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A Foundation model for the practice of school psychology

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A foundational model for the practice of school psychology

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A FOUNDATIONAL MODEL FOR THE PRACTICE OF SCHOOL PSYCHOLOGY

A Dissertation

Submitted

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of the Requirements for the Degree

Doctor of Education

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Preface

The intention of this thesis is to show that there appear to be critical flaws in the assumptions and constructs used by school psychologists. Basic theoretical flaws have produced a profession whose resulting practices are also flawed. However, there are undeveloped opportunities and possibilities in the school psychology profession which stem from the personal commitments, moral leadership, and potential impact school psychologists can have on students and the educational system at large.

This paper will examine some very fundamental philosophical and theoretical questions about the discipline of school psychology, present a rationale for an alternative model of school psychology, and examine the implications of this model for the discipline. It will be argued that school psychologists very seldom discuss their most basic assumptions about the nature of reality, about what counts as knowledge, and about the values and virtues important to the practice of school psychology. Such inattention, however, should not be construed to mean that there are no shared, basic beliefs and assumptions. On the contrary, it will be argued that the literature of school psychology yields by inference a number of common assumptions about reality, knowledge, and values. It will be proposed that the common basic assumptions of the discipline exert very powerful influences on what takes place in the practice and training of and the explicit communications among school psychologists.

McGraw (1984) called for a re-examination of the philosophy underlying all educational issues. She believed that our leading

spokespersons for educational reform have avoided discussion of the first principles which determine our educational goals and values. She stated further that, "the mistake has been to view education primarily in terms of social science and then, further, to view it primarily in terms of what can be verified through quantitative measurement" (p. 41). She quoted Boyer (1984) who believed that "the social and moral imperative of education is to help all students see the connectedness of things, an insight that touches the very foundation of morality--social, personal and religious" (p. 41).

Heshusius (1989a; 1989b) and others (Adelman, 1989; Iano, 1989; Poplin, 1987) challenged the mechanistic view of the human being which has influenced traditional special education training and practice. Their arguments clarified how the paradigm of mechanistic science has greatly limited and distorted our views about what occurs in special education classrooms. Smith (1988) and Smith and Blase (1989) have similarly criticized many of the basic assumptions underlying most educational research and pointed out the resulting flaws in educational practice.

Just as psychology does not make sense without teleology (Robinson 1985), neither does education. The mechanistic view of the person has eliminated, or at least ignored, the teleos of humankind. Worse yet, historically recent philosophical and scientific views of humankind have stripped it of a soul (Barrett, 1986). Thus, it should not be too surprising that the goals and purposes of education have not been seriously considered in the recent very critical reports of American education. Perhaps the teleos of education should be the reunification

of Spirit with Mind as so aptly expressed in The Secret, a novel by Adrian Malone (1984):

> The founding of civilization! Abel was the first Grandfather. He was a nomad, a wanderer, a man like your friends the Sioux, who live in harmony with heaven and earth and are bound only by the seasonal rhythms of the herds, because they know that in Spirit they are related to all things. Abel knew this; and because he did, Cain murdered him. Cain murdered Abel to destroy the knowledge of Spirit, for no other who knows it can make war, as Cain did, against heaven and earth. And when Abel died the Fall was complete. The children of Cain saw only an alien planet of inert materials, of soils and minerals and metals, to be possessed and exploited. They knew only of distant, fearful gods, perpetually angry with them for their sins, placated endlessly by their priests. They knew no more of Spirit. When Cain murdered Abel he murdered one half of their minds--the loving, creative, mystical half, in which they knew themselves to be at one with all. Since the crime of Cain his children have known only the intellect, cold logic, which divides itself from the universe and then drives to conquer it. They have lived ever since estranged from Spirit, in terror of time and death. That is their inheritance from Cain; and they have not squandered it. They have gained dominion over the earth. But in every sad generation, a few of them hear someone calling in their dreams, and they yearn for the murdered Abel within them, and the secret that he knew. (pp. 80-81)

The above interpretation of the Cain and Abel myth provides a metaphor of what some see as the problem of Western civilization (Barrett, 1986). The recent criticisms of contemporary education in the United States (e.g., National Commission on Excellence in Education, 1983) have focused almost exclusively on the potential economic consequences of the achievement problems of American students, with little or no debate about what are the ultimate life goals of the students. These reports appear to assume that the purpose of education is to prepare our students for economic warfare with other nations over the material resources of the world.

If the view presented so far of our current concerns in education is reasonable, then it is pertinent to ask whether domination over the

world's resources, or at least obtaining our fair share, should be the primary goal of education. Classical philosophies of education have taken a much broader view of the purposes and functions of education. Aristotle (1953; Frankena, 1965), for example, along with many of his contemporary Greek philosophers, was concerned about excellence, a word we hear in many debates about American education today. However, in defining excellence and the good Aristotle did not avoid talking about the student's soul. Aristotle was not inhibited about taking a teleological view of education. He saw the purpose of education as promoting the contemplation of God. We rarely hear any discussion about the souls of students in contemporary discussions about educational philosophy, nor is there any discussion of the soul or spirit in the criticisms of contemporary education.

Kant's summum bonum, or supreme good, is good will, which he sometimes spoke of as the whole end of man and creation (Frankena, 1965). The implication in Kant's thought was that mankind is to be the embodiment and recipient of good will because of some special destiny or capacity to achieve perfection. In other words, there is something special about humanity which requires our attention. Thus, it is not surprising that " . . . he also holds that morality requires us to 'postulate,' not only the freedom of the will, but also the immortality of the soul and the existence of God, the former because it is necessary for us to attain perfection, the latter because it is necessary for the existence of the summum bonum" (Frankena, 1965, p. 128). It is through education that mankind is to achieve perfection, which is, ultimately, good will. So here, again, we see a teleological philosophy of

education which emphasizes a non-materialistic aim for education, unlike the philosophies implied in the current educational debates.

Two hundred years after Kant, empirical science had a distinguished record of accomplishments and had yielded numerous technologies which contributed to the industrial revolution and made various aspects of human life more productive and efficient. Around this time the pragmatic, experimentalistic philosophy of John Dewey (1961) made a rather large impact upon the rapidly expanding public school system in the United States (Bergan, 1985).

Dewey's (1961) philosophy was a reflection of the time, place, and culture from which it emerged. The United States was engrossed in the industrial revolution and objective science was the intellectuals' religion (Feyerabend, 1987). Thus, in Dewey's philosophy we find concerns about controlling consummatory experiences, an unshakable belief in empirical science, and a denial of the immortal spirit of each person (Frankena, 1965). This materialistic bias continues in American education today.

Perhaps C. G. Jung (1933) came closest of the early twentieth century psychologists to recognizing humankind's core problem. He recognized the alienation of spirit from the living person and articulated an ideal of personal wholeness. Progoff (1973) told us, however, that even Jung was fearful of the scientific establishment and, therefore, very cautiously presented his ideas regarding certain concepts which hint at mysticism, such as synchronicity (Jung, 1960). But in his private communications with others, according to Progoff, it was evident that Jung saw the limitations of the mechanistic determinism

of modern psychology and saw possibilities which could not be encompassed by modern science.

School psychologists tend to implicitly subscribe to the mechanistic view that reality is independent of the observer, that knowledge of reality can be discovered to reveal laws from which strong predictions can be made, and that facts and values are independent constructs. These and other basic positions and related beliefs in school psychology will be criticized in this thesis and a different set of basic assumptions, and their implications, will be proposed.

It will be shown that the profession of school psychology is undergoing change which is related to educational reform in general and to a number of critical failures of school psychology in particular. School psychologists were originally invited into the schools to administer IQ tests and, later, to assist in remediating the educationally relevant problems of students. In recent years, however, the use of IQ tests has been criticized legally and conceptually. Placement of children into special remedial programs has not fulfilled the promises of special education. The concepts of learning styles, educational diagnosis, and educational remediation have been questioned and found wanting. Thus, the most basic conceptual tools of the school psychologist have been severely challenged and are leading to reform in some parts of the United States. The outstanding feature of this and past reforms in school psychology is that there are no signs that the basic notions about reality, knowledge, and values are being examined. Without a re-examination of the philosophical assumptions which underpin

the constructs and practices of school psychology the current cycle of reform is likely to be futile.

Because the contemporary problems of school psychology make only limited sense taken out of the historical context in which education and psychology have become associated, a brief view of the philosophical and social past of each discipline will be provided. This backdrop will help to give meaning to some of the recurrent problems in both education and psychology as they impinge upon the current practice of school psychology.

If it can be documented that scientific knowledge of human psychology has advanced only modestly beyond folk psychology, and it will be argued that this is the case, then school psychologists are in the embarrassing position of having little special knowledge to offer. Some would argue that the neurosciences have enriched our understanding of human psychology, others would argue that human psychology is not reducible to brain events. If the latter point of view is accepted, then we can argue that scientific psychology has little to offer beyond folk psychology. If the former is accepted then the proponents of the thesis that the mind just is brain states are obliged to demonstrate how knowledge of brain events can further our understanding of human motives, intentions, behavior, and social relations. The difficult question for school psychologists is, how can we explain the phenomena of human psychology in terms of nervous system (physical) events in a way which can be useful to our clients?

The answer to the above question turns out to be crucial in deciding whether or not psychology will be judged to be a science, in

the same sense that physics is a science, and will be unified with the other physical sciences. Either psychology will not be judged to be a science or the notion of a science must be expanded to include the human sciences which function, it will be argued, without a solution to the mind/body problem and which, therefore, may have to utilize some assumptions and methods different from the physical sciences.

Briefly, the following basic positions will be put forward: reality is an undivided whole; knowledge is constructed; social knowledge is a function of social consensus; personal knowledge exerts a major influence on one's behavior; humans are intentional beings; things matter to persons; the purpose of education is to facilitate the student's search for a personal meaning for life. These assumptions are not new in the history of human thinking, but they are alien to mainstream school psychology, a modern invention of psychologists and educators. A model for the practice of school psychology, based upon these fundamental concepts, will be presented. Since change in a human institution or practice develops out of a history and tradition, if school psychology is to change it will change as an outgrowth of current traditions and practices. Thus, some of the ways in which current school psychology practices might change as a result of an acceptance of these reformulated basic assumptions and the related model will be presented in a series of case studies. It will be asserted that one of the more important virtues of school psychology in the future will be that of humility.

Concerning the title of this thesis, the reader should not think of the term "foundational" in the metaphorical sense of a structural

foundation, as in the foundation of a building. Rather, consider the assumptions presented at the beginning of Chapter 4 as the inauguration of a new way of viewing the practice of school psychology, as in the foundation of an intentional social group or movement. Also, the reader is discouraged from taking the term "model" literally or in its use in science as a preliminary construction of how something works. On the contrary, the reader is advised to think of this model in the sense of a standard of excellence to be imitated. It is a challenge to other school psychologists to rationally debate the values stressed in Chapter 4, and to join in the author's efforts to live and practice the standards which evolve from this dialogue.

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ABSTRACT

A major crisis in the profession of school psychology has emerged from the body of recent empirical studies in psychology and education. Research on school psychology assessments has suggested that little, if any, data are produced in these evaluations which is useful for the remediation of students' educational problems. Likewise, psycho-educational treatments of the behavior and learning problems of school children have empirically shown only weak, if any, efficacy.

An examination of some of the fundamental philosophical, theoretical, and practical foundations of school psychology yielded reasons for the crisis in the profession. The underlying assumptions of externalism and resulting faulty notions about objectivity and value neutrality were shown to be major contributors to the problems of school psychology. The failure to find any relatively exceptionless laws of behavior from which psychological practice can be based was presented as another of the reasons for the crisis. Mechanistic theories of the person, which are prevalent in experimental psychology, have invaded the thinking of school psychologists and other educators with unfortunate results. Semantic, diagnostic, research, and measurement problems in school psychology have evolved from these underlying philosophical and theoretical errors.

The following alternative foundational concepts were offered for the practice of school psychology: (a) reality is an undivided whole; (b) reality is constructed through the dialectical process by the community of observers; (c) shared knowledge is developed out of social consensus; (d) personal knowledge exerts a major influence on the

person's behavior; (e) human beings possess purposes and intentions; (f) human beings have moral status; and (g) the overriding purpose of education should be to facilitate the student's search for personal meaning for her/his life.

From this set of basic concepts a model for the practice of school psychology was developed. The model designated (a) the purpose of school psychology, (b) the ways in which the school psychologist enriches her/his clients, (c) a democratic approach to decision making, (d) the expansion of what counts as knowledge in the profession, and (e) the virtuous school psychologist as less of an expert and more of a moral leader. A series of case histories was presented to demonstrate the model in action.

CHAPTER 1

THE ORIGINS OF SCHOOL PSYCHOLOGY

A Brief History

Mass Education

If one of the purposes of this thesis is to examine some of the fundamental problems in the practice of school psychology, then it will be helpful for the reader to have a brief exposure to the history of the profession and some of the basic movements in psychology and education which have shaped its practices. While reviews of the history of school psychology may be found in various introductory texts (which will be cited throughout this chapter), these are largely traditional, uncritical backward looks at the profession. In this chapter a more critical review of the history and influences will be offered than can be found in most school psychology textbooks. Such a critical review is needed in order to facilitate the dialogues which are currently shaping the profession, especially in light of the current school psychology "revolution" (Reschly, 1988) and the crises of the discipline of psychology (Westland, 1978). These criticisms will be more fully developed in a subsequent chapter.

Most persons who have grown up in an educational system in the United States take compulsory and mass education for granted. However, the attempt to educate all children in this country began only about 140 years ago. It started earlier and developed faster in the United States than in other countries (Carrier, 1986). A number of problems and philosophical developments within the compulsory and mass education

movement converged to result in the conception of school psychology as a profession (Kaplan & Kaplan, 1985).

One of the most significant of these problems was the influx into the schools of students with a very wide range of abilities, some of whom were thought to be incapable of learning. From the reinterpretation of social Darwinism by Lester Ward (1893/1954) and his colleagues (as cited in Kaplan & Kaplan, 1985) emerged a philosophy in which mind was believed capable of mastering nature and ameliorating social ills. This philosophy of improving humankind fostered the development of various specialists in the schools to assist in solving social and educational problems. Thus, the birth of school psychology was necessarily preceded by the move, in the United States, to mass education.

The Development of Intelligence Tests

School psychology is also indelibly linked to the history of special education and the development of intelligence testing (Gray, 1963). Although most contemporary textbooks on psychological testing give a brief history of the testing movement, it is rare to find reference to the philosophical and political beliefs of the test developers and the historical context within which intelligence testing was born. Anastasi (1976) and Sattler (1982), for example, briefly examined the history of mental testing without mentioning the eugenics movement with which many of the early psychological test advocates were involved (Blum, 1978; Gould, 1981). Both Anastasi and Sattler presented the rise of testing as though it evolved from an apolitical interest in the psychology of individual differences (Anatasi, p. 8; Sattler,

p. 30) or in the problems of identifying and helping mentally retarded school children (Anastasi, p. 6; Sattler, p. 29). While Cronback (1984) devoted approximately two pages (pp. 197-198) to the tendency of many of the early test developers to confuse IQ scores with an individual's innate worth, he failed to elaborate on the social climate of the times and the social consequences of the movement.

It would appear that writers outside the field of psychology have been needed to illuminate the origins of intelligence testing. Gould (1981), a paleontologist and a science historian, provided an extensive socio-historical examination of the developments of mental measurement in psychology as did Blum (1978), whose major field was sociology. Gould found Alfred Binet, the creator of the first practical scale of intelligence, to be a rather sympathetic character who refused to believe that his scale truly measured intelligence, who thought that it should be used for identifying children who needed help in school and not for ranking children, and who believed that the scores on his scale were for practical uses and did not represent anything innate. Gould, however, was not as sympathetic with those who followed Binet, the American hereditarians such as H. H. Goddard, L. M. Terman, R. M. Yerkes, C. C. Brigham, and Arthur Jensen, and the British general factorists, Charles Spearman and Cyril Burt.

Gould (1981) found in his research an incredible amount of falsifying of data, sloppy research methods, and acceptance of clearly unreliable data in the early development of the IQ testing movement in the United States and England. One example is that of Goddard's work with the infamous Kallikak family, often cited in introductory

psychology textbooks as an instance of familial retardation (Boring, Langfeld, & Weld, 1948; Cruze, 1951; Goddard, 1914; Harlow, McGough, & Thompson, 1971; Taylor & Manning, 1975). Gould suspected that the photographs of this family had been altered. Therefore, he submitted the originals to experts who verified that the photographs had been retouched in order to make the facial characteristics more depraved and simian in appearance.

Another example of sloppy research was reported by Gould (1981) regarding the work of Yerkes in his supervision of the mass intelligence testing of millions of army recruits during World War 1. Gould found documented evidence that Yerkes' attempts to standardize the administration of the test were frequently violated. The Beta, or nonverbal, form of the test was supposed to be administered to immigrants and illiterates, but this directive was often ignored in the testing stations across the United States. The frequency of zero scores was high on both forms of the test, but they were especially high on the Alpha test which was the verbal form. The quantity of zero scores on this test indicated (or should have) that a large number of recruits could not read or write well enough, or that they did not understand the instructions adequately, to answer any of the questions correctly. Among those examined it was found that more recent immigrants, largely from southern and eastern Europe, scored lower on these tests. Of course these lower scores were primarily the result of the cultural, language, and educational differences among these groups. In spite of the obvious (from our perspective today) bias and invalidity of these tests, they provided the scientific basis for immigration policies which

restricted southern and eastern Europeans from emigrating to the United States.

Gould (1981) intimated that the unscientific development of the Army Alpha and Beta tests and the resulting test data on immigrants to the United States after World War I supported the eugenicists' views. This unscientific, biased data, in turn, was used to fashion immigration laws which provided quotas for each country based upon the performance of those immigrants tested during World War I. The quotas favored northern and western Europeans over southern and eastern Europeans. Thus, Gould suggested, these test data may have contributed to the Holocaust of World War II by denying the emigration of millions of Jews from southern and eastern Europe who were attempting to escape the Nazis.

A more recent example of the falsifying of data regarding the heritability of IQ is the case of Sir Cyril Burt. Burt (1971, 1972) was a world renowned British psychologist who argued strongly for the position that IQ is mostly determined by genetic factors. However, it was later discovered by Kamin (1974) that some of Burt's data were faked. Indeed, much of the argument for heritability of IQ was based upon Burt's data (Gould, 1981), but nowhere in Jensen's (1980) voluminous work, in which Burt is cited frequently, was the fakery acknowledged.

Blum's (1978) analysis of the history of intelligence testing began with early nineteenth century imperialism and slavery. He emphasized the historical importance of attempts by many thinkers during the era of rampant imperialism and slavery to justify these practices on biological

and racial supremacy grounds. Galton searched--in vain--for many years for physical and sensory measures which would verify the hereditarian position. Thus, it should come as no surprise that both the British and American hereditarians began their research on mental testing with the assumption that there were (are) biological, inherited differences between the dominant classes (white, protestant, Northern European) and the dominated classes (white, non-white, non-protestant, Southern and Eastern European, African, Asian, etc.). Blum viewed the invention of IQ tests by Binet and Simon as a moderate advance for the field of educational psychology, and as a " . . . tremendous, revolutionary advance for the development of Galtonian pseudoscience" (p. 55).

Binet tried and rejected many of the physical and sensory measures previously used by Galton in trying to construct a test of mental abilities, but Binet's conception of intelligence was different from Galton's (Blum, 1978). Whereas Galton and other hereditarians were looking for objective measures of inherited mental capacities, Binet was searching for a predictor of school success. Binet eventually constructed his tests of items which were reflective of the knowledge which was taught in school and, thus, was able to find reasonably good predictors of school success. However, he viewed his test not as a measure of innate capacity but as one which described behavior at a particular time and in a particular place. Because Binet, and others, found his measure useful for practical, educational purposes (because it had criterion validity) it rapidly became the accepted measure of intelligence against which other measures were compared (and, thus,

became one of the criteria against which other IQ tests were, and continue to be, compared, as pointed out by Gould, 1981).

An interesting and revolutionary approach to studying the matrix of correlations among mental tests, factor analysis, was first used by Charles Spearman (Gould, 1981). He was searching for a causal factor underlying performance on these tests and found a substantial principal factor, referred to as g, which could account for much of the variance among the tests (Gould; Jensen, 1980). He and his successors emphasized the importance of g as a unilinear form of intelligence; such a view is justified primarily by the process from which it was derived, factor analysis. It should be noted that Gould argued that the principal components method of factor analysis is only one way of extracting factors from multiple correlations and that L. L. Thurstone had pointed out the kind of rotation one employs has no theoretical, mathematical, or psychological necessity. Gould (1987) summed up his argument this way:

> Where you place the axes depends upon what you want to learn. Given our deep and subtle prejudices for unilinear ranking and notions of progress, and our not so subtle preferences for ordering people by inferred "value" (with one's own group invariably most worthy), it is not surprising that principal components seemed the most "natural," indeed the only proper way to perform factor analysis. (p. 136)

Moreover, Spearman and his successor, Burt, strongly believed that g was innate and they inferred a physical substrate for it (Gould, 1981). Jensen (1980) is the most recent of general factor theorists who reified g when he stated that " . . . it is as much a biological reality, fashioned by evolution, as the morphological features of the organism" (p. 182). Thus, Jensen joined the ranks of many earlier

theorists in converting the hypothetical construct of intelligence into a thing, a view which was predominant in psychology during the inauguration and early development of school psychology. Jensen's position was similar to those who subscribed to the identity hypothesis wherein "brain state" is equivalent to "mind state" (Bunge & Ardilla, 1987).

School Psychology and Special Education

The development of special education and mental testing paralleled one another for many years (Gray, 1963). Likewise, the growth of school psychology in the twentieth century has closely followed the growth and funding of special education programs (Reschly, 1983). Classes for the mentally retarded may have begun in Europe as early as 1859, but did not commence in the United States until 1896 (Frampton & Rowell, 1938, as cited in Gray). In this same year Lightner Witmer began his psychological clinic at the University of Pennsylvania. Much of the focus of this new clinical psychology, until World War II, was on children (Gray).

Carrier (1986) presented a sociologist's view of the history of special education in England and the United States. While this view is certainly not the only version and not the most flattering one, it does make an attempt to locate the events in the history of special education within the social context, including the prevailing educational philosophy of the time. He defined the purpose of education as that of reproducing, justifying, and reflecting the social order. Thus, one of the main functions of the school in advanced societies was, and continues to be, " . . . to sort students, to differentiate them, and to

allocate them to different educational treatments" (p. 290). The school psychologist has been instrumental in this sorting process.

Carrier's (1986) version of U.S. educational history presented the majority of educators in the early nineteenth century as ideologically egalitarian. They also subscribed to substantialism, the belief that there are different types or sorts of students whose differences are substantive, real, and internal to the individual. However, near the end of the nineteenth century American educational ideology changed, under the influence of John Dewey and his followers, as it became more child-centered and recognized that all children did not learn the common curriculum at the same pace. "This encouraged the development of educational psychology to help determine just what those individual attributes were . . . " (p. 300). According to Carrier, this represented a change from the egalitarian and substantialist position to that of the egalitarian and contractualist ideology. The contractualist agreed that students may indeed be different, but these differences are " . . . superficial and artifactual, generated by unjust, inegalitarian social forces that educators ought to counter and correct" (p. 291). This ideological shift furthered the sorting process in the schools in order to provide the education appropriate to the individual child. As a part of this sorting process special education in the United States grew more rapidly than in Great Britain, where the egalitarian, contractualist movement developed several decades later.

The egalitarian, substantialist doctrine was reflected in the "separate but equal" doctrine which applied to American blacks until the Brown v. Board of Education in 1954. It was shortly after this Supreme

Court ruling that special education programs for the mildly retarded were begun in various places in the United States, for example, Washington, D. C. and California. Carrier (1986) saw a parallel between the emerging contractualist philosophy in education at the turn of the century and the changes evident in special education after racial segregation was outlawed; "thus, the relationship between mass education, contractualist ideology, and special education is repeated in miniature in the ending of racial segregation in the schools" (pp. 302-303). Special education has continued to grow in the United States, especially with the impetus of the Education for All Handicapped Children Act of 1975. However, the effects of special education, especially for the mildly handicapped, have been criticized (Blatt & Garfunkel, 1973; Carlberg & Kavale, 1980; Cegelka & Tyler, 1970; Glass, 1983; Milofsky, 1974). The utility of diagnostic and prescriptive testing has also been found lacking (Arter & Jenkins, 1979; Ysseldyke & Mirkin, 1982). Carrier's comments about these failures of special education are pertinent:

> This focus on differentiation and allocation situates special education in a broader framework of educational practices and relates it systematically to the focus of interactionist concerns: classroom life, pupil careers, deviance, and handicap. And it does so without losing sight of the institutional nature of special education and the role it and other forms of sorting play in the school and the society at large, for it links sorting directly to reproduction. Just as reproduction can take place without the conscious intent of educators, so special education solidifies and perpetuates poor educational performance in spite of the desire of special educators to help the child. (pp. 290-291)

Educational Roots

Textbooks and articles from the field of school psychology which deal with the history of the profession tend to take a narrow,

psychological view while ignoring the social and philosophical context of school psychology. While Kaplan and Kaplan (1985) also noted the tendency of school psychologists to ignore the social context of the student, and briefly acknowledged the importance of ideology and the social environment, their exploration of the impact these variables have had on the development of school psychology was very limited. Thus, in this section an attempt will be made to contrast the typical history of education presented in school psychology literature with that of educational historians and sociologists who tend to take a broader view. The intention here is to demonstrate that school psychology as a discipline has emerged from a rich, complex socio-historical background and based its practices on some assumptions which are rarely explicated or discussed.

Psychological Assumptions of Educators

Kaplan and Kaplan (1985) traced the development of school psychology and found that the psychological beliefs of educators in the late nineteenth century, and an available technology of psychological testing, were the precursors to bringing psychologists into the schools. Thus, educators were already thinking with psychological constructs when school psychology was invented. School psychology "became a means of translating educational theory into practice and, beyond that, a means of implementing societal values" (p. 319). The Kaplans also emphasized the importance of individualism in education and psychology in the turn of the century schools:

> Thus, to the extent that school psychologists assumed traditional psychological views, they ignored social history, social order, and the social context, and they underscored the focus on the

> individual organism, placing success and failure within the individual, relatively independent of context. . . . School psychology provided a rationale for schools already oriented to finding problems in children. In part for this reason, school psychologists adjusted comfortably to the structure of a conservative social organization--if problems were in the child, there was little reason for the system to be altered. . . . Individualism in the United States is understood to mean that advancement, achievement, and success should rest primarily on merit and talent and not on heredity. (p. 323)

In their review of the historical ties between psychology and education Goldstein and Krasner (1987) mentioned the traditionally recognized early psychologists (e.g., Munsterberg, Scully, Witmer, Gesell, Hall, Thorndike, etc.) who took an interest in educational issues. However, they devoted only two paragraphs to the controversial philosophical issues which influenced the early intentional application of psychology to education. One of the issues which will be discussed at length later was Thorndike's belief that the psychologist's task was to discover laws of behavior which could be applied in any situation involving human beings. The other controversial issue mentioned was that of the predominance of nature or nurture in the determination of human behavior.

The decline of Social Darwinism and a national reform movement were mentioned in a more contemporary text (Reynolds, Gutkin, Elliott, & Witt, 1984), as parts of the historical context in which school psychology developed. However, these authors did not define "Social Darwinism" or "national reform", nor did they elaborate upon just how these movements affected education and the origins of school psychology. The list of publications which briefly mention historical events without exploring the social and philosophical contexts and their impact on

current practice can go on and on (e.g., Bergan, 1985; Curtis & Zins, 1981; Gray, 1963; Hynd, 1983; White & Harris, 1961).

A task in which school psychologists have demonstrated little interest, then, is the analysis of the historical and philosophical roots of their profession. Furthermore, without such an analysis any debate regarding the underlying assumptions of the practice of school psychology is liable to make no sense. It will be argued later that such a debate is critical to the understanding and shaping of the effects which school psychologists have on their clients. Now, however, a brief review of the history and philosophy of education will be conducted in order to further understand the context in which school psychology developed.

History and Philosophy of Education

By the last quarter of the nineteenth century the basic structures and systems which make up modern American education were formed (Meyer, 1965). Of course, the system of education in the United States was locally controlled and highly varied, but there were a number of common elements to this variability. Two elements relevant to the origins of school psychology were (a) compulsory, mass education, and (b) a philosophical movement known as progressivism.

Compulsory education laws were passed in each of the states between 1852 and 1918 out of a perceived need to "Americanize" the enormous influx of immigrants to the United States (Cremin, 1961). Before 1880 most immigrants to the U. S. were from northwestern Europe and settled in the middle Atlantic, midwestern, and northwestern parts of the country (Meyer, 1965). After 1880, however, the number of immigrants

from southern and eastern Europe began to increase and their patterns of settlement were largely urban. They tended to stay in segregated slums and cling to the "old ways" of life. Education became the instrument for Americanizing the children of these immigrants (Cremin).

In Spring's (1986) analysis of the history of American education, it was in the last two decades of the nineteenth century that educational systems adopted broad social and economic roles:

> Of profound importance to the future of American education was the decision to organize the school system to improve human capital as a means of economic growth. In fact, the development of human capital as a means of solving problems in the labor market became a major educational goal of the twentieth century.
>
> Complementing the goal of developing human capital was the evolution of the science of education, an important part of which was the measurement of intelligence, interests, and abilities.
>
> Also, the political structure of schooling changed as corporate models of organization became popular. The modern school bureaucracy emerged as educators emulated factories and businesses. (pp. 149-150)

The promise of economic development as a reward for educational development can be traced back to Horace Mann's arguments for the common school. This expectation may have contributed to the development of segregated education, vocational education, vocational guidance, and the modern high school. "In fact, one could argue that schooling as a means of developing human capital has become the most important goal of the educational system in the twentieth century" (Spring, p. 185).

In the belief that economic efficiency would be served, equality of opportunity (to allow the most productive a chance to rise to the top) became an important part of the thinking among educators in the last century (Spring, 1986). Even today evidence can be seen of this strong conviction and its economic connections in the reform document A Nation

at Risk: The Imperative for Educational Reform (National Commission on Excellence in Education, 1983).

Early in the twentieth century, schooling was seen as providing the opportunity which would prepare all students equally for the economic race in adult life. However, as the century continued the attitude about equality of opportunity began to shift. The school soon became the track on which the race would be run (Spring, 1986). In order to make the competition more fair, the determination of merit was to take place in the schools using the science of educational measurement. "Scientific measurement of intelligence, abilities, and interests was to serve as an objective means of providing equality of opportunity" (p. 217).

Needless to say, the tremendous influx of children into the available public schools strained the educational resources, primarily in creating a shortage of available teachers (Meyer, 1965). The result of teacher shortages was a kind of regimented pedagogical approach in which " . . . teaching in the public school was reduced to drumming knowledge into pupils . . . " (p. 468). In reaction to these ineffective methods, F. W. Parker combined his background of New England individualism, his faith in democracy, and the thinking of Pestalozzi, Herbart, and Froebel to produce a pedagogical approach which became known as progressivism. While Parker's efforts were fruitful in Quincy, Massachusetts, he met with much resistance in Chicago. He retreated to the University of Chicago a year before he died (in 1902), but his friend and colleague, John Dewey, took up the torch of progressivism

which influenced American education until the middle of the twentieth century.

Cremin (1961) aptly described Dewey's role in the early progressive education movement:

> All about him, a cacophony of voices was demanding educational reforms of every sort and variety. Businessmen and labor unions were insisting that the school assume the classical functions of apprenticeship. Settlement workers and municipal reformers were vigorously urging instruction in hygiene, domestic science, manual arts, and child care. Patriots of every stripe were calling for Americanization programs. And agrarian publicists were pressing for a new sort of training for country life that would give youngsters a sense of the joys and possibilities of farming--and incidentally, keep them from moving to the city. Now note the common implication running through these proposals: educational functions traditionally carried on by family, neighborhood, or shop are no longer being performed; somehow they must get done; like it or not, the school must take them on. (pp. 116-117)

Cremin understood Dewey's form of progressivism as an attempt to have the school reflect the changes that had taken place in the nation, rather than isolating itself from the newly evolving industrialism. "The school, as an institution, should simplify existing social life; should reduce it, as it were, to an embryonic form" (Dewey, 1954, p. 631). Further, the school should attempt to improve the larger society. Dewey believed that the student should be actively involved in discovering the social and material worlds and how they worked. The student's psychological aspects, the natural and individual impulses, should be directed toward the desirable social aims.

Dewey's followers and proselytizers, who had to translate Dewey's writings and teachings to make them generally comprehensible, made many converts and developed progressivism as a dissent from what they perceived to be stagnating educational approaches (Meyer, 1965). In

reaction to some of the extremes of progressivism, however, the Essentialists of the 1940s criticized most of the elements of progressivism and argued for a return to the basics in education. This conservative spark was fanned into flame after the Russians successfully beat the United States in the race to launch a satellite into space. Conant's (1959) book, The American High School Today, roundly criticized high schools for their inferior programs and lack of scholarship. Cremin (1961) analyzed a number of reasons why the progressive movement collapsed in the 1950s, but asserted that many of the changes wrought in American education as a result of the progressive movement were irreversible and continue to be felt in the schools.

American Progressivism was a response to industrialization and was applied in the schools to improve the lives of individuals. Much of its program was pertinent to the introduction of psychologists (and other specialists) into the schools:

> First, it meant broadening the program and function of the school to include direct concern for health, vocation, and the quality of family and community life.
>
> Second, it meant applying in the classroom the pedagogical principles derived from new scientific research in psychology and the social sciences.
>
> Third, it meant tailoring instruction more and more to the different kinds and classes of children who were being brought within the purview of the school.
>
> Finally, Progressivism implied the radical faith that culture could be democratized without being vulgarized, the faith that everyone could share not only in the benefits of the new sciences but in the pursuit of the arts as well. (Cremin, 1961, pp. viii-ix)

Thus, school psychology owes much to the progressive movement. The progressives' focus upon the individual, with a view to the individual's ability to contribute to the social good, and their faith in the

psychological and social sciences helped to prepare the way for a psychological specialty in the schools.

Schools of Philosophy

Marler (1975) undertook the difficult task of defining and characterizing the schools of philosophy which have been predominant in American education. He admitted to the difficulty of analyzing educational theories and practices by the schools of philosophy approach:

> Assumptions are grouped under "schools" or "systems" of philosophy. So many assumptions--sometimes not all that consistent one with another--are included under a label such as "Idealism" that even the basic generalizations to which the label was designed to refer become blurred. Furthermore, given the pluralistic nature of culture, it is difficult to identify two philosophers whose belief systems are identical. (p. 20)

Nevertheless, there are enough commonalities to group some metaphysical, epistemological, and axiological beliefs into schools of philosophy, and briefly to examine the basics of each school, and to examine the influences of each school on the development of American education.

Idealism. According to Power (1979) the founders of the American colonies based their lives on theological rather than formal philosophical grounds. Their lives were ruled more by belief than by reason. Though reason was certainly not rejected, it was, however, secondary to theological guidance. Doubts and fragmentation began to creep into theological belief by the end of the colonial period sparked, possibly, by the rise in scientific interests. It took until the early years of the nineteenth century for the first philosophical interests to blossom into Transcendentalism.

This first, widely recognized school of philosophy in the United States borrowed heavily from German Idealism (Power, 1979). Marler's analysis of this movement was as follows:

> Its theological overtones softened by the Enlightenment, Idealism absolutely dominated American thought in the nineteenth century--first with the Transcendentalism of Ralph Waldo Emerson, William Channing and Bronson Alcott, and then with the New-Hegelianism of Wm. Torrey Harris, Bordon P. Browne and Josiah Royce. (1975, p. 370)

As summarized by Marler, the metaphysical beliefs of the Idealists were based upon a creative, purposeful, spiritual view of reality. They believed that human nature contains both good and evil and that some persons are, by virtue of their natural gifts, inherently superior to others. The Idealists aligned themselves with the notion of free will rather than determinism in reference to human action. Regarding God and faith, the Idealists generally expressed belief in an orthodox, Judeo-Christian God, which can be contrasted with the humanistic conception of God, and with atheism.

The epistemology of the Idealists was founded upon their belief in mind or soul as an immaterial entity. Ideas were seen as archetypes of existence grasped intuitively by the mind. Experience was seen as contact with, and objectivity as alignment with, a given, antecedent reality. The Idealist frame of reference (frame of reference is defined here as the sum total of one's assumptions) was that our conditioned perceptions are but limitations to be overcome by various methods. This position is in contrast to those philosophies which view the frame of reference as the self-in-becoming, that is, the view that the self is the frame of reference (Marler, 1975, pp. 123-124). For the Idealist,

knowledge and truth were consistent with the immaterial, archetypal ideas. Knowledge could be gained either through contemplation or through more complex cognitive activities of a conscious nature, including experiment and theory building.

Taking axiology to be the theory of value, the axiology of the Idealists can be summarized from Marler (1975) in the following way. Value is a property which resides in the objects of reality. While values can not be validated directly through experimentation, they can be known through more traditional modes, such as emotional intuition, revelation, and authority. It is through emotional intuition that one is able to discover the nature of values and classify and arrange them in hierarchies of relative importance. In the Idealist's view, morality was the process of seeking the objective good and striving to conform one's behavior to it. Conscience was believed to be the guide which aids one in discerning the correct moral choice and it was conscience which obligated one to follow the correct choice. Finally, the Idealist believed that life entails growth toward an ultimate goal, usually expressed as self realization.

The influence of Idealism on education in the nineteenth century was quite extensive, yet its influence waned at the end of the century for several reasons according to Power (1979):

> The main reason for Idealism's loss of influence was the temper of America and a decline in devotion to religion, for Idealism, even without denominational allegiance, was intensely spiritual and regarded man, on whom any educational theory would have to concentrate, as an extension of an absolute or divine spirit. Idealism, moreover, departed from a common-sense explanation of metaphysics when it described reality as being spiritual rather than material. In twentieth century America, when materialism came close to being a way of life, it was hard to be convincing about

> spiritual reality. But the metaphysics of Idealism, while an important obstacle to its acceptance among teachers and educational theorists, was not the only deterrent: Idealists doubted the possibility of securing valid knowledge through the usual channels of sensory experience, for knowledge had an intuitive and cultural component immunizing it from the ordinary processes of discursive learning. (p. 326)

Another problem with Idealism which contributed to its loss of influence in American education was its relative lack of concern for the human body in the so-called mind/body problem (Power, 1979). Americans were becoming more aware of their bodies by the end of the nineteenth century and concerns about disease, nutrition, and physical development were emerging. The Idealist's focus on mind ran counter to these developments. Interestingly, as will be shown, Behaviorism later carried the mind/body problem to the other extreme by virtually ignoring the mind. The revival of Pragmatism in America at this time fulfilled the need for a philosophy which more adequately addressed new social concerns.

Pragmatism. Pragmatism was introduced to American thought by Charles Sanders Pierce, popularized by William James, and thoroughly developed by John Dewey (Power, 1979). Although Pragmatism and Progressivism were not synonymous, the latter was heavily influenced in its early development by the former. Again, taking Marler's (1975) interpretation, the basic metaphysical assumption of Pragmatism was that a human being can know things only through experience which is influenced by that person's assumptions. Experience is defined as " . . . those accidental and planned encounters between all objects in the environment through which each is defined, ordered and given meaning" (p. 34). Human nature was taken as a given, and was constructed through

transactions between the organism and the objects of its experience. Evaluations of human nature were seen to be the result of social or cultural interactions. The Pragmatists believed in basic determinism and that if there is free will, it is a kind of freedom of choice within a limited set of conditions, not apart from them. The Pragmatists admitted to a God which represents mankind's highest ideals and strivings for perfected knowledge.

In the Pragmatic philosophy, mind was taken to be that complex set of purposeful, problem solving behaviors stimulated by some disequilibrium or discomfort. Thus, mind was not identified as an immaterial entity nor was it seen strictly as a physical manifestation of the brain. In Pragmatic epistomology, ideas were human created plans for action. Ideas and thoughts were the links between what is and what could be. Experience was seen as the transactions between the person and the objects of reality as the person thought and did and reacted to the effects of the thinking and doing. It was a dynamic construction of the self-concept and the other-concepts. Marler (1975) described the nature of objectivity from the Pragmatist's view as follows: "Objectivity is the product of sharing and, when possible, reconciling subjective perceptions of a given phenomenon in a specified context" (p. 119). The frame of reference of the Pragmatist was described as the self-in-becoming. The basic assumptions of the person, and the self, were seen to be equivalent, both of which were dynamically evolving out of experience. Since the person is dynamic, in flux, always becoming, then it followed that, for the Pragmatist, truth and knowledge were

constructed and were situation specific. Knowledge claims were seen to be public, testable, and awaiting confirmation by others.

The axiology of the Pragmatist, according to Marler (1975), began with the view that value is a product of contextual inquiry. Value existed in the relationships between the person and the object in the context of other, often competing, values and other variables. Pragmatists did not make a strong fact-value distinction; thus, hypotheses about values were as subject to experimentation as are those of facts. Any rank ordering or hierarchical arrangement of values, then, would depend upon a particular context or situation. Morality in the Pragmatic account was the result of a critical inquiry regarding the context and relationships involved in the choice of action. Regarding obligation and conscience, the Pragmatists were committed to application of intelligence to all contextual factors which are relevant in a situation calling for moral choice. Quoting Dewey (1922), Marler explained the Pragmatist's views of means, ends, and progress, "Means and ends are two names for the same reality. The terms denote not a division in reality but a distinction in judgment" (p. 218). Thus, the distinction between means and ends was a judgment, not an absolute. Ends and means to those ends influence one another as one progresses toward the temporary end-in-view. The ends change as one progresses and they become the means to new ends.

Realism. Although the philosophy of Realism has a long history, its influence in American education developed out of a dissatisfaction with the propositions of Pragmatism (Power, 1979). The metaphysics of the Realists were close to the common sense version of reality and,

thus, had historically received wide support. Marler (1975) described the axiology of the Realists as widely divergent, ranging from the objective to the subjective to the contextualist positions. Because no general consensus regarding axiology can be found among the Realists no summary of their positions will be presented in this paper.

The basic metaphysical position of the Realists was that reality consists of an orderly, knowable, and sensible world. The world exists independently of the knower, it is discovered not constructed. Realists were divided over the issue of whether or not human nature is basically good or basically evil. Most Realists held that humans are inherently either superior or inferior depending upon their innate qualities. Although they believed that much of human behavior is determined, many Realists generally believed that the self is free to choose among alternatives at critical junctures in life. Other Realists believed that human nature was determined by heredity and/or environment. According to Marler (1975), Realists have taken all three of the possible positions regarding belief in God. Some have held a traditional view of an orthodox God, others have believed God to be a representation of mankind's highest ideals (the Humanistic God), while other Realists have denied the existence of God.

The Realist's epistemology began with an assumption that the mind is a function of bodily transactions which process data from an external, independently existing reality. Ideas, then, were seen to be the reflections of a natural, external reality. Experience was seen to be that contact with the objects of reality, which exist independently of the one having the experience, and which can result in a knowledge of

that reality. Objectivity consisted of aligning oneself with the independently existing reality. While admitting to the pervasive errors in perception and reasoning, the Realist's frame of reference viewed these as limitations to be transcended by meticulous methodology. For the Realist, truth was knowledge which corresponded to the objective, independently existing reality. It was mankind's role to discover and conform to the truth.

In summary, current notions of free will and remnants of the spiritual beliefs of the Idealists can be seen, if one looks closely enough, in the schools today. Emphasis upon the importance of experience in education and the constructed nature of truth and knowledge are associated with the Pragmatists. Materialism, determinism, the God's Eye View of an independently existing reality, and predominant notions of objectivity are influences in education which are aligned with the Realist philosophy. These fundamental philosophies, Idealism, Pragmatism, and Realism, have, according to Marler (1975), had the most profound effects on American education since the late nineteenth century. It is this time frame which is of most interest in understanding the influences upon school psychology and the assumptions with which most school psychologists have practiced their profession in American schools.

Psychological Roots

As important as IQ testing and special education were in the development of school psychology, the parent discipline for this relatively new profession was psychology. Early twentieth century

psychological theory was developed out of, or a direct descendent of, nineteenth century psychology. According to Robinson (1986):

> The record of the century [nineteeth] is particularly commendable in regard to psychology. When we examine the topics now filling the literature in professional psychology, we are hard pressed to find one that was not put forth--often in a form still to be improved upon--by those whose efforts we have examined in this chapter [which deals with the last half of the nineteenth century]. . . . Our sense of what an experimental science is and ought to be is taken over, with only the slightest modifications, from J. S. Mill, and the general attitude toward the status of science remains largely the one advocated by Auguste Comte and his positivist disciples. . . . Contemporary psychology then is largely a footnote to the nineteenth century. (pp. 390-391)

This section will address the philosophies dominant in psychology, school psychology's parent discipline, at the time of the creation of school psychology. As Robinson's (1986) above quote tells us, very few significant changes have occurred in the major questions to which psychologists address themselves or in their views of the scientific approach to psychological questions since the nineteenth century. Thus, an examination of the philosophies and approaches of psychologists from the late nineteenth century on may be very revealing about some of the inherited and current practices of school psychologists.

Perhaps the most profound philosophical influence on nineteenth century psychology was the development of <u>positivism</u> in the twentieth century (Robinson, 1986). Supporters of positivism held science to be the savior of mankind, the only way in which humanity's physical, social, and personal problems could be solved. Robinson summarized this severe attack on rationalism as follows:

> According to the logical positivists--and they might just as well be called radical empiricists--the facts of the world are <u>sensations</u>, and all the laws of science are ultimately reducible to empirical propositions. Once we have exhausted the data of sense,

> there is nothing else that can be said either of the world or ourselves. (p. 333)

In examining the influence of the psychologist E. L. Thorndike on education, Goldstein and Krasner (1987) declared that it was his efforts which established that research in psychology would become the basis of classroom application. It was through Thorndike that positivism made a major assault on education. Thorndike believed that every aspect of education would be touched by psychology. Goldstein and Krasner quoted from Cremin (1961) regarding Thorndike's widespread influence on early twentieth century education.

> . . . no aspect of public-school teaching during the first quarter of the twentieth century remained unaffected by his influence. . . . Ultimately, Thorndike's goal was a comprehensive science of pedagogy in which all education could be based. His faith in quantified methods was unbounded, and he was quoted ad nauseum to the effect that everything that exists exists in quantity and can be measured. Beginning with the notion that the methods of education could be vastly improved by science, he came slowly to the conviction that the aims, too, might be scientifically determined. (p. 114)

Robinson (1986), too, saw Thorndike as highly influential in his effect on the development of scientific psychology. Thorndike's <u>law of effect</u> stated, basically, that we tend to do those things which we find satisfying, while his <u>law of exercise</u> can be paraphrased as our tendency to get better at those things which we practice. As Robinson pointed out, however, we do not see laws of this sort in psychology any more. Actually, the notions expressed by Thorndike's laws were not new, but the experimental evidence he offered in their support was new and reflected the contemporary faith in the ability of science to solve human personal and social problems.

> There is little in either of these "laws" that could not be gleaned from Locke and Hume or Bentham or, for that matter, Aristotle. They are the classical laws of association with the addition of Darwinian and Benthamist principles. The difference, of course, is that the laws in Thorndike's case are supported by experimental findings. (p. 409)

Thorndike influenced several thousand students in his more than forty years at Columbia's Teachers College (Meyer, 1965). He contributed greatly to what came to be called the Measurement Movement in education; his philosophy that "everything that exists, exists in quantity, and is measurable" (Meyer, p. 482) continues to influence research in education.

While agreeing with the methods, J. B. Watson disagreed with the mentalistic terminology in Thorndike's formulations (Robinson, 1986). Following the positivist path, Watson wanted to purge psychology of all terms referring to inferred, mental phenomena. He borrowed the physiological terms used by I. Pavlov and zealously promoted behaviorism, the prototypical science of objective psychology. The behaviorists exorcised mental phenomena from scientific psychology, claiming that only observable behavior could count as data. "Indeed, radical behaviorists such as John B. Watson and B. F. Skinner generally denied the scientific validity of conscious experience altogether" (Baars, 1986, p. 7). While for several thousand years philosophers have been attempting to come to grips with the mind/body problem, the behaviorists simply ignored the problem or declared it a nonproblem (Baars; Robinson).

Behaviorism has certainly left its mark on school psychology in concepts of learning (Gagné, 1970), behavior modification programs

(Bandura, 1969), behavioral objectives (Bloom, 1956; Gagné, 1970; Gronlund, 1978), and many of the canons of scientific methodology. These contributions have given school psychologists some scientific credibility, but at the expense of creating a barrier between everyday psychology understood by their clients and the "scientific" psychology professed by the school psychologists. Behaviorism will be examined in more detail in a later section.

Scientism

Science and technology, according to Bernier and Williams (1973), have developed in a mutually reinforcing way and have provided us with new social classes of technocrats, managers, and technicians who implement the technological products of science. Some may conceptualize school psychologists as essentially technicians who apply the knowledge and techniques of psychological science in education. Indeed the ideology of scientism (explained below) is all pervasive in modern education as evidence by the current dependence upon specialists (guidance counselors, nurses, administrators, curriculum specialists, consultants of various kinds, etc.) who possess scientific knowledge which they apply to the problems of education.

Bernier and Williams (1973, p. 61) used the term scientism to denote an ideological framework which shapes the perceptions of the social group sharing this framework and which espouses the formal goal of controlling the forces of nature, including the forces which control human behavior. Bernier and Williams' commentary about the extensive influence science now has upon western culture followed the development of this ideology from the early attacks by religious groups to the

widespread support science now enjoys throughout Western culture, even to the support of most religious thinkers.

In spite of David Hume's (1739, 1748) doubts about the certainty of knowledge and the twentieth century development of the indeterminacy principle in physics, Bernier and Williams (1973) credit the scientians, adherents of scientism, with the belief that any limitations in mankind's knowledge of an ordered universe are the result of human limitations and not of the lack of an orderly, external universe (p. 66). If the universe were not orderly then the scientians' hopes for prediction and control would be dashed. But optimism has prevailed because " . . . Scientism is rooted in the belief that events can be isolated, analyzed, and recorded, and that reliable inferences can be derived from such observations" (p. 67). With the proper methodology, empirical testing, and objectivity the scientians are certain that knowledge, prediction, and control of the external world are achievable.

In his analysis of the lives of some eminent scientists, Gardner (1983) came to the following conclusion:

> Even though the scientist's self-image nowadays highlights rigor, systematicity, and objectivity, it seems that, in the final analysis, science itself is virtually a religion, a set of beliefs that scientists embrace with a zealot's conviction. Scientists not only believe in their methods and themes from the depth of their being, but many are also convinced it is their mission to use these tools to explain as much of reality as falls within their power. This conviction is perhaps one of the reasons that the great scientists have typically been concerned with the most cosmic questions, and that, particularly in the latter years of life, they are often given to making pronouncements about philosophical issues, such as the nature of reality or the meaning of life. (p. 150)

While not all scientists are scientians and most scientists are committed to the tenuousness of scientific studies, those who apply

technology in education often uncritically accept the findings of science (Bernier & Williams, 1973). For example, because IQ tests are purportedly developed from the science of measurement they have been accepted almost without criticism by educators and applied psychologists. A brief background in the scientific evolution of IQ tests was presented above and suggested that the uncritical acceptance of IQ as the best measure of intelligence is quite premature. However, Bernier and Williams pointed out that it is the claim to objectivity and the incredible success of the physical sciences which appears to have made credible the scientific research of social scientists. Those researchers who do not adhere to the objective methods of science are likely to have their research branded as "subjective", implying that it cannot achieve the status of objective (acceptable) knowledge. An example of an attempt to intimidate disbelievers is evident in this passage from Bunge and Ardila (1987):

> The world exists by itself, whereas the maps of the world are processes in brains. Whoever denies this realist thesis has no use for the experimental checking of our conceptual models of things, and cannot explain the history of science. Worse: He or she risks being referred to a psychiatrist. (p. 175)

Behaviorism

Behaviorism played a very important role in shaping the science of psychology. The assumptions, methods, and the epistemology of behaviorism influenced experimental psychology in America in a lasting way (Baars, 1986). Experimental psychology in turn has had a tremendous influence upon the practice of psychology, even though the relatively few theories which have emerged from the behavioristic paradigm have been quite weak. However, as Baars pointed out, with the development of

behavior therapy from the principles of behavioristic psychology, clinical psychologists, in their battle with psychiatrists over the market place, were able to claim greater scientific validity for their methods than could psychiatrists who were unable to scientifically defend psychoanalysis.

The role of J. B. Watson (1913) has already been mentioned and it was pointed out that he made the claim that psychology should be concerned with behavior and not with consciousness. Early in its development the new science of psychology had taken human consciousness to be its subject matter (Stevenson, 1974). Introspection was the source of information about consciousness but was soon found to be unverifiable and, therefore, inadequate for the description and classification of sensations, imagery, and emotions. Watson's proposal, thus, met a need in the development of the science of psychology by insisting that the data of psychology be the publicly observable behavior of organisms. Watson theorized that only the reflexes were innate, that all other behavior was learned, and that learning was mediated primarily by classical (or Pavlovian, or respondent) conditioning. He believed that environmental conditioning could account for almost all human behavior.

Following Watson, B. F. Skinner (1953) carried on the behavioristic thesis, expanded the constructs, and applied the principles of operant and respondent conditioning to explain most behavior. Skinner has been recognized by his peers as "perhaps the most influential contemporary psychologist" (Evans, 1968), certainly the most famous living behaviorist (Baars, 1986). Robinson (1986) believed that Skinner's The

Behavior of Organisms: An Experimental Analysis (1938) influenced American experimental psychology as much as any other single source in the history of the discipline. Because of Skinner's influence on modern scientific psychology, his statements will be examined as representative of the basic assumptions and beliefs of the behaviorists' movement in psychology.

Skinner (1953) viewed science as the salvation of mankind, and the science of human nature as the only sensible solution to the problems of modern man, including the problems associated with the misuse of science. He predicted resistance to the deterministic view of human nature offered by a science of human behavior, a resistance which would result from the common belief in personal freedom and autonomy. The mission of the behavioral scientist was, according to Skinner, to discover the lawful relationships among events, to predict behavior from laws, and, eventually to provide methods of controlling behavior based upon lawful relationships. Theories, he believed, are larger systematic arrangements of laws and rules which come later in the development of a science. Technology, however, does not wait for theories. In psychology, postulates of unobservable events as determiners of behavior were unacceptable to Skinner. "My interest is in a science of behavior which is part of biology; it deals with observable events, not with the fictitious or metaphorical apparatus which Freudians feel they observe in the organism" (Skinner as quoted in Evans, 1968, p. 7). Skinner (1953) adopted the assumption that human behavior is determined by that which is outside the person.

As Stevenson (1974) pointed out, there are two assumptions basic to Skinner's views: (a) there are scientific laws which govern human behavior, and (b) these laws report causal connections between behavior and environment. These assumptions appear to be a part of Skinner's generalized faith in science and in the enormous success of the methods of science where they have been applied (Skinner, 1953). He described science as a set of attitudes, a search for order and lawful relationships, and, eventually, a system of rules and laws.

The influence of the behavioristic paradigm on the way modern experimental psychologists think is frequently taken for granted (Baars, 1986). Furthermore, most modern psychologists have accepted the behaviorists' methodological and epistemological views. These include the restriction of evidence to that which is observable, the requirement of precision in specifying stimuli and responses, the general skepticism of empirically untestable theories, and the practice of refusing for consideration unsupported subjective reports. The implications for school psychologists are tremendous, as Phillips (1982) pointed out.

> We must realize, for example that the meaning of scientific concepts is given to us, and their validity is defined by others. This represents a powerful source of control over the school psychologist, since others determine what is valid information. . . . To some degree, science, scientific methods, and research-in-action "programs" school psychologists and reduces their choices in problem solving and decision-making. . . . And there is the additional danger that the reality created by science and research, which defines what is, may become the sole basis for defining what ought to be. (p. 25)

Behavior modification became a major technology which emerged from the behavioristic paradigm and has had a profound impact on American psychology and society in general (Goldstein & Krasner, 1987). Behavior

modification has been widely and extensively applied in school systems and can be traced back to the operant conditioning research of B. F. Skinner (Kazdin, 1982). The focus in behavior modification is, of course, observable behavior. The antecedents and consequences of the behavior of concern are manipulated in order to achieve the desired outcomes. Three assumptions are made by those who apply behavior modification outside the laboratory setting: (a) human behavior is at least partially learned, (b) laboratory experiments have relevance to real life problems, and (c) findings from experiments with animals can be generalized to humans (Goldstein & Krasner, 1987). The value neutral position of the psychologist as experimenter, however, clearly could not be true of the behavior modifier, who, among other things, must decide which behaviors of value must be modified. Thus, in one of the most influential books on behavior modification, Bandura (1969) included an entire chapter on the values and ethics of applying behavioral technology to persons.

Behaviorism has had a tremendous influence on school psychology in the recent past (Ysseldyke & Schakel, 1983). Behavioral assessments and behavioral interventions have become quite common in the arsenal of school psychologists. A survey of random samples of members of the American Psychological Association's Division 16 (Division of School Psychology) and the National Association of School Psychologists found that the highest percentage of respondents indicated that their primary theoretical orientation was toward behavioral psychology (Anderson, Cancelli, & Krathochwill, 1984). Specifically, they found the following percentages: behavioral--20%, other--19%, cognitive-behavioral--17%,

reality-oriented--11%, client-centered--8%, neo-Freudian--7%, Freudian--3%, Gestalt--3%, transactional analysis--2%, multiple responses--9%, and no response--2%.

There is a long tradition advocating for the scientist-practitioner in clinical psychology (Raimy, 1950) and in school psychology (Bergan, 1985). Martens and Keller (1987) have recently renewed the call for school psychologists to be trained in objective empiricism so as to facilitate knowledge development in the profession.

In summary, the behavioristic paradigm has profoundly influenced the way psychologists think about what counts as knowledge in the experimental setting. Likewise, many psychologists have been influenced by behaviorism regarding the kinds of clinical information which are important. Basically, the behaviorists, and most subsequent experimental psychologists, have excluded private, introspective data and count only that data which is publicly observable. This position represents the position of physicalistic monism in the long enduring mind/body debate in philosophy and takes the view that all psychology is reduced to the physical movements an organism makes in space (Baars, 1986). Behaviorism represents the pinnacle of scientism in psychology. Underlying the scientistic thesis is the belief that there is an orderly, external reality which exists independently of the observer.

School Psychology Practice

School psychologists have been suffering from a prolonged identity crisis (Brown, 1982; Grimley, 1981). A number of "summit" conferences (e.g., Bardon, 1964; Cutts, 1955; Ysseldyke & Weinberg, 1981) have dealt with the roles, functions, and training of school psychologists, but to

date there is little consensus among leaders in the discipline about what a school psychologist is supposed to do. Bardon (1982) observed three levels of functioning among school psychologists which have evolved over the last five decades. The first level of functioning involves the provision of psychometric assessments. At the second level, representing much current practice, is found the application of more sophisticated assessments than level one and the emergence of intervention services by school psychologists. At the third level the school psychologist has become influential in school policy and practices via consultation with teachers, administrators, school board members, and through involvement in program development and evaluation. Services at level three are more talked about than actually realized in current practice.

In this section the practice of school psychology will be examined by organizing it into two loose categories labeled Psychological Assessments and Psycho-Educational Treatments. These categories are intended to reflect the primary responsibilities and practices of the school psychologist, diagnosis and intervention, yet they also suggest a broader role for the practitioner than just testing and making recommendations. As will be seen, assessment in current school psychology utilizes interviews, observations, and other techniques to gather information about a child. Likewise, remediation may include consultation, individual counseling, group counseling, inservice training, and other approaches in providing help for students.

Psychological Assessments

A number of studies have assessed the kinds of services school psychologists actually provide to schools by examining the individual school psychologist (Fairchild, 1974), a local group of school psychologists (Eitel, Lamberth, & Hyman, 1984), a statewide survey of school psychologists (Winikur & Daniels, 1982), and national surveys of school psychologists (Farling & Hoedt, 1971; Ramage, 1979; Lacayo, Morris, & Sherwood, 1981). Invariably, these studies found psychological assessments of children to be the single most time consuming category of professional activity.

These findings are not surprising when viewed in historical perspective. Cutts (1955) reviewed the history of school psychology and described the initial function of the earliest school psychologists as child study, primarily through the use of the newly developed tests of mental ability. The clinics which were founded beginning in the 1890s at a number of universities had as their purpose the examination of children whose educational development was retarded. The first of these clinics appears to have been at the University of Pennsylvania under the direction of Lightner Witmer. The Chicago Board of Education established a district wide Department of Child Study under the direction of Fred W. Smedley shortly after Witmer began his clinic. Arnold Gesell may have been the first to receive the title of school psychologist when the Connecticut State Board of Education appointed him to make mental examinations of "backward and defective" children throughout the state and to plan programs and methods for their improved

care. Interests in child study were also developing in several European nations at this time (White & Harris, 1961).

A number of historical accounts of school psychology have acknowledged the development of the individual intelligence test by Binet and Simon as the launching of the individual testing movement which has been so important to the development and current practice of child evaluations (Bardon, 1982; Bergan, 1985; Cutts, 1955; Gray, 1963; Reynolds, Gutkin, Elliott, & Witt, 1984; White & Harris, 1961). As special programs for students have increased over the years, the demand for school psychologists has also increased. In turn, the demand for more and better diagnostic tools has increased since the early versions of Binet's test were introduced. By 1940 school psychologists had available to them one or more tests of perceptual-motor development, educational achievement, and personality functioning (Cutts, 1955). These tests formed the basis of the psychological profile for child study. While the number and sophistication of tests has greatly increased since 1940, the data gathering procedures in school psychology have remained largely the same (Page, 1982). In recent years there has been an increased emphasis upon behavioral observations and evaluations, environmental-cultural influences, and vocational assessments (National Association of School Psychologists [NASP], 1984), although administering and interpreting psychological tests for the purpose of identifying handicapped students continues to be the single most prevalent function of the school psychologist (Goldwasser, Meyers, Christenson, & Graden, 1981, cited in Reynolds, 1983). Likewise, the school psychology research literature continues to be dominated by

research on testing and assessment (Reynolds, Gutkin, Elliott, & Witt, 1964).

Assessment continues to be the most stable and consistent day-to-day activity of most school psychologists (Gerken, 1985) and can be defined as the systematic gathering of information to be used in decision making (Cancelli & Duley, 1985). The theoretical orientation of the school psychologist determines the factors to be assessed and the approaches to assessment. However, most school psychologists have developed a battery of tests the data from which are used in making classification and placement decisions (Gerken, 1985). This battery usually includes an individual intelligence test, an achievement battery, a perceptual-motor test, and, often, a standardized measure of behavioral/emotional functioning (Cancelli & Duley, 1985; Gray, 1963). Data from standardized tests along with data from interviews, observations, work samples, and diagnostic teaching may be integrated to aid in diagnosing, classifying, and making recommendations for the referred student. Descriptive studies of how school psychologists actually conduct assessments have yet to be reported.

Psycho-Educational Treatments

Following the identification and diagnosis of educational and psychological problems one might expect some kind of remediation. In simplifying the clinical model prevalent in the practice of school psychology, Lauer (1969) characterized the diagnostic process as an attempt to describe and explain the problems, illnesses or maladjustments of a child, and remediation as the efforts to attack or treat the deficiencies of the individual child. Failure to remediate

the problems often result in a recommendation that the child be removed from the regular classroom and sent to a different setting for more intensive treatment. This oversimplified model of school psychology practice, however, does not give a clear picture of just what kind of remediation is provided by school psychologists.

As late as the Thayer conference of 1954 the consensus of the participants regarding the functions of the school psychologist generally described remediation as planning educational programs for exceptional students (Cutts, 1955). One of the recurring questions at this conference, however, was "should the school psychologist carry on therapy?" (p. 46) and Cutts reported much insecurity among the school psychologists addressing this question. The participants of this conference were divided over whether or not the psychologist should provide psychotherapy as a direct intervention. Contrast this indecision with the unhesitating statement from the Standards for the Provision of School Psychological Services (National Association of School Psychologists, 1984), section 4.3.3.1, "School psychologists provide direct and indirect interventions to facilitate the functioning of individuals, groups and/or organizations." Thus, in a span of 30 years professionals in school psychology have decided to offer a broad array of remedial services in the schools.

Recent surveys (Hughs, 1979; Lacayo, Morris, & Sherwood, 1981; Ramage, 1979) have suggested that contemporary school psychologists spend between 20% and 58% of their time in providing some kind of intervention service. These services included consultation for planning educational interventions, behavior management, individual counseling,

and group counseling. Grimes (1981) described the characteristics of school psychology interventions as follows: (a) they are based upon sound psychological theory and research, (b) they do not include placing students into special education programs, (c) they focus on the systematic change of describable behaviors, and (d) they may focus upon a wide range and numerous types of behaviors. While his second characteristic of school psychological interventions contradicts traditional practice, it represents a goal toward which Grimes obviously thinks the profession should move.

Meacham and Peckham (1978) found in their survey that consultation was emerging as a central function in the provision of intervention services. Moreover, practicing school psychologists preferred consultation over other, more time consuming direct interventions. The role of "change agent" was also seen as a developing function for school psychologists, a role for which they had received little training.

Fuchs and Fuchs (1986) pointed out four ways in which recent laws have pushed school psychologists into providing more intervention services. First, PL 94-142 requires that a diagnostician serve on the committee which plans the individual educational plan for students identified as needing special education services. Second, the need for consultation regarding regular classroom interventions has been increased by the requirement for placement of handicapped students in the least restrictive environment. Third, prereferral intervention strategies are being called for in response to the ever increasing number of children who are being identified as handicapped and requiring special education programming. And fourth, litigation and legislation

have called for unbiased assessments which can provide effective educational remediation for students.

Summary

School psychology was born in the midst of the compulsory and mass education movement. Large variations in student learning aptitudes quickly emerged as a pressing problem for educators who tried to teach all children. Attempts to quantify aptitudes or, some would say, intelligence, and the provision of "special" education for mentally slower students emerged as the prevailing solution to the problem of heterogeneity of learning abilities in classrooms. Intelligence testing and identification of students in need of special education became a process in which the school psychologist specialized. This process of student testing and placement was as much a product of ideology as it was of a disinterested, impartial science.

Firmly embedded in the educational system, school psychology was affected by movements in educational philosophy. While remnants of Idealism and Pragmatism can be found in the assumptions of today's educators, Realism has strengthened the materialistic and deterministic views which currently predominate in education and provides the foundation for the testing and placement activities of most school psychologists.

Developments in the science of psychology, especially the experimental branch, also shaped the profession of school psychology. School psychologists endorsed not only the methods but also the ideology of scientific psychology. Behavioristic psychology was, and continues to be, a major influence on practicing school psychologists and what

they acknowledge as evidence. Publicly observable behavior counts as data, subjective reports do not. Only recently have school psychologists begun, as a group, to offer substantially more remedial services such as counseling and consultation. However, in spite of a continuing sense of crisis among school psychologists, the prevailing activity continues to be assessment with standardized tests.

CHAPTER 2

PROBLEMS IN THE PRACTICE OF SCHOOL PSYCHOLOGY

The purpose of this chapter is to explicate a number of major problems faced by the school psychology profession. For convenience and consistency these problems will be grouped under the two main categories of school psychology practice, diagnosis and remediation. The intent is to review enough of the pertinent literature to show that there is not a consensus of satisfaction with current assessment and intervention practices in school psychology. While the intent of this chapter is to point out flaws in the professional practice of school psychology, space limitations do not allow for the exposition of the successes and more positive aspects of the practice of school psychology, of which there are many. An attempt will be made in the final chapter of this paper to identify some of the positive aspects of school psychology practice and to demonstrate how these positive aspects support the adoption of the model proposed herein.

Psychological Assessments

Not only did the growth and development of school psychology follow the expansion and funding of special education, but the creation of mental tests made the profession possible. Arnold Gesell may have been the first to bear the label school psychologist and his primary function was to test for mental retardation (Cutts, 1955). It was previously established that the administration and interpretation of tests continues to be a major function of the school psychologist. Prior to that, however, a brief history of the development of intelligence tests revealed some of the biases of the early test developers in their

efforts to find some scale along which people could be ordered according to merit. Recall Gould's (1981, 1987) beliefs that the eugenicist values of the early test developers influenced the development of the empirical scales of intelligence and, to some extent, our notions of what is intelligence.

Intelligence tests are likely to be the most ubiquitous measures used by school psychologists (Reynolds et al., 1984, p. 137). While intelligence is a hypothetical construct, most intelligence tests in use today were developed primarily from an empirical basis, without a sound, underlying theory of intelligence. The earliest tests of intelligence were developed empirically to predict school success (Wallin & Ferguson, 1967), and as Blum (1978) pointed out, quickly became a boon to the eugenicists in their search for a scale on which human value could be measured.

Besides the historical problems and atheoretical development of IQ tests, other problems concerning the validity of intelligence tests have surfaced periodically. While IQ tests are generally viewed as more objective than teacher judgments, the objectivity of these and similar tests, which purport to reliably and validly measure human characteristics, has been found by some to be illusory (Arter & Jenkins, 1979; Heshusius, 1982; Ysseldyke & Salvia, 1974). When it is recalled that the validity of Binet's original scale was established by teacher judgments (Wolf, 1969a, 1969b), and that the IQ test has become the criterion against which other measures have been validated (Gresham, Reschly, & Carey, 1987), the importance of the culture of the classroom must be appreciated. Since the criterion against which the IQ test is

compared, teacher judgments, is almost always available in a school one must wonder whether the IQ test is serving its function of providing a more efficient way of measuring student aptitude (Anastasi, 1976). In fact, Gresham et al. (1987) found teachers' judgments regarding students' classroom performances were at least as accurate in predicting the students' classification as non-handicapped or learning disabled as were a combination of the Wechsler Intelligence Scale for Children-Revised (WISC-R) and the Peabody Individual Achievement Test (PIAT). Of course this is not the first research to find that teacher ratings or judgments were equal or superior to psychological tests (e.g., Ullman, 1957; Hoge, 1983). Gerber and Semmel (1984) have advocated the return to using regular classroom teachers as "tests" of the academic achievement of their students. Now, it appears we have come full circle!

At this point, rather than deal with the issues concerning whether or not tests are fair or whether or not they are used fairly (see Lutey & Copeland, 1982, for a review), issues about which the empirical research data are generally inconclusive, the foundational concept of test validity will be examined. The primary kind of validity which will be scrutinized will be construct validity, which is an attempt to persuade others of a certain interpretation of what a test measures; this kind of validity is coming to be viewed by measurement experts as the most basic kind of psychometric validity (Cronbach, 1984).

Gould (1981) examined the history and development of intelligence testing and found that although Binet denied that his scale was a measure of intelligence, he led the way in applying a variety of complex

tasks as indices of mental performance. Because Binet, and others, found his measure useful for practical, educational purposes (because it had criterion validity) it rapidly became the accepted measure of intelligence against which other measures were compared.

Charles Spearman was the first to use factor analysis for the express purpose of studying the matrix of correlations among mental tests (Gould, 1981). He was searching for a causal factor underlying performance on these tests and found a substantial principal factor which could account for much of the test variance. This general factor was labeled g by Spearman who, along with his successor, Cyril Burt, strongly believed that g was innate and they inferred a physical substrate for it. Jensen (1980) is the most recent of general factor theorists who reified g when he stated that " . . . it is as much a biological reality, fashioned by evolution, as the morphological features of the organism" (p. 182).

A major problem with using the first principal component of a factor analysis, as is usually done in factoring out g, is that nonsensical systems of positive correlations also have principal components, as illustrated by Gould (1981). Theoretically, any score which correlates positively with another set of scores will also load on the first principal component factor. Thus, the reification of intelligence (or any other "mental" construct for that matter) from a principal component factor analysis cannot come from the mathematics or the label given to the factor but must be supported by additional biological data, which have not been forthcoming in the case of intelligence.

By using the same data gathered by Spearman and his followers, Thurstone invented a new form of factor analysis which found no general factor but a number of primary factors of intelligence (Gould, 1981). Thus, a new abstraction of the data suggested an interpretation of intelligence quite different from the g theory. Perhaps Thurstone's most important contribution was to demonstrate that the mathematics of factor analysis can be legitimately interpreted from more than one point of view.

Grover (1981) challenged a number of conclusions reached by g theorists, Jensen (1980) in particular. She cited a number of studies that strongly suggest that temperament or personality factors affect measures of IQ as much as any innate cognitive capacity. Drawing from neuropsychological literature she argued that the performance of an individual on a test is largely a function of the structural features of the assessment device rather than a measure of mental capacity. Grover (1981) explained " . . . that instruments or measuring devices presuppose the validity of the principles which they embody, and are in fact an extension of theory" (p. 38). Thus, a thermometer presupposes the principle of uniform expansion of bodies as a result of the action of heat, and a thermometer, then, is used to measure the uniformity of thermic action. Likewise, if an IQ test presupposes a unilinear general factor or a normal distribution of scores it will then exhibit these properties as a function of its design (Kohlberg, 1987).

In the early construction of intelligence tests the assumption that intelligence is equally distributed between the sexes led to substantial adjustments so that males could compete equally with females

(McGuinness, 1985). In the early pilot studies on the Binet and Simon scales, boys were more likely to fail than girls (Varon, 1935). This led Binet and Simon to alter the scales until the performances of the sexes were equal. Wechsler encountered a female superiority on almost all of his initial scales forcing him to search for scales and items which would show a balanced performance between the sexes (Kipnis, 1976). McGuinness (1985, p. 19) believed that since many of the items were added to balance the sex effects, some of the subtests seemed unrelated to intelligence (e.g., Coding) and have not shown much correlation with other tasks of intelligence. This, then, is a pertinent example of how a preconception, that males and females develop intellectually at the same rate, has affected the construction of a measuring instrument. Interestingly, McGuinness added that had boys tended to score higher on the initial test tasks no changes would likely have been made, for such a finding would have supported the attitudes about females prevalent at that time.

Grover (1981) also asserted that IQ tests measure a restricted set of learned skills and a number of information processing strategies. These learned skills seem to be one particular set of logical thinking aptitudes which are taught in and valued by traditional schools. Gardner (1983) agreed with this view, stating that paper-and-pencil tests and brief interviews almost guarantee that an examiner will tap only the linguistic and logico-mathematical intelligences which are, of course, prized by schools. The implications are (a) that there are other cognitive skills which are not tapped by IQ tests and (b) that the skills measured by IQ tests are teachable. Grover cited a number of

investigations which have demonstrated the modifiability of basic cognitive skills. She has rejected IQ as a measure of g because,

> . . . intercorrelations among a set of tests do not at all necessarily point to the existence of a general intelligence factor . . . rather, this general factor may, as has been alluded to previously, reflect general skills for dealing with decontextualized material which for problem-solution requires a particular "schooled" logic. (p. 123)

The basic question to ask seems to be: Is g real in the sense that it exists as some entity outside the mathematical procedures from which it is induced, or is it a metaphor, or artifact, invented by human consciousness? If g exists as some real, physical thing then the, supposedly, value-free methods of physical science may be the most appropriate way to proceed in its investigation. If, however, one assumes that g, like other socially mediated concepts, is mind-dependent then the methods of the physical sciences can best be viewed as only one way, among many, of developing the arguments concerning this construct. Value laden political discourse may, for example, be another way of trying to settle differences about the nature of g.

Jensen (1980) spoke of g as both a hypothetical construct (p. 224) and as a biological reality (pp. 182 & 251), which typifies the scientific realist position regarding the validity of IQ tests. He carefully pointed out, however, that g is not to be equated with the means used for measuring it (p. 247), to do so would violate the notion of objectivity which is one of the basic premises of the scientific realist's approach (Smith, 1985). Gould (1981) demonstrated that Spearman, Burt, and Jensen have all made the same fundamental mistake of concluding that the mathematical abstraction of g is a thing, yet to be

discovered, which has some fundamental existence in the same sense as nerves and biochemicals. Although a scientific realist himself, Gould argued that absolute scientific objectivity is a myth, and that cultural prejudices often predetermine the outcome of scientific research. An internal realist (Putnam, 1988) would carry this argument a step further and propose that all social scientific objectivity is limited because there is no conceivable way to separate the social scientist from that which is observed (Smith, 1983).

The historical analyses of the development of the IQ movement made by both Gould (1981) and Blum (1978) illustrated the strong motive to find scientific justification for the existing social order. Speculation about ways in which the concept of IQ could have developed from other social motives is fueled by recent developments in thinking about intelligence. Gazzaniga (1985, 1988), coming from a neuropsychological tradition, conceived of a number of independently functioning mental abilities which influence our behavior, but which are unified by reliance upon our verbal expressive ability to justify the behaviors we emit. Another similar approach is offered by Gardner (1983) who presented a theory of multiple intelligences. These are only two of, possibly, an unlimited number of ways the construct of intelligence can be, or could have been, developed. Guilford (1967; Guilford & Hoepfner, 1971) preceded these multiple intelligences approaches with his version of 120 vectors of the mind.

Iverson (1986) examined the ways in which the views of IQ test construct validity have affected the practice of school psychology. He attacked Cronbach and Meehl's (1955) concept of the nomological network

as it applies to psychological laws by showing that psychological laws do not account well for intentions; argued that disconfirming observations do not necessarily refute the construct being validated, thus allowing a kind of circular reasoning; and, pointed out the weaknesses in making generalizations about human actions apart from human intentions. Thus, the problem of treating human behavior as, simply, movements in space determined by prior movements in space ignores human intentions which often can make behavior unpredictable. The problem with many of the tests used by school psychologists, then, is that they are based upon deterministic thinking which ignores the qualitative differences between human behavior and the behavior of other physical events such as the movement of electrons, atoms, molecules, and biochemicals.

Iverson (1986) went on to describe how school psychologists appear to work from two incompatible models when conducting assessments. The first model is that of deterministic science (also referred to as scientific realism) which has provided the basis from which "objective" tests have been derived. The second model is labeled the value-oriented model, the assumptions of which are in conflict with those of determinism, and underlie the more qualitative aspects of a psychological evaluation including in-depth interviews, participant observations, and diagnostic teaching. Iverson believed that school psychological evaluations were relatively ineffectual (a point to be addressed below) primarily because of this conflict in basic assumptions. The conflicting assumptions which are concealed in the deterministic and value-oriented models will be examined in Chapter 3

(see p. 70). The reasons why these models cannot be complementary should become clear to the reader at that point.

One of the basic reasons school psychologists conduct psychological and educational assessments is to gather information which will be useful in planning educational programs for students who are not succeeding. However, a review which appeared in a major textbook on school psychology, The School Psychology Handbook, by Ysseldyke and Mirkin (1982), found that " . . . there has been essentially no empirical support for the beliefs that process dysfunctions cause academic difficulties, can be reliably assessed, or can be remediated" (p. 409). They found no support for the practice of basing prescriptions upon aptitude measures. They quoted Mann, Proger, and Cross (1973) who stated that methodological problems in the measurement of aptitude are to blame for the lack of positive findings. They also quoted Arter and Jenkins (1977) who found a widespread belief among educators in modality-instructional interactions in spite of the absence of empirical support for such practices. Ysseldyke and Mirkin summed up their review with the following statement:

> Assessment and decision-making practices are too often incongruent with empirical findings, technically inadequate tests are used far too often, decisions are significantly affected by nonobjective data, and the process of using assessment data to make decisions is both considerably varied and little understood. (p. 400)

Another major function of assessment in school psychology is to diagnose handicapping conditions in students. White and Harris (1961), while they acknowledged that many psychologists felt that diagnoses were unreliable, advocated for the diagnostic process and diagnostic categories "because they require a summation of the pupil's

difficulties" (p. 239). However, in an introduction to an issue of Exceptional Children exploring curriculum-based assessment, Tucker (1985) concluded that there is no evidence that traditional, norm-referenced testing, which most school psychologists provide, produces data which is relevant to the remediation of a student's educational problems. School curricula are usually determined by local school boards, and local traditions are what determine whether or not a student is making satisfactory progress. Thus, Tucker argued that assessment of a student's functioning within the school curricula is essential in determining just what are the student's educational needs.

Gittelman (1980) reviewed the literature on the validity of projective tests in diagnosing emotional and behavioral disturbances in children. Projective tests usually consist of ambiguous stimuli presented to a child who is asked to respond in some way. The responses, it is hypothesized, provide some information about the child's intrapsychic dynamics. Gittelman found very poorly done research, but concluded that children with severe problems tend to differ on some projective tests from normal children, but these tests lack diagnostic specificity. Also, there was no research support for the belief that a certain kind of test response characteristic of a group of abnormal children could be interpreted as having the same meaning for normal children.

Gerken (1985) concluded in her review of academic assessment by school psychologists that the reliance on objective tests of achievement is no longer an acceptable approach. Flaws in the instruments are only part of the problem; another important part is the tendency of school

psychologists to gather insufficient, inadequate, and/or irrelevant information. She presented a model for improving academic assessments and recommended that interventions be based upon sound psychological and educational theory, but she failed to provide examples of well supported, sound theories which can guide the process of deriving remediation from assessment.

Cancelli and Duley (1985) reviewed the data on psychological assessments and advocated an approach that focused on the uses to which assessment data were put. While they rejected the traditional reliance on objective, norm-referenced testing, neither did they fully embrace the opposite position of doing away with traditional tests in favor of behavioral assessments (a position favored by Trachtman, 1981). "Both intrapersonal functioning and behavioral assessment data are important for aiding educational decisions in the schools" (Cancelli & Duley, 1985). While presenting a rationale for greater reliance on behavioral assessments they failed to provide evidence that meets the criteria of the behavioral approach which they advocate, that behavioral assessments result in more effective remediation. This advocacy of new approaches before gathering supporting empirical evidence is not unusual in school psychology literature.

In his review of the sources of errors in the professional judgments of school psychologists, Barnett (1988) reported that standardized instruments with reliabilities and validities considered acceptable lead to magnitudes of error that are difficult to defend. Also, a study reported by Macmann and Barnett (1985) in which a computer simulation designed to minimize classification errors by selecting tests

with high reliabilities, found that when reliability coefficients were as high as .94 retest misclassifications reached 30%. The error rates were much higher when retesting was done with different, but highly correlated, tests. Barnett (1988) concluded this portion of his review as follows: "In summary, many problems associated with the technical adequacy of tests and other assessment procedures actually have been underestimated" (p. 663).

Summary of Assessments

To summarize the problems concerning assessment, it was found that intelligence tests have developed empirically rather than from theory. Their empirical development, however, reflects a preconception about the unilinearity of human intelligence which has been subsequently verified by the principal components approach to factor analysis. Because there are other approaches to factor analysis which support a multi-factor view of intelligence and new theories of multiple intelligences, the general factor theory of intelligence is being challenged (see Gardner, 1983, for a historical review of the single versus multiple factor theories of intelligence). School psychologists may have prematurely adopted an approach to intelligence which does not tap all the potentialities of students. The construct validity of tests was also criticized because of ontological assumptions which ignore intentionality. The practical problems of tests as they are currently used by school psychologists were pointed out. These problems included the fact that aptitude measures have not resulted in useful treatments, that the notion of modality preferences has no bearing on interventions, that achievement measures are often invalid, and that achievement

measures usually do not measure what the child is being taught. While alternatives to objective, psychometric assessments were illustrated, what seems to be missing in school psychology is a theory explaining how assessment information is linked theoretically to specific remedial activities. For example, knowing that a student with average abilities and a "normal" intelligence test profile is unable to sound out medial vowels does not point to any specific remedial strategy. Even if a much greater amount of assessment information about the student were available either from traditional or curriculum-based assessments, there are no empirical reasons to believe that a successful strategy for teaching this youngster to sound out medial vowels could be derived from such data. This is reminiscent of the philosophical problem of formalizing inductive logic. The best we can do is, as Popper (1968) suggested, conjecture and refute. If this is the case, why conduct expensive, time-consuming assessments? Why not simply do practice teaching with a student, experimenting with hypotheses, while gathering many kinds of information?

Psychological Diagnoses

If it is assumed that diagnosis is based upon assessment information, and the assessment information is suspect for the reasons examined above, then one would expect, logically, that diagnostic practices must also be suspect, which is what Barnett (1988) reported. Reynolds et al. (1984) have made a number of interesting observations about the diagnoses used by school psychologists. First, the diagnostic categories utilized have been generated by psychiatrists, special educators, or government legislators or bureaucrats, with little or no

input from school psychologists. Second, the philosophical basis for most diagnoses in school psychology has been the medical model with its focus on intra-individual pathology. And third, the diagnostic process has been severely criticized as unreliable and invalid.

The criticisms of school psychological diagnoses are similar to those of other child specialists. McDermott (1980) found that school psychologist diagnoses were lacking in congruence, but they were no worse than those of clinical psychiatrists, clinical psychologists, mental health agencies, public mental health workers, or special education teams. Frame, Clarizio, Porter, and Vinsonhaler (1982) examined the congruence of school psychologists' diagnoses and found phi coefficients ranging from .30 to .53. Epps, McGue, and Ysseldyke (1982) reported that a group of school psychologists were unable to differentiate between learning disabled and non-learning disabled when presented with diagnostic data on each student. In a study by Adelman (1978) it was found that diagnostic labels were confusing, redundant, and not differentiating. In a similar vein, Barnett (1988) concluded from his more recent review that the reliability of diagnoses in school psychology is very poor. Wang, Reynolds, and Walberg (1988) reviewed the literature on evaluating and diagnosing special students and concluded that at best the system is unscientific, inefficient, and unhelpful, and at worst may actually harm some students. Reynolds and his colleagues (1984) concluded from their review of the literature that, "taken as a whole, this body of research indicates inadequate reliability for most, if not all, current systems of diagnosis in frequent use" (p. 318). This statement is a good summary of the state

of the art of diagnosis in school psychology. Thus, extensive reviews of the literature suggest that a consensus is growing that the diagnostic practices of school psychologists are quite deficient.

Summary of Diagnoses

Diagnostic procedures used by school psychologists have been adopted from other professions and generally focus upon intra-individual pathology. These diagnoses, like those in other child specialty fields, have been severely criticized as confusing, redundant, unreliable, unscientific, and inefficient. They are accused, in some cases, of harming children.

Psycho-Educational Treatments

As previously stated, the intervention services offered by school psychologists include consultation for educational remediation and behavior management, individual counseling, and group counseling. In this section these categories will be grouped for convenience into two parts, consultation and counseling, so as to examine the literature of the effectiveness of each. As Reynolds et al. (1984) pointed out, however, there are an infinite number of possible problems a school psychologist may encounter and very likely an equal number of possible interventions which could be brought to bear on these problems. Thus, grouping of the typical kinds of interventions used by school psychologists is necessary. Likewise, the research on various intervention techniques is voluminous (Reynolds et al., 1984); therefore, an examination of research reviews should help to indicate whether or not school psychologist interventions are considered to be effective.

Consultation

The first review of outcome studies of consultation was conducted by Mannino and Shore (1975) who examined 35 research reports published between 1958 and 1972. They counted as positive effects any changes in attitudes or behavior of consultees or improvements in behavior of clients. Twenty-nine, or 69%, of the studies reported at least one positive outcome. Of those studies which assessed the effectiveness of consultation within school settings, 20, or 78%, reported at least partial success.

Medway (1979) conducted a follow-up review and focused on school consultation outcome studies from 1972 through 1977. He defined consultation as "collaborative problem solving between a mental health specialist (the consultant) and one or more persons (the consultees) who are responsible for providing some form of psychological assistance to another (the client)" (p. 276). Twenty-nine studies were found and of these eight, or 28%, reported consistently positive results. Another 14 studies obtained positive results on at least one of several dependent measures. Thus, the overall percentage of studies in which at least some positive result was found turned out to be 76, a figure remarkably close to that found for the school consultation studies by Mannino and Shore (1975).

Medway (1979) cautioned, however, that many of the studies he reviewed were flawed because of their failure to use control groups, or, in some cases where comparison groups were used, to use comparable subjects in the experimental and control groups. Eleven studies, 10 of which reported positive results, failed to include a control group. The

number and background characteristics of the consultants was also a problem in several of the studies. These characteristics have been shown to be important in other outcome studies (Bergan & Tombari, 1976; Rider, 1974; Schowengerdt, Fine, & Poggia, 1976). Little or no attempt was made in these studies to ensure that the consultees were a homogeneous group. The type of outcome data, the intervals between treatments and gathering of outcome data, and the persons reporting the outcome data were inconsistent from one study to another. Also, Medway had reason to believe that journal editorial policies may have limited the number of outcome studies published which reported either negative or no positive results. For example, only three of the eight doctoral dissertations included in his review reported any positive results. In chapter seven of his book, Westland (1978) discussed the "publication crisis" in psychology. He emphasized that the meaning of a positive result in psychological research is not the same as a positive result in the physical sciences. Causing a substance to crystallize, for example, once it happens, cancels out previous negative results in a chemical experiment. The significance of a positive result in psychology, however, must be judged in light of previous negative results. Westland (1978) concluded that:

> It is for this reason that if only the 'positive' result is published, and nobody knows about the others (real or potential), it can be said that publication practices can lead to totally misleading conclusions, whereas the absence of knowledge about the chemist's abortive trials makes no difference at all to the logical status of the result he does publish. If a conclusion in physical science is wrong, it is wrong for different, and usually internal, reasons (internal to the experiment, that is). (p. 101)

Investigation of the effects of journal editorial policies on the publication of all kinds of knowledge in school psychology might be an important avenue of inquiry.

Counseling

The next aspect of school psychology practice to be examined in the remediation category is counseling. This term normally is used to represent relatively short-term direct interventions with one or more clients (Bardon & Bennett, 1974), and will be so understood in this paper. While the terms "counseling" and "psychotherapy" are often used to denote differences in the client, the approach, the seriousness of the problem, or the context of therapy, these differences are artificial and provide no clear distinctions (Patterson, 1966). Therefore, following Patterson, no distinction will be made between counseling and psychotherapy, both of which will be defined as "processes involving a special kind of relationship between a person who asks for help with a psychological problem (the client or patient) and a person who is trained to provide that help (the counselor or the therapist)" (p. 1).

Counseling is one of the school psychology interventions most preferred by teachers (Ford & Migles, 1979: Algozzine, Ysseldyke, Christenson, & Thurlow, 1982). Teachers may prefer counseling for the immature or misbehaving child because they do not understand the limitations of counseling (Bardon & Bennett, 1974), because teachers have unrealistic ideas about the training of school psychologists (Styles, 1965), and/or because teachers prefer interventions which do not intrude on their prerogatives (Ford & Migles).

One of the earliest, and most controversial, assessments of the effects of psychotherapy was reported by Eysenck (1952). He reviewed the literature of outcome studies and found that there was little reason to think that psychotherapy was effective. Eysenck reviewed the literature again in 1966 and reached the following similar conclusion:

> With the single exception of the psychotherapeutic methods based on learning theory, results of published research with military and civilian neurotics, and with both adults and children, suggest that the therapeutic effects of psychotherapy are small or non-existent, and do not in any demonstrable way add to the non-specific effects of routine medical treatment, or to such events as occur in the patients' everyday experience. (pp. 39-40)

Furthermore, a similar review of psychotherapy studies with children as the clients was conducted by Levitt (1963) with results which were very similar to those found by Eysenck.

Meehl (1966), and others, were invited to respond to Eysenck's (1966) findings of generally nonpositive effects of psychotherapy. Meehl estimated that in his experience perhaps only one-fourth of the people seeking psychotherapy can profit from the experience, the remainder either would not benefit or would improve without help. He also believed that only one-fourth of the therapists in practice are effective in helping clients. Given these estimates, Meehl then calculated the probability that the appropriate client receiving therapy from an effective therapist at only about .06. He concluded that until psychotherapists could identify appropriate clients, and the effectiveness of individual therapists could be identified, further outcome studies would be futile. This argument appears to beg the question, as did most of the replies to Eysenck's analysis.

Strupp and Hadley (1979) conducted an interesting experiment comparing the effectiveness of experienced psychotherapists with university professors who had no formal training or experience in counseling, but who were known to form caring relationships with their students. Each group was randomly assigned a rather homogeneous group of students with indications of anxiety or depression based upon the Minnesota Multiphasic Personality Inventory scores. A minimal treatment control group was also formed. Outcome measures found that the clients in both treated groups achieved the same amount of gain on the multiple outcome measures. While the control group also improved, their gains were not as large as those of the treated groups. All groups maintained their improvements at a one year follow-up assessment.

Smith and Glass (1977) reported a meta-analysis of psychotherapy outcome studies. They conducted a large number of analyses of client, therapist, method, and temporal variables. In general, they found that the average treated client is better off than about 75% of untreated clients. Their major conclusions were as follows:

> The results of research demonstrated the beneficial effects of counseling and psychotherapy. Despite volumes devoted to the theoretical differences among different schools of psychotherapy, the results of research demonstrate negligible differences in the effects produced by different therapy types. Unconditional judgments of superiority of one type or another of psychotherapy, and all that these claims imply about treatment and training policy, are unjustified. Scholars and clinicians are in the embarrassing position of knowing less than has been proven, because knowledge, atomized and sprayed across a vast landscape of journals, books, and reports, has not been accessible. (p. 760)

Subsequent meta-analytic studies by Shapiro and Shapiro (1982) and Landman and Dawes (1982) found very similar effect sizes and reached the conclusion that psychotherapy is at least moderately effective.

However, the Shapiro and Shapiro study found behavioral and cognitive therapies to be slightly more effective than other types of therapy.

Prout and DeMartino (1986) conducted a meta-analysis of school-based studies of psychotherapy outcomes. They found only 33 studies which met their criteria for inclusion in the analysis, but reported that the overall effect size across all treatments was large enough (0.58) to tentatively conclude that school-based psychotherapy is at least moderately effective. The authors of this study found that cognitive and behavioral and group counseling or psychotherapy were relatively more effective than other forms of therapy.

The issues of training and experience for psychotherapists have been raised. Smith and Glass (1977), for example, found virtually no correlation between therapist experience and outcome ($r = -.01$). Hynan (1981) interpreted the findings by Smith and Glass of a modest effect for psychotherapy as a demonstration of the effects of relationships, not techniques. He pointed out that, with very minor exceptions, the specific techniques of psychotherapy are not effective and the training of the therapist appears to be inconsequential to the outcome of therapy. Following these assumptions Hynan argued for a number of advantages in graduate training of counselors or therapists when one assumes that the techniques of psychotherapy are ineffective. These benefits are (a) alleviation of anxiety in beginning therapists, and (b) making patients responsible (and giving them the credit) for any improvements they might make.

It should also be pointed out that meta-analysis as a technique for reviewing research is not without its critics (e.g., Eysenck, 1978). An

entire journal issue has been devoted to an examination of the pros and cons of the meta-analysis procedure (Garfield, 1983).

Special Education

While school psychologists are not directly responsible for special education programs, they are a part of the system which identifies and recommends these programs for certain children. The literature in a wide array of educational publications has in the last few years publicized the apparent fact that special education programs for most handicapped children are no more effective than regular education programs. Cegelka and Tyler (1970) found in their review of 40 studies that measures of student academic achievement indicated that mildly handicapped students in regular classes performed just as well as, or better, than similar students placed in special education classes. Blatt and Garfunkel (1973) reached the same conclusion in their review. Using meta-analytic methods, Carlberg and Kavale (1980) concluded that special education placement was inferior to regular class placement for students with below average intelligence. Glass (1983) also reviewed special education efficacy studies and concluded that there is little evidence substantiating the benefits of special education programs for students with mild handicaps. Reschly (1988) reviewed the literature regarding special education programs for learning disabled students and concluded that, "If it could be shown that the eligibility determination is reliable and valid or related to differential instructional effectiveness, then those services could be justified. However, there is no convincing evidence to support those assertions" (p. 463).

Some (Hallahan, Keller, McKinney, Loyd, & Bryan, 1988) have criticized the technical adequacy of the dependent measures and/or the experimental designs of many of the special education efficacy studies, and Marston (1987) found preliminary evidence that some special education programs may work if they are analyzed using curriculum-based assessments. Nevertheless, the bulk of the evidence raises serious questions about special education effectiveness. This view seems to be dominating the media and is stimulating the dismantling of special education programs for the mildly handicapped (e.g., Reynolds, Wang, & Walberg, 1987; Will, 1986). Once again, action is being recommended before a consensus has been formed among the researchers and those who are involved in special education about the issues being examined and debated.

Summary of Psycho-Educational Treatments

It has not been convincingly shown that interventions normally employed by school psychologists, consultation, counseling, and program recommendations, have been effective in helping educationally handicapped children to improve their functioning in school. While the research on consultation is promising, a number of problems with these studies prohibit any conclusions regarding overall effectiveness. Likewise, the latest review of counseling outcome research shows only a very modest positive effect which is probably a measure of the effects of relationships rather than specific techniques. Special education programming for most handicapped students has not been shown to be effective. While it is premature to conclude that school psychology

intervention services are ineffective, it is safe to say that school psychologists have yet to demonstrate the value of these services.

CHAPTER 3

REASONS FOR THE FAILURES OF SCHOOL PSYCHOLOGY

So far, a particular point of view of the influences on, and the history, practices, and failures of school psychology has been presented. The intent of this presentation was to examine the current crisis in the profession while hinting at some of the reasons for the crisis. In Chapter 3 the reader will be presented with criticisms of metaphysical realism (or externalism), notions of objectivity, the typical distinction between facts and values, laws of behavior, and theories of the person, as these ideas are found in the behavioral and social sciences. Following this, the more practical problems of semantics, diagnostic categories, application of research, and measurement in school psychology are addressed.

Also in this chapter an attempt is made to explicate a number of reasons for the current state of crisis in school psychology. Reasons rather than causes are dealt with in this paper because, following Phillips' (1980) analysis, behavioral science cannot yet establish causes for complex phenomena. Furthermore, Robinson (1985) pointed out that causes are purely natural phenomena and can be contrasted with reasons which entail agency and usually speak of the agent's motives, desires, expectations, and purposes. To speak of causes is appropriate when the topic is some aspect of one of the natural sciences. Reference to reasons is more appropriate when we speak of the psychological and social sciences.

Philosophical Reasons

The first set of reasons for the failures of school psychology are those which relate to the dominant world view of scientific psychology. This world view is founded upon basic assumptions about the relationship of the observer to the observed, the nature of objectivity, the antagonism between facts and values, the laws of behavior, and theories of the person.

Externalism

The first reason for the failures of school psychology is that like much of scientific psychology in general, school psychology has subscribed with little or no question to the assumptions of the philosophical externalists as defined by Putnam (1981).

> On this perspective, the world consists of some fixed totality of mind-independent objects. There is exactly one true and complete description of "the way the world is." Truth involves some sort of correspondence relation between words or thought-signs and external things and sets of things. I shall call this perspective the externalist perspective, because its favorite point of view is a God's Eye point of view. (p. 49)

Putnam associated the externalist view with metaphysical realism, a view which is explicated and defended by, for example, Bunge and Ardila (1987).

Putnam (1981) presented a number of arguments against externalism. One of his arguments was that the externalist adopts a correspondence theory of truth, that is, the notion that our perceptions are true if they correspond with what really exists externally to our perceptions. The problem with this position is that no one knows what really exists outside her/his mental representations. Such knowledge requires that the knower have access to both the mental representation and the real

object. Putnam refers to this as the God's Eye point of view, which of course is impossible to attain.

Borrowing from Hume and Kant, Putnam (1981) pointed out that we do not have access to objects, only to our sensations and perceptions of objects. Thus, to assume that our sensations/perceptions of objects are the "things in themselves" is mistaken. Our sensations/perceptions and our mental representations are internal to us. In order to decide whether or not one's map or idea is the "true" representation of reality would require one to have the God's Eye view, which is an impossibility.

In the history of any discipline there are a multitude of examples wherein we can demonstrate numerous plausible representations or maps of an object or phenomenon (Kuhn, 1970). Intelligent human behavior is an example from the school psychology discipline for which there are many differing views (discussed in earlier chapters). However, there is no way that we can demonstrate or prove that one particular representation is the correct one for all time. In science one can offer hypotheses and subject them to tests of verification. However, the results of the tests are also objects which, like other objects, are represented in human thought. These representations are subject to the same limitations as all representations. To assert that a particular representation is the correct one is to also assert that one has a kind of prior knowledge in which one can recognize a true representation when one comes across it. That is, one is asserting an isomorphism between the representation and the object. This implies the God's Eye point of view in which one can separate from one's mental processes and from the

external object and see the correct correspondence. Such a view is unsupportable.

All one can do is choose a similarity or map which is rationally acceptable for the time being. Rational acceptability is, according to Putnam (1981), a function of the values of the community and what members of the community are willing to accept as rational. The characteristics of a desirable system of rational procedure (which he also listed as the desiderata for a moral system) are as follows:

> . . . (1) the desire that one's basic assumptions, at least, should have wide appeal; (2) the desire that one's system should be able to withstand rational criticism; (3) the desire that the morality recommended should be livable. (p. 105)

The wonderful products of the physical sciences--in contrast to the behavioral and social sciences--cannot be denied. Some thinkers, though, have seriously questioned the connections between the "pure" sciences and their products. Feyerabend (1987), for example, argued that the products of science are as much, and in many cases more, the result of social processes which are outside the realm of the scientific research endeavor. Furthermore, the sociology of scientists appears to be such that many of the products of the physical sciences are unrelated to the metaphysical view of externalism (Feyerabend, 1987, pp. 25-39).

The metaphysical realism of Newtonian physics has also been challenged by what is described as the most successful theory ever produced in science (Davies & Brown, 1986), quantum theory. Wheeler (1981) described the theory and some of its implications as follows:

> We used to think of the universe as "out there," to be observed as it were from behind the screen of a foot-thick slab plate of glass, safely, without personal involvement. The truth, quantum theory tells us, is quite different. Even when we want to observe, not a

> galaxy, not a star, but something so miniscule as an electron, we have, in effect, to smash the glass, to reach in, and install measuring equipment. Bohr's principle of complementarity, Heisenberg's principle of indeterminism, and the lesson of "phenomenon" tell us more. We can install a device to measure the position, x, of the electron, or one to measure its momentum, p, but we can't fit both registering devices into the same place at the same time. Moreover, the act of registration has an inescapable consequence for what we have the right to say about the electron then and in the future. The observer is inescapably promoted to participator. . . . In some strange sense, this is a participatory universe. (pp. 17-18)

Oppenheimer (1956) criticized psychological science for continuing to use the Newtonian analogy of science when physics had moved on beyond the mechanistic paradigm. Thus, the God's Eye view of metaphysical realism was, and still is, a useful metaphor for classical physics. As the range of matter to be explained has increased, however, it has become necessary to include information about the observer. The inclusion of such information has eroded the validity of the God's Eye point of view. As will be discussed below, the application of the God's Eye view metaphor to psychology faces another major obstacle not usually found in the science of physics, that of intentionality.

It has not been established directly how, as a group, school psychologists view metaphysics, epistemology, and the nature of objectivity. Actually, very little mention of philosophical assumptions can be found in the school psychology literature, with a few important exceptions (Bass, 1987; Lauer, 1969; Phillips, 1987a, 1987b; Shinn, 1987) which will be discussed in more detail later. However, the position of most school psychologists can be inferred from statements made in the school psychology literature about science (e.g., that the purpose of science is to "describe reality" [Phillips, 1982, p. 25]).

Skinner (1953) clearly believed that the "basic characteristics of science are not restricted to any particular subject matter" (p. 11) and that the consummate function of a science is to control that which it studies. In spite of changes in the paradigms of physical science, control and prediction remain the standards for scientific knowledge for physics and for other sciences which would emulate physics (Rychlak, 1981). Rychlak very pointedly exposed the science of psychology as being out of touch with the historical developments in physics:

> This now leaves us with two rather interesting developments: First, other considerations besides predictive efficiency may determine the choice of one theoretical view over another at any given time. Second, it is within the realm of possibility that more than one view of the cosmos may function jointly and efficiently at any point in time, or even for all time. Empirical data may be amenable to diverse points of view. . . . Despite the reasonableness of this conclusion, based upon the experiences of our brother scientists, whom we were once only too pleased to emulate, psychologists have disregarded the lessons of history and persisted in patterning themselves after a nineteenth-century brand of physics. The science of modern psychology is essentially Newtonian. (p. 118)

Summary of Externalism

To summarize, the God's Eye view of reality, also known as externalism, is unsupported because it requires the observer to become free of her/his mental representations so as to compare them with the "real" objects which are external to her/him. The most basic of the sciences, physics, now entertains the highly successful quantum theory which acknowledges that the observer participates in bringing about the effects which are perceived in an experiment. Very basic notions of experimental control in psychology reflect an outdated, mechanistic view that the experimenter can be isolated from the world she/he studies.

Accepting the criticisms of externalism, however, forces a criticism of our views of objectivity, which is taken up next.

Objectivity

The evidence that school psychologists generally adhere to scientism was presented earlier. The basic tenets of scientism are essentially the same as those of externalism in the sense that both subscribe to the belief that external reality can be known through more or less objective methods and that behavior can be described and explained causally. Objectivity, of course is understood to mean that any influences of the observer on the phenomenon of interest can be overcome, to varying degrees, by employing increasingly rigorous experimental controls (Bunge & Ardila, 1987, pp. 77-78). At least one dictionary definition of objectivity described it as follows: "Of or having to do with a known or perceived object as distinguished from something existing only in the mind of the subject, or person thinking" (Webster's New World Dictionary, 1960). Bunge and Ardila spoke of, for example, "good experimental designs [that] keep the observer at arm's length, precisely in order to maximize objectivity" (p. 74). They defined a description as objective if it is an approximately true statement of fact rather than of fiction (p. 34). Such a statement, of course, implies a prior knowledge of that which is true, or the God's Eye view.

Feyerabend (1987) asserted that objectivity is older than science and originated when different cultures came into contact, each of which held its own views as lawful and correct. He distinguished between material objectivity, which is tradition-independent truths, and formal

objectivity, meaning tradition-independent ways of finding truths. However, Feyerabend pointed out, both notions of objectivity are problematic because each is defined differently in various cultures. In the rise of science in the western world the scientific, or formal, notion of objectivity has not been sustained.

> As science advanced and produced a steadily increasing store of information, formal notions of objectivity were used not only to create knowledge, but also to legitimize, i.e. to show the objective validity of, already existing bodies of information. This led to further problems: there exists no finite set of general rules that has substance (i.e. recommends or forbids some well defined procedures) and is compatible with all the events leading to the rise and progress of modern science. Formal requirements defended by scientists and philosophers were found to be in conflict with developments set in motion and supported by the same group. To resolve the conflict the requirements were gradually weakened until they disappeared into thin air. (p. 9)

Feyerabend went on to give examples of scientists who undermined the boundary between subject and object yet advanced their science (e.g., Einstein's relativity theories). He concluded " . . . that the idea of a science that proceeds by logically rigorous argumentation is nothing but a dream" (p. 10).

What Feyerabend (1987) did was to show that conceptions of reality, truth, objectivity, and science have changed and evolved and cannot be understood outside their historical and cultural contexts. These concepts have served various purposes at different times, one of which has been to defend the status quo and to defeat competing views. Kuhn's (1970) analysis of the history of science similarly proposed that scientific thinking is governed by paradigms which serve a local (in time and culture) purpose. A paradigm influences what is of importance, what is likely to be perceived, and what is evaluated as positive or negative. When the paradigm no longer meets the needs of the science, a

crisis occurs and a revolutionary change in the paradigm is likely to be imminent.

The notion of objectivity is an integral part of the attempts to make psychology a science of the causal mechanics of behavior. The desire to make psychology more objective was what led J. B. Watson to develop and advocate behaviorism (Baars, 1986, p. 45). Two major problems with the attempts in psychology to achieve objectivity have been in (a) the quite restricted range of phenomena investigated, and (b) the unimportance of variables to which experimental psychology has been interested (Krathwohl, 1985, pp. 23-24). Indeed, Michael Wapner (1986), in an interview, interpreted Koch's (1959) volumes on the accomplishments of the science of psychology as having shown the enterprise is bankrupt and has trivialized the whole human experience. More recently, Koch (1981) made similar pronouncements after further study of the discipline of psychology. He indicated his belief that psychology was never successfully severed from philosophy and " . . . that psychology is not a single or coherent discipline but rather a collectivity of studies of varied cast, some few of which may qualify as science, while most do not" (Koch, 1981, p. 268). Koch also spoke of the moral bankruptcy in psychology when a particular paradigm is presented as the final preemption of human nature. He also criticized psychological research as being too narrowly fixated on methodology. In contrast, anthropologists and sociologists often use less objective methods of inquiry and seek more holistic views at the risk of subjective biases.

Summary of Objectivity

Notions of objectivity in psychology are based upon the insupportable God's Eye view of reality and have produced a large body of research which has been judged by some to be trivial and bankrupt. By admitting only observable behavior as data, experimental psychologists have missed a significant aspect of what it is to be human, that is, to interpret sentences, to build constructs, to have purposes. Ironically, this internal nature of the person has shown through in rigorously controlled experiments (Bransford & Franks, 1971; Bransford, 1979).

Facts and Values

If the arguments criticizing the externalist's (God's Eye) view and those examining objectivity are coherent, then the assumed distinction between facts and values must also be questioned. Putnam (1981) defended the notion that since our conception of what is cannot be compared to an unconceptualized true reality, then our conception of what is true results from what the community of scholars within a discipline accept as rational at a particular time in the history of the discipline. The rational criteria accepted by the community, in turn, is a reflection of the values of the community. As the empirical world is constructed within a discipline, the standards of rationality (and the values underlying these standards) are altered.

From a long tradition of metaphysical realism and the God's Eye view has developed a tendency to conceptualize realistic and subjective as opposites. Putnam (1981) said the following about this common bipolar construct:

> But in fact, metaphysical realism and subjectivism are not simple 'opposites'. Today we tend to be too realistic about physics and too subjectivistic about ethics, and these are connected tendencies. It is because we are too realistic about physics, because we see physics (or some hypothetical future physics) as the One True Theory, and not simply as a rationally acceptable description suited for certain problems and purposes, that we tend to be subjectivistic about descriptions we cannot 'reduce' to physics. Becoming less realistic about physics and becoming less subjectivistic about ethics are likewise connected. (p. 143)

If facts tend to be of those kinds of things which can be reduced to physical descriptions and values tend to be those which can not be so reduced, and the metaphysical realist's God's Eye view is indefensible concerning either material or non-material things, then talk about values is not all that different from talk about facts. Both can be subjected to standards of rationality which have evolved in human cultures.

MacIntyre (1984) traced the history of (and the breakdown of) standards of rationality in ethics. He noted that it was in the transition from a classical philosophy of mankind to a mechanistic one that facts and values became separated:

> The notion of 'fact' with respect to human beings is thus transformed in the transition from the Aristotelian to the mechanist view. On the former view human action, because it is to be explained teleologically, not only can, but must be, characterized with reference to the hierarchy of goods which provide the ends of human action. On the latter view human action not only can, but must be, characterized without any reference to such goods. On the former view the facts about human action include the facts about what is valuable to human beings (and <u>not</u> just the facts about what they think to be valuable); on the latter view there are no facts about what is valuable. 'Fact' becomes value-free, 'is' becomes a stranger to 'ought' and explanation, as well as evaluation, changes its character as a result of this divorce between 'is' and 'ought'. (p. 84)

MacIntyre (1984) went on to argue that the application of a mechanistic technology of humanity has been deceptive and self-deceptive

(on the part of social scientists) because such a program has not resulted in real achievement. What it has produced is numerous bureaucracies based upon the mechanistic program which claim value neutrality and expertise. The expertise is derived from the mechanistic sciences of humanity and made up of a body of value free 'facts'.

> But in every case the rise of managerial expertise would have to be the same central theme, and such expertise, as we have already seen, has two sides to it: there is the aspiration to value neutrality and the claim to manipulative power. Both of these, we can now perceive, derive from the history of the way in which the realm of fact and the realm of value were distinguished by the philosophers of the seventeenth and eighteenth centuries. . . . And the legitimation of the characteristic institutional forms of twentieth-century social life depends upon a belief that some of the central claims of that earlier philosophy have been vindicated. (p. 87)

The central claims of which MacIntyre (1984) spoke, of course, were those which established the sciences of humankind in the image of Newtonian physics and which always hoped to be based upon law-like generalizations which govern social behavior. A very crucial question, then, is have we been able to produce the law-like generalizations about social behavior from which technical expertise can be claimed? Does the school psychologist have available to her/him laws of behavior from which accurate predictions can be made and effective control of behavior can be derived?

Summary of Facts and Values

If one accepts the argument thus far, that our conceptions of truth are based upon what we can rationally agree is true, rather than what we discover to be true, then truth is a function of our rational processes. These processes, in turn, have evolved out of the values inherent in our

histories and cultures. Rationality, then, is equally applicable to what we have falsely dichotomized into facts and values.

Laws of Behavior

MacIntyre (1984) argued that there are four kinds of systematic unpredictability in human affairs which will always render generalizations about human behavior subject to numerous counter-factuals. The first kind of unpredictability stems from radical conceptual innovations. By their definition they cannot be predicted, yet these innovations occur frequently. The second kind of unpredictability has to do with the inability to predict one's own future actions insofar as these depend upon future, unmade decisions. Only an omniscient being does not need to make decisions because all is known and decided ahead of time. Human beings are not omniscient; therefore, human beings must decide among alternatives and their future decisions, and their subsequent behavior, can not be known ahead of time.

MacIntyre's (1984) third source of unpredictability came from the game theoretic nature of social life. That is, people are often involved in transactions with others in which one person is trying to maximize the predictability of the other while minimizing her/his own predictability. To further complicate matters, each person is engaged in more than one complex game at a time. As MacIntyre humorously put it, "Not one game is being played, but several, and, if the game metaphor may be stretched further, the problem about real life is that moving one's knight to QB3 may always be replied to with a lob across

the net" (p. 98). He concluded that the totality of determinate, enumerable factors in a situation can not be known prospectively.

Compare this game theoretic nature of social life to the observations of Kelly (1955) that psychologists frequently report that their scientific aim is to predict and control human behavior. What many psychologists omit from their formulations, Kelly reminded, is that their experimental subjects and their clients have similar aspirations. Psychological perspectives on humankind too often depict the person as some mindless entity endlessly seeking to gratify basic urges. They ignore the richness of human social interactions.

The fourth source of unpredictability in human social life explicated by MacIntyre (1984) is that of pure contingency. There are simply too many elements which could have an influence upon the outcome of some human endeavor. MacIntyre cited the action of bacteria which produced the cold which Napoleon had at the battle of Waterloo, which caused the decision to send in the Guardé Imperiale two hours too late.

MacIntyre (1984) also admitted four kinds of predictable elements in human life. The first element is our tendency to structure activities around regular schedules. The second element includes the numerous statistical regularities of human life, many of which are independent of causal knowledge. Third, there are the causal regularities of nature which affect human decisions and behavior. Fourth, MacIntyre admitted to some generalizations about human affairs which do have more or less predictive power. His example was of the causal connection between social class and educational opportunities in Britain and Germany in the nineteenth and twentieth centuries.

Goodman (1983) examined the problem of defining a law as it is used in the sciences and concluded that a law is a statement which has reached a certain level of acceptance even though complete evidence of its accuracy can never be obtained. The problem with the inductive process is that we cannot foresee the future at which time a counterfactual may invalidate an induction. But the same problem holds for deduction.

> I have said that deductive inferences are justified by their conformity to valid general rules, and that general rules are justified by their conformity to valid inferences. But this circle is a virtuous one. The point is that rules and particular inferences alike are justified by being brought into agreement with each other. A rule is amended if it yields an inference we are unwilling to accept; an inference is rejected if it violates a rule we are unwilling to amend. The process of justification is the delicate one of making mutual adjustments between rules and accepted inferences; and in the agreement achieved lies the only justification needed for either. . . . All this applies equally well to induction. An inductive inference, too, is justified by conformity to accepted inductive inferences. (p. 64)

The processes by which we construct scientific (or other) knowledge are not governed by axiomatic rules but by judgments and standards which have evolved linguistically in our particular culture. In the natural sciences of physics and chemistry these processes have yielded scientific knowledge from which emanates very powerful predictive and manipulative capabilities. The behavioral and social sciences, in contrast, have failed to produce the judgments, standards, or linguistic practices which seem necessary for predictive and manipulative power.

After examining a number of the pros and cons of the covering law model, Robinson (1985) concluded that it leaves something to be desired as a source of explanations. However, other, more desirable models have not been forthcoming. One of the unfortunate consequences of the

covering law model is that the social sciences, including psychology, can not claim any reliable covering laws from which accurate predictions can be made. The best psychologists can offer are what Robinson refers to as explanation sketches, which are of a functional or teleological nature.

Iverson (1986) found the basic assumptions of the deterministic and value-oriented models incompatible. Determinism assumes an unsupportable God's Eye view of the person and ignores intentionality. While the value-oriented model acknowledges human intentionality, such a view conflicts with deterministic notions of objectivity. As Putnam (1981) hinted, until school psychologists become less realistic about psychometrics and less subjectivistic about values their practices will continue to be contradictory.

Summary of Laws of Behavior

In summary, the covering law model has not worked well in psychology because no relatively exceptionless laws of behavior have yet been formulated. Human behavior has not yielded to the predictability hoped for by those who have sought to pattern psychology in the image of the natural sciences. Without laws of behavior from which accurate predictions of human behavior can be made, the image of the school psychologist (and others) as expert is in error.

Theories of the Person

In addition to the philosophical problems which are at the foundation of psychological science there are also deficiencies in the theoretical views of the person which have dominated experimental psychology. While there are a number of very rich psychodynamic

personality theories which are often adopted by school and other applied psychologists, the view of the person which has emerged from experimental psychology has been quite narrow and incomplete since the behaviorists revolted from the introspectionists. The three metatheories which have dominated experimental psychology have been introspectionism, behaviorism, and cognitivisim (Baars, 1986). The major figure in nineteenth century introspectionism was Wilhelm Wundt. It was his version of introspectionism, and Titchener's systematic self-observation, against which the behaviorists revolted (Baars, p. 6). The resultant image of humankind which dominated most of experimental psychology has been quite sterile.

As has been alluded to earlier, the behavioristic model of the person has influenced the thinking of school psychologists, who are usually trained as scientist-practitioners, a training model which continues to be recommended (Martens & Keller, 1987; Schover, 1980). One major problem with the behavioristic view of the person is that it focuses only on one of the three traditional (Huxley, 1945) aspects of the person, the body, while excluding mind and spirit. Earlier, a quote from B. F. Skinner (from Evans, 1968, p. 7) revealed his program for making psychology a part of the science of biology. Skinner (1953) objected to inferred "inner states," such as mind and spirit, not because they do not exist, but because they are not relevant in a functional analysis. Reschly's (1988) call for reduced levels of inference and the use of behavioral assessments and interventions is an example of a similar attitude in school psychology.

Heshusius (1982, 1989a) found similar missing features of the person in the models implicit in special education institutions. The mechanistic view of humankind has guided not only science but has provided a cultural worldview which influences our thinking, perceiving, and acting. Special education, Heshusius argued, has been shaped by this worldview. Evidence of such a worldview is easily seen in the "rules, regulations, objectives, measurements, prediction, and control--external, quantifiable child behaviors" (1982, p. 7) which are an integral part of special education. This view was adopted from the Newtonian, mechanistic view of the universe, which produced in the social and behavioral sciences a view of the person as reactive/passive and governed by stimulus control. In this view accountability is a realistic goal and the diagnostic-prescriptive model of remedial teaching is pervasive. The mechanistic view resulted in a closed-system theory of the person, a conviction which is not supported in the face of the inability of the social and behavioral sciences to formulate any covering laws free from major counterfactuals.

Harre (1984) was more explicit in his criticism of both the experimental (behavioristic) psychology conception of the person and that of the more recent cognitive movement:

> Two images of human psychology compete for our attention. Academic psychologists, particularly those who work in the 'experimental' tradition, make the implicit assumption that men, women and children are high-grade automata, the patterns of whose behavior are thought to obey something very like natural laws. Quite recently, thoughts and feelings have been reincorporated into the general ontology of psychology, but much of the subsequent work in cognitive psychology has preserved the automaton conception. It is assumed that there are programs which control action and the task of psychology is to discover the 'mechanisms' by which they are implemented. Lay folk, clinical [and school] psychologists,

> lawyers, historians and all of those who have to deal in a practical way with human beings tend to think of people as agents struggling to maintain some sort of reasoned order in their lives against a background flux of emotions, inadequate information and the ever-present tides of social pressures.
>
> I shall try to show that the great differences that mark off these ways of thinking about human psychology are not ultimately grounded in a reasoned weighing of the evidence available to any student of human affairs. They turn in the end on unexamined political and moral assumptions that show up in the choice of rhetoric, in morally and politically loaded ways of speaking and, more particularly, of writing. Although these profoundly different ways of interpreting and explaining human thought and action have their origin in preferred linguistic forms rather than any compelling facts of the matter, they do have profoundly different practical consequences. They carry with them very distinctive stances as to the moral, political and clinical problems with which modern people are beset. (p. 4)

This quote sums up the problems faced by school psychologists who are trained in the scientist-practitioner model, including its mechanistic view of the person, and their subsequent experiences in the world of persons who do not normally behave as automatons. The mechanistic worldview which has prevailed in most of experimental psychology has, at best, been of little practical use. At its worst, such a worldview has impeded the school psychologist in understanding and helping clients. School psychologists and other applied psychologists who come from a tradition of the scientist-practitioner model frequently think about their clients with mixed metaphors. Harré provided an analysis of an example of a research article entitled, "Self Focus, Felt Responsibility, and Helping Behavior" (Duval, Duval, & Knealey, 1979), in which the mechanistic view of the human is imposed upon the moral agent view. Such unexamined metaphysical and moral/political presuppositions are problematic throughout experimental psychology and, it is hypothesized, are responsible for much of the confusion in and

inadequacies of school psychology. We simultaneously treat students as automatons and as moral agents, two incompatible approaches.

In the literature on experimental psychology much has been written about the operant technique of "shaping" behavior. Skinner (1953, 1971) has been the most outspoken advocate of the use of operant conditioning to improve the lot of mankind. By reinforcing successive approximations of a behavior the experimenter can usually "bring a rare response to a very high probability in a short time" (Skinner, 1953, p. 92). In such an experiment, however, the mechanistic view of the subject of the experiment must be contrasted with the purposive behavior of the experimenter or shaper of the behavior. Thus, even in the rather isolated conditions of the laboratory one may not be able to escape the contamination of the mechanistic metaphor with that of the teleological (Hallberg, 1975). Here we may note Skinner's (1971) remark that behavior modification (the technology of behavioristic theory) tends to be used mostly on the relatively powerless members of the community, and that when behaviorally oriented therapists have psychological problems they tend to seek out therapists who incorporate intentionality into their theoretical views (Lazarus, 1971; Norcross & Prochaska, 1984; Watkins, Campbell, Lopez, & Himmell, 1987; Wynne, 1988).

Summary of Theoretical Reasons

To summarize the reasons submitted to this point for the failures of school psychology and the science on which it is founded, the viewpoint of metaphysical realism, or the God's Eye view, which is so prevalent in psychology, is unsupportable. This viewpoint has, in turn, been the supporting assumption for a notion of objectivity which cannot

be defended. Not surprising then is the continual discovery of new threats to the validity of psychological experiments (e.g., Borg & Gall, 1983; Krathwohl, 1987; Orne, 1969; Westland, 1978). Another reason for the failure of school psychologists, and other applied psychologists, to live up to their claim of expertise is the failure of the science of psychology to discover any covering laws from which accurate predictions of human behavior can be made. If psychologists are better than non-psychologists at predicting and controlling behavior, and there is little or no evidence that they are, then this accuracy must be the result of factors which are not explained by the science of psychology. It has also been shown that the model of the person implicit in twentieth century experimental psychology has been that of a passive, reactive, automata. This mechanistic model of mankind has been competing with less influential psychological models and common-sense or folk models of the human being as goal oriented and purposeful. School psychologists, with little or no discussion of the issue of an appropriate model of the person, have vacillated between these views. The results have been a neglect of the purposive nature of human behavior in much psychological research and in many of the applied practices of school psychologists. It is unlikely that school psychologists will ever succeed in serving their clients by thinking of them as automata. But the tremendous desire to be scientific has led many in the discipline of psychology to make the error of pervasively applying the mechanistic model to humankind.

Practical Reasons

The next set of reasons for the failures of school psychology are those which appear to be the result of wrong turns made in the development of the profession. These paths have led to dead ends in the psychologist's attempts to help children think, feel, and act better in school. These unproductive aspects of practice include semantic problems, failed diagnostic categories, research application problems, and measurement problems.

Semantic Problems

School psychologists typically use and proliferate various psychological and educational concepts which may be responsible for practice failures. Twenty years ago Lauer (1969) wrote about the tremendous expansion of school psychology services and the concomitant problem of an appropriate model of practice. At that time she recognized several approaches to school psychology which were aligned with the various divisions within the parent discipline of psychology, experimental, behavioristic, social, and developmental. She pointed out the need for school psychologists to make choices in line with modern science while reflecting the values inherent in the liberal social tradition. She discussed the problem in the school psychology profession of the tendency to reify constructs:

> Concepts such as problem, neurosis, disability, and retardation probably were created so that we could talk about certain observable behavioral processes. But like many category words they have come to be accepted as if they referred to some "thing" which a person could "have." (p. 244)

Advocating for a general semantics (GS) orientation she urged school psychologists to look not for an entity or "thing" for which a child is

referred, rather they should examine relations among entities and look for distress among these relations.

Lauer (1969) further urged school psychologists to consider that it is not just the child's behavior which prompts a teacher to make a referral. Rather, the teacher's decision to refer is also affected by a number of complex factors including " . . . her [sic] coping power, the circumstances under which she is trying to teach, her own value system, or her prediction about what kind of a problem would gain the attention and service of the psychologist" (p. 246). By focusing upon the disharmonies among relationships, the psychologist, Lauer argued, is more likely to generate plans and interventions for that which is most amenable. She implied that our current system of trying to remediate highly abstract, reified "things" is unlikely to be successful, a prediction which (in Chapter 2 it was argued) was accurate.

Lauer (1969) pointed out that school psychologists have come to use nouns to describe arbitrary degrees of deviance, a practice which has led us to talk about these deviations as though they were naturally occurring phenomena. That which we label abnormal is not inherent in nature but the product of a social process which varies greatly from place-to-place and group-to-group. Lauer proposed the following general semantics solution to this problem:

> As an alternative, the GS-trained psychologist might consider helping the school to concentrate upon those judgments which limit the range of what is considered normal. By helping the in-groups gain greater capacity for including and caring for an ever-widening range of human variability, we can cease supporting a social system which solves its problems by segregating its own casualties and begin to create a society which solves its problems by preventing them or coping with them. (p. 249)

Our thinking about problems needs to be examined from the GS point of view, Lauer (1969) argued. Problems can be solved only metaphorically because (a) problems do not exist as "things," (b) solutions do not exist as "things," and (c) that which is perceived as a solution by one person may be seen as an injustice by another. The GS point of view is that problems are disharmonies in ongoing relationships.

> If the psychologist hopes to instigate changes which others will evaluate as "solutions," it behooves him [sic] to become well-acquainted with what those others would regard as salutary changes. If he writes recommendations on a psychological report without first involving his clients in the solution-making process, he may find his best clinical judgment to be unappreciated. (p. 251)

Lauer (1969) also saw the removal of a "problem" child for counseling or special education services as an approach which denies the teacher and the class their share of the responsibility for coping with the problem. This tradition of segregation promotes and sustains the belief that " . . . behavior can be viewed as <u>independent</u> of a system of human interrelatedness and that it can be dealt with independently" (pp. 252-253). Such a practice in the public schools prevents self-examination and change, while promoting defensiveness, denial, coercion, and/or segregation. When school psychologists "take on" the problems of the school they may be missing an opportunity to educate school personnel about participant observation and self-evaluation.

<u>Diagnostic Categories</u>

Reschly, Genshaft, and Binder (1987) found that school psychologists typically spend about two-thirds of their time providing services for classifying and segregating handicapped students.

Dissatisfaction with segregated special education programs has brought forth a revolution in the provision of services for special education students which Reschly (1988) believed will necessitate either a change in or a "substantial reduction in school psychological services" (p. 460). He pointed out that it is the system of classification and services for mildly handicapped students which has failed, a system with which most school psychologists are intimately involved.

Reschly (1988) noted, as did Lauer (1969), that the classifications made by school psychologists are restricted to matters of degree along a continuum.

> . . . classification criteria will always and inevitably involve arbitrary, artificial distinctions at the margins. There will never be, and indeed cannot be, clear distinctions of kind (e.g., handicapped vs. non-handicapped, SLD vs. low achiever, EMR vs. slow learner) when the critical dimensions are broad continua with fine graduations of competence. (p. 462)

Reschly addressed many of the issues raised in Chapter 2 of this paper. He concluded that the training received by school psychologists and the instruments used in school psychology have little relation to effective intervention strategies. Reschly argued for an approach which evaluates the effectiveness of school psychology assessments according to the success of the interventions produced therefrom. He failed to specify, however, just how success is to be defined and who will decide when success has been achieved. Success is defined differently by psychologists of different theoretical orientations (Rychlak, 1981, pp. 189-191).

Reschly (1988) clearly believed that a behavioristic model of the person will prove to be the most successful (again, without defining

success). In the future, he predicted, assessments with reduced levels of inference will have the best chance of yielding effective interventions. He advocated for precise behavioral counts which can be used as a baseline for estimating the effectiveness of the interventions. Furthermore, he strongly recommended the use of " . . . the powerful behavioral technology and the increasingly rich knowledge base of interventions for learning and behavioral problems . . . " (p. 470). He failed, however, to reference these remarks about the power of behavior technology, thus, implying that this technological power is a well accepted fact about which there is little or no debate.

Behavior modification programs have demonstrated considerable success while the programs are in effect; however, there has been very little documentation of the comparative effectiveness of these programs once they are terminated (Reynolds, Gutkin, Elliott, & Witt, 1984). The latest research agenda in behavior modification, then, concerns the maintenance and generalization of effects, and the acceptability of the intervention by those who must implement it (Hartens & Meller, 1990). Until the research supports the maintenance and generalization of behavioral changes once the program has been terminated, school psychologists are not ethically bound to select behavioral techniques over other competing techniques in helping a client change a behavior.

Application of Research

The next practical problem in school psychology has to do with the application of scientific finding in school psychology. Having made the claim that they are scientist-practitioners raises the expectation that one will witness technology in action, the application of the laws of

psychology to persons in the school. Before the technology can be applied, however, long-lasting generalizations in basic psychological and educational research must be found, a state of affairs which has not been realized (Phillips, 1980).

Even if one believes that the behavioristic project has produced useful generalizations, the complexities of application are apparent. The difficulties of implementing behavior modification programs in the schools was discussed by Rosenfield (1981) who concluded that "there is no question that implementing a behavioral program involves changing not only the child's behavior but that of the teacher as well" (p. 425). Nowhere in Rosenfield's chapter did she discuss the ethical question of whether or not the psychologist should secure permission before changing the teacher's behavior. Reschly's (1988) apparent assumptions about the richness and power of behavioral technology, therefore, assert (among behaviorists) a common-sense fact, not necessarily a scientific one, and he assumes both a scientific and an ethical consensus among psychologists which in all likelihood does not exist.

Phillips (1987a, 1987b) recently began a long overdue discussion of the relationship of the philosophy of science to the practice of school psychology. He conjectured that very little research in school psychology is conducted by practitioners. Shinn (1987) verified Phillips' hypothesis, having found that practitioners seldom publish research in the school psychology journals and they spend relatively little time on research activities. Phillips (1987a) further surmised that the practical application of research results in school psychology is "indeterminate" and "unpredictable" (p. 226), and not well understood

(1987b). Phillips (1987b) elaborated on the practitioner's dilemma as follows:

> The predicament of the practitioner also needs to be taken into account. In the day-to-day variations of practice, the problem for the practitioner is to make good use of science in the swampy lowland where practice is perplexing and messy, and where many of the most challenging practice issues are, as well as on the high, hard ground where science can be more readily applied. (p. 245)

Unfortunately, Phillips (1987b) and Shinn (1987) failed to explicate in their discussion just where this "high, hard ground" is in the practice of school psychology "where science can be more readily applied" (Phillips, 1987b, p. 245). Their failure to recognize or acknowledge the weaknesses in the scientific foundations of the practice of school psychology is unfortunate. Their opening of a dialogue about philosophical issues, however, is a refreshing and welcome advent.

Measurement Problems

It has been frequently pointed out in this paper that school psychologists devote much of their time to the administration and interpretation of tests. The purpose of these assessment devices is to provide some relevant information about the child of interest. By definition, standardized, norm-referenced tests are those which have standardized procedures and which have been administered to representative samples of the population relevant to the purposes of the test (Anastasi, 1976). What a particular test score tells us is where in the array of the reference groups' scores it falls. Thus, this time-honored, nomothetic approach of administering tests is based upon the notion that we can learn something important about the individual by comparing her/his score with that of a similar group of persons. An

underlying assumption is that reliability and validity coefficients based upon group, aggregate data provide an appropriate way of inferring the degree of consistency with which an individual will demonstrate the trait measured by the test (Lamiell, 1982).

Lamiell (1982, 1987) challenged the assumption that the stability of an individual's scores can be based upon group data. He argued (as did Mischel, 1969, before him) that the foundation of personality psychology, the perception of the relatively stable and continuous behavior of individuals, has not been supported by the vast empirical literature. The argument Lamiell made which is relevant to school psychologists is that the basic framework, the nomothetic or individual differences approach, has restrained our understanding of the individual person within the ecological context. The nomothetic approach to personality study only tells us something about the individual's relative standing. Changes in the standing over time are not necessarily due to changes in the individual, rather the individual's score may change over time because of variations in the array of scores. We are not measuring the person, instead we are measuring the gaps between persons. Thus, Lamiell (1982) made the following remarks about the dominant empirical strategies in the field of personality research:

> All of those strategies result in attempts to treat as a statistical problem what is actually a problem of measurement. Given the aggregate statistical indices generated within those strategies, it is for all intents and purposes, never possible to infer how consistent or inconsistent any one individual has been in her/his manifestation of any one attribute over time or across situations. (p. 52)

If the problem of assessing personality is viewed as one of measurement rather than statistics, then it should be possible to describe

personality at the level of the individual and also address issues of personality development.

An attempt has been made here to point out that weaknesses in personality measurement approaches have made it quite difficult for the school psychologist to make strong hypotheses about a child's personality based upon test scores. The stability of the child's traits across time and situations is not amenable to assessment with standardized instruments because these measuring devices indicate trait stability relative only to scores of other children. Thus, the variability actually observed in the classroom or home may not be the same as the variability found on the child's relative standing on a test. The study of a child's personality is not well served by comparing her/his score to those of others. Rather, as Lamiell (1982) stated "personality is a phenomenon based ultimately in accumulated information about an individual's actions, interpreted or rendered meaningful within a context provided by the perception and construal of that individual's alternative possibilities for action" (p. 53).

Summary of Practical Reasons

To summarize, some of the practical problems which may account for the relative lack of success in the explicit goals of school psychology practice, first was noted the semantic problems which reflect a tendency to reify our constructs. By making our constructs into "things" we have briefly enjoyed the delusion that we were practicing deterministic science. Second, it was found that dissatisfaction in the educational community with special programming has exposed the rather arbitrary selection of diagnostic categories used by school psychologists. The

reason for creating school psychology, the diagnosis and placement of special students, is now threatened with elimination. Again, our tendency to create "things" and subject them to scientific analysis modeled after the physical sciences has failed us.

A third problem examined was the discovery that much of school psychology practice has not been touched by the science of psychology. In spite of the advocacy for scientific training in school psychology programs, little is known about how scientific is the day-to-day practice. The complexities of practice have rendered it an unexplored, "swampy lowland." The conceptual problem is that we have imagined the practice of school psychology to be founded upon firm principles of deterministic science. There is little support for this imagined scenario. It does not seem to have occurred to school psychologists that the difficulties in translating scientific findings into practice may be related to the mechanistic model of human beings which emanates from most branches of our science. The science of psychology lures us into the mechanistic model, but the applications of this science are thoroughly resisted by the purposive, moral agents we find outside the laboratory.

The final practical problem in school psychology examined was the problem of nomothetic, individual differences research upon which many of our measuring instruments are founded. The basic problem here is that we are not measuring aspects of the individual, rather we are measuring the gaps between individuals.

CHAPTER 4

A PHILOSOPHICAL FOUNDATION FOR THE PRACTICE OF SCHOOL PSYCHOLOGY

A review of the basic arguments regarding the practice of school psychology may help to provide a rationale for a revised set of concepts by which the profession may be guided. The essential arguments include the following:

1. In Chapter 1 a review of the history of school psychology found that it was invented to identify students who, it was believed, could not profit from the regular education program. A more or less implicit goal in the segregation of deviant students was to remediate their problems so that they could be returned to the regular education fold, or, if their problems were irremediable, to provide an alternative educational program.

2. It was argued in Chapter 2 that the school psychology discipline has been unable to justify the use of most of its diagnostic categories and the profession has not shown that the primary remedial programs, those of special education, have accomplished their intended purposes.

3. Chapter 3 attempted to explain that school psychologists, like most psychologists, have made a commitment to the science of psychology, yet this science has been unable to produce any covering laws from which accurate predictions of human behavior can be made.

If, as it has been argued above, school psychology has not achieved its goals, then perhaps there is something wrong with the goals of the profession, or the strong commitment to scientific psychology has not been fruitful, or both problems have contributed to the school

psychology crisis. This author believes that both the goals of school psychology and the conception of science which predominates in experimental psychology are at fault, and both are due for revision.

What follows in this section is a collection of concepts which can serve to guide the practice of school psychology. The first seven concepts provide a philosophical foundation upon which school psychology practice may be based. The remaining five concepts are more specific to an alternative practice of school psychology when the preceding foundational concepts have been adopted.

Basic Assumptions in the Practice of School Psychology

That school psychologists seem relatively unconcerned about the assumptions which undergird their practice has already been addressed in this paper. It was proposed that many of the failures in the practices of school psychologists can be traced to unexamined philosophical beliefs. In an effort to correct this conceptual deficit, very basic ideas which support a renewed approach to school psychology practice are offered in this section.

1. A foundational concept in the renewed practice of school psychology is that existence is an undivided whole. Bohm (1980) elaborated on the notion that Western culture has a deeply imbued reductionistic bias which produces a fragmentary world view. He saw in modern physical theory a new focus upon wholeness:

> So, in approaching the question in different ways, relativity and quantum theory agree, in that they both imply the need to look on the world as an undivided whole, in which all parts of the universe, including the observer and his [sic] instruments, merge and unite in one totality. In this totality, the atomistic form of insight is a simplification and an abstraction, valid, only in some limited context. (p. 11)

The science of psychology, while trying to emulate physics, lags far behind as it continues to segregate subject from object (Riegel, 1979). The consequence of this segregation is that psychology looks at the static rather than the dynamic qualities of the person. In school psychology we need to emphasize the complex, ever-changing connections among the things in which we are interested. Analysis serves, at best, only a temporary, local purpose but can never tell us precisely how things are related. When we focus upon the particular parts we are unable to gain <u>insight</u> into the whole (Bohm, 1980, p. 25). All meaningful integrations, including those of science, require that the subsidiaries (the particulars) be organized into the focal (the whole) by a person (a mind) who performs the integration (Polanyi & Prosch, 1975, pp. 63-64). However, it is the perceptual act of organizing and not the focusing on particulars which results in what Polanyi and Prosch (1975) have termed <u>tacit</u> knowledge. Such knowledge requires an active mind which focuses upon the gestalt, not the individual parts; attending only to the parts causes the whole, or the meaning, to be lost. It is by immersing ourselves in a local setting, by organizing the parts to form a meaningful whole that we can hope to offer a point of view which will be useful to our clients. We need, as Lauer (1969) suggested, to view the child as part of dynamic systems and we cannot adequately understand the child apart from those systems.

2. This model of school psychology practice accepts that knowledge is constructed through the dialectical process. Constructionism, a term denoting an active mind which builds more than discovers knowledge, may be thought of as a way in which the person organizes her/his world

(Glasersfeld, 1984). In this paper, the definition of the act of construing follows that of Kelly (1955):

> By construing we mean "placing an interpretation": a person places an interpretation upon what is construed. He [sic] erects a structure, within the framework of which the substance takes shape or assumes meaning. The substance which he construes does not produce the structure; the person does. (p. 50)

Experience is organized by the person, and, if this organization serves its purpose it is maintained. If a construct does not hold up or serve its purpose it might eventually be altered. Glasersfeld (1984) pointed out that in the metaphor of evolution the "real" world does not directly enhance the survival of the fittest, it eliminates those organisms which are unfit. He believed that the so called "real" world also sets the limits of our mental constructions by eliminating those which do not fit (Glasersfeld, 1984). In Kelly's (1955) theory, the limits or boundaries of a construct represents its range of convenience. The usefulness of a construction, however, does not logically tell one how the world is in terms of a correspondence between the construct and the "real" world. Putnam (1981) reminded us of the futility of the correspondence view of knowledge and emphasized constructionism in science:

> If the notion of comparing our system of beliefs with unconceptualized reality to see if they match makes no sense, then the claim that science seeks to discover the truth can mean no more than that science seeks to construct a world picture which, in the ideal limit, satisfies certain criteria of rational acceptability. (p. 130)

Piaget (1962) offered a constructivist theory of intellectual development. Intelligence develops, he believed, through a process in which the child interacts with the environment to construct internal

operational structures. Riegel (1979) presented a developmental theory which is also constructivist in nature, but which, in contrast to Piaget (1962), placed more emphasis on the disequilibrium experienced by the person as a result of crises in a number of possible dimensions. The most significant changes come about, Riegel thought, as the result of asynchronies in individual-psychological and cultural-sociological developments. The person continuously changes as part of a dialectical process of interaction with the environment. Harré (1984) noted the language games typically played between mothers and infants, a dialectical process which may be important in the child's development of a theory of the self. Mead (1934) believed that the process of dialogue makes thought a social possibility (Kohlberg & Wertsch, 1987). He viewed the presentation of conflicting points of view and their synthesis through dialogue as the underlying process from which knowledge is constructed. Mead also saw the internalization of the dialogue, in the form of inner speech, as an important aspect of cognitive development in children, especially in the construction of a sense of self.

Another psychological theory which explicitly subscribed to the constructivist assumption was that of Kelly (1955). He used the philosophy of constructive alternativism as the basis for his theory of personal constructs. Kelly's philosophy took the long range view of humankind, the view across the centuries rather than the decades. His philosophy was based on the assumption that the person is already in pursuit of goals or purposes and that no explanation of this movement was necessary. He believed that people view the world through

transparent patterns or templates in their attempt to anticipate events. Kelly defined constructs as the patterns or templates with which people try to make sense of the world. Constructive alternativism emphasized that there are always different ways of construing an event and that, in the absence of a unifying system of constructs, events can be profitably and simultaneously construed from multiple construct systems.

Although absolutely objective knowledge appears to be out of reach, a quasi-objectivity may be attainable as a result of the dialectical process of constructing knowledge. A long history of criticism and response to criticism imbues most forms of organized bodies of knowledge and leads to a reduction in uncertainty (Cronbach, 1982; Krathwohl, 1987). Although the truth which is sought after must ever remain elusive, the social dialectical process of knowledge construction provides us with a scaffolding upon which we can raise ourselves. In school psychology, then, knowledge of the child ought to emanate from the social dialectic among those who have experienced and developed a personal knowledge of her/him, namely, parents, teachers, and others.

Each one of us, then, constructs our own personal knowledge of the universe. Polanyi (1962) argued convincingly that all knowledge is based upon mental operations (assumptions, intuitions, insights, etc.) which are not and cannot be formalized. "The relation of a subsidiary to a focus is formed by the act of a person who integrates one to another" (Polanyi & Prosch, 1975, p. 38). All knowledge carries with it, he argued, an element of conviction on the part of the knower. This conviction emerges as an assertion about the knowledge or the assumptions upon which the knowledge is founded. All knowledge is, from

this perspective, personal and cannot successfully be separated from the knower. Except where specified in this paper, personal knowledge refers to any of the constructions created by a person. Personal knowledge may occasionally be analyzed into constructs, thoughts, beliefs, myths, or theories, depending upon the purpose of the analysis. Ultimately, however, such analyses are best thought of as parts of a larger whole--the person--which is, in turn, a dynamic part of a larger whole.

3. An additional concept important in the practice of school psychology is the recognition that social knowledge is a function of social consensus. "Knowledge reaches out beyond the individual case, beyond the subjective meaning of some limited fact pattern, and interlaces with the meanings of an ever-broadening community" (Rychlak, 1981, p. 92). Just as a construction of the natural or the social world is subject to the limitations imposed by what we regard as "reality," there are also constraints in knowledge construction implied by the "criteria of rational acceptability" spoken of by Putnam (1981, p. 130). This idea was further developed by Krathwohl (1987) who declared that all knowledge is the product of social consensus. He distinguished scientific knowledge from other kinds of knowledge in three important ways:

> 1. The consensus in these instances is formed around the interpretation of evidence. (You no doubt recall from your history books that one of the characteristics of the Renaissance--as well as a foundation of science--was dependence on carefully gathered evidence, in contrast to the prevalent prior practice of sitting around thinking about a subject.)
> 2. The consensus is developed within rules or norms intended to prevent an arbitrary and unwarranted consensus from developing.
> 3. The evidence around which the consensus is developed must meet certain criteria. (p. 14)

That which is judged to be arbitrary or unwarranted is the result of social forces as well as the limitations imposed by reality.

Sometimes a consensus must be formed among a group of people who have a broad range of constructs, as for example in the school staffing. Typically such a meeting involves teachers, parents, an administrator, a special education consultant (former teacher), a school psychologist, and sometimes other support personnel. The parents often do not share the educators' concepts and vocabulary, while the psychologist, or other support persons, may use several theoretical systems quite different from the teachers. The principal may have goals for the child which differ from those of the parents and teachers. To further complicate matters, each staffing participant may view the student of concern very differently. At least one description of the staffing process (Law, 1981) has presented it as an authoritarian imposition of preconceived decisions, rather than a consensual process. The complexities of finding commonalities among the various construct systems in the staffing makes authoritarian procedures understandable, but not excusable. Actually, the staffing process has the potential to provide those who are involved a way to find a common ground and to participate in constructing a consensus about the student, her/his problems, and some potential solutions. The school psychologist has an excellent opportunity to serve as the leader in the formation of such a consensus. By viewing psychological data as forming the basis for a number of hypotheses, the psychologist can ask those who know the child best, the parents and teachers, to verify (or nullify) each of these hypotheses. This process of validation can function to create a consensually

validated theory of the student. It can be argued that the emergent theory of the student provides a more objective view than any of the individual, pre-staffing theories taken alone. The staffing process can provide the opportunity to reduce some uncertainties about the student.

In keeping with the idea that what counts as knowledge is a function of social consensus, the school psychologist's views about students, their abilities and disabilities, appropriate programs and remedial procedures, is best seen as one particular point of view which must compete with other points of view. In Chapter 3 it was argued that psychology has not achieved the status of the physical sciences in that it has no accepted covering laws from which accurate predictions of behavior can be made. The psychological knowledge which we possess has, at best, been able to rule out certain kinds of knowledge as false; however, positive, relatively exceptionless, laws of behavior have not been forthcoming. Therefore, school psychologists and others in the staffing process can claim, at best, to have knowledge which has only weak authority. For example, when a school psychologist offers an explanation of a child's behavior there are no grounds for claiming that this interpretation is the absolute truth. Only when this explanation meets the formal and informal criteria of legitimacy held by the social group (e.g., staffing or conference participants) can one declare it to be knowledge. It is possible, of course, that the group consensus may be such that explanations provided by the psychologist are taken to be infallible. Such naivete, however, is best discouraged from the outset by the school psychologist who is aware of the limitations of psychological knowledge.

Some might argue that the part of school psychology which is based upon mathematical models deserves the status and authority of scientific knowledge. However, it had better be remembered that a mathematical prediction does not predict behavior, rather it predicts other numbers which are, of course, based upon a measurement operation. An IQ score, for example, is used to predict an achievement score. But the correlations between these two measurements are never perfect, and the errors associated with the measurement operations can be predicted by no rule (see Polanyi & Prosch, 1975, p. 30, for a similar discussion of the limits of mathematical predictions based upon Newtonian mechanics). Thus, psychometric theory does not tell us the meaning of any deviations from the expected correlation. In a staffing, then, psychometric theory does not provide the psychologist with knowledge from which an authoritative explanation of a student's underachievement can be made. The prudent psychologist would also do well to remember that intelligence and achievement tests were originally validated by teachers' judgments (Gresham, Reschly, & Carey, 1987).

4. Personal knowledge, that is a person's thoughts, beliefs, constructs, theories, myths, or other internal cognitive and evaluative operations, exerts a major influence on that person's behavior. This concept has been defended by a number of writers (e.g., Baars, 1986; Beck & Emery, 1985; Ellis, 1962; Kelly, 1955; Mahoney, 1974; Maultsby, 1984; Meichenbaum, 1977). While common sense psychology accepts the notion that what a person thinks affects the person's behavior, during the behaviorist's domination of twentieth century experimental psychology this concept was largely ignored.

Harré (1988) dealt with the objection some would have to the fact that a person's constructs are largely unobservable and, therefore, not an appropriate project for psychological investigation. He described the positivists' attempt to reduce explanation to prediction and made the following observations about the essential uses of theory in explanation:

> For prediction we need to know only facts of the same kind as those we wish to predict, in this case observable symptoms. But to explain we need to know the causal mechanism that produces the symptoms. In general the entities that make up the causal mechanism are of a different kind from those we can ordinarily observe, and are known in some other way than that by which we know the kinds of things we can observe as regular antecedents of the disease states. We can see now why positivists prefer to reduce the notion of explanation to prediction. Taking explanation seriously calls for the use of the theoretical imagination to create ideas of beings which are often yet to be observed. (p. 139)

The causal mechanisms of interest to school psychologists and their clients had better include personal constructs which influence the observable elements of human behavior.

Since human behavior appears to be a function of environmental contingencies and personal constructs, the prediction of human behavior is going to be at least partially dependent upon variables internal to the person which are not directly observable. While environmental contingencies are theoretically observable, the internal personal knowledge of the person of interest is not. The best evidence for a person's construct system comes from the person's expressions, verbal and nonverbal. Such information is vulnerable to any number of errors and distortions, intentional or otherwise, by the person. The behaviorists have typically dismissed self-report data because of this

unreliability. However, to ignore this data results in a very incomplete understanding of the person.

When the ever-changing flow and often non-public nature of personal knowledge is considered, the improbability of accurately predicting human behavior is revealed. Even in the process of sharing about ourselves we are changing, possibly as a result of the act of sharing (Rogers, 1961) and possibly because of the ways in which our memories change (Riegel, 1979). Intentionality, personal knowledge, and rationality consort to liberate the person from at least some of the natural-causal conditions that would otherwise severely limit behavioral possibilities. None of the dominant theories in psychology adequately accounts for personal knowing or the various forms of human agency and "thus, none of these schemes describes, let alone explains, human action" (Robinson, 1985, p. 68).

The wholistic school psychologist attempts to understand the client by asking the client directly or indirectly to share personal knowledge. Interviewing and storytelling are, in addition to more traditional techniques, ways of gathering information from which inferences can be made about the client's personal knowledge. One of the most productive things a school psychologist can do is to ask a client to verify these inferences. If, for example, a school psychologist infers that a school phobic child is thinking how horrible it is to be separated from one's parents, she/he might simply present this idea to the child ("it is pretty awful to be away from your Mom and Dad"). If the child agrees with emphasis then information about this child's personal knowledge concerning separation has been gained.

5. Another major concept important to the practice of school psychology, and an important aspect of constructivism explicit, or strongly implied, in Piaget (1962), Polanyi (1962; Polanyi & Prosch, 1975), and Kelly (1955), is best expressed by Glasersfeld (1984):

> Constructivism necessarily begins with the (intuitively confirmed) assumption that all cognitive activity takes place within the experiential world of a goal-directed consciousness. Goal directedness, in this context, has, of course, nothing to do with goals in an "external" reality. The goals that are involved here arise for no other reason than this: A cognitive organism evaluates its experiences, and because it evaluates them, it tends to repeat certain ones and to avoid others. The products of conscious cognitive activity, therefore, always have a purpose and are, at least originally, assessed according to how well they serve that purpose. (p. 32)

Glasersfeld went on to point out that purposiveness, as David Hume (1748/1963) affirmed, presupposes an assumption of regularity of experience. One feature which Hume left out of the account of experience, however, was the role of human action. The construing person is the seat of purposive action. Purpose projects our constructions of past experiences as expectations into the future. The fundamental assessments of similarities and differences is the result of operations performed by the cognizing person "and can never be explained as a given fact of objective reality" (Glasersfeld, p. 34).

Bruner (1986) also argued for a constructivist view which, by tradition, divides the world into two spheres, that of the natural world and that of the human social world. The former is more likely to be characterized in terms of logic and science, while the latter is discussed in narrative or story form. We tend to construct the natural world in causal terms and the human world in intentional terms. Sometimes, Bruner believed, there is overlap in these constructions.

Animism, for example, attributes intentions to objects most people would discuss in terms of causality. Radical behaviorists, on the other hand, speak of causality and deny intentionality in human behavior. By and large, however, there is much consensus in our culture about how the world is divided. This consensus, like all others, is a function of the preferences of those who participate in forming the consensus and does not indicate an absolute "truth"; rather, it appears to be the result of the historical forces which have fostered the development of modern technocracy (Barrett, 1986).

More than one version exists of the processes by which a person constructs reality (Bruner, Goodnow, & Austin, 1956; Goodman, 1978; Kelly, 1955; Piaget, 1950; Polanyi, 1962; Polanyi & Prosch, 1975). What is salient in this paper is the general concept that the human being constructs reality, that is, forms personal knowledge about the self and the world. Virtually all of the people a school psychologist interacts with have the capacity to perceive and to construct knowledge. At present there are no theories which can adequately explain just how the person gets from the subsidiaries to the focal, a feat which meets the criteria of a miracle, that is, something which is beyond the laws of nature (Flew, 1979). A pertinent example of such a miracle is the child's capacity to get meaning from the printed word, an act which we take for granted but cannot explain. We observe the print (the input) and the child's statements of understanding (the output) and these are the subsidiaries, the parts. It is the child who connects the parts and completes the whole. And our observation of the parts in this scene are integrated by our own act of perception or dwelling in the parts from

which we create a whole (Polanyi & Prosch, 1975), in this case, our understanding of a child's act of reading. Polanyi and Prosch (1975) summarized their view of the personal act of knowing as follows:

> We therefore recognize and study the coherence of living things by integrating their motions--and any other normal changes occurring in their parts--into our comprehension of their functions. We integrate mentally what living beings integrate practically--just as chess players rehearse a master's game to discover what he had in mind. We share the purpose of a mind by dwelling in its actions. And so, generally, we also share the purposes or functions of any living matter by dwelling in its motions in our efforts to understand their meaning. (p. 45)

6. The concept of a person in school psychology will inevitably mean a being with some sort of moral status (Taylor, 1985). Modern behavioral science has attempted to portray the person as a representation of a particular set of facts, most of which can be reduced to quantities. What is missing from this description is that things matter to the person as they cannot matter to animals or machines. Taylor expressed it this way:

> . . . What will appear evident is that there are matters of significance for human beings which are peculiarly human, and have no analogue with animals. These are just the ones I mentioned earlier, matters of pride, shame, moral goodness, evil, dignity, the sense of worth, the various human forms of love and so on. If we look at goals like survival and reproduction, we can perhaps convince ourselves that the difference between men and animals lies in a strategic superiority of the former: we can pursue the same ends much more effectively than our dumb cousins. But when we consider these human emotions, we can see that the ends which make up a human life are <u>sui generis</u>. And then even the ends of survival and reproduction will appear in a new light. What it is to maintain and hand on a human form of life, that is, a given culture, is also a peculiarly human affair. (p. 102)

While cognitive psychology has restored thinking to the model of the person, the school psychology practitioner will restore the emotional, moral, and spiritual qualities of the person. According to

Taylor (1985), in the predominant behavioral and social science view of the person the capacity to plan is what makes a person an agent. Generally, human beings are superior to animals in their power to achieve these ends, a difference which separates humans from animals. Some sophisticated machines, however, are superior to humans in achieving goals; thus, the representational view of the person places human beings along a continuum assessing strategic superiority of goal attainment.

The contrasting view, the one which makes the most sense to the author, who is a practicing school psychologist, understands the person to have peculiarly human goals and purposes. These purposes are characterized by a certain sensitivity to standards. "The sense of self is the sense of where one stands in relation to these standards, and properly personal choice is one informed by these standards" (Taylor, 1985, p. 105). Consciousness and language are essential to the expression of these purposes and standards, but are also imbued with them. "The subject according to the significance perspective is in a world of meanings that he [sic] imperfectly understands. His task is to interpret it better, in order to know who he is and what he ought to seek" (Taylor, p. 112).

Taylor (1985) expressed his belief that the prevalent view of the person which emerges from modern social and behavioral science paradoxically seeks to place the scientist above human significance in the realm of pure, austere truth, very much like the self-denial which has been passed down through the ages from many spiritual traditions. The spiritual yearning of human beings to rise above the merely human

cannot be denied (Huxley, 1945). The search for certainty, however, will not be successful in the alternative, or significance, view of the person. The moral questions of the person in the significance view are never settled with any finality but evolve through dialogue. Likewise, assumptions about a larger order of nature or of the spiritual tradition cannot be taken for granted. The natural science, or representative, view of the person assumes a significance-free natural ordering in the universe. Religious traditions assume a significance view which is larger than, but includes, that which is significant to persons. To the school psychologist, then, a person is one to whom many of the aspects of life matter. It matters to most persons whether or not they are replaced by machines. There is no evidence that it matters to machines whether or not they replace persons. Just as teachers are moral agents whose practices are driven by values (Goodlad, 1988), so too are school psychologists.

7. A model for the practice of school psychology would be incomplete without a basic statement about the purposes of education. In keeping with the prior assumptions about wholeness, the construction of knowledge, social consensus in knowledge creation, the influence of personal knowledge, purpose in human life, and the significance view of the person, the goals of education had better emerge from a dialectical interaction between the student and the significant persons in the student's life. Usually parents, other family members, close friends, and teachers play, or have the potential to play, the most significant roles in the life of a student. Community interests are represented by the teacher, usually an employee of the locally elected school board.

The student's self-interests are initially represented by the parents and gradually, as the child develops and can participate in the dialogue, more so by the student. Community and self-interests are the focus of the dialectic between the student and the teacher. The outcome of this dialectic, taken at any particular moment in time, is unlikely to be identical for any two students when we consider (a) the numerous influences on educational outcomes, some of which have been addressed by educational researchers, and (b) the dynamic, evolving nature of the dialectical process between student and teacher(s).

What is needed by the school psychologist are some personal philosophical goals which are superposed over the merely social and economic goals of education (e.g., National Commission on Excellence in Education, 1983; Graham, 1989). While each person must find meaning for her/his own life (Merton, 1955), this meaning is dynamic and emanates, at least partly, from the social dialectic. The school psychologist, like all humans, is faced with constructing meaning and purpose for her/his life. Dialogues with students, parents, teachers, and others, cannot help but be affected by the psychologist's personal search for meaning. Therefore, school psychologists who subscribe to the proposed model will explicate their own life's guiding myths, philosophies, and/or purposes. Such explication need not be a formal thesis, rather it might take the form of rather simple statements of the overriding goals of her/his life.

This author, for example, believes that the purpose of his life is to love and to learn. Research and clinical experience with persons who have had a near-death experience (NDE) has found that loving and

learning have become the paramount goals in the lives of those who have been brought back from clinical death (Moody, 1988). Many of the persons who have experienced clinical death for a brief time and been subsequently revived report that love and knowledge are the primary qualities of life which were carried over into the NDE. Whether or not NDEs are "real" experiences is unlikely to be resolved by science. The effects of such experiences on persons, however, can and are being carefully described by researchers (Greyson, 1985; Ring, 1980). It is, however, the meanings persons construct for these and other remarkable life events which shape their life goals and purposes. The overlap and commonalities among those concerned with educating children can serve as starting points in the neglected dialogue concerning the purposes of education. The materialistic and economic purposes of education, as mentioned earlier, have dominated the educational debate and helped to produce educational philosophies and practices which often distress teachers and students and, paradoxically, interfere with the attainment of even the materialistic and economic goals (Cunningham, 1982; Elias, 1989; Kaiser & Polczynski, 1982).

Thus, the overriding purpose of education should be to facilitate the student's search for a personal meaning for life. Educators can facilitate by helping the student learn various means for moving toward these goals and purposes. Educators also help by participating in the dialectical process out of which the student evolves meaning and purpose. This evolving meaning in the life of the individual adds to the totality of consciousness, a theme explored in more detail by Jung (1963) and his student, Edinger (1984). The school psychologist can

serve by joining the dialogue when it is perceived to have become unproductive or problematic.

A Revisioning of the Practice of School Psychology

Here begins the design of a new purpose and way of practicing school psychology. Based upon the concepts of wholism, constructivism, the social-consensual basis of knowledge, the personal act of knowing, purposiveness, the significance view of the person, and personal life meaning as the purpose of education, a series of concepts governing the practice of school psychology will be presented.

1. The purposes of school psychology are to enrich, through dialectical encounters, the personal knowledge of students, teachers, parents, and others, in a school or educational setting so as to facilitate (a) their coping with stress and (b) their achievement of educational goals. "Enrichment" may best be thought of as an enlargement or expansion of the client's personal knowledge so as to not only explicate but also to facilitate the attainment of the client's goals or purposes. At times the school psychologist may serve multiple clients whose goals are in conflict. For example, the school phobic child does not want to come to school, while the school authorities and, perhaps, the child's parents want her/him to attend. Ideally, in this and similar situations, the school psychologist will enrich the personal knowledge of each client by helping each party to empathize with, or construe the construction processes of, the other (which is an example of Kelly's, 1955, sociality corollary). Ultimately, the political process will determine who will be the client, and who, therefore, will be expected to adapt to the demands of the environment. In this

example, the child (and possibly, the parents) will be identified as the client and will be expected to adapt. The psychologist can help through the dialectical process if the client(s) allows it.

The school psychologist functions in a highly politicized, nonscientific setting in which common-sense psychology prevails. It has been argued in Chapter 3 that scientific psychology cannot justifiably claim any covering laws from which accurate predictions can be made and it was also concluded that explanations from psychologists are not necessarily better than those of nonpsychologists. Therefore, the school psychologist had better take each encounter with another person as an exploration of that person's theories, myths, and constructs with a view to helping that person achieve self-selected goals within her/his own system of beliefs.

The school psychologist is uniquely qualified, by interests and training, to offer explanations and interpretations of behavior from the perspective of established psychological theories. Because these formulations do not have the status of natural laws or natural science theories, the school psychologist cannot claim expertise in the same sense as can a physicist or chemist. Keeping the limits of psychological knowledge in mind, however, the psychologist can offer theories which are subjected to the dialectical process and which are traditionally viewed through the skeptical framework of the science. Thus, while psychological theories are generally quite limited and have not produced "laws of behavior," they are potentially very helpful in organizing information. The theories in psychology have largely been

derived from and must compete with common sense theories of behavior (Fletcher, 1984).

Perhaps the most important function for the school psychologist is to assist in explaining human actions from psychological theory. Because no single scientific theory will be able to provide reasonable explanations of all actions, the school psychologist had better be armed with an array of theoretical points of view. Because scientific theories are subjected to conceptual and empirical testing, they are to be preferred. Sometimes, however, no scientific theory will adequately explain an action and the psychologist must rely on a common sense theory or create a new theory. The evaluation of the explanations of an action takes place in the dialectical processes among those who have defined the action as a problem. Although the explanation process begins with the application of one or more theories, it is through dialogue and social consensus that we reach an understanding of the action. At the same time, we may also have expanded or altered the theory, or theories, in order to accommodate the action we want to explain. Thus, theory construction is an inevitable, progressive process in the practice of school psychology.

The school psychologist may also assist with the evaluation of the problem from the point of view of the client's own theories. By engaging the client in a dialogue the school psychologist may have the opportunity to encourage the testing of hypotheses which emanate from the client's personal theory. There is no way of deciding ahead of time whether a hypothesis will bear up to dialectical or demonstrative scrutiny. Therefore, the school psychologist had better take seriously

a client's hypotheses by giving equal weight to all hypotheses before they are tested. To reflexively rule out a client's hypothesis because it is not derived from a scientifically accepted psychological theory risks not only error, but also risks rapport with that client. The psychologist may also assist by encouraging the client to engage in a conceptual analysis of her/his personal, often common sense, theories (Fletcher, 1984). Analysis of tacit concepts and theories of clients is a major tactic of Rational Emotive Therapy (Ellis, 1963) and Personal Construct Psychology (Kelly, 1955).

Stress is defined by Lazarus and Folkman (1984) as " . . . a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well being" (p. 19). Thus, stress is a multi-faceted concept which includes one or more personal constructs and a syndrome of resulting emotional responses. This conception of stress is useful in understanding the kinds of problems for which the school psychologist's services are sought. It has been this author's experience that stress usually sets the stage for referrals. When a teacher, parent, child, or principal perceives that her/his capacity to cope with a problem is exhausted, the school psychologist is often consulted. If the potential client is coping adequately, then the school psychologist is rarely called upon. An advantage to viewing problems from the conceptual framework of stress is that we can focus upon an ongoing process and may be less likely to depend upon the weak and relatively useless labels and categories upon which we have depended

in the past. This is similar to Lauer's (1969) recommendation that we focus upon strained relationships.

2. There are two main ways in which a school psychologist may enrich a client's personal knowledge. One way is by serving as a collaborative consultant. Another is by providing explanations of human actions.

Collaborative consultation is characterized by an interactive communication process which emphasizes the equal participation and status of those engaged in the transaction (Sileo, Rude, & Luckner, 1988). It is a model which calls for the consultant to serve as a facilitator of the problem-solving process (Berkowitz, 1973). By leading the client to explicate, examine, and test her/his personal theories, myths, and constructs, the school psychologist engages in a process which results in changes in the personal knowledge of the client--and the school psychologist. Any changes made by the client or the school psychologist are the result of choice, not imposition. Choices are made as a part of the give and take in the dialogue between the client and the school psychologist. Other more specific ways of facilitating coping and enriching a client's system of constructs are to be found in the literature on psychotherapy. While no system of psychotherapy has demonstrated consistent superiority (Smith & Glass, 1977), it is important that the school psychologist adopt or formulate a theoretical approach with which to assist clients in coping and attaining goals. If one perceives that a situation exceeds one's capacity to cope, stress will result. A theoretical system which can encompass the largest variety of human problems will help to prevent

such stress in the school psychologist. The application of "techniques" without a theoretical system to organize the processes of interpreting, explaining, and influencing the problem is liable to inhibit the dialogue among those concerned about the problem.

An explanation is " . . . a speech-act which makes use of a discourse which, in its literal meaning makes reference to beings which are not capable, often, of being observed. In many cases these beings are the components of causal mechanisms" (Harré, 1988, p. 140). Harré noted that every explanatory regress makes use of causal mechanisms but must end with "causal powers." In physics, for example, no further mechanistic explanation for the behavior of quarks is available; therefore, at this level of explanation one must make reference to basic powers or dispositions. The work of the school psychologist often requires explanations which make reference to causal mechanisms or powers. These explanations must be subjected to the criteria of rational acceptability of the participants in the dialogue.

Each kind of knowledge (e.g., physical, psychological, social, spiritual), and the varying levels of each kind of knowledge, may require different conceptual and methodological approaches to understanding and explaining its objects of interest (Harré, 1988). One level or type of knowledge cannot be reduced to a lower level, nor can it be entirely understood or explained without reference to adjacent levels (cf., Jacob, 1973, p. 307). In school psychology we are better off trying to explain a problem of interest in the terms which facilitate a dialogue among the interested parties. Attempts to reduce emotions, for example to neurophysiology, while interesting, are not

appropriate when the participants in the dialogue want, let us say, to better understand the appraisals which are underlying the emotions. Likewise, an explanation of an emotion from a behavioristic framework may be unsatisfactory to the participants because it ignores personal knowledge and purposes.

The kinds of questions being asked determine the level(s) of organized knowledge most appropriate for answering the questions. The construct "levels of knowledge" as applied in school psychology must be defined in terms of the person asking the question. To impose a particular version of the organization of scientific, or other, knowledge on a client for whom this concept is alien risks disrupted communication and loss of rapport.

An example regarding levels of explanation for the school psychologist would be the question of why a particular youngster is so much more physically aggressive than other youngsters of the same sex and age. By referring to age and sex the client has already broadened the question from the social and developmental psychological levels to that of the biological. Thus, the levels of organized knowledge most likely to provide acceptable answers are the biological (e.g., hormones, brain dysfunction), the sociological (e.g., family, group, neighborhood dynamics), and the developmental. An explanation is unlikely to be accepted by those who posed the question if it uses a level of knowledge organization similar to that implied in the question. Stating that a youngster is more aggressive because there is a greater chance of his engaging in hitting others, for example, is unlikely to be accepted as an <u>explanation</u>. Such answers are likely to be seen as redescriptions of

the problem. Thus, one problem with some behavioristic accounts of behavior is that the behavioral statements simply redescribe the behavior of concern, they do not explain it in an acceptable way to those most likely to be asking the questions, teachers and parents (Harré, 1988). Nor does saying that Johnny hits other children because of certain contingencies of reinforcement adequately explain the behavior for most parents and teachers. They understand that his hitting follows some pattern, but usually want to know why this pattern exists, or if you will, why the contingencies of reinforcement are different for Johnny than for Billy, who does not hit other students. They are more likely to accept a plausible biological or sociological explanation than a prediction that Johnny is more likely to hit other students (cf., Harré, p. 139). In the process of attempting to change behavior, however, behavioristic psychology may play a role. The school psychologist may, for example, explain Johnny's hitting behavior as the result of his desire for attention. Using knowledge of the contingencies of reinforcement one might attempt to help Johnny achieve his goal in a more acceptable way by changing the contingencies of reinforcement. If the explanation is accepted by the teacher or parents, change will be facilitated. If the explanation is viewed as unreasonable it is unlikely that the school psychologist will succeed in encouraging changes in the reinforcement schedule.

Often questions asked of school psychologists are at the level of semantic generalizations. For example, a teacher might ask why a student is so mean. The teacher has induced from samples of observed behavior, or other sources, a generalization (and prediction) of

"meanness." Such generalizations are conceptually very rich and imply several levels of knowledge about the child. However, the question the teacher is asking is at the level of personality psychology and makes assumptions which may not be justified. Meanness becomes an internal trait which takes on a life of its own and influences the thinking and behaving of those who subscribe to it for this particular child. While the behaviorists have argued for the authority of observable behavior, they may have inadvertently taught that it is conceptually much easier to communicate and form a consensus about behavior we can actually observe. It is unlikely that a consensus can be formed among those who have knowledge of the child, including the school psychologist, when an evaluation has been conducted, which concludes that he is, indeed, mean. This label has the same problems as other labels used in psychology and education; they tend to be arbitrary and absolutistic. When a consensus cannot be reached about the client's problem it is preferable to redescribe the problem in more basic terms and try again.

It is important to view the attempt to explain unwanted behavior as a part of the process of changing it. If an explanation is accepted by those who must deal with it, changes in ways of thinking and evaluating the behavior may result. It was postulated earlier that cognitions and evaluations influence behavior; if this is true, an explanation which had not previously been considered, if it is accepted, is likely to result in changed behaviors. For example, we are usually less severe in our judgments of those who committed a wrong act unintentionally than with those who premeditated the act. An explanation which develops a

non-intentional explanation of the perpetrator's behavior will probably result in action far different than might otherwise be expected.

3. The school psychologist advocates for a democratic approach to decision making. More explicitly, the school psychologist promotes unitary democracy (Mansbridge, 1983) in the pursuit of solving problems and making decisions about clients. The school psychologist must function, then, to build a consensus about the nature of a problem and the proposed actions to be taken to solve the problem. A consensus is defined, after Mansbridge, as " . . . a form of decision making in which, after discussion, one or more members of the assembly sum up prevailing sentiment, and if no objections are voiced, this becomes agreed-upon policy" (p. 32). A consensus must be forged out of a system of relationships in which equality, mutual respect, and empathy prevail among the participants. The purpose of a unitary democracy is to create a common interest. In school psychology this common interest is most often the educational and psychological well-being of a student.

Those persons who are intimately connected to the problem under scrutiny have mental representations of the issues which had better become a part of the dialogue regarding any agreed-upon resolutions. Searching for a client's (which may sometimes be plural) personal knowledge, implied or otherwise, is an essential part of the dialectical process through which some kind of consensus might be reached. If the client has difficulty expressing a theory about the issue, then the school psychologist is obliged to help find ways for the client to express her/his theory. If the client does not possess a theory about the issue, then it is incumbent upon the school psychologist to aid the

client in formulating a reasonable theory. In so doing, the school psychologist is likely to advocate for her/his favorite theoretical view. The client, however, is not obligated to accept the school psychologist's help in this endeavor, and the client had better take part in assessing the reasonableness of the theoretical explanation of the issue. Reasonableness is a consensual judgment of the those taking part in the dialogue.

While consensus is the goal in a unitary democracy there is always the danger that conflicts will be suppressed for the sake of unity. The school psychologist must be alert to the possible suppression of personal knowledge which may be useful in finding a solution to a problem. The school psychologist can frequently ask participants in a problem-solving dialogue if the developing consensus "makes sense" or is reasonable. Also, the school psychologist can ask at various stages with which parts of the consensus the participants feel least comfortable. Interactions should encourage the sense of equal status among participants.

The process of consensus formation in decision making, then, can be summarized as follows: (a) the evolving solution is explicated by someone; (b) after discussion, dissenters' objections are sought out; (c) objections are heard and considered by the group; (d) modifications to the solution are proposed so as to account for the objections; (e) the dissenters are asked if they can "live with" the modified proposal. These steps are repeated until no further objections are offered. Although consensus formation is not a perfect solution to decision

making it offers many advantages not found in other processes (Mansbridge, 1983).

The unitary democratic transaction described above is best viewed as an ongoing, flowing process. Few, if any, problems become permanently resolved. They resurface with the same child or a different child and once resolved are soon replaced by other problems. The wholistic view exposes the practice of school psychology as a never ending process of interacting with others in identifying problems and experimenting with solutions derived through consensus.

4. Taking the wholistic view encourages the school psychologist to expand current conceptions of what counts as knowledge. The school psychologist also recognizes the unjustified restrictions upon knowledge construction inherent in notions such as "objectivity" and "experimental controls." Current conceptions of science and appropriate research methods are too restrictive for the school psychologist. The school psychologist values the traditional psychological and educational knowledge which has been accumulating over the decades, such as that typically found in textbooks and training programs for school psychologists, but such knowledge (usually reductionistic) is best viewed as only one particular construction of reality. Traditional school psychological knowledge, some of which was examined in the first three chapters, must compete without any authoritative status. That is, what we think we know in school psychology is open to question, is never sacred, and serves only until more appealing ways of knowing have been invented.

While the traditional methods of knowledge construction via scientific methodology will continue to be applicable under some conditions, other ways of approaching problems must be found. Many of the research problems in psychology have not been addressed because of the difficulties in isolating and quantifying variables. The school psychologist will value an extensive variety of research points of view which serve many different purposes. Case histories and qualitative studies are two particularly neglected research orientations which had better become a part of the knowledge construction in school psychology.

5. In keeping with the view that human beings have goals, purposes, a "telos," the school psychologist moves toward the telos of good practice. The "good" practice of school psychology evolves from theoretical reasoning about what the telos of school psychology is and it is governed by the practical reasoning about right action in particular circumstances (cf., MacIntyre, 1984). What it means to engage in a virtuous practice was further elaborated by MacIntyre:

> To enter into a practice is to enter into a relationship not only with its contemporary practitioners, but also with those who have preceded us in the practice, particularly those whose achievements extended the reach of the practice to its present point. It is thus the achievement, and a fortiori the authority, of a tradition which I then confront and from which I have to learn. And for this learning and the relationship to the past which it embodies the virtues of justice, courage and truthfulness are prerequisite in precisely the same way and for precisely the same reasons as they are in sustaining present relationships within practices. (p. 194)

Practitioners of school psychology must sustain the dialogues about theories of the person, of education, of learning, of stress, and of the telos of humankind in order to consolidate an evolving theory of the appropriate practice of the profession. Such a theory can emerge from

the ethical traditions, both explicit and implicit, of school psychology, but it must be founded upon a theory of the person as a moral agent. Any view which implies that the person is a machine or automaton makes a code of ethics for school psychologists meaningless.

As MacIntyre (1984) has reminded us, each person becomes a character in history, each person is the hero of a story. But stories have a message or moral and the moral of the story of the life of a school psychologist has a purpose. The virtues to be found in the practice of school psychology were aptly discussed by MacIntyre as those to be found in any practice of the good life:

> The virtues therefore are to be understood as those dispositions which will not only sustain practices and enable us to achieve the goods internal to practices, but which will also sustain us in the relevant kind of quest for the good, by enabling us to overcome the harms, dangers, temptations and distractions which we encounter, and which will furnish us with increasing self-knowledge and increasing knowledge of the good. . . . We have then arrived at a provisional conclusion about the good life for man: the good life for man is the life spent in seeking for the good life for man, and the virtues necessary for the seeking are those which will enable us to understand what more and what else the good life for man is. (p. 219)

In this author's personal experience, school psychologists have sometimes subscribed to a theory of the person which has been contradicted by their own personal narrative about who they are and what they are about. It is time we put this nonsense aside and began discussing what the purpose of school psychology is in a more open, unembarrassed way. We may have vague notions about what justice, courage, and truthfulness are in the practice of school psychology, and we have a code of ethics which subscribes to some outdated notions about the nature of science and objectivity which have been addressed in this

paper. What is needed now in school psychology is a critical examination of some of the profession's basic assumptions and a subsequent revisioning of notions of practice.

It is hypothesized that if such a critical examination took place and subsequent revisions came about, the ancient virtue of humility would ascend into prominence among school psychologists. If the arguments put forth in this document withstand public scrutiny, then the view of the school psychologist as technician must falter. In its place can be resurrected a model of the school psychologist as a moral leader who assists others in constructing meaning in their lives, a model proposed for educational administrators by Smith and Blase (1987). Their summary provides an appropriate conclusion for this chapter:

> In summary, a concept of moral leadership is based on the significance view of what it means to be a person. Relationships among people are not played out against a background of scientific findings, expertise, prediction and control; rather, these relationships are mediated by a sense of membership in a community of moral discourse. To participate in this community one must realize the need for reasoned discussion or dialogue. The administrator who desires the compliment of being called a leader is one who recognizes, and encourages others to recognize, this situation, who is willing to risk himself/herself in an open dialogue with others, is reflexively aware of standards that go beyond a performance criterion, and who strives to keep our traditions alive through debate and discussion. This perspective, which is quite different from the image of the educational leader as expert, seems especially appropriate for public school leadership. (pp. 43-44)

In summary, in this chapter an attempt has been made to organize and justify a number of concepts from which a better practice of school psychology may emerge. Assumptions about (a) the wholeness of the universe, (b) the construction of knowledge, (c) the social consensus of what counts as knowledge, (d) the strong influence of personal knowing,

(e) purposiveness in human behavior, (f) the significance view of the person, and (g) the search for a meaning for the student's life as the purpose of education, were made explicit. These assumptions provided the foundation for a conceptual model of the appropriate practice of school psychology. The major concepts of this system included the following: (a) the purpose of school psychology as an enrichment of the personal knowledge of clients, (b) the view that enrichment is accomplished through collaborative consultation and the provision of explanations, (c) the advocation of unitary democracy, (d) the promotion of an expanded view of knowledge construction in school psychology, and (e) the opening of a dialogue about the virtues in the practice of school psychology. This model obligates the school psychologist to practice humility and moral leadership in the schools.

CHAPTER 5

THE MODEL EXEMPLIFIED

The purpose of this chapter is to give examples, through case histories, of ways in which the model of practice proposed in Chapter 4 can be realized. While no specific formula can prescribe practice from a model or theory, it may be illustrative to describe specific practices in narrative form and explain how they exemplify the model. It is the author's intention that the reader will be able to imagine a school psychologist practicing her/his profession in such a way that the basic assumptions and principles of practice can be inferred and will be found to closely match those delineated in Chapter 4. The case histories presented in this chapter are based upon composites of actual clients in order to protect the identity of specific persons.

While convenience might be achieved by presenting divided aspects of school psychology practice, e.g., assessment, diagnosis, remediation, the underlying assumption of wholeness advocated in Chapter 4 would be violated. Therefore, the following case histories will be presented as stories which describe the school psychologist's involvement with a client. Although the subsidiary parts of practice may be pointed out, the focal point of each case will be the relationship between the client(s) and the psychologist. Diagnosis and remediation can be separated only artificially in a human relationship. The tasks we classify as diagnostic may, as will be shown, have an effect on the client which is often ignored in the literature of school psychology. However, stories told by experienced practitioners, usually in rather informal situations, indicate that a diagnostic evaluation is frequently

a dialectical process which affects the student and the school psychologist. Almost all human relationships can be viewed as dialectical in nature with resulting changes in the persons who participate in this relationship.

Case History 1

The first case history will demonstrate just how the school psychological assessment process may result in unexpected, but productive, changes in a student. The client in this case was a 6 year old girl, Jane (a pseudonym), enrolled in a regular first grade class in a small city school. Her first grade teacher and her mother were very concerned about Jane's poor progress in reading, writing, and math. Jane's older siblings had learning problems in school, so the mother worried that Jane would find school work to be very frustrating. The family moved to the school district from another state where Jane had been evaluated at some kind of clinic. The mother was told that Jane may be developing "dyslexia." Due to her experiences with her older children, this parent was quite knowledgeable of the terminology and remedial techniques for learning disabilities. She requested an evaluation and remedial services for her daughter.

Because of her age, Jane was seen on five different occasions for relatively short periods of time in order to avoid tiring her. During the evaluation Jane was initially polite and quite motivated to do well on the evaluation tasks. In subsequent evaluation sessions Jane gradually became more willing to test the psychologist to find out just what were the behavioral limits. On several occasions, she tried taking test materials or beginning to work on tasks before the directions were

completed. Often, when Jane became frustrated with a task, although persistent, she asked the examiner to help her. Each time she was told that such help was not allowed, that the psychologist wanted to see how well she could do without help. Jane continued to ask for help, and, eventually, began to demand it. At one point she threatened to not be the psychologist's friend any more if he did not help her. The psychologist, however, patiently and consistently refused to help her.

As the testing progressed, the psychologist began to form some hypotheses about Jane. She appeared to be a youngster with little tolerance for frustration. Jane also seemed to lack confidence in her abilities to solve perceptual-motor problems. It was inferred that Jane construed herself as unlikely to succeed on academic tasks and that many of these tasks were beyond her coping capacity (that is, they were stressful).

Jane experienced much more success on most of the intelligence test items than on those in the achievement battery. Without violating test manual directions, she was given appropriate feedback at the end of each subtest on the intelligence test and the psychologist acted truly amazed at the few successes Jane managed on the achievement tests. He congratulated her on beginning to learn how to read and suggested that it would not be long before she would be reading bigger words and thicker books. He praised her on the letters and words she had learned, even though it was obvious to the author that she was far behind most of her classmates. Jane seemed pleased with her performances even when some of them were normatively inferior. It appeared that Jane had not

yet learned to evaluate her performance relative to that of her peers and the psychologist was not about to encourage her to begin doing so.

Jane appeared to enjoy most of the evaluation time with the examiner, as do most youngsters in the early grades of school. On several occasions when Jane saw the author in the school corridors she asked if she was going to get to work with him. There were a number of additional signs that Jane looked forward to the testing sessions.

A staffing was held after all the diagnostic testing was completed and the school officials and the parent decided to place the child into a special education classroom for instruction in reading, writing, and math. The illustrative point of this case, however, occurred at the end of the staffing when the mother commented on the changes she observed in her daughter during the weeks when the testing was being completed. The mother reported that her daughter suddenly began showing much more interest in reading and demanded that her mother take her to the library almost every day. She not only showed more interest in reading but was also attempting to read more books of greater difficulty than ever before. The mother attributed the change in her daughter's interest in reading to something that happened as a result of the daughter's interaction with the psychologist.

Of course, no cause-effect relationship can be demonstrated to the satisfaction of a community of scholars regarding the dialogues between the psychologist and the student. Thus, it is unlikely that a deterministic formula could ever be derived which could predict the outcome of the dialogues between this student and the psychologist. What seems most pertinent in this case is that the mother observed

desired changes in her daughter and construed these changes to be the result of some positive interaction between the psychologist and the student. The mother had no proof that her construal was correct, nor did she seem motivated to test her belief. In essence, the mother created a myth, an untested explanatory story, to account for the changes in her daughter's attitude toward reading. While this myth cannot be rationally construed to match some unconceptualized "true" version of what influenced this child's change in attitude, it may have served several valuable functions for Jane's mother (Feinstein & Krippner, 1988). One function may have been to organize into a coherent whole this mother's experiences of her daughter and the mother's perceptions of Jane's vulnerability in school and her need for understanding. It could be that the psychologist's experience with Jane matched the mother's ideal of how she wanted others to interact with her daughter. The myth may also have been a reflection of the mother's strong desire to find someone who could understand and help her daughter. The psychologist hypothesized that this search for expertise was an important part of the mother's belief system. Thus, an effort was made to help the mother also view the resource teacher, a truly competent educator, as potentially more helpful to Jane. The psychologist explained to the mother that he had learned some of his ways of interacting with students from observing this teacher utilize patience and encouragement with her students.

This case demonstrates several of the features of the proposed model of school psychology. First, the act of reading is not an isolable part of a person which can be dissected and studied apart from

the life of the child. Second, this case also demonstrates the personal construction of knowledge by the child, the mother, and the psychologist. The mother and the psychologist utilized a belief system to make sense of their experiences, and the student made changes in a belief system which resulted in a new pattern of behavior. Third, the strong influence of personal construing on behavior can be seen in the child's increased interest in reading. No conscious efforts were made to remediate the child's attitude toward reading. We may infer that the child actively construed something which happened during the testing (or, in some other setting) which prompted a change. If the mother's interpretation was correct, the child probably reconstrued her "self" as a reader. Perhaps she could more clearly foresee herself reading difficult books, a possibility which would illustrate the purposiveness of behavior. This hypothesis could be tested with a number of individual case studies or possibly with groups of unmotivated or discouraged readers. The psychologist in this case, nevertheless, experienced a strengthening of his belief in encouraging students to expand their constructs of themselves as readers.

Although the details of this staffing were not presented, the unitary democratic process was exemplified. Jane's mother was the unifying force in forging a consensus that her child was handicapped in receiving an education and in need of special education instructional services. The staffing participants were in harmonious agreement about the child and the appropriate educational approach for her. Staffings do not always run so smoothly and often discussion, debate, and compromise are required to reach consensus. In her qualitative study of

the staffing process, for example, Law (1981) found that the parents were often confused by professional jargon and authority and were not equal participants in these meetings. Since the implementation of the model proposed herein, the author has perceived greater power sharing and less reliance upon authority in staffings. The author's school psychology practicum and intern students are often assigned the task of observing staffings specifically to identify anti-democratic processes.

Case History 2

The second case involved a 10 year old boy who was referred to the psychologist because of his explosive temper and frequent fighting. This boy, Tom, was the oldest of three children, all of whom lived with their mother. The boy's parents had divorced two years prior to the referral, but he maintained regular contact with his father. Tom's teachers believed him to be of more than average intelligence, but his schoolwork was generally only average. His teachers reported that he was caught fighting with other students, mostly on the playground, several times a week.

Tom was seen on three occasions at one week intervals. During the first session Tom appeared nervous, tense, and quite defensive. He answered questions in a very abrupt fashion, revealing as little as possible about himself. Thus, the psychologist theorized that Tom was embarrassed about his troubles and did not want to discuss them openly. An indirect approach was taken, mutual story telling (Gardner, 1971), in which the child was asked to tell a story, preferably one which he had not heard, read about, or seen before. A story with a beginning, a middle, an end, and a moral or lesson was requested.

Tom's story was about a high school football player who had become very angry about being penalized by the referee. The football player became so angry that he aggressively argued with the referee until he was kicked out of the game and sent to the locker room. The moral to Tom's story was "that you shouldn't get so mad."

The second part of Gardner's (1971) mutual story telling technique requires the clinician to rapidly diagnose the child's problem and retell the child's story so that the protagonist "works through" some psycho-dynamic problem. The author, however, subscribes to a more direct cognitive approach to the solving of emotional and behavioral problems. Therefore, following Ellis' (1962) Rational Emotive Therapy (RET), some inferences were made about the child's anger producing beliefs. Namely, it was hypothesized that Tom sometimes strongly demanded that people behave or events happen exactly the way he thought they should. RET theory would predict that an effective challenge to Tom's irrational demands would produce the following: (a) his demands would be changed to preferences, and (b) a significant reduction in his anger would occur.

The psychologist retold Tom's story as follows: Once there was a boy who really loved to play football. Sometimes, however, when things did not go his way, he became so angry that he lost his temper and got into trouble. During one of the most important games of the season the young man drew an official's flag for clipping. The football player truly believed that he did not clip his opponent and instantly became upset. He argued with the referee to the point that he was kicked out of the game. Of course, he was sent to the locker room, still feeling

angry and also feeling guilty that he had let his team down. While he was in the locker room he saw the old janitor who took care of the stadium. When asked what had happened, the football player recounted the events and how the referee had made him feel angry. The old janitor was very wise and explained to the football player that he was acting both very small and very big. The football player did not understand what the janitor meant, so the janitor explained that he was acting very small because he was acting like a baby who throws a temper tantrum in order to get its own way. He was acting very big because he was trying to make things happen just by demanding them, much like God demanded things and got them in the Bible stories. Right away the football player could see that he was not a baby and that he was not God, he was an almost grown-up person. He also realized that, unlike God, he could not get what he wanted just by demanding it. The wise old janitor suggested to the football player that he practice turning his demands into wishes and wants. Demands are for babies and God, the janitor explained, but wishes and wants tell what humans are usually willing to work hard to get. The football player took the old janitor's advice and, using his imagination, practiced having something go wrong on the football field, and followed this with wishing that it had not. He could picture himself staying calmer. He even began wishing instead of demanding off the football field and found that he did not make himself angry nearly so often nor so strongly as before. The moral of this story is that if you want to stop upsetting yourself so much with anger, change your demands into wishes.

What followed for this youngster cannot be proven, according to currently accepted criteria in experimental psychology, to have been the result of this story telling encounter. However, teachers and the boy's mother reported that there was a dramatic decrease in the number of fights and temper outbursts. Follow-up sessions with this youngster found him to be only slightly more open about his problems. When asked how things were going in school, he did mention that he was "doing better on the playground" and playing more football with the other boys in his class. The story telling took place in the late fall and subsequent follow-up conferences during the year found this youngster continuing to successfully manage his temper and to solve conflicts more constructively.

The power of stories and myth to teach morality and practical lessons is well documented (Bagarozzi & Anderson, 1989; Campbell, 1968, 1972; Feinstein & Krippner, 1988; Murray, 1960). Myths and stories can be seen as expressions of knowledge which have been constructed by the community or by the person and they also demonstrate the purposiveness and meaning in human action. In this example the youngster was able to express something about his recurrent problem through the medium of the story. Likewise, the psychologist used the story to communicate an expanded view of the problem, one which included hypotheses about which of the fictitious football player's beliefs were contributing to his anger problem. The psychologist's story also challenged the hypothesized problematic beliefs and offered new ways for the student to think about anger arousing situations.

Two aspects of the proposed model of school psychology practice are prominent in this story. First, the psychologist attempted to enrich the student's personal knowledge through the dialectical process of mutual story telling. Second, an explanation of anger and an alternative way of reacting via the stories were provided to the student. Undergirding these two themes is a set of moral assumptions about what is right in human behavior. Tom indirectly indicated his moral problem concerning anger and the problems which accompany his temper outbursts when he formulated a moral for his story, namely that one should not "get so mad." Implied in this moral was the goal of learning to control his temper. The psychologist provided a kind of moral leadership in teaching Tom one way he could reach his goal.

Case History 3

The next story demonstrates the futility of assuming the mechanistic model of the human being. An intelligent 16 year old girl, who will be called Janet, was referred to the author because of recurrent behavior problems in several of her classes. This youngster suffered from a neurological disease which caused her some embarrassment in school. A number of medications had been prescribed by her physician to reduce the symptoms of the disease, but the medications usually produced unwanted side effects. The girl's parents and physician believed that the latest medication she was taking was responsible for the behavior problems. Janet was very knowledgeable about her disease and had read extensively about the medications given to her. In an initial conference, Janet's mother revealed that her greatest concerns were about Janet's low self-esteem and embarrassment about her disease.

The first couple of sessions with Janet were quite stimulating and educational for the psychologist. Janet shared her rudimentary knowledge of her disease and theories about how the medications help to reduce her obvious symptoms. Probing also found several self evaluative beliefs to which Janet subscribed. When the rationality of these beliefs was challenged, Janet was able to quickly discern that her beliefs about herself were nonsense. She and the psychologist formulated new, more reasonable beliefs for her to practice. Janet responded quite well to this approach to her self-downing.

At the third session the psychologist asked Janet if she would like to learn more about the psychological aspects of her disease by reading more about it. She indicated much interest in this proposal and a search of the psychological literature was conducted. Interestingly, one of the first articles found by the psychologist was a review of the literature comparing medication and behavior modification treatments for Janet's disease. This review concluded that both approaches were equally successful compared to no-treatment control groups. Janet was able to read and understand most of this research paper as indicated by our subsequent discussions of the article.

Quite interestingly, however, Janet appeared to become anxious as she and the psychologist discussed this research. She refused to believe that there could be any psychological aspects to her symptoms and tried to support her position with an explanation about how the neurotransmitters at the synapses were not properly controlled and, therefore, only medication could help her. She was equally resistive to any attempts to reduce the severity of her symptoms with stress

management. Various arguments were presented by the psychologist about possible ways in which psychological variables might affect her disease and a number of attempts were made to encourage her to at least try some of the techniques discussed in the research article. All the coaxing and arguing were unsuccessful in persuading this very bright teenager to attempt to reduce her symptoms by tried and proven behavioral methods.

The point to be made by this story is that behavioral techniques (e.g., Bandura, 1969) are often presented as a set of principles based upon laboratory research which has uncovered some very basic laws of human behavior. Furthermore, it is frequently inferred that when these techniques are appropriately applied, they will cause very predictable outcomes which are the result of these laws of behavior. The problem with this very mechanistic model of humankind is, of course, it ignores that human beings are agents with purposes. This case demonstrates that the model of humankind with which we approach our clients is not just a philosophical problem. Janet was not about to passively submit to the techniques of behavior modification, and even if she had it would have been the result of her choice to submit. Ironically, Janet's own mechanistic model of her disease may have served to defend her from the mechanistic techniques of behavior modification.

This case is reminiscent of many in which this author has wanted to help a client by applying the technology of behavioral science but was frustrated by the "lack of cooperation" of the client. Looking back, it is possible to discern patterns in this author's career in which the issue of mechanical versus purposive natures of humankind has had very practical consequences. Early on, a very deterministic/mechanistic

orientation was taken by the author toward the problems presented to him in the schools. Theoretically perfect solutions to these problems were not difficult to prescribe. After all, the laws of behavior were seen to be universal, with the puzzling exception that the author was often unable to explain the ways in which these laws governed his own behavior. It was a rare occasion indeed, however, when this psychologist was able to apply behavioral technology. Almost always people, parents, teachers, or students, refused to allow the technology to be implemented, or some unexpected variable ruined the scientific application of the principles. Increasingly frustrated, this author sought help from the experts in behavioral technology. Many consultations were made with psychologists who published journal articles and/or presented workshops on behavior modification. None of them were able to offer any behavioral technology which was helpful in securing willing, passive, stable clients to whom the behavioral technology could be applied.

On one occasion the author was presented with what seemed the ideal opportunity to demonstrate to a child care worker the power of behavioral techniques. A 3 year old boy refused to help clean up messes he had made at the day care center and was non-compliant in other ways also. While the day care worker observed, the author used physical guidance of the youngster coupled with verbal praise to reinforce his behavior. The author took the boy's hand and placed it upon a block, moved his hand to the container, then helped the child release the block over the container. This was immediately followed by verbal praise from the author. The 3 year old boy quickly caught on to this activity,

that is, his behavior was shaped and soon he was putting blocks into the container without assistance. He beamed whenever the author praised him. When the container of blocks was nearly filled the author was quite gratified and felt a renewed confidence in the "laws of behavior." Unfortunately, when the container was full and there were no more blocks on the floor, the boy very adeptly dumped the blocks out of the container back onto the floor. The youngster appeared very pleased with his behavior and was anxiously looking to the author for more praise and a resumption of the game.

This story illustrates the weakness of the mechanistic model of the person who exists outside the confines and controls of the behavioral laboratory (see Page, 1982, for an example of a laboratory study of adult operant behavior which found that people have intentions which are not accounted for in the operant model of the person). The 3-year old boy and the psychologist obviously had differing goals and purposes and this episode generated some valuable hypotheses about the child's constructs. The power and occasional utility of behavioral technology are not being denied. However, the model of humankind which includes the purposiveness of human behavior is much more inclusive than and can easily encompass the mechanistic model inherent in behavioristic psychology (cf., Hallberg, 1975; Miller & Martin, 1988).

Case History 4

The following story demonstrates how the negative knowledge which emanates from psychological and educational research (Westland, 1978) can combine with a school psychologist's experiences to initiate changes in a traditional educational practice. A fourth grade boy was referred

to the psychologist for an evaluation by his mother. She was concerned because her son seemed to be developing a negative, uncaring attitude toward school. His grades were gradually declining each year and the mother was encountering difficulties in motivating her son to go to school and to complete his homework. The teacher had also noticed a gradual decline in the boy's school work and attitudes toward school over the few months he had been attending her class.

Keeping in mind that this case occurred in the first year of this author's career, a complete battery of psychological tests was administered to this youngster. Having been trained to put the most faith in objective data, testing was viewed by the author as the logical approach to discovering what was ailing this youngster. This boy was found to function with average intellectual abilities and his academic achievement was only slightly below the expected level (determined, of course, by the boy's IQ score). Observations of the youngster's behavior in the classroom and during testing suggested no obvious problems. A relatively subjective sentence completion test revealed nothing out of the ordinary. Frankly, the psychologist was stumped!

Out of desperation the author decided to simply visit with the youngster, a process this author would now refer to as a dialogue. About midway through the first dialogue the author asked the student about where he had attended school for the previous grades. In the process of relating his school career, the boy became very clearly embarrassed when he revealed that he had "flunked" kindergarten. While the author knew, from a search of the student's cumulative file, the boy

had "repeated" kindergarten, he was alarmed to discern the strong negative feelings which the youngster associated with this setback.

The author immediately began a search of the literature on the effects of grade retention. This search was conducted in 1975 and found very mixed results. Most of the researchers concluded that retained students did not gain academically when compared to nonretained students. A minority of the studies found some academic superiority for students who were held back one year. However, some of the studies found that students who were retained in grade developed more negative self-concepts as learners when compared to similarly achieving but promoted peers. Incidentally, a subsequent review by this author in 1985, and reviews by other school psychologists (Dawson, Raforth, & Carey, 1990) have reached the same conclusions, namely, that retention does not seem to improve academic achievement and it may hurt the child's self-concept. Of course, these conclusions are generalizations which do not strictly apply to individual cases. However, there is no body of knowledge from which one can make accurate predictions regarding the effects of retention for the individual student (Smith & Shepard, 1987). This case certainly sensitized the author to the ways in which grade retention can be construed by the affected child. The continuing use of grade retention as an alternative for students (Dawson, Raforth, & Carey) testifies to the traditional consensus among educators about the effectiveness of this practice. It has been observed by this author, however, that the short-term effects of retention are often positive. When a student repeats a curriculum it is almost always easier the second time around. Perhaps even the following grade will be

relatively easier. The rather unique perspective of a rural school psychologist who follows students from preschool to adulthood often gives a different picture. Many times retained students are referred for an evaluation to help in the original decision for retention. If the child is retained, however, he or she is often referred again several years later because of school failure.

The problem with the traditional consensus about grade retention is that it is short-sighted and unchallenged. It is a relatively inexpensive, from the educator's perspective, option for the child who is struggling in school and it often seems to be helpful in the first year or two. However, this author has adopted a view which challenges the educationally orthodox consensus about retention. The consensus is challenged at every opportunity with the result that hardly any referrals for students being considered for retention are received anymore. Of course, students continue to be retained in the author's school districts, but teachers and principals who believe that retention is a beneficial option for students simply do not consult the psychologist. Whenever parents or educators ask the author about retention they are told (a) that the research demonstrates that retention is not helpful for most children, (b) that some children develop poor self-concepts as an apparent result of retention, and (c) no one seems to know how to accurately predict which students will profit from retention.

The stance this author has taken toward retention is based on reviews of research and many experiences like the one described above. Thus, long-term follow-up of children and controlled studies of

retention have served to shape the author's theories about grade retention. These theories do not fit the consensus of opinion among most educators and, thus, creates a dilemma for the psychologist. The model proposed in this paper recognizes that knowledge is the product of consensus and advocates for a unitary democracy in the decision making about students. The retention issue demonstrates that unitary democracy is not always an attainable goal. That is, disagreements about the effects of retention contribute to conflicts and lack of consensus in staffings when holding a student back for a year is proposed. Such conflicts do not, however, negate the value of unitary democracy. Instead, they point out the value of the dialectical approach to constructing knowledge for the sake of making decisions. The school psychologist has a point of view to add to the dialogue.

Of course, there are various ways of contributing to the dialogue. The psychologist can continue to wait for referrals in which retention is the issue and voice a point of view. When this approach has been taken by the author, no counter arguments have been offered by those supporting retention. The problem with this approach is that often this psychologist is simply not invited to participate in the dialogue.

Various other ways of entering the dialogue have been found, however. In some cases the author has sought out the school administrator and initiated a dialogue about retention. This has had a positive effect in one school. The principal now discourages retention. Importantly, this principal is very open to alternative ways of meeting the needs of struggling students. In another building the principal has

been less receptive and, coincidentally, is less open to regular education alternatives to special education.

Another approach taken by this author is to frequently bring up the retention issue when he is asked to speak to a group of parents or teachers. The three major points mentioned above about retention are presented and the audience is invited to participate in a dialogue about retention. Invariably, some of the members of the audience will know of examples wherein retention was helpful over the long-run, while others give counter examples. The important point stressed by the author to these groups is that we are unable to predict with any certainty which youngsters will benefit from retention. The only other counter argument which has ever followed this point has been that school officials simply do not know what to do with these students, they do not have any other alternatives. The author's reply is that there are a number of ways regular education can be restructured to accommodate low achieving students (Graden, Zins, & Curtis, 1988).

There is presently an attempt in the state of Iowa to find new ways of providing educational services to needy students other than in traditional special educational programs (Overview: Implementing improvement in the special education service delivery system for Iowa students, 1989). Part of this movement is to find alternatives within regular education classes for students who have been served in programs for the mildly handicapped. As pointed out in Chapter 2, special education programs, although they are more expensive, have not generally been shown to be more beneficial than regular education programs. However, in order for teachers of regular classes to accommodate these

mildly handicapped students very basic changes in educational philosophy and practices would seem to be in order. The answer to the problems of retention and the education of mildly handicapped students may be very similar in that both are putting pressure on the traditional, age-graded ways of educating students. The same challenges made of the basic assumptions in school psychology can be made of education in general (McGraw, 1984).

Case History 5

The next story brings us back to the problem of the separation of mind and spirit addressed in the Cain and Abel myth presented in the Preface. A kindergarten girl who attended a private school affiliated with a Christian church was referred because she was struggling with the academic work in kindergarten. The girl, whom we will refer to as Beth, was slow in achieving developmental milestones and exhibited mild developmental delays in large and small muscle coordination. Intellectual testing placed her at about the tenth percentile in overall academic aptitude. Near the end of her kindergarten year Beth was still having trouble correctly writing her name. She could count and had mastered very rudimentary addition using concrete objects. Beth could read her name and those of a few of her classmates. Measures of her academic achievements in kindergarten were generally compatible with measures of her aptitudes. Beth was described as a happy-go-lucky and very likeable child. She related quite well to most of her classmates. Beth received language therapy from the Area Education Agency speech pathologist.

Only in the last couple of months of kindergarten had the teacher and Beth's mother noticed what they thought was frustration in the child. Beth's attention to academic tasks had worsened and she overtly resisted some school activities. She had begun to complain about school to her mother and occasionally did not want to come to school. When the author interviewed Beth's mother it was evident that she had suspected, perhaps unconsciously, that Beth was slower in many ways than her peers. The year before, Beth's mother had sometimes helped in Beth's preschool classroom and had seen that her daughter could not do as much as most of her peers. Also, Beth had two older siblings, and one younger. The mother sensed that Beth had not developed as quickly as her older children, and the younger child (by two years) was rapidly catching up with and even surpassing Beth in some skills. The mother knew that her third child was developmentally slow, and she was very frightened about what might happen to Beth in the school system.

When all the requested testing was completed a staffing was arranged with the parents, the teacher, the speech pathologist, the school psychologist, and the school principal. Everyone involved in the staffing knew that Beth's mother was very emotional about the issues which were to be discussed. All the staffing participants appeared tense. In this school, contrary to most others served by the author, the teachers typically began the staffing by focusing upon the child's accomplishments. In spite of this positive approach, the mother asked early in the staffing if her daughter was ready for first grade. The teacher reluctantly predicted that first grade would be very difficult and frustrating for Beth. Eventually, the staffing participants turned

to the psychologist for the results of the psychological testing. All the test scores were translated into percentiles and the psychologist explained that a percentile score could be viewed as a child's relative standing on a test when compared to one hundred typical children of the same age. Thus, it was explained, Beth's IQ score was at the 10th percentile, meaning that she would have scored better than 10 out of 100 children her age, and 90 would have scored better than Beth. No one in the staffing seemed disturbed by these scores. As a matter of fact the teacher agreed with these estimates of Beth's relative standing.

It was not until the psychologist explained the "meaning" of the scores that real distress appeared on the faces of the teacher and the parent. Although the psychologist had already met privately with the parents one week prior to the staffing and related the same information, the mother became upset and cried again at the staffing. Not only did the mother cry, but also the father, the teacher, and the principal. The "meaning" of the IQ scores, of course, had to do with the diagnostic label, mildly mentally disabled, and the child's eligibility for special education services. Under federal legislation governing special education (Education of All Handicapped Children Act of 1975; Rehabilitation Act of 1973 Section 504) a school psychologist is required to notify parents and school officials of any handicapping conditions identified as a result of assessment (L. D. Bartlett, personal communication, April 6, 1990). In addition to legislation, the school psychologists' code of ethics (National Association of School Psychologists, 1984) and current practice dictate that a school psychologist is obligated to relate to the parents and school the

diagnostic label and the child's eligibility for any special education or related services.

It occurred to the psychologist that the parents and educators were jointly subscribing to a set of beliefs which were contributing to the group's emotional distress and which were interfering with the process of considering educational options and selecting those which might best meet the child's needs. One might argue that such emotional reactions are a necessary part of the adjustment and grieving process. A counter argument, however, is that the child has not died and is in no way different as a result of the sharing of psychological test information with the parents. What had changed was the theory constructed by the parents and educators of this particular child. Apparently as a result of the labeling a joint unspoken prognosis of dire consequences was taking shape. In order to test this hypothesis the psychologist led the discussion toward a consideration of the long range educational and life outcomes for this child. The parents and teachers were asked whether Beth was a different child now than she had been two weeks ago. Of course, their answer was negative. Next, the psychologist pointed out that the mental disability label did not mean anything specific about Beth. It was explained that the label was used primarily to officially qualify youngsters for state and federal special education money and services. The prognostic accuracy of the label, it was explained, is not good; that is, the educational and occupational attainments of youngsters with similar labels are not specifically predictable and are quite variable. Further, the label simply describes what we already know about Beth, that school is difficult for her.

It was also hypothesized by the psychologist that the parents and teachers were unconsciously judging the value of the child as negative because of the label. To test this hypothesis the psychologist asked the staffing participants what were the most important aspects of Beth's life. The psychologist was hoping that the religious affiliation of the school would influence the discussion of values toward a more spiritual direction and away from social and economic concerns about Beth's future. Unfortunately, it was the psychologist who had to point out to the staffing participants that Beth was, according to their religious beliefs, made in the image of God and that she possesses an immortal soul. The emotional reactions were brought to a halt by these reminders and, at least temporarily, the parents and educators felt much less distressed. The atmosphere of the remainder of the staffing became much more positive as the participants evidently altered their dire predictions of a horrible, awful life for Beth and put her educational problems into truly long-term perspective.

This case demonstrates the importance of opening a dialogue at all educational planning meetings concerning the overall purpose of a child's education (McGraw, 1984). As quoted by McGraw, James (1980) reiterated a major theme of this paper, " . . . because the study of education is hardly separable from the study of the nature of man, many of the questions now under investigation have deep intellectual roots in philosophy and theology" (p. 40). She quoted Ernest Boyer (1984) regarding the primary purpose of education, "the social and moral imperative of education is to help all students see the connectedness of things, an insight that touches the very foundation of morality--social

and religious" (p. 41). It is this author's opinion that few of the professionals in the schools, however, are prepared to engage in such discussions. Again, from McGraw we hear that "the mistake has been to view education primarily in terms of what can be verified through quantitative measurement" (p. 41).

Most of the fundamental assumptions of the proposed model for school psychology are evident in this case. Beth's story demonstrates the connectedness of her educational problems to those around her and to other aspects of her life, and it shows the futility of trying to isolate one part of a child's life from other parts. We can also see that the "meaning" of Beth's IQ scores are the result of educational dialogues which have constructed the notion of mental disability, a concept which is not a description of nature but is a creation of humans. The dialogue concerning Beth's IQ scores did not stop with the currently accepted construct of mental disability, rather the dialogue was continued within the staffing and given a new meaning (namely, that Beth has trouble with some school learning). The construction process in the staffing produced a conception of Beth that served the purpose of the staffing--to plan an appropriate educational program for her. The social consensual nature of knowledge was demonstrated in the group's emotional reactions to their construing of the mental disability label as a prognosis of hopelessness. It was again present in the reconstruing of the label provided by the psychologist. The emotional reactions which followed the construing and reconstruing were examples of the influence of thoughts, beliefs, theories, etc., on the behavior of persons. A belief which reflects the significance perspective of the

person, that humans seek meaning for their lives, is evident in the psychologist's attempt to shift the group dialogue to explore global life-purposes for this child in addition to vocational and economic goals. This shift matches the proposed aim of education put forth in the model.

The elements of the appropriate practice of school psychology are also alive in this story. The psychologist attempted to enrich the personal knowledge of the staffing participants by offering an altered view of Beth's educational problems. In a sense, collaborative consultation was evidenced in this case. The psychologist proposed a point of view which was shared by the staffing participants, that Beth possesses an immortal soul, which is not normally considered in a staffing, and he downplayed the authority of psychological knowledge. Thus, an attempt was made to equalize the status of psychological and theological knowledge and to encourage equal participation in the problem-solving process by all participants in the staffing. No explanations of Beth's learning problems were offered in this meeting, primarily because no strong explanations emerged from the evaluation data. Instead, the staffing participants focused upon creating a consensus about Beth's academic aptitudes and getting on with designing a program for her.

The action of a unitary democracy was evident in the group's acceptance of various descriptions of Beth. Had someone disagreed with a particular description the process would have taken a different turn. Disagreements are best dealt with, in this author's opinion and experience, by rational dialogue and compromise. For example, if the

parent had objected to the idea that Beth has trouble learning, she might have been asked for specific examples of Beth's learning. These examples would, then, have to be incorporated into the theory of Beth's learning potentials which were being constructed in the staffing dialogue.

By encouraging a much broader conception of Beth, the psychologist sought to expand what counted as knowledge in this staffing. When the staffing participants were reminded that Beth is more than an economic unit the focus was shifted from societal expectations of Beth to an exploration of the meaning of Beth's life. Moral leadership in this case consisted of inviting the group members to consider alternative purposes for Beth's education, purposes which would include the significance of Beth as a person and the significance of her life within a larger theological tradition.

Case History 6

Next, a story about the future practice of school psychology will be told. This and the following "future case history" are best seen as goals rather than as predictions, goals deduced from the model rather than predictions based upon any hypothesized exceptionless patterns. A school psychologist who practices from the proposed model will ask certain kinds of questions of clients whenever the child's education is discussed. When questions of curriculum (that which is taught) are forthcoming, the psychologist will ask, "how will this content (skill, information) help the child find meaning in her/his life?" The goal of such a school psychologist is to keep the focus on the long-range, wholistic view of the child's life. When questions of technique emerge,

this school psychologist will ask, "What do we know, as a group, about this child that might help us to find a strategy which will ensure that this child reaches her/his goals." It is understood, of course, that society circumscribes those goals, yet there are many ways a person may find meaning in her/his life. The questions about technique does not make sense without the question about curriculum. The goal of the child is inseparable from the route the child takes to achieve it.

Typically, this author consults about techniques while leaving curriculum relatively unquestioned. Thus, an unrealized, yet deducible, practice of the school psychologist who subscribes to this model is to take part in more dialogues about curriculum. It is conceivable that some of the traditional curricular goals may not be appropriate for some students. How long, for example, must a child endure a host of unsuccessful techniques for the teaching of some basic academic skill before teachers, parents, the student, and others begin searching for more achievable goals?

Again, it has been this author's experience that when the traditional educational curriculum is judged to be inappropriate for a student, the educational team typically focuses upon "vocational" or "self-help" goals. Examples of such goals include check writing, reading warranties, comparative shopping, and personal hygiene skills. It is also usual for the education team to make curricular decisions with little or no solicited input from the child. Typically, psychometric data and the collective wisdom of the education team provide the basis for curricular decision making. The current model advocates for input from the child via interviews and observations. The

younger the child the more inferences must be drawn from interviews and observations. In the end, educators cannot give a child a meaning for her/his life. But educators may help the student attain some of the requisite skills which may be needed on her/his journey. The following tells a future story about how this author would like to practice school psychology, a future this author will be promoting in dialogues with colleagues.

A third grade teacher requested help from the author concerning a student, Robert, who was not mastering basic reading skills. The teacher reported that Robert just could not hear the sounds in words and, thus, was unable to decode even the simplest vocabulary words. Robert had been receiving remedial reading help since first grade, so the author asked to meet with the classroom and remedial reading teacher together. Meanwhile, an appointment was made with the classroom teacher for the author to observe Robert during reading instruction.

The observation found Robert and four other students working at a table with the classroom teacher. The children were taking turns reading, or attempting to read, vocabulary words from a list on a large tablet situated near the teacher so that all five students could easily see the words. Robert's responses were not usually even close to the correct pronunciation, occasionally his initial sound was correct. Although Robert was not the only youngster having difficulty with this task, his performance was far below that of the other group members. The teacher had previously informed the author that this group, the Darth Vaders, was the lowest reading group in all of third grade (there were two other third grade classes in this school).

Later in the observation session, the teacher read a story to the group, a story on which they would eventually be working in reading group. During this time Robert was very attentive. Later, when the teacher asked the group questions about the story, Robert's hand was up each time. He was called upon several times and his answers were always correct. His performance on this listening comprehension task was much better than any of the other Darth Vaders.

A subsequent meeting with Robert's teachers revealed that they were aware of his good listening skills but were very concerned about his decoding abilities. The remedial reading teacher had worked with Robert for two and one-half years and had used numerous techniques to facilitate his learning of letter sounds. This teacher was very experienced, with over twenty years of teaching at the elementary level, and was considered to be very competent. She had tried drills of various kinds, some with extrinsic rewards, word families, competitive games requiring letter-sound associations, and many other approaches to teaching phonics to Robert. However, he had shown little or no gain in his knowledge of these associations. After further discussion, the psychologist requested another meeting with the teachers and Robert's parents.

Robert's mother, but not his father, attended a meeting with the teachers and the author. The mother was quite aware of Robert's reading problems because of frequent contact with Robert's teachers, past and present. She explained that Robert's father also had a severe reading problem which he never outgrew. The author shared his observations about Robert's apparently good listening skills and all agreed that he

liked to listen to stories and seemed to learn from them. The mother told how Robert frequently liked to help his father, who worked as a mechanic, repair engines. He demonstrated some skill at being able to use tools to take motors apart and put them together again. Robert's teachers also were aware of his good visual-spatial reasoning abilities.

As a group, it was decided that the psychologist would work with Robert in an attempt to generate some ideas about ways of remediating this student's reading problems. A referral form was signed by Robert's mother and a follow-up meeting was scheduled for three weeks. The author intended to observe, interview, and evaluate Robert in that time.

The author conducted further observations of Robert in the regular and remedial reading rooms, none of which revealed any new information. Interviews with Robert found him to be pleasant, friendly, and cooperative. He was aware that reading was difficult for him and admitted that he did not like to read aloud, but that he did like looking at the pictures while others read. Robert was very interested in cars, trucks, and other mechanical things. He also liked to operate the classroom computer. When Robert was shown a mechanical teaching device, he was much more interested in how the thing worked than in the contents of the lessons. Robert liked to talk about his experiences helping his father work on cars and trucks. He appeared to have some rudimentary vocabulary appropriate to the auto mechanic field.

When Robert was asked in what kinds of things he was most interested, it was no surprise that he wanted to be a mechanic like his father. He also had an uncle in the U.S. Navy and thought joining the Navy for a while might be fun. Of a large number of activities

suggested by the author, Robert liked computers, video games, puzzles, making things with tools, recess, bike riding, some math, adventure movies, and a few TV shows. He said he did not like reading, spelling, school in general, writing, cleaning his room, playing with his little sister, riding in the car, sports, or swimming. Robert reported only one friend with whom he regularly played. His comments indicated that he was not a particularly popular youngster and that he often was last to be chosen at recess for kickball or football teams. Most other questions about Robert's distant future seemed silly to him and yielded little useful information.

Next, the author asked Robert questions about reading. While acknowledging that he did not like to read, the author asked Robert whether or not he thought his teachers and parents would ever let him give up on learning to read. Robert answered, "no", and understood that as long as he was in school teachers would be asking him to read. Thus, it was mutually agreed that Robert was not going to be allowed to stop learning to read. The author, however, admitted that no one could make Robert learn to read, that all his teachers and parents can do is try to teach him, but that he, Robert, was the one who must do the learning. Robert acknowledged, with a smile, that he understood that he was largely in control of his learning.

The author led the discussion in another direction by inquiring about what went on in Robert's mind when he tried to read difficult material. Robert had difficulty expressing anything but his dislike for these situations, so the author began hypothesizing about what kinds of ideas might be going on in the student's head. Robert vigorously agreed

that he often told himself that the reading was too hard, that he could not do it, that it would be awful to fail, and that he was a lousy student because he could not read well. The author challenged each of these beliefs by asking Robert if he could prove them all to be true. After some discussion Robert agreed to change his beliefs to the following: reading is hard, but not too hard; I can read better now than I could last year; it is bad to fail, but it is not the end of the world; and I am not as good a reading student as some, but I will probably get better at reading if I keep trying. After saying these new beliefs aloud a few times, Robert agreed to read some passages for the author.

Robert began with some very easy, pre-primer paragraphs which he read with about 90% fluency and he was able to answer all comprehension questions easily. The level of difficulty of the passages was gradually increased until Robert was reading with only about 70% fluency on material selected from an end of first grade reading text. He was capable, however, of answering three out of four comprehension questions at this level. Observations of Robert found his level of activity and his distractibility to increase with the level of reading difficulty. He acknowledged that it was harder for him to concentrate when the words became more difficult.

Next, Robert was asked whether he could think of any sayings (thoughts, beliefs) he could tell himself, when the reading became more difficult, that might help him concentrate better and try his very best. In the spirit of the prior conversation about his thoughts during reading, Robert suggested that he could tell himself to "pay attention,

do your best." These sentences were written down on an index card for Robert to tape on his desk. He was also asked to think of any pictures he could draw next to the sentences that would help him remember to pay attention and do his best. Robert chose to draw a picture on his card of a boy sitting at a desk, with a smile on his face, looking at a book. He agreed to look at this card just before each time he was asked to read.

Next, a discussion was initiated with Robert concerning his difficulty in sounding out new words. This conversation was difficult for Robert, probably because this activity was his greatest source of frustration. However, it eventually became clear that concentrating upon the individual letters and remembering all the different sounds was very intractable for him. Sometimes he used pictures to figure out words, but often there were few, if any, pictures to help him. It also became apparent that Robert's frustrations often led to high levels of anxiety and to his giving up on trying to decode a passage. Although Robert did not directly express that he sometimes used context clues to decode words, it was apparent that he occasionally did so. When it was pointed out to Robert that he did possess some strategies for figuring out words he seemed to feel better about his endeavors. It was proposed that the author would try to persuade Robert's teachers and parents to focus more on helping him learn how to better use his contextual way of decoding words and to eliminate or greatly reduce his phonics lessons. Robert thought this proposal was a good idea.

It was decided by the author that it was important for the school principal to attend the upcoming parent-teacher meeting. This idea was

shared with Robert's teachers and parent, all of whom agreed. The principal was able to attend the meeting at which the author reported his experiences with Robert. All present believed that the author's findings were consistent with what they knew of Robert, and they were receptive to the author's theory that Robert lacked some fundamental skills which were necessary for success in learning phonics. When it was proposed that Robert's reading curriculum be altered to focus more on contextual and structural approaches to word decoding, all present agreed that this approach was worth a try. However, when the author proposed that such a change in Robert's reading curriculum would mean that the current reading materials would not be appropriate and that any changes made this year would necessitate changes in future grades, the principal became visibly uncomfortable.

The principal was thinking about the resistance from Robert's future teachers who, not being familiar with his educational history, would probably not welcome the additional burden of preparing a separate set of curriculum materials for and spending additional time with this youngster. To further complicate the issue, the remedial reading teacher claimed to have several other third grade youngsters who also seemed to use context and structural clues better than letter-sound associations in word decoding. At that point the author suggested that the problem with Robert and these other youngsters be presented to the faculty, as a whole, at the next building meeting to solicit their input to the curriculum problem. The principal agreed to this idea and put the issue on the agenda for the faculty meeting two weeks away. Meanwhile, all conference participants agreed to replace the traditional

phonics instruction with a contextual/structural approach for Robert while keeping him in his present reading group. Robert's classroom teacher expressed some uncertainty about what materials she could use with Robert, but the remedial reading teacher offered to help her plan lessons and find materials appropriate for Robert.

Two weeks later at the faculty meeting, the author, with help from the two teachers involved, presented Robert's case. Very quickly several of the teachers reported that they currently or in the past had students like Robert who did not seem to profit from traditional phonics instruction. A show of hands revealed that almost all the teachers remembered having such students in their classrooms. When the proposed change in curriculum for Robert was presented several of the teachers questioned whether it was practical to change the curriculum for only one student. Others countered that it was the teacher's job to fit the curriculum to the child. One teacher suggested that there were probably enough students with similar problems to justify the creation of an alternative reading curriculum for such students. The discussion continued with various proposals and counterproposals, and, ultimately with help from the principal, a compromise agreement was reached. The principal agreed to form a committee to study the problem. He asked for one teacher from each grade, the remedial reading teachers, and the school psychologist to form a committee, study the issue, and make a recommendation to him in two months.

The committee was formed and the author volunteered to conduct a search of the educational psychology and reading literature for information which might be helpful to the committee. Other

subcommittees dealt with the search for a model program, finding appropriate educational materials, and the transitions these youngsters would have to make from grade-to-grade. Eventually, the committee pulled together all their information and spent several sessions working out an agreement which was presented to the principal as a set of specific recommendations.

While Robert never caught up with his peers in reading, his attitudes toward reading improved quickly. Eventually he was put into a new reading group with two other third grade students. This reading group became a prototype for an alternative reading curriculum in the schools which not only approached decoding in less traditional ways, but also made other modifications in the reading curriculum and in the traditional reading instructional methods. It was agreed that this alternative curriculum was to be experimental with a careful monitoring of several aspects of reading as well as regular assessments of attitudes toward reading and school. Attempts were made to make the reading content more personal and relevant to each child. Eventually, writing began to creep into the reading curriculum and the teachers realized that they had embarked upon a whole-language approach for these students. The author continued to consult with teachers of the students in this special group, primarily to collaborate about ways of assessing progress. The principal was initially reluctant about all the changes taking place for these students. However, the constant monitoring provided her with reassurance that the new approach would not continue if the students failed to make some progress. She eventually became quite enthusiastic about the project and was instrumental in diffusing

the program within the building and, later, to other buildings in the district.

This case study illustrates a number of features of the proposed model. Aspects of constructivism, purposiveness, and the consensual nature of social knowledge are evident in this story. The author's attempts to enrich the clients (in this case the clients ranged from a student to a school building staff) and the democratic approach to decision making were exemplified. One may also see the potential for assessing and utilizing the personal theories of the child in understanding his problem and in formulating a new approach to teaching him reading. Implied in this model is the idea that students should be an integral part of the assessment and planning process in education. The values, purposes, and ideas of the student should compete freely with those of the teacher, the principal, and the school psychologist. Educators and school psychologists do not have relatively exceptionless laws of behavior from which they can accurately predict and control behavior. Therefore, they had better consider all relevant points of view in the dialectical and consensual knowledge formation process. Education is something we do <u>with</u>, not <u>to</u>, a child.

The long term impact of the changes in the reading curriculum for students like Robert is difficult to assess. Reading, like other parts of the curriculum, is not something that can be given to a student. Rather, what a student learns in school is the result of a dialectical process between student and teacher, student and materials, and student and student. Without covering laws which clearly specify the relationships between the relevant relationships educators cannot

accurately predict, much less control, the outcome of these interactions. However, educators and school psychologists can make the process more collaborative and, thus, more likely to be perceived by everyone involved as something over which they have some control. An increased perception of control may improve motivation and frustration tolerance in some students. It is, at least, a hypothesis worth testing.

Case History 7

The next, and last, future case study will present a common moral dilemma for the school psychologist. While this situation is a frequent occurrence in the practice of most school psychologists, the resolution to the conflicting values is not widely talked about among practitioners. This case highlights the struggles which must be faced by school psychologists who work in a very tradition-governed institution, the school, wherein the educational practices are being increasingly scrutinized and criticized.

A referral was received from a group of sixth grade teachers on a boy about whom they had become increasingly concerned. The boy, Tim, had begun the school year academically behind most of his classmates and he had made very little progress during the first seven months of the year. He was reported to be very disorganized, to rarely turn in assigned work, to often exhibit socially inappropriate behavior, and to rarely pay attention in class. A review of Tim's cumulative folder revealed that he had moved to the local community at the beginning of fourth grade. According to teachers' comments on his past report cards, since starting school he had difficulty paying attention, completing his

work, and making friends in each grade. Although Tim had apparently never been evaluated by a psychologist, he had received counseling from the elementary guidance counselor during the last half of fourth grade and for all of fifth grade. There were no reports in his file regarding these counseling sessions. Tim's grades were generally slightly below average. He was the oldest of three children. His siblings were two sisters, ages four and two. A group intelligence test administered in fourth grade indicated that Tim functioned with average academic abilities.

An interview with the elementary guidance counselor revealed that the focus of her counseling with Tim was primarily on social skills. She saw Tim individually and in a group to work on teaching him how to make and keep friends. She reported that Tim seemed to learn the social skills lessons quite well in the counseling session, but did not use them in class or on the playground. The counselor described Tim as being somewhat odd in his interactions with other children. He was often reluctant to approach other children, and when he did he frequently said unusual things or asked embarrassing questions. She dismissed him from counseling at the end of fifth grade, primarily because he was going to sixth grade at the middle school. She put his name on a follow-up list for the middle school counselor but had no information about Tim since he completed fifth grade.

The middle school counselor told the author that she had checked on Tim several times during the school year and was concerned about his progress. She had initiated several discussions among the sixth grade teachers about adjustments they could make and interventions they could

try to help Tim socially and academically. The teachers began an assignment sheet on which Tim was responsible for writing down his assignments each day. However, Tim rarely could find his assignment sheet, so the teachers began initialing the sheet at the end of each class period, and the guidance counselor checked his assignment sheet at the end of each day. If Tim had failed to complete his assignment sheet, he was not allowed to leave school at the end of the day until the sheet was correctly filled in and initialed by each teacher. While there was some improvement, it became necessary for the counselor to contact the parents and ask them to check Tim's assignment sheet each afternoon and to see that he completed his homework assignments.

For about two weeks this system worked fairly well. Then, Tim began to turn in fewer assignments and to lose his sheet more often. Attempts to contact the parents were not very successful. The counselor felt that the parents did not want to be bothered about Tim's school problems anymore. Meanwhile, as Tim began to slip academically, he also became increasingly socially withdrawn. He was rarely seen interacting with other students and, when he did interact with them, it usually involved conflict.

A conference was set up by the author to meet with Tim's teachers and parents. Although telephone contact had been made and a follow-up letter sent, the parents failed to attend the conference. The teachers reiterated most of the above information. When asked by the author what they expected from a psychological evaluation, the teachers admitted that they wanted Tim put into the learning disabilities (LD) program. They felt that he needed one caring person to look after him each day.

They believed that he would feel more comfortable about coming to school if he could work regularly with Miss Smith, the LD teacher, who was known for helping students keep up with their assignments and prepare for tests. When it was pointed out by the author that, at this point, there was no evidence that Tim was LD, the teachers asked if he might not qualify as a behavior disordered (BD) student.

The dilemma which the author faced in this case is not at all unusual. Basically, regular education teachers witness the apparent success of students who are placed into special education programs for the mildly disabled. The success is apparent because the research literature cited in Chapter 2 strongly suggests that mildly handicapped students score just as well on standardized measures of achievement whether they are placed in special education instructional programs or not. This research also indicates that formal measures of self-concept do not improve, and may actually deteriorate in some students, upon placement in special education. While the author had cited this literature to the district special education teachers and encouraged them to conduct local studies of the effects of special education placement, no interest was shown among the staff in conducting such research. Notoriously, students with mild handicaps in Tim's school district usually began to receive better grades (when these grades were assigned by the special education teacher) and to pass their courses each year after being placed into special education. Often these students had been predicted to be school drop-outs, a prediction which was rarely true for those placed in special education classes. Usually, these students were seen, after placement in special classes, to

"belong" to the special education teacher to whom they were assigned. This arrangement was most often satisfactory to everyone involved. The regular education teachers no longer felt responsible and were no longer embroiled in the daily conflicts of educating these students. The parents usually felt satisfied because their children were "passing" school, and the parents usually had only one teacher with whom they had to deal when school problems arose. Most of the students exhibited signs of being less distressed about coming to school; a few overtly expressed that they liked school better. The school principals were usually satisfied with the special education programs because the conflicts were fewer and the secondary school drop-outs were diminished. At least one principal, however, was disappointed to learn that once these students were placed in special education they were likely to remain in the program until high school graduation. He sincerely believed that the special education program would "fix" these students.

The dilemma faced by the school psychologist in this case is many faceted. First, the mechanistic view of humanity is behind the principal's expectation that the students identified as handicapped can somehow be "fixed" by the appropriate remedial treatment. The mechanistic view is also evident in the research cited in Chapter 2 on the effects of special education which has traditionally focused upon standardized achievement scores, and standardized measures of self-concept. From the mechanistic view the issues of special education can be settled by referring to physicalistic measures utilizing grams, centimeters, and seconds. Little or no reference is made to more qualitative criteria which are much more difficult, if at all possible,

to measure on a universal scale. Even some of the quantifiable variables, such as school drop-out rates and measures of teacher, parent, and student satisfaction, are rarely seen as dependent variables in these studies.

Perhaps even more important are the moral questions which emerge in an examination of the practice of placing students into special education. One may begin with the most obvious question, is it good to segregate handicapped students from their regular education peers? Following this, we should ask, do school officials (including the school psychologist) have the right to segregate certain classes of students? If such segregation eases the burden of the school without improving upon the education of the student, is it an ethical practice? Which school outcome variables are of most importance, and to whom are they most important? Questions concerning the true functions of the school emerge quickly when debates about the effectiveness of special education are allowed to take their logical course. We are soon confronted by the deep-seated, usually unspoken, beliefs about American public education.

Where one decides to terminate the questioning process has relevance to individual cases such as Tim's. If the author decided to adopt the shared beliefs of the sixth grade teachers, he would have gladly conducted an evaluation of Tim to determine his eligibility for special education programming. On the other hand, if he included in the debate the growing consensus among special education researchers, that programs for the mildly handicapped are not working, then he would resist conducting an evaluation for placement. Instead, he would advocate for adjustments in the regular education program for this

student. However, in so doing, he would be denying this youngster access to a program which, by local standards, may very well be successful.

At another level of analysis, we may want to ask whether the learning of specific academic skills which are measured by standardized achievement tests (or curriculum-based assessments), or the learning of specific, observable behaviors, are the most important educational goal in this youngster's life at this time? If we view special education placement as a way of protecting this youngster from the stresses of regular education, what difference will such a placement make in the long run for this student? Will he be over-protected and, thus, denied opportunities to successfully solve his problems? What resources, if any, are available in the schools to help this student achieve a meaningful life? Perhaps the long-term goals of this youngster had better be assessed by an educational team, which would include the child, and recommendations made accordingly. One person alone should not make such important decisions. Through the give-and-take of the dialectical process many of the relevant value positions can be presented as the final decision will be value based and not mechanistic or limited to functional, lawful principles. Ideally, a synthesis of the varying points of view can be created and a consensus achieved from which an educational program for Tim can emerge.

Thus, this case cannot be completed at this time because the author is unable to predict just what value positions would emerge in such a case. Drawing upon recent past experience with cases which share some elements with Tim's, the author would predict that Tim would be

evaluated by the Diagnostic and Educational team, including the child, the parents, teachers, a special education consultant, a school social worker, and the school psychologist. It is very likely that Tim would be viewed by this team as functioning with a Behavior Disorder and recommended for a non-traditional special program. That is, placement in a traditional special education program for academic or behavioral remediation would probably not be recommended. Instead, a program of interventions specially designed for Tim would be recommended. One of these interventions would include regular, daily contact with a caring adult who would develop an abiding, personal relationship with Tim. The research on the effects of psychotherapy, cited in Chapter 2, suggest that when people improve in psychotherapy it is more likely the result of a relationship than of any special technique. Also, this special person, probably an aide in one of the special education programs, would have access to all kinds of consultants with whom she/he could form relationships which might be of benefit to Tim.

An individual educational plan (IEP) for Tim would not resemble the typical goals and objectives seen in most academically or behaviorally oriented programs. Rather, the caring person in charge of Tim's daily educational program would keep an individual educational diary (IED) in which daily notes would be recorded concerning aspects of Tim's behavior which were thought to be theoretically important. Out of weekly meetings of a core educational team, including the school psychologist, would emerge a theory of Tim gleaned from patterns found in the IED, additional comments of the caring person in charge, and observations of others. Strong efforts would be made to involve the parent in these

weekly review and planning sessions. As long as Tim did not fit into the educational mainstream the IED process would probably prevail.

It should be pointed out that another of the typical moral dilemmas faced by the school psychologist is that there are very legitimate differences in her/his perspective and that of the classroom teacher. The major difference is that while the school psychologist is usually concerned about a particular child, the teacher is concerned about a group of children. The school psychologist's recommendations often tend toward an individualized program, the teacher usually is concerned with protecting the one curriculum which has been designed for all children. The school psychologist is often out of touch with just how much effort is required by a teacher to manage a class of twenty-five or more students. The teacher is usually keenly aware of the limits of her/his resources. There are no easy solutions to these problems. It should be remembered that special education classrooms were begun in order to alleviate some of these continuing problems.

This future case reflects a desire for flexibility in trying to help students negotiate the schooling process. By taking a wholistic rather than a mechanistic view of the student the educational team will attend to more than just narrow academic and behavioral skills. When school psychologists in the future use terms like "meaning of life" in regard to a student, the concept of learning will take on a much broader significance. Instead of referring to the answers to questions on some achievement or college entrance test, they will be talking about facilitating the creation of consciousness in a human being.

Implications for Training

The alternative model for the practice of school psychology presented herein calls for a revision of the training of school psychologists. Traditional course work in Psychological Foundations, Educational Foundations, Assessment/Interventions, Statistical Analyses and Research Design, and Professional School Psychology (Fagan, 1990) would continue to form the foundation of a school psychologist's education. Any new approach to the practice of the discipline must be founded upon and inclusive of effective past practices. However, ineffective practices or outmoded practices need to be deleted (e.g., changing from verification of eligibility for funding to developing change strategies). Further, we should not assume that school psychology practice is homogeneous. A practice in school psychology will be a function of the dialogue between the service provider and the consumers of those services. If an educational agency is expecting a school psychologist to provide traditional assessment and remediation services, then the person who is hired for such a position needs to be prepared to provide those services. Hopefully, the school psychologist in such a position will engage her/his clients in dialogues from which a revised practice, such as the one presented in this thesis, will evolve.

In order for the school psychologist to provide an alternative practice, she/he needs to be exposed to a background of experiences which have not often been included in school psychology programs. An exposure at the graduate level to the dialogues concerning the history and philosophy of science is essential for school psychologists who have identified themselves as scientific practitioners. A critical awareness

of the basic assumptions of the science of psychology upon which practice is founded is necessary in order for the practitioner to understand the limits of the profession's scientific knowledge base.

With the strong hold that empiricism has had as a base for scientific psychology, training programs will need to identify levels of fact, value, and myth in the training so that the various philosophical roots of practice based on fact, value, purely theoretical possibility, or myth will be understood by the trainee. Just as it is important to know when to use a behavior modification technique, it will be important to know when to use value consensus building or to critically develop a situation specific theory to guide trial and error approaches.

Following the conclusions presented in Chapter 3, it is important for school psychologists to be familiar with narrative as a form of assessment and remediation. The communication of information through stories and myths can have an impact upon school psychologists and their clients (Bagarozzi & Anderson, 1989; Campbell, 1972; Feinstein & Krippner, 1988; Gardner, 1971; Murray, 1960), yet these traditionally important forms of discourse are, to this author's knowledge, rarely a formalized part of the school psychologist's training curriculum.

In order to practice, the school psychologist must have a knowledge base. This base needs to incorporate learning and development in cognition, morality, social behavior, and motor systems, as well as effective information processing strategies, memory systems, and meaning in life. These individually centered types of knowledge will then need to be reconstructed in group settings like classrooms, reading groups, family systems, peer systems, and school cultures. And finally, the

knowledge must be translated into language understandable to a child, a parent, a teacher, or an administrator so that the knowledge becomes inserted into the dialectical process between co-equal participants.

Another important aspect of school psychology training is collaborative consultation. Gallessich (1982) has outlined a curriculum for consultation training, parts of which are already used for school psychology graduate training. One limiting aspect of Gallessich's model is that she assumes that power is unequally distributed in a consultative relationship. There may be circumstances in which the school psychologist is cast in an authoritative role in which no opportunities are available to question the assumptions underlying this role (e.g., when testifying in a court of law). However, in this revisioned model of school psychology, the practitioner attempts at every opportunity to equalize the power and authority in all relationships.

To facilitate the questioning and thinking of student school psychologists, they should be provided with specific courses in ethical practices and moral philosophy. Chances to experience the conflicts involved in practice can be provided first by staging mock staffings, with some students role-playing various staffing participants, while other students observe and critique the staffing process. This can then be extended to supervised, field based practice.

Experience in schools and other practice settings is usually an important part of school psychology training programs. This is an important aspect of preparing practitioners and should be expanded. Whenever possible, opportunities to participate in the schooling process

should be provided throughout the school psychology training program, in addition to formal practicum and internship courses. Student practitioners should have the opportunity to initiate dialogues about these school experiences throughout the training program. Perhaps such discussions should be "programmed" in the curriculum by the university trainers of school psychologists. These experiences in the schools and the subsequent dialogues are important in expanding the constructs of neophyte practitioners, and may serve to instill habits which promote personal growth and professional development in experienced school psychologists.

The importance of experiences and the dialectical processes must be emphasized. The future school psychologist in the revisioned model is one who will begin practice with a strong respect for the complexities of the person and who acknowledges that reductionism when applied to human relationships is a potentially dangerous process which can lead to oversimplifications and misunderstandings of the person. What is needed is an awareness of when to use fact, value, myth, insight, intuition, and hope, as well as which philosophical, theoretical, and empirical systems support each.

EPILOGUE

In the case studies presented in Chapter 5 one may see the potential roles and functions for the school psychologist. The term school psychologist can be taken literally to mean someone who applies psychological theories in the setting of the school. The potential exists for the application of a number of psychological theories, only a few of which were mentioned, to assist in organizing the information about a student. Ellis' (1962) Rational Emotive Therapy theory and Kelly's (1955) Theory of Personal Constructs were mentioned several times because they are favored by the author. Festinger's (1957) Theory of Cognitive Dissonance and portions of Adler's (1929) Individual Psychology are also sometimes used by the author in understanding clients. Much of C. G. Jung's (Campbell, 1971) theories of the collective unconscious, of archetypes, and of psychic development has been useful from time-to-time in helping clients formulate an explanation of their problems. The developmental theories of Erikson (1963), Kohlberg (1987), Piaget (1962), and others have been indispensable in understanding children and in constructing appropriate educational and psychological goals for them. Biological theories of behavioral disorders have also been helpful in explaining the problems of some children (Harper, 1982). Metabolic, toxic, and other physiological processes have been demonstrated to affect the learning and behavior of some children.

Anderson, Cancelli, and Krathochwill (1984) found in their survey an array of favorite theoretical approaches utilized by school psychologists. Only 9% of the respondents, however, indicated multiple

theoretical approaches. It is not clear from this survey whether school psychologists are using different frames of reference for different problems or whether they tend to use the same theory to explain all problems. Given the weaknesses of psychological theories pointed out in Chapter 2 and 3, it is difficult to justify the application of any one theory for a majority of problem situations. Regarding the application of explicit theories in psychotherapy, Mindess (1988) expressed his belief that:

> Only the most fervent proponents of an approach claim universal validity for it in an overt way. Covertly, however, we all cleave to favorite belief systems, employ typical ways of trying to help, and cannot rid ourselves of the notion that what seems right to us should apply to others too. . . . Perhaps the crucial element in psychotherapy is the reformulation of the client's suffering and confusion into some sort of meaningful pattern that lends significance to his [sic] distress and points to a way beyond it, regardless of the form that significance and way may take. (p. 170)

In summary, from these few cases one can see that no single psychological theory can possibly encompass all of school psychology practice. A number of theories and approaches must be available to the school psychologist in her/his attempt to understand clients and to explain behavior to others, and the client's own theories may be a good place to begin searching for a suitable explanation. Sometimes no theory can be found to explain behavior and the school psychologist must admit failure in trying to understand another person. The practice of psychology frequently must venture beyond the range of scientific psychological theory. If the school psychologist is courageous and explores these frontier experiences with a student, teacher, family, or school system, a new, personal theory may emerge. Hopefully, the

personal theory will be developed, publicized, and submitted to rational and empirical scrutiny and join the ranks of scientific psychological theory.

Too often, according to Koch (1981), psychologists have been unwilling to face the uncertainties and ambiguities which are inevitable when dealing with human beings:

> It is as if uncertainty, mootness, ambiguity, cognitive finitude, were the most unbearable of the existential anguishes. Under these conditions, able and sincere inquirers become as autistic as little children; they seem more impelled toward the pursuit and maintenance of security fantasies than the winning of whatever significant knowledge may be within reach! (p. 259)

Koch warned of our regressive tendency to accept almost any explanation in order to reduce the fears associated with uncertainty. He applauded those who have the courage to look beyond the "'received' concepts, our technical constructions, our formal belief systems" (p. 265).

This thesis will end with the caveat that human beings are difficult to understand and their behavior is difficult to predict. Although the alert and interested observer may sometimes find patterns in human behavior and these patterns may be helpful in producing explanations of human action, there is no single set of scientific laws or principles which has been found to provide either absolutely accurate predictions of behavior or totally effective control of human behavior. Instead, the search for the functional relations among variables in human behavior has provided only partial understandings. These partial understandings or relationships are also presented in theoretical systems which are not without competing explanations. School psychologists, then, can function from an empirical base only part of

the time. They can function from a critically reviewed theoretical system for another part. Eventually, however, they will find themselves faced with problems for which reliable and valid psychological explanations do not exist. Rather than pretending to provide a strong science of behavior, school psychologists would do well to acknowledge their limitations.

Whether or not school psychologists can continue to be viewed as important to the functioning of schools will probably depend upon how empathic, innovative, ethical and helpful they are judged to be by their clients. School psychologists, as a group, certainly possess some important intellectual capacities (Hyman, 1988) which may facilitate problem solving. The school psychologist has a definite role to play in the schools. Although significant parts of that role may be in need of change, the fundamental act of trying to understand another person who has sought help involves the school psychologist in that person's life in potentially important ways. According to Kelly (1955), when one person tries to understand the constructs of another, the person attempting to understand begins to play a role in a social process with that other person. Thus, school psychologists are, or certainly can be, important in helping others cope with the inevitable stress inherent in the complex social processes found in the school.

Perhaps the school psychologist can be seen as the lubricant which keeps some of the parts of the school functioning with a minimum of friction. Or, perhaps the school psychologist may be thought of as the school shaman. Maybe the school psychologist serves as the conscience of the school. It could be that some see the school psychologist as a

non-addictive tranquilizer. In some cases the school psychologist is viewed as a technician who repairs that which breaks down. To some, the school psychologist is a gate-keeper. Sometimes the school psychologist is the scapegoat. Occasionally she/he is a hero. The roles and functions of the school psychologist are many and varied. They revolve, however, around a central core of helping and caring about children and those adults to whose care they are committed. In all roles, the school psychologist continues to stand on rigorous and critical thinking in utilizing psychological theory to build an understanding of the children whom she/he serves. It is the continuing dialogue which includes theory, research, and practice from the discipline of psychology that provides the school psychologist with her/his ties to the scientific community and her/his ethics and practice standards professionally. Contributing to the understanding of and assistance for a child is the goal of the disciplined inquiry into the child and her/his environment.

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