universe.⁶⁸

According to Bird in Cultures in Conflict, Levi maintains that the two cultures represent two different mind sets.⁶⁹ There are the scientists whose minds are set along the lines of the rationalists and the empiricists combined, and there are the humanists whose minds are set along the lines of the intuitionists. His answer as to why the two cultures exist is that two types of minds exist in humankind.

Looking at contemporary psychology, one finds other psychological theories concerned with the human mind. B. F. Skinner and Abraham Maslow express the views of two conflicting theories. Skinner supports a psychological theory known as behaviorism. For behaviorists, knowing is a behavioral, environmental, neurological, and physiological process.

⁶⁶ Levi, p. 47.

⁶⁷ Levi, p. 47.

⁶⁸ Levi, p. 47.

⁶⁹ Bird, p. 123.

As a person is acted upon by the environment, s(he) responds to the stimuli and thereby comes to know about that to which (s)he is acting. Humans are complex systems which behave in lawful, observable ways. Behavior can be controlled and predicted since it develops in directions that are positively reinforced by particular environmental contingencies. Skinner believes that humankind is completely controlled by environment, but he maintains that humankind can control her/his making because (s)he controls today much of the environment in which s(he) is submerged.

Abraham Maslow rejects Skinner's idea that the external and internal environmental stimuli totally control a person. The inner world of the individual has, for Maslow, a more significant influence upon her/his behavior. Humanistic psychologists have a belief in human needs, motives, and capacities. They have adopted the conception of "basic needs" which includes "the conception of a single overarching need for actualization or growth."⁷⁰ Maslow emphasizes:

We speak of a self, a kind of intrinsic nature which is very subtle, which is not necessarily conscious, which has to be sought for, and which has to be uncovered and then built upon, actualized, taught, educated.⁷¹

Humanistic psychology speaks of individual potential, unique experiences, and self-direction. For such psychologists as Maslow, each person is emerging, constructing his own life's way guided by his own integrity. Maslow contrasts the two comprehensive theories of human nature dominating psychology today:

⁷⁰Abraham H. Maslow, "Some Educational Implications of the Humanistic Psychologies," Harvard Educational Review, XXXVIII (Fall, 1968), 688.

⁷¹Maslow, p. 688.

This doctrine of a Real Self to be uncovered and actualized is also a total rejection of the tabula rasa notions of the behaviorists and associationists who often talk as if any-thing can be learned, anything can be taught, as if the human being is a sort of passive clay to be shaped, controlled, reinforced, modified in any way that somebody arbitrarily decides.⁷²

The implications of the models, theories, and conflicts discussed in the above two sections are for education profound. The goal of the third section of Chapter II is to relate the above topics to present educational theory. After discussing his three types of knowledge,

A. W. Levi notes:

So far there is no reason to find a serious conflict between the enterprises of Euclid, Newton, Darwin, Adam Smith, Isaiah, and Shakespeare. If there is a variety of areas of experience, there is no reason why each should not be approached in its own way. And if the term "knowledge" be granted a broad enough meaning, then it might be able to cover the results of mathematics and physics, natural and social science, poetry and religion. Unfortunately, this kind of peaceful coexistence has not been possible.⁷³

With the social sciences disputing which methods of knowing have rightful domain over their realms of experience, education is, of course, caught in the two-cultures web of conflict. Add to that quandary the frantic and traditional search in education for a single infallible method, and the picture of the state of education emerges.

As Bird says in his introduction to Cultures in Conflict,

Once there are various and distinct kinds and ways of knowing and expressing, there is occasion for rivalry and competition, for priority and primacy. Is one way of knowing better and more important than another? If so,

⁷²Maslow, p. 688.

⁷³Levi, pp. 36-37.

is it such as to set a standard or norm of excellence and perfection by which all other works of mind are to be measured and judged?⁷⁴

These are not idle questions to those in education. In a recent article, Harry S. Broudy discusses what knowledge is of most worth and defends a general studies curricula that supports context-building knowledge although he says that market value tells us that "the 'how to' knowledge designed for a programmed result or a competence" is most valued now.⁷⁵ What knowledge is of most worth is a question which should be answered before a curriculum is prepared.

Then, too, the question of the nature of humankind should be settled. The ones who establish answers for such questions usually have identified themselves with one side or the other of the two-cultures conflict. As R. B. Collingwood points out,

Every person who is actually absorbed in any given form of experience is by this very absorption committed to the opinion that no other is valid, that his form is the only one adequate to the comprehension of reality.⁷⁶

Conflict is foreseen, then, as inevitable by some, although there are others, such as C. P. Snow and William Davenport, who wish to bridge the gap between the two cultures via education.⁷⁷ They do not recognize

⁷⁴Bird, p. 1.

⁷⁵Harry S. Broudy, "What Knowledge Is of Most Worth," Educational Leadership, XXXIX (May, 1982), 574.

⁷⁶R. G. Collingwood, Speculum Mentis, or the Map of Knowledge (Oxford: Clarendon Press, 1924, 1970), p. 307.

⁷⁷C. P. Snow, p. 99; William H. Davenport, The One Culture (New York: Pergamon Press, 1970), p. 9.

that education as a discipline also contains representatives of the two cultures. There is little agreement between the two camps on educational theory. One cultural form or the other exercises control over educational curriculum which, in turn, dictates texts and methods. A description of the state of educational theory is well written in the opening paragraph of an "educational fable":

Once upon a time, in a not-too-distant land, there lived an Ant and a Grasshopper--each an Educational Spokesman who saw the other as The Enemy. The Ant had fashioned an army of administrators and systems analysts, with operant conditioners and technologists providing artillery support. The Grasshopper had put together a coalition of curriculum specialists, romantic revolutionaries, psychologists of humanist persuasion, and inquiry zealots.⁷⁸

The Ant's army uses Skinner's psychological ideas. For Skinner, there is no distinction between education and conditioning. Skinner advocates behavioral engineering or modification and programmed learning, each a situation in which teachers condition students systematically with immediate positive reinforcement. Evans and LeVine describe the teacher in this situation as "an efficient behavioral engineer whose main responsibility is the learning and performance of children."⁷⁹ The Ant's approach to education is logical and systematic. Efficient management of education is the goal. Learning is viewed as changed behavior. Behavioral objectives specify what is expected of

⁷⁸William Strong, "The Ant and the Grasshopper: A Didactic (And Somewhat Moral) Fable," Media and Methods, XI (March, 1975), 27.

⁷⁹Marilyn J. Evans and Elain LeVine, "The Humanistic, Behavioral, and Cognitive-Developmental Approaches to Education: A Call for a Synthesis," Contemporary Education, LIII (Summer, 1982), 203.

students. A student is then rewarded as (s)he achieves success, and each student works at her/his own pace. Learning tasks are broken down into component steps. As the Ant says,

. . . creativity and solving quadratic equations and analyzing propaganda and valuing one painting over another aren't just abstractions. They're complex behaviors. Now, if we're interested in teaching those behaviors, it's helpful to look at what they involve—in other words, to do a systematic task analysis.⁸⁰

Students advance from the simple behaviors to the complex behaviors as they respond to positive systematic reinforcement. The learning process is capsulated in step-by-step behaviorally sequenced instruction. Student learning is evaluated then, according to specified behavioral criteria.⁸¹

Advocates of the behavioristic educational theory direct their attention "to matters of articulating systems, to problems of management, and to assessing the success of the school in terms of output."⁸² Robert L. Ebel states:

I believe that the key to strengthening U.S. education in the Eighties is comprehensive monitoring of pupil achievement in learning. That monitoring will involve extensive use of tests.⁸³

⁸⁰Strong, p. 50.

⁸¹Strong, pp. 26-28, 49-56.

⁸²C. A. Bowers, "Emergent Ideological Characteristics of Educational Policy," Teachers College Record, LXXIX (September, 1977), 41.

⁸³Robert L. Ebel, "Three Radical Proposals for Strengthening Education," Phi Delta Kappan, LXIII (February, 1982), 375.

Human problems are viewed "as examples of mismanaged or misengineered environments."⁸⁴ In this view of reality one can see the thread of one side of the two-cultures conflict:

. . . anything real must be measurable, that reality can be divided into discrete components, that a mechanical relationship exists between a behavior and a reinforcer⁸⁵

The individual is viewed as a component in the system. The individual's behaviors are the quantifiable outcomes on which an assessment of the efficiency of the teaching system is based.

The Ant's army would be commanded by those in education who agree with basic assumptions underlying the above description of how to facilitate the learning process in humankind. Technologists such as Robert M. Gagné, R. Glaser, Marvin Alkin, and B. S. Bloom would serve as would behaviorists such as Eva L. Baker, L. Briggs, Jerry Short, W. J. Popham, and Robert Ebel.

The generals in the Grasshopper's army would be those educational leaders who would agree more with the view of humankind as seen by the humanists and phenomenologists. This list contains such names as Bruce R. Joyce, Michael Criven, Louis J. Rubin, Terry Borton, George Brown, Clark Moustakas, Gerald Weinstein, Maria Fantini, and Arthur W. Combs.

The Grasshopper's army makes use of the psychological ideas of Carl Rogers and Abraham Maslow. In Freedom to Learn Rogers discusses various levels of education, noting the principles of learning to which

⁸⁴Bowers, p. 42.

⁸⁵Bowers, p. 41.

he adheres and the qualities of the teacher he desires. Rogers stresses that human beings have a natural potentiality for learning. Learning for him involves a change of perception. The learning process should involve the whole person, her/his feelings as well as intellect. The student should participate responsibly in her/his own learning process. The teacher's attitude should be one of prizing the learner, her/his feelings, her/his opinions, and her/his values. The teacher should be aware of her/his own feelings as well. (S)he meets the learner on a person-to-person basis. The teacher should have a sensitive awareness of the student's perception of learning and an understanding of the student's reactions to the process of education. According to Rogers, the student should be accepted by the teacher as a person of individual worth.

Abraham Maslow also stresses the importance of picturing the teacher as receptive to the learner's self rather than as intrusive, which he considers the lecturer, conditioner, and reinforcer to be. He explains:

. . . the job of the teacher is to help a person find out what's already in him rather than to reinforce him or shape him into a prearranged form,⁸⁶ which someone else has decided upon in advance, a priori.

The learner should be helped to build upon his own talents in a nonthreatening atmosphere of acceptance. Evans and LeVine report that proponents of humanistic education are interested in holistic education of children.

⁸⁶Maslow, p. 688.

They want children to learn specific skills, to learn how to think, while at⁸⁷ the same time feeling good about themselves and education.

Her/his growth as a person and self-actualization should be of central importance in the learning process. Maslow emphasizes the importance of fascination and wonder-experiences as the intrinsic rewards of learning.

Also central to the thinking about humanized education and schooling is the work of the existentialist philosopher Martin Buber.

In A Humanistic Psychology of Education, Schmuck states:

According to Buber, it is impossible to plan deliberately for an I-Thou transaction. The acts of planning themselves lead to categorizing and objectifying aspects of the other. Since I-Thou transactions arise as unexpected gifts, the best we can do is to orient ourselves to be receptive to their occurrence. Unfortunately, the organizational patterns of schools keep students, teachers, and administrators isolated from one another both physically (in separate classrooms and isolated offices) and psychologically (through hierarchical decision-making procedures). Thus schools tend to rule out the possibility of the spontaneous I-Thou transactions by physically separating the participants and keeping them in role categories.⁸⁹

Rogers', Maslow's, and Buber's ideas surface as the Grasshopper describes his approach to learning. The Grasshopper considers the learner's perception and motivation as central in learning. He states:

. . . real learning isn't something that takes place in a one-thing-after-another program. That's unreal and unnatural.

⁸⁷ Evans and LeVine, p. 204.

⁸⁸ Richard A. Schmuck and Patricia A. Schmuck, A Humanistic Psychology of Education (Palo Alto, California: National Press Books, 1974), p. 7.

"Learning's psycho-logical, not logical," the Grasshopper added. "It happens in the rich scramble of living."⁸⁹

The Grasshopper's students are encouraged to plan, shape, and evaluate their own learning and to study materials which are personally relevant. Each student, says the Grasshopper, has a "unique potential and distinctive style of learning."⁹⁰

The goal of the Grasshopper is for the students to become self-directed and inquiring learners, to become personally responsible for their own learning. He advocates an environment that is a place of opportunity—"an environment that grows and changes with the interests of the learners."⁹¹ Here learners practice in coping with problems. Here knowledge is generated by the learner.⁹²

The educational theories of the Ant and the Grasshopper represent two extremely different conceptions of learning, two opposing views of knowledge, and two conflicting sets of assumptions about the nature of humankind. The three sections of Chapter II explicate the relationship of these educational theories to the general two-cultures conflict theory. With emphasis on the historical assumptions of the underlying controversy as well as on the more recently developed conflicting psychological theories, the analytic section of the study ends with descriptions of education as both a technique and an odyssey. The principles of one view are shown to be clearly antagonistic to the principles of the other view. The thesis of this dissertation is that

⁸⁹Strong, p. 49.

⁹⁰Strong, p. 50.

⁹¹Strong, p. 52.

⁹²Strong, pp. 26-28; 49-56.

most professionals concerned with public schooling in the United States accept concurrently both sets of assumptions and principles--both views of education.

Following Rescher's guidelines,⁹³ the next section of the study has the descriptive task of applying the two models of humankind characterized in Chapter II to the specific group of persons at issue (the professionals described in the above paragraph). The second part of the study examines, then, in light of the two-cultures theory, the theoretical culture of American public schools.

⁹³See Chapter I, p. 2.

CHAPTER III

PROCEDURES

Following Rescher's guidelines for the systematic study of the value (in this case, assumption) system of a group, the next step of the study is the descriptive task of applying the sets of assumptions associated with the two cultures to the specific, concrete setting of the group of persons at issue.¹ The group of persons at issue, for the purposes of this study, are the professional educators involved with American public schooling. For an empirical count and analysis of the assumptions underlying the theoretical culture in which this group operates, the recommendations of four National Field Task Forces on the Improvement and Reform of American Education are subjected to content analysis. The techniques of content analysis are well suited to research on culture.

In order to do research on the values of a culture, a framework of value theory is adopted. As declared in Chapter I, a major assumption of this study is that metaphysical assumptions influence the choice of values just as values influence subsequent choices. The methodology used in the study to identify assumptions regarding the nature of humankind and of reality is founded, then, on value theory. The definition of a value and the relationship of values to actions or decisions must be established. For the purposes of the study, Clyde Kluckhohn's broad definition of value-orientations is selected.

¹See Chapter I, p. 2.

Value-orientations are those views of the world which dictate what is important in one's life and how one conducts his life. These views concerning human life and day-to-day reality often are implicitly held.² Since metaphysical assumptions do define humankind and reality, the definition easily encompasses the subject of the study. It also allows that individuals may or may not be aware of their metaphysical assumptions although the assumptions are an integral part of their living. This type of values has also been identified as operative values, "those values which would be inferred from actions taken, not those to which we profess allegiance."³ The metaphysical assumptions of an individual are often so completely taken for granted, like the air (s)he breathes, that (s)he cannot identify them.

The value theory adopted by the study must, then, establish how operative values are manifested. In order to justifiably ascribe or impute a value to other persons, the researcher must make the assumption, supported by sociological findings, "that values help to give organization and direction to behavior."⁴ Vogt and O'Dea claim their study "testifies to the great importance of the value orientations in shaping the final action."⁵ Talcott Parsons writes that values are

²Clyde Kluckhohn, "Values and Value-Orientations in the Theory of Action: An Exploration in Definition and Classification," in Toward a General Theory of Action, ed. by Talcott Parsons and E. A. Shils (Cambridge: Harvard University Press, 1951), p. 410.

³David E. Purpel and Maurice Belanger, Curriculum and the Cultural Revolution (Berkeley: McCutchan Publishing Corporation, 1972), p. 5.

⁴Arnold M. Rose, "Sociology and the Study of Values," British Journal of Sociology, VII (1956), 5.

⁵Vogt, p. 645.

actualized partially and imperfectly, in systems of social interaction, and the actions are always co-determined by the values and the realistic exigencies.⁶ The value theory used in the study accepts, then, that the relationship of the value-orientation to the shaping of the final action appears to be a direct relationship, even though the relationship may not be recognized by the subjects.

The action in which value orientations are manifested may be verbal or physical. If the researcher gathers data via observation of the subjects, (s)he has difficulty making inferences from actions to values since actions are codetermined by the values and the realistic exigencies. The situations of everyday life so complicate the relationship of values to actions that inference on the basis of observation is at most only probable. The author of the present study chooses to use verbal data. The problem then reduces to how to best gather verbal data in value research. The difficulty in using the survey, questionnaire, or interview techniques is twofold. First there is the person who is unaware of or refuses to acknowledge her/his underlying values. Second is the person who merely says (s)he holds the value but in reality does not implement it. To avoid the above problems, the present study examines a particular form of overt verbal behavior—documents concerned with recommendations on the improvement and reform of American education. A further presumption of how values figure in thought about action qualifies value imputation. Rescher says that we expect a person

⁶Talcott Parsons, The Social System (Glencoe, Illinois: The Free Press of Glencoe, 1951), p. 50.

. . . to take the value into proper account in the "inner discourse" of deliberation and decision making. In imputing a value to someone, we underwrite the expectation that its espousal will manifest itself, in appropriate ways, in his reflections regarding the justification and recommendations of actions. The prime indicators of value subscription are those items which reflect the rationalization (defense, recommendations, justification, critique) of aspects of "a way of life."⁷

In Introduction to Value Theory, Nicholas Rescher suggests not only the items which best indicate value subscription (as above) but also the best avenue of approach to the analysis of value pattern. He says that "on the side of talk, the primary tool of investigation will be content analysis."⁸ In his article "Sociology and the Study of Values," Arnold Rose also says that

. . . use of the methods of content analysis is a valuable prior step in the logical analysis of conclusions to detect implicit value premises. . . . The method has been used to analyse the values in political propaganda and in popular literature.⁹

A general-purpose analytical infrastructure, content analysis, is intended for use by anyone who wishes to put questions to communications to get data that will enable one to reach certain conclusions. Employing the technique of content analysis makes the researcher's analytical processes public and systematic rather than private and random. As Thomas Carney states in Content Analysis: A Technique for Systematic Inference from Communications,

⁷ Nicholas Rescher, Introduction to Value Theory (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1969), p. 3.

⁸ Rescher, p. 4.

⁹ Rose, p. 9.

The whole idea is being able to pinpoint the evidence on which conclusions are based.¹⁰

The technique of content analysis "concerns the everyday problems of how to check source materials to see whether some theory or viewpoint is represented in them."¹¹ According to Carney, content analysis is increasingly used in the analysis of cultural differences. He declares:

Indeed, content analysis is the technique to use if the task is to assess someone's image of reality.¹²

Inference is required when analyzing a culture that is not recognized and perhaps even unimagined by the persons who conform to it. The use of inference means that the theoretically oriented variety of content analysis should be employed. To use this type of analysis a theory is needed

. . . which tells why the features being identified in the text should be related to the phenomena to which it is inferred that they are related in the content analysis.¹³

The two-cultures theory, identified and explained in Chapter II, supplies the necessary background for the construction of the categories used in the present study. Carney cautions:

At a general level, it is possible to "make a case" by choosing categories that will single out certain types of material in a communication. The only safeguard against this partiality is to have theoretical guidelines which independently suggest categories for use. . . . For reliable, externally established criteria, some form of theory, or body of findings is essential.¹⁴

¹⁰Thomas F. Carney, Content Analysis: A Technique for Systematic Inference from Communications (Winnipeg, Canada: University of Manitoba Press, 1972), p. 297.

¹¹Carney, p. 21.

¹²Carney, p. 195.

¹³Carney, p. 175.

¹⁴Carney, p. 41.

The two-cultures theory suggests the classification system to use in the content analysis. Regarding the two cultures, Bird says:

Difference between the two is not limited to ways of knowing or kinds of experience. It appears also in differences in linguistic usage and in preference for forms of expression that tend, on the one side, toward the poetic, and on the other, toward the logical.¹⁵

The language of the communicator is indicative, then, of her/his underlying assumptions regarding the nature of humankind and of reality.

Value theory agrees:

The absolute conceptualization of the value is a symbol, an incomplete representation standing for a body of understandings regarding the value.¹⁶

Language indicators or symbols are used to analyze documents in order to answer the question posed in the study.

The thesis of the study is that professionals involved in public schools are caught in a theoretical culture founded on conflicting assumptions regarding the nature of humankind. In order to use the technique of content analysis, the question posed in the study is linked to the framework explained above. The hypothesis of the content analysis is then: The documents containing recommendations for the improvement of American education will contain language indicators from both the behavioristic and phenomenological models of humankind. Carney explains the necessities of the process used in the study:

¹⁵ Otto A. Bird, Cultures in Conflict: An Essay in the Philosophy of the Humanities (Notre Dame, Indiana: University of Notre Dame Press, 1976), p. 155.

¹⁶ Ralph H. Turner, "Value Conflict in Social Disorganization," Sociology and Social Research, XXXVIII (1954), 306.

Great care is needed in the choice of items meant to discriminate. It is necessary to be clear why they do, and to define them very precisely. Often themes are involved. A variant of this technique [content analysis] involves shifting levels from a writer's conscious to his unconscious use of verbiage. Again the object is to discover trends which can be quantitatively assessed.¹⁷

Using the technique of content analysis, "the analyst is concerned not with the message per se."¹⁸ Attention is directed to the use of language from which inferences can be made because the language indicators are linked to a greater theory. Guidelines for the selection of the sample used in the present study are found in the following passages:

The most telling linguistic give-away is that over which the producer manifestly exercised no conscious control. A thing can be so small that it¹⁹ is not seen, or so large that there is no awareness of it.

Inferences of any depth and critical meaning can be drawn only by consciously shifting the level of attention towards subconscious trends. These have to be chosen so that they are represented²⁰ by items which can be quantitatively assessed.

The documents analyzed in the study for the subconscious containment of the assumptions of two cultures in regard to the theoretical culture of American public schools are the final reports of four independent National Field Task Forces on the Improvement and Reform of American Education. The National Center for the Improvement of Educational Systems of the U.S. Office of Education established the task forces

¹⁷Carney, pp. 180-181.

¹⁸Carney, p. 50.

¹⁹Carney, p. 50.

²⁰Carney, p. 178.

"to contribute directly to its intensified efforts to help improve the Nation's school systems and the preparation of the people who staff them."²¹ Carney states: "Any analytical technique can be only as good as the sample on which it is based."²² The set of four documents meets the requirements of a good sample. Four independent reports provide:

. . . a series of instances to produce conclusive argument by providing the data against which the various hypotheses can be tested. Much firmer conclusions can be drawn from analysis of trends than from "single-shot" analysis.²³

The construction of the sample provides within itself a test for the validity of the inferences drawn. Analyzing four documents in one integrated operation is called multiple confirmation. The four equivalent samples meet the requirements of the "test-retest" method of establishing validity of the analysis.

The composition of the Task Forces as well as their topic also meet two requirements of the thesis: (1) The members of the groups are representative of the nation. (2) The topic of concern requires that members apply their theoretical culture of education. The members of the task forces included representatives from all major geographic regions and almost all racial and ethnic groups. A wide variety of professional educating personnel were found in the task forces consisting of the following formations of vested interest groups: (1) Administration

²¹ Better Schools Through Better Partnerships: The Final Report and Recommendations of the Council of Chief State School Officers National Field Task Force on the Improvement and Reform of American Education (Washington, D.C.: U.S. Government Printing Office, 1974), p. iii.

²² Carney, p. 232.

²³ Carney, p. 51.

and Supervision, (2) Teachers, (3) Council of Chief State School Officers, (4) Higher Education. According to the reports,

The Task Forces had three major purposes: (1) to make recommendations regarding how best to use discretionary training funds for the improvement of the quality of American education, (2) to help develop specific training strategies for the improvement of educational systems through more effective development of educational personnel, (3) to show the way to a more effective communication system between the national Federal offices, regional offices, State offices and their constituencies.²⁴

Again, the documents were analyzed not for the message per se but for the subconscious verbalization which would reflect trends testing the thesis of the study.

The next section of Chapter III summarizes the general techniques of the content analysis applied to the above documents. As stated previously, if the aim of the analysis is inference from latent content, then theoretical content analysis is conducted which includes an indirect form of comparison used to assess data. The early parts of Chapter III explain how the processes of the analytical infrastructure are related to what one is looking for in the data. The study now calls for a description of those processes—the selection of the language indicators, the establishment of reliability via a pilot study, and the analysis applied to the resulting data collection.

The selection of language indicators is preceded by the identification of categories. The two-cultures theory suggests two themes—the behavioristic and the phenomenological. Carney defines

²⁴ Better Schools Through Better Partnerships, p. iv.

theme as "a conceptual entity: a viewpoint which can be seen as a coherent whole."²⁵ The trouble with using themes as the recording units of the content analysis is that they do not always appear clear-cut and self-evident. The behavioristic theme (labeled Theme A) and the phenomenological theme (labeled Theme B) are defined both with generalized, abstract terms and with illustrations. The complex themes are made into more readily identifiable component units by atomizing. The themes are defined by evolving an extensive list of symbols or language indicators associated with the two models of humankind. The theme then can be identified as comprising any combination of the list of language indicators which appear in a given passage. The specification of what setting is considered adequate to establish the appearance of a theme is also a necessity. This setting is known as the context unit.²⁶ In the present study the context units are generally paragraphs although some other context unit guidelines were established to cover special methods of presentation in the task force documents. (These guidelines are found in Chapter IV.)

The categories used in the study are: Theme A, Theme B, Both Theme A and Theme B, and Neither Theme. Because of the problems of reliability in coding themes, every context unit is coded. The four categories reflect all possible situations to be found in a context unit. In this way the problem of overcounting or undercounting instances of the themes is avoided. Also the structure allows for the neutral aspects as well as for the themes to be counted.

²⁵Carney, p. 159.

²⁶Carney, p. 158.

A unit is placed in its category by inference drawn from the use of language indicators. The language indicators are drawn from educational theories based on either the phenomenological or the behavioristic model of humankind. The phenomenological list includes such words and phrases as: actualization, idiosyncratic, unique, potentialities, self-direction, becoming, self-worth, individual feelings, consciousness, and individual dignity. The behavioristic list comprises such as: input, performance objectives, modules, sequencing instruction, outcome, feedback, implementation, stages, data-based decision making, and intervention strategies.

Even when the structural properties of the thematic unit are precisely defined with extensional lists such as those above, the identification of themes is still a judgmental process. The reliability of the data extraction process is established in the pilot study via a coding panel. Carney explains:

. . . a panel of coders can classify a part of the subject matter by themes into categories. The analyst's classifications are then compared with those of the panel. Agreement in classification indicates non-idiosyncratic placements and thus indicates his level of objectivity in classifying.²⁷

In order to stage the above reliability test, very clear and detailed description of the themes is formulated. During the pilot study a list with the assumptions of each of the two models of humankind, along with descriptive phrases and extensional word lists, is established. (These lists are located in the Appendix.)

²⁷ Carney, p. 51.

The data collected in the final analysis is subjected to a statistical analysis of variance. The two distinct bases of classification, the groups in the sample and the categories, allow for a two-way analysis to tell if there are any significant differences between the sets.

The theoretical basis of the procedures used in the study and the procedures themselves are thus explained in Chapter III. The value theory adopted for the study is clarified. The choice of the method of content analysis is explained as well as the method itself as it was incorporated in the study. The source of data and type of data analysis is also related. The next step is to report the pilot study and the results of the content analysis of the four task force reports. Chapter IV contains those specifics.

CHAPTER IV

RESULTS

The purpose of Chapter IV is to report the specific results of the content analysis technique when it was used to analyze the four task force reports on recommendations for the improvement of American education. Two phases comprise this section of the study. The first phase is the pilot study in which the analytic infrastructure is constructed and its reliability established. The second phase is the data extraction by the main coder, the author of the study, and the statistical analysis of that data which came from the four documents.

The specific construction of the content analysis technique is established during the pilot study. Categories for the present study were formed on the basis of two themes which, in turn, were based on Hitt's two models of humankind. (The models are described and discussed in Chapters I and II.) Each theme is identified in terms of six Hitt assumptions regarding one model of humankind. In order to reduce automatic bias on the part of the coders, the themes were not labeled behavioristic and phenomenological. Theme A is defined as the cultural ideal of an objective world in which humankind is described meaningfully in terms of her/his behaviors. (S)he is predictable; (s)he has traits in common with other people; (s)he may be described in absolute terms; her/his characteristics can be studied independently of one another; (s)he is knowable in scientific terms. Theme B is defined as the cultural ideal of a subjective world in which humankind

is described meaningfully in terms of her/his consciousness. (S)he is unpredictable; (s)he is unique alongside millions of other unique personalities; (s)he can be described in relative terms; (s)he must be studied as a total entity; (s)he is more than humankind can ever know about her/him. Each of the six assumptions of both themes is next illustrated with a set of descriptive phrases and an extensional list consisting of words which usually relate to that assumption. The two lists evolved during the pilot study are presented in the Appendix under the titles "Assumptions of Theme A" and "Assumptions of Theme B."

Two initial attempts at unitizing, establishing recording units and context units, failed. The successful third trial equated context units and recording units. In other words, every context unit was coded either Theme A, Theme B, Theme A and Theme B, or Neither Theme. The structure allows for the depiction of the neutral aspects of the documents as well as for the detection of the two themes. In this way the appearance of the two themes can be judged in relation to the whole work.

Ordinarily the context/recording units were paragraphs. The task force reports are presented in such a way that paragraphs are not indented but instead are separated with double spacing. Specific guidelines were developed governing the composition of a context/recording unit when such composition was not obvious. Included with a short main paragraph were: (1) short unenumerated phrases, (2) short enumerated phrases, (3) two short unenumerated paragraphs related to the short main paragraph. Those items counted individually as

context/recording units were: (1) enumerated sentences or paragraphs after a long main paragraph, (2) more than two separated paragraphs after short main paragraph in which case the main paragraph is combined with the first separated one to comprise one context/recording unit, (3) enumerated separate paragraphs after a short main paragraph in which case the short main paragraph is included with the first numbered paragraph as one context/recording unit, (4) long enumerated phrases after a long main paragraph.

Three subsamples were taken from the main sample for use during the pilot study. A total of 64 context/recording units were coded by a panel of three coders plus the author of the study. The three subsamples are found in the Appendix, just as they were presented to the coding panel.

The set of instructions given to the coding panel is also located in the Appendix. The instructions included a general definition of content analysis, a description of the task and purpose of the coding panel, definitions of Theme A and Theme B, a list of assumptions with descriptive phrases and an extensional list of language indicators for each theme, and four example sentences reduced to component units in relation to the themes. Along with the instructions, the packet given to each coding panel member contained copies of the three samples, a summary list of assumptions, and a recording sheet. The samples and summary list of assumptions were found to be particularly helpful to the coding panel as they pursued their task. All of these items are included in the Appendix.

The panel was given specific instructions regarding the topic of "student needs" and was cautioned concerning the importance of considering the emphasis placed on particular ideas in a context/recording unit:

The topic of "student needs" can elicit the appearance of both themes. If the approach is a loose one of responding to needs or making decisions appropriate to needs, then Theme B has surfaced. If the approach, however, is a precise one of determining needs, diagnosing needs, or designing programs to meet needs, then Theme A has appeared.

A paragraph or item may contain references to both themes and yet have a definite slant toward only one of the themes. Your consideration of the emphasis placed on particular ideas will be a critical factor in determining the appropriate category.¹

The coding panel for the pilot study included two professors of education, a public school teacher, and the author of the study who also is a public school teacher. The reliability of the context analysis used in the study was established through the panel during the pilot study. Then the author of the study proceeded to the extraction of data from the documents in the sample.

The method of establishing reliability of the context analysis used in the study is that developed by Spiegelman, Terwilliger, and Fearing. Holsti reports that the method is one of computing and reporting the overall reliability of any category set with a single figure.² The technique involves ranking the patterns of agreement among the four

¹See "Instructions for Coding Panel" in the Appendix.

²Ole R. Holsti, Content Analysis for the Social Sciences and Humanities (Reading, Massachusetts: Addison-Wesley Publishing Company, 1969), p. 141.

coding panel members on each context/recording unit in the three subsamples. The reliability of the category set of the present study is reported as the mean rank order of all context/recording units. With four coding panel members five patterns are possible, as shown in Table 1.

Table 1
Possible Patterns of Agreement Among Four Coders

Pattern of Agreement	Rank Order
4 (complete agreement)	1
3, 1	2
2, 2,	3
2, 1, 1,	4
1, 1, 1, 1, (no agreement)	5

Scores of reliability range from 1 (complete agreement on the placement of a context/recording unit in a category) to 5 (no agreement on the placement of a context/recording unit in a category).

Shown in Table 2 are the rank orders of the context/recording units of the three subsamples as coded by the coding panel. The mean rank orders of Coding Panel Sample I, Coding Panel Sample II, and Coding Panel Sample III, are respectively 2.20, 1.56, and 2.64. The total reliability of the category set as established in the pilot study is 2.05. The rank order number of 2 means that usually three of the four coding panel members agreed on the placement of a context/recording unit in a category. The study is thus not faulted by unreliable coding techniques.

Table 2

Rank Orders of Context/Recording Units in Pilot Study

Context/Recording Unit	Coding Panel Sample I	Coding Panel Sample II	Coding Panel Sample III
1	2	2	1
2	2	1	2
3	3	1	2
4	1	1	1
5	2	2	4
6	1	1	3
7	2	4	3
8	3	2	3
9	4	1	2
10	2	1	1
11	2	1	4
12	2	1	4
13	1	1	3
14	2	1	4
15	3	1	-
16	3	1	-
17	2	3	-
18	4	1	-
19	1	1	-
20	2	1	-
21	2	2	-
22	2	3	-
23	4	2	-
24	1	2	-
25	2	2	-
Mean Rank Order	2.20	1.56	2.64
Total Mean Rank Order	2.05		

Since the subsamples were part of the actual sample which was coded in the study, they can be used to meet the requirements of one writer on the presentation of content analysis results:

In the presentation of results there is only one absolute essential, and that is to give enough illustrations. If the reader is to have the privilege of drawing his own inferences directly from the data, he should be given a reasonably large and representative sample to work from; . . . Also—even more important—if the reader is to have a good approximate idea of the meaning of any one of the numerical totals, he should have the privilege of seeing at least some of the actual statements used in arriving at that total.³

Table 3 shows the actual coding of the subsamples during the second phase of the content analysis, the coding of the total sample. If the reader matches the coding in Table 3 with the three samples in the Appendix, (s)he can acquire a sound understanding of the content analysis used in the study.

The actual count of categories in the four reports, the coding data, is presented in Table 4. The estimated variances and F ratios from the data of Table 4 are shown in Table 5. The overall F test indicates that there probably are no significant differences between the groups analyzed and that there probably are significant differences between the categories at the .05 level. The interpretation of the significant F is that at least one mean of the categories varies significantly further from the population mean than is expected, in view of the variations of single cases from their means.

³Ralph K. White, Value Analysis: The Nature and Use of the Method (New Jersey: Libertarian Press, 1951), p. 79.

Table 3

Actual Coding of Subsamples in Second Phase of Content Analysis

Context/Recording Unit	Sample I	Sample II	Sample III
1	B	A	A
2	B	A	B
3	A/B	A	A
4	B	A	B
5	A	A	N
6	A	A	B
7	A	A	B
8	A/B	A	A/B
9	A	A	A
10	A	A	A
11	A	A	A
12	B	A/B	A
13	A	A	N
14	B	A	A
15	B	A	-
16	N	A	-
17	A/B	A/B	-
18	A	A	-
19	B	A	-
20	A/B	A	-
21	A	A/B	-
22	A/B	B	-
23	A/B	A	-
24	A	A	-
25	A/B	A	-

Table 4
Coding Data

Group	Category			
	A	B	A/B	N
Administrators and Supervisors	97	27	26	52
Higher Education	96	31	37	27
Teachers	56	61	50	43
Chief State School Officials	101	49	27	98

Table 5
Estimated Variances and F Ratios from Coding Data

Source	Sum of Squares	df	<u>MS</u>	<u>F</u>	<u>P</u>
Groups	1072.25	3	357.42	.769	>.05
Categories	6500.75	3	2166.92	4.665	<.05
Remainder	4180.75	9	464.53		
Total	11753.75	15			

The next statistical step in the study was to examine Category A versus Category B to see if the significant difference exists there. Using only the data in Categories A and B, an F ratio was calculated and found to be significant at the .05 level. Table 6 shows the resulting calculations.

Table 6
Estimated Variance in Categories A and B

Source	Sum of Squares	df	<u>MS</u>	<u>F</u>	<u>P</u>
Between A & B	4140.5	1	4140.5	11.87	<.05
Within A & B	2093.0	6	348.83		
Total	6233.5	7			

The author of the study had not planned any other comparisons in advance, but she decided to do some "looking around" in the data and make a total set of possible category comparisons after the two-way analysis indicated significant differences among the categories at the .05 level. The post hoc comparisons were made by the S method. A larger t ratio is required to achieve a .05 level of significance by the S method than is required for independent comparisons. Table 7 reveals that four of the post hoc comparisons were significant at the .05 level. Only one of these comparisons, A versus B + A/B + N, is of any interest to the study. Noted also is the lack of significance of the A versus B

Table 7
Post Hoc Comparisons Among Categories by the S Method

Comparison	M_A 87.5	M_B 42.0	$M_{A/B}$ 35.0	M_N 55.0	Σa_1^2	d_1	σ_{d1}	t
A vs. B	1	-1	0	0	2	45.5	14.79	3.076
A vs. A/B	1	0	-1	0	2	52.5	14.79	3.550*
A vs N	1	0	0	-1	2	32.5	14.79	2.197
B vs A/B	0	1	-1	0	2	7.0	14.79	.473
B vs. N	0	1	0	-1	2	-13.0	14.79	-.879
A/B vs. N	0	0	1	-1	2	-20.0	14.79	-1.352
A vs. B + A/B	2	-1	-1	0	6	98.0	25.62	3.825*
A vs. B + N	2	-1	0	-1	6	78.0	25.62	3.044
A vs. A/B + N	2	0	-1	-1	6	85.0	25.62	3.318*
B vs. A + A/B	-1	2	-1	0	6	-38.5	25.62	-1.503
B vs. A + N	-1	2	0	-1	6	-58.5	25.62	-2.283
B vs. A/B + N	0	2	-1	-1	6	-6.0	25.62	-.234
A/B vs. A + B	-1	-1	2	0	6	-59.5	25.62	-2.322
A/B vs. A + N	-1	0	2	-1	6	-72.5	25.62	-2.830
A/B vs. B + N	0	-1	2	-1	6	-27.0	25.62	-1.054
N vs. A + B	-1	-1	0	2	6	-19.5	25.62	-.761
N vs. A + A/B	-1	0	-1	2	6	-12.5	25.62	-.488
N vs. B + A/B	0	-1	-1	2	6	33.0	25.62	1.288
A + B vs. A/B + N	1	1	-1	-1	4	39.5	20.92	1.888
A + A/B vs. B + N	1	-1	1	-1	4	25.5	20.92	1.219
A + N vs. B + A/B	1	-1	-1	1	4	65.5	20.92	3.131
A vs. B + A/B + N	3	-1	-1	-1	12	130.5	36.24	3.061*
B vs. A + A/B + N	-1	3	-1	-1	12	-51.5	36.24	-1.421
A/B vs. A + B + N	-1	-1	3	-1	12	-79.5	36.24	-2.194
N vs. A + B + A/B	-1	-1	-1	3	12	0.5	36.24	.014

*Significant at the .05 level ($t'_{.05} = 3.236$).

comparison in the post hoc set of comparisons due to the larger t ratio required to achieve significance.

The results of the statistical analysis are important to the study in that they reveal the strength of Theme A, the behavioristic model of humankind, in the theoretical culture of American public schools. In the independent comparison of Theme A and Theme B (behavioristic model and phenomenological model of humankind), Theme A is found to be significantly more prevalent than Theme B in the analyzed documents. In the post hoc comparisons Theme A is found to be significantly more frequent when compared to the mean frequency of all the other categories combined ($B + A/D + N$). The theoretical culture of education revealed in the documents is shown significantly to be behavioristically oriented.

The author observed the low count of Theme A in the report made by teachers and decided to test for its statistical significance within the Category A. Although the "Teachers" group did not significantly differ from the other groups in regard to the complete category set, the "Teachers" group did differ significantly at the .05 level in regard to Category A (Theme A, the behavioristic theme). A $\frac{1}{2}$ score of -1.72 was calculated which indicated that the document of the "Teachers" group contained significantly less context/recording units classified as Theme A than did the "Administrators and Supervisors" group or the "Higher Education" group or the "Chief State School Officers" group. There was no significant difference between the "Teachers" Theme B frequency and the three other groups' Theme B frequency. The $\frac{1}{2}$ score of 1.213 was insignificant at the .05 level. Neither theme was found to be of greater statistical significance in the "Teachers" group.

The lack of significant differences among the four groups ("Administrators and Supervisors," "Higher Education," "Teachers," and "Chief State School Officers") helps validate the study. The results can be considered generalizable to the public school professionals rather than specific to a single situation.

The reliability and validity of the content analysis in the study are thus found to be sufficient for the purposes of making inferences from that content analysis. The results of the statistical analysis of the content analysis can be summarized as follows:

1. The behavioristic theme appeared in the documents with significantly more frequency than did the phenomenological theme.
2. The frequency of the appearance of the behavioristic theme in the "Teachers" group document was significantly less than in the documents of the "Administrators and Supervisors" group, the "Higher Education" group, and the "Chief State School Officers" group.
3. Neither the behavioristic theme nor the phenomenological theme appeared in the document of the "Teachers" group with significantly greater frequency.

CHAPTER V

INFERENCES, CONCLUSIONS, AND SUMMARY

The third and final task for the systematic study of the value system of a group is the normative task of evaluating that specific pattern of value subscription. The purpose of Chapter V is then to evaluate, in light of the two-cultures theory, the theoretical culture of American public schools, a culture which is built upon a mixed base of behavioristic and phenomenological assumptions. Also included in the chapter are suggestions for further study, implicit in the results of the present philosophical investigation, and a summary of the present study. The evaluation section of Chapter V contains two parts. The first part assesses the problem of philosophical disorganization and conflict for American public schools. The situation is described, and inferences from the study are made. The second part of the evaluation concludes that a new manner of contending with the philosophical dilemma should be adopted and makes specific suggestions as to what the nature of the new approach should be.

A presumption of the study is that people would not knowingly recommend conflicting actions in a report which aims at the reform and improvement of public education in the United States. The study finds, however, a conflicting metaphysical base within all four documents. The conflicting base spawns conflicting recommendations for action. Of the four groups in the study, "Administrators and

Supervisors," "Higher Education," "Teachers," and "Chief State School Officers," the "Teachers" group displays the greatest philosophical disorganization. While in general the four groups lean toward a behavioristic mode, the "Teachers" group combines evenly the behavioristic and phenomenological methods. The conglomerate metaphysics appears to be at the center of some of the difficulties and anxieties that the teacher experiences. The study supports David Riesman's observation:

. . . we will find that the same pluralism which exists in the society exists in many of its individuals, and that we are talking to one part of a person and against another. . . .¹

The theoretical culture of American public schools is both behavioristic and phenomenological, but more importantly the theoretical culture of an individual professional in the public schools is both behavioristic and phenomenological. W. T. Jones explains the general phenomenon:

It is more to the point to think of it [chasm between scientism and humanism] as a conflict within culture (and within the individual personality that has internalized the culture) rather than as a conflict between separate cultures. There is certainly a regrettable chasm between men who have been educated as humanists and men who have been educated as scientists. But more serious and more fundamental is the interior split, or chasm, in most individuals.²

A situation is thus created in which metaphysical assumptions do not constitute effective directives to consistent action within the school.

¹David Riesman, Individualism Reconsidered and Other Essays (Glencoe, Illinois: The Free Press, 1954), p. 25.

²W. T. Jones, The Sciences and the Humanities: Conflict and Reconciliation (Berkeley: University of California Press, 1965), p. 10.

The resulting state is one of conflict and philosophical disorganization. On-going activity must dictate to the individual teacher the choice of action when conflict occurs. In light of the results of the present study, Jones' statement seems particularly applicable to public school professionals:

Here, then, in the conflict between the scientific and humanistic views of life there is an uninterpretable . . . situation of central importance. Even men and women who may be wholly unconscious of this conflict in the terms in which I have formulated it are nevertheless affected by it in their outlook on life, and in their neurotic, or near-neurotic, responses to contemporary social and political problems.³

Jones goes on to say the "metaphysical dilemma is that we cannot form a comprehensive and consistent conception of human nature."⁴ As a result, he says, "we experience tension and strain as we try desperately to hold wildly contradictory beliefs. . . ."⁵

The desperation leads to the attempt to combine the two sets of assumptions into one workable approach to education—humanistic-behaviorism. A humanistic-behaviorist identifies herself as

. . . one who believes in specified objectives, task analysis of the steps required to reach objectives, teaching, managing, or implementing the steps, evaluation of outcome against objectives, and an atmosphere of caring and sharing.⁶

³Jones, p. 11.

⁴Jones, p. 17.

⁵Jones, p. 17.

⁶Barbara Bateman, "Humanistic Goals and Behaviorist [sic] Technology," School Psychology Digest, XXII (Winter, 1973), 7.

The combination of assumptions is also revealed in the following paragraph on "humanizing accountability":

As necessary as it is for the objectives of a program to be situation-specific, it is also equally necessary that accountability develop a climate whereby individual initiative and creativity can flourish. In terms of what is required of teachers and administrators to "get the job done," suggesting the elimination of arbitrary requirements and standards for teaching, particularly in the area of teacher education and certification. In other cases, it may require that the establishment of "desired results" reach beyond a series of stratified test scores to encompass more than levels of achievement.⁷

The author of the present study speculates that the metaphysical mixture causes much confusion in the theoretical culture of humanistic-behaviorism. As Chris Argyris suggests in his framework to evaluate such combinations, the combination which results is different from each of the components. The behavioristic and phenomenological identities of actions are obscured and thus actions become incoherent.

Although the frustration that results from the conflict of the behavioristic model with the phenomenological model is a metaphysical inevitability, the frustration that results from the mixture of models is avoidable. The theoretical culture does not have to establish unattainable humanistic-behavioristic goals for the public school professional. The professional can become entrapped by the humanistic-behavioristic assumptions of the theoretical culture and become alienated

⁷Better Schools Through Better Partnerships: The Final Report and Recommendations of the Council of Chief State School Officers National Field Task Force on the Improvement and Reform of American Education (Washington: U.S. Government Printing Office, 1974), p. 19.

from her/his work when goals cannot be reached. Jones observes that there is a "tendency to avoid metaphysical problems instead of trying to solve them."⁸ The avoidance of public school professionals may take the form of excessive preoccupation with process or of the polishing of technique or of the acquisition of status in the school system and may result in the loss of the sense of purpose. Bowers comments:

Insofar as the ideology promises a reality that cannot be fulfilled it puts the individual in an untenable situation. Unless the individual possesses the language and concepts necessary for providing a plausible explanation of failure, the inability to achieve what is promised by the ideology is likely to be experienced as a personal shortcoming. Failure thus becomes a personal matter and lack of ability to explain or analyze the social roots of failure simply intensifies the personal sense of inadequacy.⁹

One finds thus that the complicated theoretical network in which teachers find themselves not only dooms them to failure but also compels them to experience the failure as a personal matter.

The teacher lacks the ability to explain or analyze the philosophical roots of failure because (s)he has been given a noncritical and nonanalytical exposure to educational theory. Martin Green notes "the hostility the people on each side of the split [two-cultures split] feel for the other side"¹⁰ and "the invalidism this wound causes in the

⁸ Jones, p. 4.

⁹ Bowers, p. 39.

¹⁰ Martin Green, Science and the Shabby Curate of Poetry: Essays about the Two Cultures (London: Longmans, Green and Co., Ltd., 1964), p. 1.

general educated consciousness."¹¹ In a recent article one author noted also:

a distressing and even destructive feature of intellectual life: the mutual failure of comprehension that separates serious devotees of the different modes of knowledge.¹²

The colleges of education exert significant influence and control over the teacher's ability to think symbolically about the theoretical culture of education. Teachers lack the means of symbolizing and articulating the sources of philosophical conflict in the theoretical culture of education. They lack the vocabulary and concepts necessary for recognizing and understanding the influence the two models of humankind exert on the theoretical culture of education. Professors of education may promote the behavioristic educational theory or the phenomenological educational theory. Future teachers internalize the taken-for-granted assumptions of each theory, but they are not helped to understand how reality and human nature are being conceptualized or how to think reflexively about alternative views of reality and human nature.

In the story of the debate of the Ant and the Grasshopper (discussed in Chapter II) on educational theory, the two debaters were "somewhat surprised to see that everyone was sound asleep"¹³ at the end

¹¹Green, p. 1.

¹²Paul L. Ward, "The Troublesome Differences Among Modes of Knowledge," Soundings, LXIV (Fall, 1981), 289.

¹³William Strong, "The Ant and the Grasshopper: A Didactic (and Somewhat Moral) Fable," Media and Methods, XI (March, 1975), 56.

of the debate. Considering the structure of the education of the professional educator, a structure which perpetuates philosophical voids, the debaters should not have been surprised at the reaction to their discussion. Public school professionals have not been taught how to think reflexively about the relationship between educational practices and techniques and educational theory. As long as individual teacher performance is viewed as the main source of trouble in the public schools of the U.S., the more fundamental problems, such as the philosophical disorganization disclosed in the present study, will be generally overlooked. Full weight will fail to be given to the philosophically structured conditions of teacher performance.

The second section of the evaluation of the mixed assumption base of educational theory suggests a new approach for contending with the philosophical dilemma. First the importance of examining the organized character of knowledge which colleges of education make available to teachers and other school professionals must be acknowledged. In Davenport's The One Culture, a passage applicable to the teacher's education is found:

Northrop Frye takes a dim view, for example, of any gulf-bridging, but goes further to point out that we have all missed the main issue involving science and humanism: "Again, the intellectual separation of the 'two cultures' is said to be a problem of our time, but this separation is inevitable; it is going steadily to increase, not decrease, and it cannot possibly be cured by having humanists read more popular science or scientists read more poetry. The real problem is not the humanist's ignorance of science or vice versa, but the ignorance of both humanist and scientist about the society of which they are both citizens."¹⁴

¹⁴ William H. Davenport, The One Culture (New York: Pergamon Press, 1970), p. 4.

The teacher is ignorant of the philosophical culture of which (s)he is a member. Behaviorists and phenomenologists in the colleges of education must eschew intellectual imperialism—when one form of knowledge lays claim to the exclusive title to all knowledge and thereby denies the value of any other form."¹⁵ As Charles Marler says in Philosophy and Schooling,

The task facing those responsible for educational theory is as immense as it is pressing. No one group is sufficient to the task; needed is much more cooperative work and many fewer expressions of a "holier than thou" attitude or attempts to dictate.¹⁶

The discussion of educational philosophy must extend to all classes in the colleges of education and not just be the responsibility of the educational foundations department. Bird states the necessity

. . . for acknowledgement and recognition that there exist different ideals of intellectual culture, each with its own preferred ways of thought and expression, each responding in its own way to different needs and aiming at different purposes, and all of them equally the work of the mind.¹⁷

The reassessment of the professional educator's education requires participation of people from both theoretical schools and from various areas in the colleges of education. Richard Wisniewski explains:

We can create a new future for teacher education and public education. Our fragmentation must be confronted and

¹⁵ Otto A. Bird, Cultures in Conflict: An Essay in the Philosophy of the Humanities (Notre Dame, Indiana: University of Notre Dame Press, 1976), p. 4.

¹⁶ Charles D. Marler, Philosophy and Schooling (Boston: Allyn and Bacon, Inc., 1975), p. 13.

¹⁷ Bird, p. 190.

overcome. If we continue to limit and define our world to the courses we control, we will never address the critical questions of competence and quality.¹⁸

Cooperation is vital in developing a program of philosophical awareness and perspective. Teacher education must not be a quick trip through a production line of the techniques and the surface realities of teaching. Richard Wisniewski calls for professional schools of education and extended time for preparing professionals.¹⁹ Means of teaching must be considered in relation to their philosophical foundations. Those who wish to "teacher-proof" public schooling must realize the detrimental effects such an approach produces in the intellectual leadership of education. Education must be viewed as a "preeminently people-oriented enterprise, not a process-oriented endeavor."²⁰ Only awareness of different points of view can widen the vision. According to Snow,

Changes in education will not, by themselves, solve our problems: but without²¹ those changes we shan't even realize what the problems are.

Snow's observation above is relevant to the education of public school professionals. Their education must be concerned with the philosophical assumptions which complicate the theoretical network of education.

¹⁸Richard Wisniewski, "Three Scenarios for Teacher Education," Journal of Teacher Education, XXXIII (March-April, 1982), 6.

¹⁹Wisniewski, p. 6.

²⁰Robert D. Benton, "Technology and the Foxfire Syndrome: A Perspective," School Library Media Quarterly, X (Fall, 1981), 32.

²¹C. P. Snow, The Two Cultures: And a Second Look (Cambridge: Cambridge University Press, 1964), pp. 99-100.

In order to effect the educational changes suggested above, changes in the attitudes of some professors in the colleges of education will be requisites. The discarding of intellectual imperialism and the adoption of cooperative planning are necessities. Then, the problems of the philosophical conflict in educational theory and of the conflict in public school theoretical culture should no longer be considered in terms of defects to be remedied by synthesis or agreement. A main purpose of the present study is to make readers aware of the extent and the persistence of the conflict of cultural ideals concerning human nature.

A conclusion of the study in hand is that a decisive victory of one philosophical view of education over another will not be won.

Philosophy has given the world some of its greatest geniuses, but the history of the subject contradicts the idea of a gradual approximation towards a consensus of opinion on philosophical subjects.²²

Support for the stated conclusion is found in various other sources. Discussing the behavioristic and phenomenological presentations of psychology at a conference he attended, Hitt observes:

The discussions following each presentation may be described as aggressive, hostile, and rather emotional; they would suggest that there is little likelihood of a reconciliation between the two camps²³

²²David K. Cornelius and Edwin St. Vincent, Cultures in Conflict: Perspectives on the Snow-Leavis Controversy (Atlanta: Scott, Foresman and Company, 1964), p. 95.

²³William D. Hitt, "Two Models of Man" (unpublished paper, Columbus Laboratories of Battelle Memorial Institute, n.d.), p. 1.

Sidney Hook comments that "there is no likelihood that we will agree about theories of reality." Davenport notes in The One Culture Gerald Horton's discussion of the

. . . hope that science and general ideas might work in harness together, and the further hope that the gap between science and humanism might be bridged. His flat conclusion was chilling: "But the truth is that both the hopes and the bridges are illusory . . . there appears at present to be no force in our cultural dynamics strong enough to change this trend."²⁴

The reality of the existences of both the behavioristic view and the phenomenological view is that with which professional educators must grapple. The illusion is that a choice between the two views will be made as Bird suggests in Cultures in Conflict:

If it is the power to predict and control, to reshape the face of the world and alter the course of events, to make things work as men direct, then it is not this fundamental experience that we have been talking of, but the sciences, that will be judged to constitute our best knowledge. And so the scientific ideal has been loudly proclaiming since the time of Francis Bacon. This, however, is not our only choice. "The wonder of all wonders is the pure ego and pure subjectivity," Husserl declared. This conviction, as it has been developed in phenomenology and existentialism, has resulted in a reaffirmation of the value and importance of man's underlying experience and the worth of the humanities.²⁵

Whether or not the choice is as Bird describes is not important here. The purpose of using the quotation is to reinforce the conclusion of the present study that such a choice will not be made. If the theoretical culture of education is to have any value beyond isolated methods or pure logics, then it must be something in which both behaviorism and

²⁴Davenport, p. 8.

²⁵Bird, p. 131.

phenomenology can collaborate. John Goodlad's recent study of schooling reveals that the goals of U.S. public schools also demand such a theoretical culture.²⁶

A reasonable theoretical culture involves a comprehensiveness of vision and enlightenment. Veatch suggests:

Instead of an "either-or" with respect to so-called humanistic knowledge on the one hand and scientific knowledge on the other, might it not be a case of "both-and"?²⁷

Bird concurs:

Art, science, and the other forms are charged with committing a twofold error: each claims to be independent when in fact no one of them is, and each also lays claim to the whole of truth, when none of them actually possesses it. All of them, according to Collingwood, are only "Variously distorted versions of one and the same country." This one country is the country of the mind. . . .²⁹

Paul Ward emphasizes the position:

. . . we now see more clearly that almost any given academic discipline appeals to, utilizes, more than one mode of knowledge.²⁹

Since no philosophy of mind has been developed which adequately satisfies the behaviorist and the phenomenologist, a philosophy which accepts a mind which functions somewhere between the extremes of the two models of humankind seems a reasonable one to adopt. The Hellenic

²⁶ John Goodlad, "A Study of Schooling: Some Implications for School Improvement," Phi Delta Kappan, LXIV (April, 1983), 557.

²⁷ Henry B. Veatch, Two Logics: The Conflict between Classical and Neo-Analytic Philosophy (Evanston: Northwestern University Press, 1969), p. 19.

²⁸ Bird, p. 176.

²⁹ Ward, p. 287.

sense of just proportion is applied as one considers all the pieces of human experience.

The author of the present study is convinced of the viability of an approach to educational theory which does not demand the adoption of a single wisdom. Veatch proposes:

Recognize a difference between the two logics [and the two types of knowledge] . . . it should then be possible to accord a proper status to both that substantive knowledge . . . and that calculative knowledge.³⁰

Knowledge can be defined both as something closed and packaged and something learners can generate if two types of knowledge are recognized as legitimate. Explicit knowledge and tacit knowledge are given equal status as Polanyi says

. . . an oscillation of detaining and integrating is the royal road to deepening our understanding of any comprehensive entity.³¹

Just as the behavioristic and phenomenological definitions of knowledge may be dealing with two different aspects of knowledge, so may the behavioristic and phenomenological models of humankind be dealing with two different aspects of humans. Hitt suggests that it is "reasonable that man could be described in terms of his behavior or his consciousness—or both."³² He also states:

³⁰Veatch, p. 265.

³¹Michael Polanyi, Scientific Thought and Social Reality (New York: International Universities Press, Inc., 1974), p. 119.

³²Hitt, p. 4.

We must conclude that man is scientifically knowable—at least to a point. Yet there is no evidence to support the idea that man is—or ever will be—completely knowable.³³

There is no law of logic against assigning contrasting characteristics to the same being if those characteristics apply to different aspects of that being. Humankind can be conceived as both behavioristic and phenomenological without involving contradiction, provided that the behavioristic and phenomenological assumptions apply to diverse features of humankind.

If there appears to be truth as suggested above in both views of humankind, then the process of establishing and maintaining the partitioning of situations to which different assumptions apply would appear valuable in remedying the philosophical disorganization present in the theoretical culture of education. In 1982, two authors call for such clarification of the models and assistance to educators

In deciding when it is appropriate to consider a child determined (so that behavioral or cognitive-developmental strategies are employed) and when it is most appropriate to build upon the student's sense of free will (so that humanistic procedures are adopted).³⁴

As Hitt suggests, "It would appear that a dialogue is in order."³⁵ A dialogue among sufficient people with less-than-fanatical attitudes and in strategic positions could result in an agreement on some views of a very general sort like due process—an idea Riesman terms "procedural

³³Hitt, p. 10.

³⁴Marilyn J. Evans and Elaine LeVine, "The Humanistic, Behavioral, and Cognitive-Developmental Approaches to Education: A Call for a Synthesis," Contemporary Education, LIII (Summer, 1982), 204.

³⁵Hitt, p. 11.

consensus."³⁶ In the recommendations section of his article "A Study of Schooling: Some Implications for School Improvement," John Goodlad concludes:

There should be extensive dialog at the district and building levels regarding the meaning of these goals [academic, citizenship, vocational, and personal goals], the relative emphasis to be placed on each in the light of local conditions, and the means of fulfilling them. This dialog should create an awareness of the need for an attention to teaching procedures and learning activities frequently neglected in classrooms.³⁷

In such a situation, perhaps a high level view of educational theory could be evolved. Such a high level would represent the functional whole, the joint meaning of the lower level of isolated behavioristic and phenomenological parts. Michael Polanyi's analysis suggests "a hierarchy of knowing with each higher level controlling the several ways that the parts of the lower levels can be integrated"³⁸ The whole task of education must be perceived in light of the two cultures.

Educational planning is usually thought of as a means whereby one curriculum builder creates a system based on her/his assumptions. Perhaps the process should be reorganized in such a way that participants with varied assumptions have an opportunity to be

³⁶ Riesman, p. 19.

³⁷ Goodlad, "A Study of Schooling," p. 556.

³⁸ Harold G. Coward and Joseph R. Royce, "Toward an Epistemological Basis for Humanistic Psychology," in Humanistic Psychology: Concepts and Criticisms, ed. by Joseph R. Royce and Leendert P. Mos (New York: Plenum Press, 1981), p. 123.

involved.³⁹ Restructuring does not necessarily have to be more rational and consistent. The reformulation of the purposes and practices of public education should be, however, "in a tough-minded and coherent way that fits our own time."⁴⁰ Only then can the weakness of purpose and confusion of vision cited by the National Commission on Excellence in Education as conditions to be corrected actually be corrected. Solutions to educational problems could be sought within a total philosophical framework which makes available a range of possibilities. Sidney Hook counsels:

The notion that the resolution of educational problems . . . depends upon one's "theory of reality" is almost comical if it suggests that we cannot as educators achieve a sensible agreement about the first unless we agree about the second.⁴¹

. . . educators who agree about the desirability of certain educational aims and methods may disagree profoundly in their world outlook.⁴²

Agreement on some common ground is one possibility of contending with the philosophical dilemma in question and agreeing to disagree and to establish guidelines which interpret such disagreement in operational terms is another mutually available possibility.

³⁹William A. Reid and Decker F. Walker, editors, Case Studies in Curriculum Change, Great Britain and the U.S. (Boston: Routledge and Kegan Paul, 1975), p. 256.

⁴⁰David Tyack and Elizabeth Hansot, "Hard Times, Hard Choices: The Case for Coherence in Public School Leadership," Phi Delta Kappan, LXIII (April, 1982), 514.

⁴¹Hook, p. 145.

⁴²Hook, p. 145.

Procedural consensus would establish guidelines which help the public school professional, particularly the teacher, to choose when the humanistic or the behavioristic view dominates the situation and determines her/his actions in a particular situation. The fulfillment of both behavioristic educational interests and phenomenological educational interests at the same time is simply impossible. Both sets of educational interests can be met separately but not together. Obviously some choices will have to be made, and in making such choices, opportunities for each side will inevitably be lost. The total educational plan, however, will provide for the realization of both views and will provide the much needed guidelines for public school professionals. Not even omnipotent beings could act simultaneously according to the assumptions of both models of humankind—assumptions which can only be related to separate and successive actions.

Further study could help to determine which assumptions and ensuing actions more appropriately apply to specific situations and settings. As John Goodlad states,

So far, we have designed and supported schools capable of doing only the simplest parts of the whole [range of idealistic expectations for schools].⁴³

Another area of investigation would be the development of a model of procedural consensus. A third area of interest would be the exploration of the many ways opposing characteristics could be attributed without contradiction to humankind.

⁴³ John Goodlad, "What Some Schools and Classrooms Teach," Educational Leadership, XL (April, 1983), 19.

A study whose purpose is to proclaim and account for the philosophical disorganization in the theoretical culture of public school professionals thus ends. The extent and persistence of the conflict of the two cultures is emphasized in the first part of the study. The two-cultures theory is then related to present psychological and educational theory. Two models of humankind are described and discussed. The second part of the study uses the procedures of content analysis to provide an empirical account and analysis of the two models of humankind as they appear in the theoretical culture of American public schools. The structure of the content analysis and the value theory on which it is based in the present study are carefully explained. The results of the content analysis indicate that overall the theoretical culture of public education is more behavioristically oriented than it is phenomenologically oriented. Interestingly the behavioristic slant does not apply to the group of teachers who wrote the document analyzed in the study. All the documents of the other analyzed groups--"Higher Education," "Chief State School Officers," and "Administrators and Supervisors"--contained a mixture of behavioristic and phenomenological assumptions as indicated by the language used; but the document of the "Teachers" group reflected significantly greater philosophical disorganization. In relation to the above results, the teacher's inadequate professional philosophical education is discussed. The author also infers a relationship between the teacher's experience of anxiety and of loss of meaning in her/his work and the philosophical disorganization disclosed in the study as a fundamental characteristic

of the theoretical culture of public schools. In the following conclusions the study suggests an approach for contending with the philosophical dilemma: (1) to educate professionals about the two cultures, (2) to accept as valid both models of humankind, and (3) to partition the educational situations to which each model applies via procedural consensus. The author maintains that solutions to present educational problems must be founded on clear philosophical insight into the assumptions of the theoretical culture of education. The study in hand is presented to aid somewhat the clarification of these metaphysical assumptions.

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APPENDIX

INSTRUCTIONS FOR CODING PANEL

Content analysis is a research technique for the objective, systematic, and quantitative description of the manifest content of communication. It is a phase of information-processing in which communication content is transformed, through objective and systematic application of categorization rules, into data that can be summarized and compared.

In order to check the objectivity of the analyst in classifying subject matter into categories, the analyst's classifications are compared with a panel of coders. As a member of this reliability code panel, you are asked to identify the locations and frequencies of two themes in the three enclosed samples of content.

Theme A is the cultural ideal of an objective world in which humankind is described meaningfully in terms of her/his behavior. (S)he is predictable; (s)he has traits in common with other humans; (s)he may be described in absolute terms; her/his characteristics can be studied independently of one another; (s)he is knowable in scientific terms.

Theme B is the cultural ideal of a subjective world in which humankind is described meaningfully in terms of her/his consciousness. (S)he is unpredictable; (s)he is unique alongside millions of other unique personalities; (s)he can be described in relative terms; (s)he must be studied as a total entity; (s)he is more than we can ever know about him/her.

Please first familiarize yourself with the assumptions which identify each of the above themes. On the next pages each assumption is

listed with a set of descriptive phrases and an extensional list consisting of words which usually relate to that assumption.

ASSUMPTIONS OF THEME A

HUMANKIND is a REALITY

1. Predictable; reproducible; controllable
change environment to effect desired results;
create success experiences; create experiences to elicit desired behavior; direct experience or processes; establish situations; guarantee conditions
2. Knowable in scientific terms
 - a. measurable; evaluate on a scale; assess
 - b. definable; standardize
 - c. analyzable; task analysis; componential; formulations
3. Technical; mechanical; instrumental
 - a. technological methods
diagnose, implement, determine, identify, facilitate, describe, design, develop, link, structure, integrate, function
 - b. technological concepts
components, action strategies, outcomes, entry, continuums, processes, instruments, functions, modification, intervention, assessment, facilitators, implementation, framework, techniques, systems, data collection, reinforcement, schedules, input, output, feedback, modules, steps, interface, sequences, multiple program options

HUMANKIND is RATIONAL

1. Uses reason and logic
data-based, performance-based decisions; builds on evidence; stated policy for decision-making; proper and appropriate procedure; pro-active decision-making by experts
2. Specifies goals and objectives
competence demonstrated, accountability

HUMANKIND LIVES in an OBJECTIVE WORLD

1. Extrinsic knowledge and learning; knows about something
2. Visible, tangible facts and data

HUMANKIND can be described in TERMS of BEHAVIOR

tasks, behavior, productivity

HUMANKIND can be described as having TRAITS in COMMON with other PEOPLE

HUMANKIND can be described in ABSOLUTE TERMS

1. Orderly relationships
 - a. direct relationship
 - b. cyclic relationship
 - c. continuous pattern
 - d. series pattern
2. Necessary relationships; essential direction

ASSUMPTIONS OF THEME B

HUMANKIND is a POTENTIALITY

1. Unpredictable; changeable; dynamically active
2. More than we can ever know about him/her; emerging entity; growth potential; actualizing; capable of becoming or being
3. Free human; independent variable, can be assisted in learning; independent decisions

HUMANKIND is ARATIONAL

guided by value judgments, commitments, and beliefs; decisions based on values; respect for opinions and values

HUMANKIND LIVES in a SUBJECTIVE WORLD

1. Intrinsic knowledge and learning; unique knowledge; humankind generates information; learning is a personal experience
2. Private perceptions, feelings, emotions; unique perspective; understandings

HUMANKIND can be described in TERMS of CONSCIOUSNESS

self-awareness; self-concept; recognizes own worth

HUMANKIND can be described as a UNIQUE BEING

individual; unique, human diversity; own style

HUMANKIND can be described in RELATIVE TERMS

1. Arbitrary standards; responsiveness to situation; flexibility; variations
2. Synthesis of total picture; contingencies; interactions; interdependencies recognized

The actual units which you identify as containing a theme will be the paragraphs and enumerated lists in the three separate samples. If you identify a definite slant toward Theme A in the paragraph or item, then you mark "A" beside that paragraph number on the recording page. If you think the paragraph or item leans more toward Theme B, then mark "B" in the correct space. You may feel that a paragraph or item is equally representative of the assumptions of both themes; in such a case, you mark "A/B" in the recording slot. If you think that neither theme is substantially evident in the paragraph or item, then mark "N" for that paragraph or item.

Reducing a paragraph or item into its component theme units will be crucial to the reliability of the analysis. One sentence may have more than one phrase related to the same theme. The same sentence may also contain both Theme A and Theme B. The identification of themes with their associated assumptions in the following sentences should help to clarify your mental approach to the categorization of paragraphs and items.

EXAMPLE 1: The regenerative school features decision making processes and structures which demonstrate respect for the opinions of the clients of the school; flexibility; a high order of organizational and analytical skill; a spread of authority and responsibility that will not only permit but encourage decision-making at various appropriate points; reasonable appeal procedures.

<u>THEME A</u>	<u>ASSUMPTION</u>
decision-making processes and structures	Humankind is Rational
high order of organizational and analytical skill	Humankind is a Reality
encourage decision-making at various appropriate points	Humankind is Rational
reasonable appeal procedures	Humankind is Rational
<u>THEME B</u>	
respect for the opinions of the clients of the school	Humankind is Arational
flexibility	Relative Terms

EXAMPLE 2: In order to effectively implement this cycle of teaching activities, any educational program must consider teachers and students as unique individuals with varying skills and personalities.

<u>THEME A</u>	<u>ASSUMPTION</u>
effectively implement this cycle of teaching activities	Humankind is a Reality
<u>THEME B</u>	
consider teachers and students as unique individuals with varying skills and personalities	Unique Being

EXAMPLE 3: Agreements on qualification criteria must have been established for selecting and retraining those who will implement policy.

<u>THEME A</u>	<u>ASSUMPTION</u>
qualification criteria must have been established	Humankind is Rational
those who will implement policy	Humankind is a Reality

EXAMPLE 4: Every person is entitled to cultural respect.

<u>THEME B</u>	<u>ASSUMPTION</u>
(entire sentence)	Humankind is Arational

The topic of "student needs" can elicit the appearance of both themes. If the approach is a loose one of responding to needs or making decisions appropriate to needs, then Theme B has surfaced. If the approach, however, is a precise one of determining needs, diagnosing needs, or designing programs to meet needs, then Theme A has appeared.

A paragraph or item may contain references to both themes and yet have a definite slant toward only one of the themes. Your consideration of the emphasis placed on particular ideas will be a critical factor in determining the appropriate category.

You are provided with copies of three samples, a summary list of assumptions, and a recording sheet. Please mark and use the samples as you wish in order to aid your analysis.

SUMMARY LIST OF ASSUMPTIONS

<u>THEME A</u>	<u>THEME B</u>
<u>Humankind is a Reality</u>	<u>Humankind is a Potentiality</u>
1. Predictable	1. Unpredictable
2. Knowable in scientific terms	2. More than we can ever know
3. Technical	3. Free human
<u>Humankind is Rational</u>	<u>Humankind is Arational</u>
1. Uses reason and logic	1. Guided by value judgements, commitments, and beliefs
2. Specifies goals and objectives	2. Respects opinions and values of others
<u>Humankind can be Described in Terms of Behavior</u>	<u>Humankind can be Described in Terms of Consciousness</u>
<u>Humankind can be Described as Having Traits in Common</u>	<u>Humankind can be Described as a Unique Being</u>
<u>Humankind can be Described in Absolute Terms</u>	<u>Humankind can be Described in Relative Terms</u>
1. Orderly relationships	1. Standards are arbitrary
2. Necessary relationships	2. Synthesis of total picture
<u>Humankind Lives in an Objective World</u>	<u>Humankind Lives in a Subjective World</u>
1. Extrinsic knowledge and learning	1. Intrinsic knowledge and learning
2. Visible, tangible facts and data	2. Private perceptions, feelings, and emotions

RECORDING SHEET

Categories

Name _____

Theme A—"A"

Theme B—"B"

Theme A and Theme B—"A/B"

Neither—"N"

Paragraph

Item	Sample I	Sample II	Sample III
1			
2			
3			
4			
5			
6			
7			
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9			
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CODING PANEL SAMPLE I

I. INTRODUCTION

Who are we?

- Para-
graph (1) We are teachers. Our skills, special training, and experience in the classroom give us a knowledge of schools not available to any other group. We know what is being done well; we know what is being done poorly or not at all; and we know what must be done to make schools better than they are.

What do we do?

- (2) We provide our students with empathetic understanding, an awareness of their personal values, success experiences that build their self-concepts and cognitive skills necessary to become productive members of society, and we all do it differently; we are as much individuals as are our students.

What are the results?

- (3) Excellent, when we consider the restrictions placed on us by limited resources, the constraints of the bureaucracy, the fact that we have little influence or authority in major educational decisions--but falling short when we acknowledge the variety of student needs unmet.

What must be done?

- (4) 1. Teachers must have the authority and freedom to make instructional decisions appropriate to the needs of their students.
- (5) 2. Decisionmaking bodies must be restructured so that schools become responsive to the needs of their clients.
- (6) 3. Major changes in programs of teacher preparation and inservice training must be undertaken to staff schools with personnel prepared to teach in the present, anticipating the future, as contrasted with our present staff, primarily trained to teach in the past.
- (7) 4. School programs and school facilities must be so designed that students, parents, and the community as a whole view the school as an integral part of their environment. The school must be seen as both the best use of time and resources in the present and a wise investment in the future.
- (8) 5. Alternative methods of meeting the educational needs of students must be implemented so that each is able to utilize his or her own unique skills and interests in a program that will prepare each as a productive member of society.

- Para-
graph
(9)
6. Federal funds must be continuously available to public schools for the purpose of initiating and maintaining activities that bring about constructive change, a necessary and unmet need in this time of rapid societal change.
 - (10) 7. Society, under national, State, and local political leadership, must support responsible educational improvement issues and treat education as the priority item they say it is.

Who can do it?

- (11) Teachers in coalition with other groups interested in improving education.

What will result?

- (12) Students will participate in programs they recognize as valuable to them; programs designed to meet their needs; programs that acknowledge human diversity rather than superimpose conformity.
- (13) Parents will view schools as a place where their children can gain skills and experiences to help them utilize productively the resources available to them.
- (14) Teachers will be able to use their talents and training in response to the needs of students, rather than serving the needs of the system.

- This report speaks of teaching and learning from the perspective of teachers; teachers who look out from inside today's schools to the communities they are expected to serve. We make no attempt to define school, for that definition will vary from community to community as parents, teachers, and students combine their values, talents, and resources to meet their educational needs.
- (15)

- Discrepancies between what is and what ought to be abound. To dwell upon these shortcomings is to view the schools as totally inadequate, a view unjustified in that more young people in the United States are in school than ever before, and they are staying in school longer and receiving a better education than ever before. Our effort is to describe from our perspective the minimum that must be done to make a fundamentally good system better.
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II. THE TEACHING TASK

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(17) Teachers are facilitators of learning. They assist and direct the natural and inevitable learning processes of their students. In addition to assisting in acquiring competencies and values, teachers must create experiences that will enable students to think critically and analytically, make independent decisions, develop social consciousness, and recognize the importance of making productive contributions to the community.
- (18) The ability of the individual teacher to be a facilitator of learning is affected by the environment in which the students and teachers meet. In many cases, the present school environment needs significant change if the quality of education is to be improved.
- (19) The school, as an institution, has a tendency to ignore the fact that learning is a personal experience occurring continuously in all people. Evidence of this ignorance is shown in such school-propagated activities as establishing inappropriate groups, standardizing behavioral expectations, and evaluating what students do on some arbitrary scale ranging from failure to outstanding. Little note is taken of what the student really learns. The present school environment, with its orientation toward mass production, often inhibits the teacher's ability to meet individual student needs.
- (20) Learning is an active process in which the student must be the doer. Therefore, teaching, to be effective, must place emphasis on establishing situations in which the student is the producer. The teacher's actions must not intrude upon the student's opportunities to do--hence, learn. The teacher's contributions in assistance and direction are essential if the student is to realize fully his or her own potential for growth.
- (21) The major components of good teaching are cyclic in nature. They are: (1) the determination of the individual student's program needs; (2) the design of experiences that help the student implement the program; and (3) the assessment of how well the experience meets the student's need. The latter is synonymous with the determination of further needs. To demonstrate the cycle, a closer examination of these three components is in order:
- (22) 1. The proper determination of the individual student's program is the joint responsibility of the teacher, the student, and his parents. The gradual assumption of personal responsibility for instructional program planning is an experience denied most students today. This determination of individual student program takes into account past achievements, community and family expectations, actions of peers, and the student's perception of his long- and short-range goals. It is in this activity that the student recognizes his worth and sees in his teacher a respect for the values upon which his decisions are based. This is a painstaking process and one for which the teacher

Para- needs both training and experience. At the present time, many teachers
graph substitute their own values or the school's values for those of the
(22) parent and student, thus dictating rather than directing. This not
(cont'd) only damages the self-esteem of the maturing student, but prevents the
student from making decisions, a skill he needs to develop but one he
is generally forbidden to practice.

2. The schools most often design experiences for groups of students within a limited environment. Lack of staff and an abundance of students have led to this common practice. Whether the experience fits an individual need, the degree to which individual students benefit from the experience, and whether the experience can be implemented by all students in a group are questions seldom asked. To be effective, a designed experience must be based on a determined need and it must be within the student's capability. The teacher is responsible for seeing that any experience design accounts for the full range of learning skills, i.e.,
(23) the affective, the psychomotor, as well as the cognitive domains. Further, the activities within this experience should be identified by the student as appropriate to both immediate and long-range goals. In designing experiences, teachers must be able to use the total community as the learning environment. Restricting learning activities to the confines of a campus or the structured hours of a school day is to ignore the effect that the total environment inevitably has on any learning activity. These personalized experiences should consist of both activities undertaken individually and activities within a group when the group presence contributes to a successful experience.
3. The teacher and student must be continuously aware of the progress made in the implementation of any designed experience. Where the student succeeds, the teacher notes it, giving the student positive reinforcement in his perception of his abilities and compiling a record to inform parents of the student's progress. If implementa-
(24) tion of the designed experience is perceived by the teacher or student to be failing in meeting the student's need, then either one can intervene to modify the learning experience. This on-going evaluation is the primary resource for further determination of student needs, thus completing the cyclic nature of these components.

In order to effectively implement this cycle of teaching activities, any educational program must consider teachers and students as unique individuals with varying skills and personalities. To relate students with only a single adult is a disservice to them and to the adult who is expected to be an effective teacher. Further, a single teacher cannot realistically
(25) determine immediate program needs, design experiences, and evaluate the effects of the designed experiences for the number of students constituting a class today.

CODING PANEL SAMPLE II

VI. CURRICULUM IN EDUCATION PERSONNEL DEVELOPMENT

Curriculum As Process

Para- The day when teachers are trained by higher education alone is past. The graph time when public schools attempt this job alone should never come. Teacher

(1) education and educational reform are tasks in which both have a part.

We, the Task Force, believe that the condition of being able to be accountable is the test of the success of educational reform. Developing educational accountability begins with the ability to diagnose learner needs and potential. On the basis of this information, action strategies are designed, and their implementation leads to outcomes that are visible and measurable.

We believe that curriculum in education personnel development is the process leading to accountability through educational reform; its life is

(3) contained within the goals and priorities determined by policy, and within the strategies used to attain these goals.

Relating these beliefs to our Personnel Development Center, the process of developing curriculum for teachers, administrators, and teacher educators

(4) has two main ingredients: (a) goal and priority setting -- a responsibility of the Center's Policy Board, and (b) curriculum structuring -- a technical job that is the responsibility of the core staff.

Conditions for Success

We have identified five conditions for the success of Personnel Development Centers that relate directly to curriculum. The development and

(5) application of instructional experiences in personnel preparation and retraining for educational reform are the instruments through which professionals function in a partnership arrangement to:

- (6) 1. Communicate experiences, knowledge, and skills regarding human behavior and learning within the realities of contemporary society;
- (7) 2. Provide avenues for inquiry and entry at all levels of the professional continuum;
- (8) 3. Guarantee flexibility and responsiveness of curriculum to needs through continuing self-evaluation and modification;
- (9) 4. Specify commitment to clinical, field and performance-based, and accountability-oriented credentialing; and
- (10) 5. Determine the sources of curriculum within the relationships established by the Policy Board.

Para- This formulation indicates that higher education has a unique role in edu-
graph cation personnel development that is inherent in the legacy of its disciplines.
(11) These disciplines must be directed toward technical leadership in the Center environment---thereby becoming linking, facilitating, and in no way superordinate.

Those members of the Center's core staff that come from colleges must be able to bring certain qualities into the partnership and to utilize them in ways that facilitate the translation of goals into curriculum. In relation to curriculum, these persons must be reality-conscious, aware of local needs and situations, visible within each constituency in the partnership, and available to each. They must be open to all views but should help to evaluate and analyze positions and to build programs upon evidence. They must be flexible and responsive to new trends and to social concerns, and need to be visionary and to view people as individuals with unique needs and responses.

The Task Force views curriculum as those formal and informal experiences that (a) form an orderly series of perceptions about learning and human behavior as well as about the skills necessary for appropriate educational intervention and (b) constitute evolving and relevant experiences in response to social and behavioral contexts. Because of such a response, dynamic curricula must describe human endeavors and, within teacher education, provide for assessment, interpretation, and professional experience everywhere on the professional development continuum.

(14) Curriculum in teacher education must implement pre-established, programmatic designs. Curriculum in teacher education must be:

- (15)** 1. Implemented through the roles and functions of teams staffed as a result of partnership processes;
- (16)** 2. Reviewed through continuous evaluation in reference to both short-term and long-range goals;
- (17)** 3. Analyzed continuously utilizing the multiple backgrounds and percepts of the individuals involved;
- (18)** 4. Asserted in the conviction that a dynamic curriculum requires action in many areas including organization, content, and materials development;
- (19)** 5. Implemented through instruction; and
- (20)** 6. Asserted in the conviction that curricula evolve from specific objectives with appropriate criteria and assumptions, from specific needs assessment, from specific strategies and principles regarding learning, and from the needs of those being taught.

Characteristics of Personnel Development Center Programs

(21) The curriculum of teacher education must reflect continuing interaction between elements of stability and flexibility. While special emphasis must be placed

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upon emergent learner and teacher needs with respect to content, activities, experiences, and materials, these must be structured in a framework reflecting continuing societal and professional definitions of professional competence.

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The specifics of the curriculum cannot be static or prescribed. Instead, they must reflect (a) the needs and potential of each student, (b) the background, experience, and "style" of the instructor, (c) the nature of the community in which those in training will work and the cultural backgrounds and ethnic composition of its members, (d) the learning resources available, and (e) significant current problems and issues which may absorb the attention of students and teachers alike. These specifics need to be cast in a conceptual framework which is an outgrowth of long-term perspective on the understandings and competencies necessary for effective teaching. Such a structure will include theoretical, training, and actual field teaching components.

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Within this framework, the Task Force has identified certain important characteristics of Personnel Development Center programs which are explicated below.

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Personnel Development Center programs are characterized by teacher training that is a continuous process, beginning at the time an individual decides to become a teacher and continuing until he retires from the profession. Experience with such programs as Teacher Corps and Training the Teacher Trainers indicates that preservice and inservice training are both improved when integrated into one continuous program. In this way, young men and women in the initial stages of teacher training work and study with experienced teachers who are involved in the study and introduction of new programs of learning for children. Involvement of experienced education personnel in training new personnel improves the professional competence of both groups.

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Personnel Development Center programs are characterized by the integration of practice and theory in teaching and learning. Center programs are designed so that the learning of educational philosophy, learning theory, evaluation methods, and other aspects of professional education are treated in direct relationship to experience with learners. The professors of education will be working with learners in the Center environment to demonstrate the relationships between theory and practice in education. The development of Center programs reflects deliberate efforts to build content and experiences upon the analyses of theory as translated into practice. Education and related disciplines, rich in the depth and degree of theory available to explain behavior, are presented in a manner that reveals the implications of theory for actual use in learning contexts.

CODING PANEL SAMPLE III

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(1) The establishment of teachers' centers is seen by the Task Force as a positive solution to some of the current problems associated with achieving educational accountability.
- (2) The elements of a teachers' center program must be determined by those teachers whom the center serves. Such elements include, but are not limited to:
- (3) 1. Better techniques and procedures for dealing with individual student problems in basic communication skills, particularly reading, oral, and writing skills. This involves identifying, developing, and using diagnostic materials and techniques. Appropriate programs and materials must be designed so that the student effectively uses the resources available to him.
- (4) 2. Developing activities through which students can discover how to wisely and creatively use their freedom for self-fulfillment and social improvement.
- (5) In addition to activities related to student-teacher relationships, the center serves as a base for cooperative endeavors between teachers and those involved in educational research. Such program elements could lead to:
- (6) 1. Dealing in a positive way with the multicultural aspects of a class as well as of the community at large. This aspect of a teachers' center program requires special attention where the learning-teaching process is affected by bilingual conditions.
- (7) 2. Race relations programs in which understanding, not accommodation, is the goal.
- (8) 3. Developing group practice techniques. This is a clinical approach to the development of teaching patterns that fully utilize the unique talents found in groups of teachers and permits a student to have interaction with more than one teacher.
- (9) 4. Keeping an up-to-date record of what is working in the educational programs of other school districts and providing a means of determining the appropriateness of their adoption.
- (10) The teachers' center should be governed by the teachers through their professional organization.
- (11) The program of a teachers' center must be under the control of teachers, who are the designers and immediate recipients of the teachers' center activities. To this end, the teachers, through their professional organizations, have the responsibility for participating in the governance of the center. This includes regulating mechanisms for obtaining the

- Para- educational concerns of all those affected by the school program--parents, students, teacher aides, management personnel, representatives of community groups, etc.
- (11)
- (Cont'd)
- (12) Placing program determination in the control of teachers is essential if the center is to respond to teacher-discerned needs. If program control is maintained within existing governance bodies, it is realistic to expect that system concerns will take precedence over identified educational needs--as is true in most district-controlled inservice programs.
- (13) The teachers' center's primary funding should be public sources--local, State, and Federal. Local funds currently used for inservice activities are appropriate; a portion of State funds used in research and similar programs could be allocated for teachers' centers, but the primary source should be Federal. This consists of a specific grant to each State to be distributed to districts establishing teachers' centers. Teachers' centers could also seek funding from other public and private agencies where locally determined programs make the use of such funds appropriate.
- (14) The obligation of each of these participating agencies--the school district and the professional organization--should be agreed to and formalized in the master contract that defines working conditions and specific responsibilities for the profession and the local district.

VITA

Vicki J. Hindman, the daughter of Eugene and Macie Hindman and wife of Chambliss F. Pierce III, was born on February 14, 1949, in Knoxville, Tennessee. She graduated with highest honors from West High School in Knoxville in 1967, and attended The University of Tennessee, Knoxville, from 1967 to 1970. Vicki received a B.S. in education in June, 1970. In the fall of the same year, the newly graduated teacher accepted a position in DeKalb County, Georgia, where she taught a split class of fourth and sixth graders. The next year was spent in Galveston, Texas, where Vicki had accepted a position as a member of a team engaged in a pilot program—team teaching second grade students. The next three years were spent in an Atlanta public school located in a government housing project. The school was an open classroom facility where the approach used was a nongraded one. Since 1975, Vicki has taught in a suburban middle school in Knox County, Tennessee.

While teaching in Atlanta, Vicki was awarded a graduate assistantship at Emory University where she directed the operation of the Curriculum Library. She received a Master of Arts in Teaching degree from Emory University in 1974. Vicki enrolled in the doctoral program of the Department of Curriculum and Instruction at The University of Tennessee, Knoxville, in 1975, and completed the requirements of residency in 1979, when she worked as a teaching assistant in the foundations of education area. The Doctor of Education degree was awarded in December 1983. Vicki's area of major emphasis was philosophy of

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The author is a member of the Tennessee Teachers' Study Council. She also serves as a school representative to the Knox County Education Association, a local affiliate of the National Education Association. She is a member of Alpha Lambda Delta and Phi Kappa Phi.