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ABSTRACT

Psychological testing as an area has perhaps evoked more controversy and heated emotion than has any other area within the fields of psychology and counseling. Part of the reason for this has to do with the inherent complexity and difficulty of the task of assessing human abilities, emotions and achievements. But beyond this basic issue, an overlay of befuddlement has been provided by diverse ideological conflicts and resultant, largely unsuccessful attempts at resolution. As a specialized concern of the general discipline of psychology, the evolution of psychological testing is best considered within the historical context of the evolution of psychology, particularly in the United States. A brief sketch of this evolutionary development serves to illuminate the important sources of the contemporary controversy and suggests ways in which the controversy can best be resolved. (Author)

THE ROLE OF PSYCHOLOGICAL TESTING: IDEOLOGICAL CONFLICTS AND IRRATIONAL RESOLUTIONS

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Abstract

Psychological testing as an area has perhaps evoked more controversy and heated emotion than has any other area within the fields of psychology and counseling. Part of the reason for this has to do with the inherent complexity and difficulty of the task of assessing human abilities, emotions and achievements. But beyond this basic issue, an overlay of befuddlement has been provided by diverse ideological conflicts and resultant, largely unsuccessful attempts at resolution. As a specialized concern of the general discipline of psychology, the evolution of psychological testing is best considered within the historical context of the evolution of psychology, particularly in the United States. A brief sketch of this evolutionary development serves to illuminate the important sources of the contemporary controversy and suggests ways in which the controversy can best be resolved.

THE ROLE OF PSYCHOLOGICAL TESTING: IDEOLOGICAL CONFLICTS AND IRRATIONAL RESOLUTIONS

Although the practice of psychological testing has its origins in ancient China, as far back as 2200 B.C. (DuBois, 1970), it was not until the late 19th century, in Europe, that the impetus for the development of current-day tests emerged. One of the most important early figures was Sir Francis Galton, whose interests in human heredity and individual difference led to the invention of one of the first intelligence tests. At about the same time, Alfred Binet, in response to the need of the Paris School System for a method of detecting mentally retarded children, pioneered the development of the Binet I.Q. scales. Similar work, with mental patients, by Emil Kraepelin in Germany, served to contribute to a general climate of interest in testing in Europe which set the stage for the initiation of the testing movement in the United States (DuBois, 1970).

While Galton, Kraepelin and even Binet could not be identified primarily as psychologists by training, the whole field of psychological testing, in its transplant to the United States, became adopted as the province of psychology. One of the reasons for this was the emergence of psychology as a new, independent discipline, and particularly the rise within this new psychology of the school of

functionalism, with its emphasis on individual differences and applied research (Boring, 1957). During this period, psychological testing was concerned primarily with the area of innate human abilities, and was referred to as "mental testing." The use of this term is significant historically, for it reflects an extension of the interest of earlier American psychologists, known as structuralists, in the study of mind, or consciousness. Thus, although there were significant ideological differences between the emerging school of functionalism and the dogmatic, waning structuralist group (Angell, 1907), the functionalists retained to a certain extent the interest of their predecessors in internal conscious factors. This was especially true of the brand of functionalism developed at Columbia University and led by Robert Woodworth (Marx and Hillix, 1973). This interest in internal psychological processes laid the groundwork for the clash with the emergent behaviorist group.

Metaphysical and Methodological Behaviorism

John B. Watson, known as the "father" of behaviorism, argued vehemently that psychology as a science must strive for objectivity and that one of the most important steps in this respect was the abandonment of such unscientific concepts as "mind." (Watson, 1913). In order to emphasize his point, however, Watson adopted the extreme view, known as metaphysical behaviorism, that mind and consciousness do not exist. This extreme position became modified by Watson's

followers to the point of view known as methodological behaviorism, which, unlike Watson's view, does not maintain that internal conscious factors do not exist, but rather that the focus of study in psychology should be behavior, since minds are unobservable and therefore unavailable for scientific study (Bergmann, 1956; 1957). Methodological behaviorism has remained the dominant school of influence in American psychology up the present.

Watson's attack on the ideological schools of functionalism and structuralism had some unfortunate consequences, both for psychology as a discipline and for psychological testing in particular. Watson ignored, for example, the fact that despite the trivial nature of much of the research conducted by the structuralists, Edward Titchener and most of the structurally-oriented psychologists with whom he worked were thoroughgoing scientists in both attitude and methodology (Boring, 1957; Marx and Hillix, 1973). The unproductive outcome of the structural research, moreover, did not preclude the possibility that the study of internal conscious processes could, given a more adequate methodology, prove quite fruitful. Watson, however, adopted the strategy of rejecting the structuralist frame of reference in toto and in the process might well have thrown out the proverbial "baby with the bath water." Fortunately, the methodological behaviorist position recognizes, at least in principle, the possibility that the study of internal processes, via their reflections in behavior, is scientifically admissible. However, carryovers

from Watson's earlier, more rigid metaphysical behaviorist position remained, so that it became unfashionable to profess an ultimate interest in going beyond immediate behavioral referents. Much of this is justified in terms of the principle of parsimony, i.e., that one should not invoke complex explanatory constructs (e.g., "mind") when it is possible to explain psychological phenomena on the basis of more basic (e.g., behavioral) principles. The principle of parsimony notwithstanding, American academic psychology has been resistant to the possibility that internal constructs might have a significant role to play in a science of psychology. Skinner, for example, who is perhaps the most consistent contemporary methodological behaviorist, often writes as if the restriction of psychology to the study of observable behavior is more than simply of methodological or parsimonious significance (Skinner, 1971). Skinner's position on this point is highly controversial, as shown in the almost endless debates of the relative virtues of so-called "phenomenology" and behaviorism (cf. Rogers and Skinner, 1970). Nevertheless, it is clear that much of the current controversy in academic circles surrounding the use of psychological testing stems from the concern that the tester is interested ultimately in variables, such as internal mental processes, which are <u>not</u> classed as observable behavior.

Methodological behaviorism, as it developed, was able to incorporate "mental testing" by viewing the new I.Q. tests as samples of behavior

which could be used to predict other behavior. Thus, the definition of intelligence as "what an I.Q. test measures" was able to avoid the earlier definition of intelligence as a mental state. Methodologically, this is a skillful way of approaching the concept of intelligence, and has proved helpful in terms of the empirical utility of I.Q. tests for predictive purposes (Anastasi, 1968). This has led to an acceptance, at least in academic circles, of the I.Q. test as a valid scientific tool. In the case of personality testing, however, there have been some philosophical issues which have made acceptance much more difficult.

Projective Testing and Applied Psychology

Concurrent with the development of intelligence testing in Europe at the turn of the century was the emergence of Freudian psychoanalytic theory, with its emphasis on the importance of internal, unconscious conflicts in the production of neurotic symptoms. As the psychoanalytic movement grew in scope, it was inevitable that an interest would develop in the use of psychological tests as a means of uncovering core unconscious conflicts. The result of this interest was the emergence of a series of instruments known as projective tests. The impetus for work in this area came from the construction of the word association test by Carl Jung in 1904. Subsequently one of Jung's students, Hermann Rorschach, constructed an inkblot test which was popularized in the United States by David Levy and Samuel Beck. This was followed by Henry Murray's well-known Thematic Apperception Test (DuBois, 1970).

The involvement by American psychologists in the projective testing movement paved the way for an increasing rapproachment between the discipline of psychology, with its behavioral and pure science interest and that of psychiatry, which stressed the more applied problems of dealing with mental patients. Thus, the applied interests of the earlier functionalists were revived. The continued involvement of psychology in applied matters received further encouragement when, following the beginning of World War I, Robert Yerkes, then president of the American Psychological Association, became actively concerned with ways in which psychologists could serve the national war effort. This move led finally to the development of the group intelligence tests, known as the Army Alpha Tests, designed as selection and placement instruments for the armed services (DuBois, 1970).

Thus as the school of behaviorism developed, with its emphasis on methodological behaviorism, scientific method and pure research, a number of psychologists remained involved with applied interests in the tradition of functionalism. Theoretically, of course, there was nothing contradictory in these two lines of interest. In fact, Watson himself was quite concerned with applied subjects, as he clearly articulated (Watson, 1913). However, the insistence on rigid methodological standards, coupled with the philosophical carryover of metaphysical behaviorism eventually led to strains between those with academic versus those

with applied interests, where the demands of immediate tasks often led to a relaxation of rigid methodological standards. This was particularly true in the case of psychologists interested in projective testing, since their concern with the assessment of internal processes violated the canons of behaviorism. Although methodologically the projective test, as a sample of behavior, was consistent with the principles of methodological behaviorism, the projective tester's clear ultimate interest in unobservable, unconscious processes was in strong conflict with the remnants of Watson's metaphysical behaviorism, as noted earlier. In time, then, the ideological conflict developed a double edge: behaviorism versus psychoanalytic theory and pure versus applied science.

The Emergence of Clinical Psychology

Psychoanalytically-oriented as well as applied psychologists in general during this era remained, despite their applied leanings, primarily academic psychologists in terms of training and professional identification. This was reflected in their commitment to scientific methodology in their psychometric work. For example, the leading proponent of projective testing became David Rapaport who, despite his active interest in psychoanalytic theory (and inevitable conflict with behaviorism) argued vigorously for the use of projective testing in a rigorous, scientifically objective manner (Rapaport, 1967; Rapaport, Gill and Schafer, 1946). Notwithstanding this attempt by applied

psychologists to retain identity as academic psychologists, mounting tensions between applied psychologists and academicians eventually led to the development of a separate applied specialization which came to be known as clinical psychology. This new "field" grew slowly at first, but blossomed fully during and immediately following World War II (Braun, 1966). Closely aligned was the field of counseling psychology, which with respect to testing was concerned with vocational testing as well as with projective and intelligence testing (DuBois, 1970).

The MMPI and the Actuarial-Clinical Conflict

Throughout the evolution of these ideological conflicts, the area of intelligence testing, as noted above, remained accepted within academic psychology as a valid area of scientific endeavor. Recognition of this fact, among other things, sparked an interest among some clinical psychologists in developing a personality test which, unlike the projective tests, could also be accepted within academic circles. The goal was to construct a test which would be empirically keyed and much less tied to unobservable psychoanalytic constructs. The result was the Minnesota Multiphasic Personality Inventory (MMPI), a forced-choice personality inventory standardized on psychiatric diagnostic groups (Hathaway and McKinley, 1940). The construction of the MMPI was modelled on the work of the earlier functionalists, particularly Robert Woodworth (DuBois, 1970).

The emergence of the empirically-keyed MMPI eventually resulted in the precipitation of a new controversy which concerned the issue of the efficiency of the clinician as a processor of psychological test data. The question was raised whether in principle an actuary or clerk using empirically-derived psychometric data would not perhaps be more accurate than a clinician in psychiatric diagnostic decisions. This question, raised originally by Meehl (1954), led to a series of theoretical and research papers defending either the actuarial or clinical point of view (Meehl, 1956; Holt, 1958; Sawyer, 1966; Goldberg, 1968; Pankoff and Roberts, 1968; Holt, 1970; Sines, 1970). Currently, the issue is still unresolved, but the net result of the polemic has been an increased interest in the use of actuarial "cook-books" (Marks and Seeman, 1963; Gilberstadt and Duker, 1965; Marks and Sines, 1969) in the interpretation of MMPI data for diagnostic purposes, and a decline in the use of projective tests, whose results are somewhat less amenable to actuarial codification (Holt, 1970). Concurrent with these developments has been an overall decline in the interest among psychologists in psychological testing of any sort (Breger, 1968).

The Behavior Modification Movement

An additional philosophical shift which has contributed to the ideological conflict has been the Skinnerian operant behavior modification movement, which has emphasized the role of environmental

determinants of behavior (Krasner and Ullmann, 1965). This is a logical extension of methodological behaviorism, but goes beyond earlier variants in its almost total exclusion of organismic factors, (either intrapsychic or physiological) as appropriate for identification as causal, or independent variables. A variant of the basic Skinnerian approach, known as social learning theory (Bandura, 1969), stresses the dependence of "personality" on situational environmental contingencies. Mischel (1969), for example, has argued that the lack of consistency in "personality" is grounds for the abandonment of the whole task of diagnosis in favor of a functional analysis of the environmental contingencies which determine an individual's behavior in a given situation.

Humanistic Psychology

Another addition to the confusion has come with the rise of the humanistic psychology movement, and particularly the Rogerian school of nondirective psychotherapy (Rogers, 1951). Like psychoanalytically oriented thinkers, adherents of this movement have been somewhat displaced in academic circles. Unlike psychoanalytically-oriented psychologists, however, humanistic psychologists have shown a particular disdain for psychological testing, which is seen as a process which is dehumanizing and which interferes with psychotherapy. Little is seen to be gained relative to the burdens and impersonal requirements of test administrators, especially when the assumed purpose of the testing

is the establishment of some sort of psychiatric diagnosis (Patterson, 1948; Rogers, 1951).

Intelligence Testing and Racism

While I.Q. testing has remained fairly secure within academic psychology, its abuses have recently come under heavy attack from dissident psychologists. The impetus for this has come from a paper by Jensen (1969), which argues that empirically obtained differences in I.Q. between black and white subjects is at least partially a function of genetic differences in intelligence between blacks and whites. Opponents of Jensen's position have rightfully noted the heavy bias in I.Q. tests in favor of white middle class subjects and the history of racism which has been infused with the development of I.Q. testing (Baughman, 1971; Richards and Spears, 1972; Thomas and Sillen, 1972; Guthrie, 1976). One strategy which has been implemented as a way of dealing with this problem has been the declaration of a moratorium on the testing of black children (Bay Area Association of Black Psychologists, 1972).

Discussion and Conclusions

It should be clear from this brief historical sketch that in recent years the role of psychological testing has declined considerably and that to a large extent the decline has been the result of philosophical conflicts. That is, as noted above, the historical development of behaviorism and the pull towards objectification within academic

psychology has been a key factor in the decline of testing, with other trends (e.g., racial abuses of I.Q. tests; humanistic psychology) providing additional impetus. In the context of the heated emotion which often accompanies ideological conflict, however, the question arises whether the current trend away from the use of psychological testing is a course which has been dictated by scientific and rational judgment or simply the endpoint in an historical process of conflictual fatigue. Perhaps most interesting in this regard is the fact that the controversy surrounding psychological testing has been largely limited to the academic world. It is the author's contention that the primary reason for this is that the controversy centers around ideological rather than empirical issues. In applied settings, where ideological strains have not been so fiercely felt (although not altogether nonexistent), the demand for psychological testing has remained stable. Two recent surveys (Levy and Fox, 1975; Dimond, Havens, Rathnow and Colliver, Note 1), for example, found that in the majority of clinical settings there is still a demand for psychologists who can skillfully administer, score and interpret a full battery of psychological tests. Thus, despite a waning emphasis on psychological testing in graduate training programs, "the market" still demands psychological testing.

A critical examination of the role of psychological testing, of course, must look beyond simple consumer or "market" trends. The fact

that the practice of testing continues in applied settings does not necessarily demonstrate that testing is in fact helpful or that testing as an activity represents the most efficient use of clinicians' time, even if some useful data results from the activity. Ross (1974), for example, has argued that behavioral assessment methods are much more useful in providing the basis for treatment planning than are traditional psychological tests and that graduate training programs should therefore scrap instruction in the use of standard tests (e.g., Rorschach, WAIS, TAT) in favor of skill training in behavioral assessment. Ross maintains that graduate training programs would then serve in the role of "leaders in the field" rather than "followers of the marketplace" (Ross, 1976, p. 18). The ultimate validity of Ross' and other similar viewpoints, however, is dependent on whether their visions of assessment represent an accurate perception of what is necessary and useful in the way of evaluation in clinical settings. In the author's experience, there has been a great deal of concern in internship settings about student products of purportedly "visionary" graduate programs who are not equipped to provide adequate assessment services. It could be argued that this sort of conservatism in internship settings is a reflection of ignorance of research findings and a naive belief in the magic of psychometric data (cf. Chapman and Chapman, 1969). A more compelling argument, however, is that professionals in clinical settings, unhampered by the confusion of philosophical conflicts,

continue to be aware of the requirement for a thorough assessment of the needs of clients.

How does one resolve this confusing issue? From the author's perspective, much of the apparent confusion lies in the fact that historical trends in clinical strategies often reflect ideological dogma rather than rational judgment. A re-examination of the basic purposes of testing may therefore help to extricate us from philosophical entanglements and provide us with some direction in our attempts to deal with the problem. As we have seen, testing emerged historically in response to the need for a standardized, effective way of assessing the abilities of school children for the purpose of placement in appropriate educational programs. Once its successes in accomplishing this task were noted, psychologists began to conceive of other areas in which standardized assessment procedures might be helpful. Thus, personality and vocational tests emerged, based on the same logic as the first I.Q. tests; that standardized testing procedures could provide an aid in making decisions about clients. In the case of personality tests, the decisions often involved treatment planning, institutional placement and the like. In the case of vocational testing, the decision centered around job counseling and placement. In all cases, however, the procedure was the same. A decision (or series of decisions) had to be made, and it was felt that a standardized, scientifically valid assessment procedure would provide the most solid

basis for making an intelligent decision. The most obvious problem which arose in this context was that of deciding whether or not a given testing procedure was in fact "scientifically valid." As was noted earlier, this question of validity was handled to nearly everyone's satisfaction in the case of I.Q. tests by matching test scores against some external criterion (e.g., success in school) and then examining how accurate the tests were in predicting performance on that criterion. In the case of personality tests, however, the issue became complicated by the fact that what was being assessed (e.g., internal unconscious conflicts) had no readily agreeable external referent against which test performance could be matched. Because of this problem, it was easy for ideological persuasions to carry much of the weight in determining the answer to the validity question. Thus, if as a behaviorist one decided that questions regarding unconscious processes were philosophically groundless, it became easy to reject the whole idea of projective testing on an a priori basis, without reference to the empirical question of validity. Likewise, if one's psychoanalytic bias carried with it a religious-like belief in the primacy of unconscious motivation, it became easy to defend the use of projective testing, again without reference to the technical question of validity. Similar issues came into play in the clinical-actuarial controversy described earlier. If one's scientific credo demanded a belief in the superiority of objective,

statistical methods over subjective, unreliable human judgments, then actuarial methods of test interpretation carried with them an obvious appeal, etc. The important question in all this, then, becomes whether there are methods of determining the validity of testing procedures which are devoid of the biases of ideological allegiances.

The literature, of course, is replete with studies which purport to demonstrate, on a purely empirical basis, that psychological testing, particularly clinically utilized projective testing, has no real validity (cf. Sawyer, 1966). A serious problem with this body of research, however, has been the question of adequate criteria in determining validity. Holt (1970), for example, has argued that much of the research in the area has failed to evaluate the utility of testing in ways that have meaning to practicing clinicians. Thus, criteria have either been trivial (e.g., ability to succeed in a course in parachute jumping), or the sign approach (e.g., F+ percent on the Rorschach) has been used as the test point of reference in matching to a criterion. None of this has provided an accurate test of the full-battery approach to assessment which is utilized by most clinically oriented advocates of psychological testing (cf. Rapaport, Gill and Schafer, 1968). Dimond (Note 2) has discussed this issue in considerable detail. It is clear that with regard to the validity of projective and personality tests, empirical data are as of yet inconclusive. The fact that testing remains in demand in clinical settings, moreover,

highlights the critical need for research designed to explore what it is that clinicians appear to extrapolate from test data which is of value to them. Amidst the heat of ideological conflict there have unfortunately been no adequate investigations of this sort.

It is important to recognize that although much of the negative reaction to psychological testing has been ideologically biased, many of the specific criticisms have nonetheless been noteworthy. Holt's (1970) remarks notwithstanding, for example, it is clear that clinically-oriented testers have done little in the way of conducting empirical research to justify the time and effort required in administering full batteries of tests. It is thus understandable that academicians could conclude that testing is a worthless activity, since academically-originated research, criticized as "trivial" by clinicians, has not been matched with clinically-originated, "clinically meaningful" research. It is evident that the burden of responsibility in this regard falls with the clinician.

Humanistic psychology (cf. Rogers, 1951) has also offered an important caution in its view of the potential hazards of any "objective" approach to psychological problems. Close analysis, however, suggests that this caution does not necessarily preclude the use of psychological tests, but rather the employment of tests by individuals who are insensitive to the human dimensions of the clinical situation. Sophisticated advocates of testing (cf. Schafer, 1954) have long recognized the

significance of this caution. Nonetheless, humanistic psychologists have provided a service in re-emphasizing the point, which is frequently lost in the "objective" administration and interpretation of psychological tests.

Perhaps the most significant criticisms of testing have come from those who have observed its abuses, particularly with reference to the testing of blacks and members of other minority groups. Again, however, the core issue is not testing per se, but rather the inappropriate use of testing and test data. The critical task here will be one of finding testing procedures which will provide useful and accurate data as a basis for clinical decisions (e.g., educational placement, treatment planning, etc.). Samuda (1975), Williams (1975) and Baughman (1971) have addressed this issue thoroughly.

There are doubtless numerous other specific examples of criticisms of psychological testing which are equally valid and justified. None of these criticisms, however, lead logically to the conclusion that psychological testing should be abandoned completely. What is needed is a simple reminder that the function of testing, and the reason for which it emerged historically, is to provide a reliable, valid and standardized means of assessing clients' needs which will be of maximum benefit to both the clinician and the client. This sort of reminder leads one to several conclusions. Perhaps most obvious is the perennial conclusion that "there is a need for more research."

This would indeed be a trite conclusion if it were not for the fact that from a clinical standpoint there is a dearth (rather than the usual abundance) of research addressed to the question of the utility of psychological tests, considered from the meaningful perspective of an integrated, full-battery approach (cf. Dimond, Note 2).

A second conclusion which ensues from our simple reminder is that testing may not always be warranted, and that when testing is indicated, its use should be tailored to the particular problem at hand. As Breger (1968) has noted, many clinicians administer tests simply because they feel testing is part of their role as psychologists. This leads to a mindless testing technology which has little or nothing to do with clients. Breger concludes from this that testing is therefore largely irrelevant to the clinical process and should be abandoned. A more appropriate conclusion is that the clinician should give careful thought to the presenting problem and how testing may be useful in the decision-making process. This is in essence a client-centered philosophy of clinical assessment and treatment which Havens (Note 3) has detailed.

A final conclusion, one which should be clearly evident at this point, is that the role of psychological testing should be based on questions of clinical utility rather than dogmatic ideology. Psychologists, with their historically empirical orientation, should be most receptive to this conclusion. Unfortunately, however,

dogmatic ideologies have clouded the field.

It should also be evident that the author's view is that the combined weight of clinical, historical and empirical evidence suggests that psychological testing does possess at least some clinical utility. This view seems corroborated at least in part by the fact that despite the general decline in testing which has developed in recent years, there appears to be somewhat of a revival of interest in testing, at least among some segments of the psychological community, as evidenced by the revision and re-publication of Rapaport's classic work (Rapaport, Gill and Schafer, 1968). Along with this has been a particular emphasis on the assessment of an individual's adaptive strengths and weaknesses in the interest of effective educational or treatment planning. This would appear to be a highly fruitful area, both from clinical and research perspectives. Researchers interested in exploring an area such as this, however, cannot afford to be hindered by an artificial philosophical position which precludes an interest in anything beneath the skin on a priori grounds. An open-mindedness which is characteristic of a truly scientific maturity could result in the refinement and improvement of current assessment tools rather than the abandonment of testing altogether. In this respect, much can be learned from the suggestion by Holt (1970) that the disparate factions of clinicians and academicians learn to communicate with each other with respect to the important

elements of the clinical process so that meaningful research can be conducted. Rychlak (1968) has pointed out in this regard that much of the triviality of academic psychology has resulted from the failure of speculative, clinically-minded thinkers and rigorous academic researchers to engage in complementary research efforts. Much of this failure, as can be seen in the brief historical sketch presented in this paper, can be attributed to the defensive posture adopted by American psychologists in support of rigid ideological stances.

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