

## COMMUNICATIONS

Some misconceptions surrounding the question of a behavioral or an anti-behavioral methodology for instructional psychology are examined. A behavioral approach is recommended in the absence of viable operationalized alternatives.

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### Recurrent Tensions in the Psychology of Learning and Instruction

Within the context of training teachers and educational psychologists, it is too often possible to observe patterns of anti-intellectual behavior in both students and the professors who train them. It sometimes appears that the intelligentsia has been eclipsed by what we might call a "feeligentsia". An atmosphere of irrationality and sloganism — usually associated with an emphasis on subjective experience and therapeutic need can hold sway over rational thought and objective observation. The need for pragmatic approaches to real problems can be obscured. This paper describes the situation, and suggests an alternative.

The perennial antipathy between behavioral and non-behavioral approaches to the study of human behavior still exists. It is not our intention to reiterate or evaluate (or perpetuate) these arguments, but rather to state some principles which may lead to more dialogue and less diatribe.

We feel that the relationship between behavioral and phenomenological approaches to psychology could be less antagonistic if proponents of either school adopted certain attitudes necessary for sincere dialogue and the resolution of conflict. Kuhn<sup>1</sup> talks about a variety of possible scientific "paradigms" that give a particular "science" unique abilities for dealing with the world. It is the creation of paradigms that make a science, and that at the same time limit and define the method and the province of that science. It is the struggle between competing paradigms that is the core event of scientific revolutions. Our first suggestion, then, is that educators and psychologists insist on clear statements about the paradigms which have delimited an investigation in a certain way. Recognizing that paradigms are unavoidable, and that they must impose limits on our study, it should be easier to respect the differences in orientation that exist between psychologists. More importantly, different viewpoints must come to the point of the issue rather than hide behind poorly articulated and non-operationalized theories.

Secondly, a statement of the criteria for "truth" within any paradigm must be obtained. Certain axioms may be accepted over others, but if the criteria are not to be completely arbitrary, we should expect reasonable explanations of how

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<sup>1</sup>T. S. Kuhn, *The Structure of Scientific Revolutions* (Chicago: The University of Chicago Press, 1962).

we know what we claim to know. A mutual acceptance of certain linguistic and logical conventions seems a prerequisite for useful dialogue.

Thirdly, the "spirit of dialogue" should predominate over a willingness to attack. Questions and answers can be directed not only at the exchange of information, but also toward an understanding of the other's position, paradigms, and purpose. We suggest that this endeavour will lead to the perception of more "common" ground than we currently see. Certainly issues will arise, but a sincere desire to clarify and explain them should lead to some sort of reconciliation through understanding rather than antagonism through ignorance.

It follows from this, that professors involved in the training of teachers and psychologists have the responsibility not only of presenting information, but also of clarifying their position and the parameters of that position. They must also present the criteria by which one may judge and evaluate the information and theory offered. They should encourage dialogue and rational argumentation both within the position they represent and between positions — some of which may "oppose" their own.

We firmly believe that such dialogue must make use of empirical evidence and a rational methodology. Failure to do this results in a debate that contains more bias and prejudice than clarity and reasonableness. The debate can move from a rational level where resolution is often difficult to an affective level where "theories" turn out to be feelings, which may often spring from the therapeutic needs of the individual. Credible jargon and popular appeal often obscure the emotional basis of such an approach.

The debate recorded in *Psychological Bulletin* some years ago between behaviorists and anti-behaviorists<sup>2</sup> demonstrates the difficulty of achieving closure when an attempt is made to argue rationally. Even at this level personal bias, in addition to empirical evidence, seems to enter the debate. MacCorquodale's<sup>3</sup> review of Chomsky's<sup>4</sup> critique of Skinner's *Verbal Behavior*<sup>5</sup> draws attention to this problem. Chomsky's basic objection to a behaviorally based study of human behavior seems to be philosophically rather than methodologically based. As Feigl<sup>6</sup> points out, turning an empirical doubt into a metaphysical doubt guarantees the impossibility of arriving at a logical answer.

Our objection is not to the above debate but to those who have abstracted fragments to bolster a view which seems to have gained a great deal of popular support, namely the anti-scientific study of human behavior. This often appears

<sup>2</sup>L. Breger and J. L. McGaugh, "Critique and Reformulation of 'Learning-Theory' Approaches to Psychotherapy and Neurosis," *Psychological Bulletin*, 63 (1965), 338 - 358; L. Breger and J. L. McGaugh, "Learning Theory and Behavior Therapy: A Reply to Rachman and Eysenck," *Psychological Bulletin*, 65 (1966), 170 - 173; S. Rachman and H. J. Eysenck, "Reply to a 'Critique and Reformulation' of Behavior Therapy," *Psychological Bulletin*, 65 (1966), 165 - 169; W. M. Wiest, "Some Recent Criticisms of Behaviorism and Learning Theory (With Special Reference to Breger and McGaugh and to Chomsky)," *Psychological Bulletin*, 67 (1967), 214 - 225; E. A. Locke, "Is 'Behavior Therapy' Behavioristic?" *Psychological Bulletin*, 76 (1971), 318 - 327; W. Wilkins, "Desensitization: Social and Cognitive Factors Underlying the Effectiveness of Wolpe's Procedure," *Psychological Bulletin*, 76 (1971), 311 - 317.

<sup>3</sup>K. MacCorquodale, "On Chomsky's Review of Skinner's *Verbal Behavior*," *Journal of the Experimental Analysis of Behavior*, 13 (1970), 83 - 99.

<sup>4</sup>N. Chomsky, "Verbal Behavior" by B. F. Skinner, *Language*, 35 (1959), 26 - 58.

<sup>5</sup>B. F. Skinner, *Verbal Behavior* (New York: Appleton-Century-Crofts, 1957).

<sup>6</sup>H. Feigl, "Philosophical Embarrassments of Psychology," *American Psychologist*, 14 (1959), 115 - 128.

as anti-behaviorism and is loosely labelled as the "humanistic approach". It shows itself in undergraduates in the form of strong prejudices against structure. A naive belief in the ubiquity of discovery learning and person-centered approaches to education are common. The instructional ideas of people such as Bruner are popular with many educators in spite of the relative lack of empirical support<sup>7</sup> while empirically based behavioral approaches to instruction are viewed with suspicion if not outright hostility.

What we deplore is the disregard for data and methodology as well as selective presentation of the debate referred to earlier. There appears to be a current bandwagon effect as many professors, involved in teacher-training, rush to join the crusade against "dehumanizing" behaviorism. Unfortunately, this phenomenon is too often associated with an anti-intellectual bias unsupported by a careful examination of arguments and data. Inspection of recently published texts in educational psychology suggest that most authors include at least token chapters on "humanistic approaches" to education.

We believe that the choice between a behavioral and a non-behavioral approach to teacher training is not a question of either/or, but a question of how much of one or the other. Combs<sup>8</sup> seems to agree. But, although behaviorally based approaches to teaching have enjoyed considerable acceptance<sup>9</sup> this acceptance is often still reluctant. The television commercial about a certain mouthwash, "I hate it, but I use it", characterizes the grudging acceptance of many who are unable to deny the utility of behavioral techniques but have reservations about their implications. In fact, the implications seem to be poorly understood, and often misconstrued. Students are often surprised to find out that not all behaviorists are Watsonians or Skinnerians, and that a behaviorist can be a humanist.

We object to the type of talk that has allowed the term "Humanism" to be co-opted for a branch of psychology that is antagonistic (or at least suspicious) of science in general and behaviorism in particular. Behaviorism and humanism are not incompatible, and should never have been made so. Watson's<sup>10</sup> introduction of the term "Behaviorism" and his simultaneous denunciations of traditional psychology have caused over-reaction for decades, by many psychologists who seem unable to envision a psychology which is both vitally concerned with human welfare (humanistic) and dedicated to objective truth. Debate has thus been established and perpetuated around an illusory dichotomy which, seems to have resisted attempts at clarification. Humanism refers to an attitude towards using our knowledge and skills in the service of humans. Behaviorism is a way of knowing and of gaining skills in dealing with man's behavior. Certainly, there is a relationship between knowledge and action. Perhaps no science is value free, before, during, or after its main task of finding knowledge, and no action is devoid of a knowledge base or the possibility of new learning. Our point is, that humanistic value concerns and a scientific search for truth are not exclusive responsibilities. Psychologists can, and must, carry on both endeavours. We find

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<sup>7</sup>G. E. Snelbecker, *Learning Theory, Instructional Theory, and Psychoeducational Design* (New York: McGraw Hill, 1974).

<sup>8</sup>A. Combs, "Educational Accountability From a Humanistic Perspective," *Educational Researcher*, 2 (1973), 19 - 21.

<sup>9</sup>W. C. Becker, S. Engelmann, and D. R. Thomas, *Teaching: A Course in Applied Psychology* (Chicago: Science Research Associates, 1971); J. P. DeCecco, *The Psychology of Learning and Instruction: Educational Psychology* (Englewood Cliffs, New Jersey: Prentice-Hall 1968).

<sup>10</sup>J. B. Watson, *Behaviorism* (New York: Norton, 1930).

the "humanist" who eschews methodological rigor no less dangerous than the scientist who ignores the implications of his discoveries for the service or slavery of mankind.

We also recognize that the question of "compromise" is largely an illusion. One need not sacrifice humanism to become more scientific. A behaviorist does not become less scientific if he recognizes the value choices which permeate and surround the application of his techniques and knowledge. There is nothing to prevent the most "mechanistic" psychology from serving humanistic ends in a humanistic fashion. Indeed, Becker, Engelmann and Thomas<sup>11</sup> describe a variety of humanistic ends which can be served by the application of behavioral technology. These include such things as making learning fun, developing self-confidence and self-esteem and eliminating fearful, dependent and withdrawn student behavior. And we may similarly deny that anyone who claims the title "humanistic" has licence thereby to neglect rigorous methodology.<sup>12</sup>

We favor a behavioral approach to the training of teachers and psychologists, not at the expense of humanistic concerns, but certainly at the expense of a methodological vacuum. Filling that vacuum is in our opinion, an important priority. Buhler<sup>13</sup> emphasizes that third-force psychology is concerned with the "person as a whole". The study of the person, she maintains, can be carried out statistically, biographically, or developmentally. She draws a distinction between "understanding" and "explaining." So do we. The approaches described by Buhler are primarily descriptive. They may or may not contribute to "understanding" but they certainly are not functional. That is, explanations of cause and effect relationships remain conjectural until functional, experimental, empirical results are obtained to confirm or refute them. The methodological vacuum remains.<sup>14</sup>

Those charged with teacher training should appreciate the urgency with which future teachers ask for an approach which they can use in the classroom. Behavioral approaches arise from a well established methodology and supportive research literature. The approach is operational.<sup>15</sup> The preoccupation with overt behaviors does not preclude an awareness of the value of internal or cognitive processes but simply reflects a desire to deal with that which works in the light of our present state of knowledge rather than rely upon a subjectively based and untested alternative which involves tinkering with unobservable internal variables whose status as intervening variables or hypothetical constructs<sup>16</sup> is unclear. This is an appropriate arena for research rather than premature application. We also wish to stress that we are not anti-cognitive but simply data and operationally oriented. A data based methodology is involved in much of the work done under

<sup>11</sup>Becker, Englemann and Thomas, Units 10, 14, 15.

<sup>12</sup>In the remainder of this discussion we will use the term "Third-Force" psychology rather than "Humanism" to refer to those psychological schools which have co-opted the term and to which we wish to react.

<sup>13</sup>C. Buhler, "Humanistic Psychology as an Educational Program," *American Psychologist*, 24 (1969), 736 - 386.

<sup>14</sup>Kahn suggests that the term "hominology" other than "psychology" be used for the loose, interdisciplinary collection of concerns and methods that presently characterize the study of the "person as a whole." See T. C. Kahn, "Hominology Instead of Humanistic Psychology," *American Psychologist*, 26 (1971), 1162.

<sup>15</sup>Becker, Engelmann and Thomas.

<sup>16</sup>K. MacCorquodale and P. E. Meehl, "On a Distinction Between Hypothetical Constructs and Intervening Variables," *Psychological Review*, 55 (1948), 95 - 107.

the rubric of "cognitive psychology". Behaviorists are often accused of playing God in the way they manipulate behaviors; however, the third-force psychologist can assume the same right when he starts dealing with the internal states of children. In effect he can make use of overt behavior but refuses to be constrained by a behavioral methodology. He often asks for a "carte blanche" restricted only by his subjective judgment.<sup>17</sup>

As Matson<sup>18</sup> has stated, Third-Force psychology needs to develop an appropriate methodology. It is difficult to find anything which might enable the presentation to students of a well developed alternative methodology appropriate for the teaching-learning situation.<sup>19</sup> Where are the Third-Force models? What we have at present are programmatic theories desperately in need of operationalization. Teachers need more than a philosophy or a slogan to enter a classroom. The "Humanistic" credo may produce short term affective congruence, but it leaves the future teacher ill-prepared for the tasks he faces in the classroom.

This criticism is not intended to deny the potential value of third-force approaches to education but to suggest that, at present, potential is largely what it is. Unfortunately, as Matson<sup>20</sup> has acknowledged, Third-Force psychology is in danger of becoming a rag bag for those psychologists who eschew any kind of methodological rigor. We suspect sometimes that the hostility expressed towards behavioral objectives is really a reluctance to accept accountability. In the absence of clearly stated objectives the teacher is responsible only to himself, since he is his own judge and jury.

As Rozeboom explains, there is nothing wrong with a psychologist speculating initially in a way that is not constrained by meta-theoretical norms, however, "this bacchanalia of metatheoretical permissiveness has a cold, grey morning after, and this arrives as soon as the scientist's creative inspiration passes over into some form of public document."<sup>21</sup> It is at this stage Rozeboom sees the need to refine the theory "to recognize what is tenable in it and what is gratuitous; to extract from it what, tenable or not, is conceptually solid and what is too vague or ambiguous to do more than emote."<sup>22</sup> Third-Force approaches to the psychology of learning and instruction do not appear to have reached this latter stage.

The uncritical and popular support for Third-Force approaches to instruction discussed in this paper are partly a function of ignorance. What is so lamentable is that some professors are as unfamiliar with the facts as their students. Surely one can expect that a university is a place where knowledge is disseminated rather than where myths, which happen to be part of the current zeitgeist, are allowed to go unchecked and even reinforced. If, as MacCorquodale<sup>23</sup> has commented, the opponents of a behavioral approach to the study of human behavior were to spend as much time developing an alternative methodology as they do on attacking

<sup>17</sup>S. Koch, "Psychology Cannot be a Coherent Science," *Psychology Today*, 3 (1969), 141.

<sup>18</sup>F. Matson, "Third Force Psychology: The Humanistic Frame," Address to Center for Advanced Study in Theoretical Psychology, October, 1972, University of Alberta, Edmonton, Alberta, Canada.

<sup>19</sup>Snelbecker, Chapter 17.

<sup>20</sup>Matson.

<sup>21</sup>W. W. Rozeboom, "The Art of Metascience, or, What Should a Psychological Theory Be?" in *Towards Unification in Psychology, The First Banff Conference on Theoretical Psychology*, ed. J. R. Royce (Toronto: University of Toronto Press, 1970, p. 74).

<sup>22</sup>*Ibid.*, p. 75.

<sup>23</sup>MacCorquodale.

behaviorism, there might be a real choice between two alternatives which were not mutually exclusive. At present the major choice is between a behavioral methodology with some theoretical ambiguities and inadequacies and a loose collection of philosophical notions known as Third-Force psychology.

Without denying the value of humanistic elements in a teaching-learning situation, we wish to direct attention to the fact that the core of this situation is still the presentation of the to-be-learned material, a student response, assessment of the adequacy of that response and then a consequence. We believe that potential teachers who are not trained to cope with these components are underprepared, even if they do have considerable interpersonal skills and are imbued with "humanistic" intentions.

#### RESUME

Cet article étudie plusieurs idées fausses concernant la question d'une méthodologie du béhaviorisme ou de l'anti-béhaviorisme pour la psychologie de l'instruction. Faute d'alternatives opérationnelles et viables, il est à recommander que l'on aborde le problème du côté du béhaviorisme.