

Theory and Technology in Behavior Analysis¹

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The differences within behaviorism in general and behavior analysis in particular have been described in many ways. Some of the more common distinctions are "basic versus applied", "clinical versus non-clinical", "behavior therapy versus behavior analysis", and "experimental analysis of behavior versus applied behavior analysis". These and other such distinctions do not seem to refer to truly important differences, or refer to important differences in confusing ways. It is suggested that there are two main dimensions which divide behaviorists into meaningful units: the *type of paradigm* (behavior analysis versus methodological behaviorism) and the *level of analysis* (technical, methodological, conceptual, or philosophical). By considering these two dimensions a number of issues in the field are recast. In particular, many of the differences within behavior analysis are recast into questions of the relationship between theory and technology.

It is common in general articles on behaviorism to recite a litany of the new behavioral journals, books, associations, contributions, and areas of concern; all of which testify to the growth and vigor of the field. Clearly, many of the areas encompassed by the word "behaviorism" are growing and growing quite rapidly. But growth itself seems to be putting a strain on the field and its cohesiveness. Many of the same articles which laud the advancement of behavioral activities are also quick to point out and emphasize trends *within* behaviorism that are important. The exact nature of these trends depend upon the author's bias and view of the nature of behaviorism. For example, cognitively oriented behaviorists will describe the ways in which behaviorists are becoming more and more cognitive (e.g., Mahoney, 1977); others will point out that behavior therapy means much more than operantly based procedures (e.g., Franks, 1969); others will emphasize the importance of the particular philosophy underlying their work (e.g., Skinner, 1974).

The formation of MABA itself reflects many of the same concerns over divisions within behaviorism. On the one hand, the establishment of a new behavioral organization and journal is certainly not met with universal enthusiasm by all behaviorists. It is easy to hear grumblings about the "isolation of behaviorists from the rest of psychology", or the "needless competition among behavioral organizations" that MABA is said to represent. And the prospect of a new journal is met in some corners by groans about "dilution of the behavioral literature", or the "publication explosion" and its accompanying temporal and financial costs. Yet on the other hand, MABA has emerged and survived its early years, and has done so with an enthusiasm and comradery which behavioral oldtimers will tell you, somewhat

wistfully, harkens back to the days when behavior analysis was a small but vigorous fraternity. Clearly, MABA is both criticized and supported in part because of the *kind* of behaviorism it represents; that is, because of its implicit view of the meaningful dimensions and divisions which both define and divide various forms of behaviorism.

In short, an understanding of the important divisions within behavioral psychology seems more and more important to the field. It is my aim in this paper to identify and make explicit some of the critical dimensions in behaviorism to which we would do well to respond; and, among other things, to relate these dimensions to an issue of particular importance to behavior analysis: the nature of the relationship between the experimental analysis of behavior and applied behavior analysis.

The Important Dimensions Within Behaviorism

A host of such dimensions have been suggested, of course: applied versus basic; clinical versus non-clinical; animal versus human; operant versus classical; single subject versus group methodologies; behavior therapy versus behavior analysis; the experimental analysis of behavior versus applied behavior analysis; and so on. Some of these dimensions do seem to be important; others are not particularly meaningful; and others refer to meaningful differences, but in a somewhat

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confusing manner. I will return to some of these proposed divisions later, but first it is necessary to develop a position on the general issue.

Elsewhere, David Barlow and I (Hayes & Barlow, in press) have described what we see to be the two fundamental dimensions within behaviorism. Taken together these dimensions seem to systematize the field rather well and cast a revealing light on several current issues in behaviorism.

The level of analysis

The first, and for our present purposes most important, dimension emerges from a consideration of the activities of scientists. A particular piece of scientific work typically involves certain general ways of making contact with the world, and of controlling and assessing that contact. That is, it involves a particular scientific *methodology*. Out of contact with the subject matter certain specific ways of doing things are developed. These ways of producing phenomena or changing states of affairs at times are not fully described verbally and simply emerge out of experience; or if they are, the descriptions are of specific behaviors and situations not general principles. In other words, certain *techniques* are developed. Ways of talking about the world also emerge which encompass general rules, principles, or "laws". These relate not so much to specific ways of doing things as to a general *theoretical* or *conceptual* system; a way of understanding and describing the subject matter of the science. Finally, the fundamental underlying scientific strategy involved and the implication of all of this for an overall view of the world can be developed; this activity is often reflective in nature and places the scientist in the picture; that is, *philosophical* perspectives emerge.

These various activities — technical, methodological, conceptual, and philosophical — can be arranged more or less hierarchically into a single dimension; what we have termed the "level of analysis" (Hayes & Barlow, in press). Techniques are on the lowest level of the dimension because the use of these "tools of the trade" does not necessarily involve the use of a particular methodology and often has some value without any reference to other levels of analysis. Similarly, the use of a particular methodology typically requires knowledge of certain techniques and may lead to the development of new ones, but does not necessarily require the adoption of a particular conceptual system. At the next level, acceptance of a

particular conceptual system seems usually to require knowledge and acceptance of the technical and methodological base for these concepts, but not necessarily the associated philosophical positions or world view.

You can get a sense of the validity of the typical hierarchical relationship between these levels by examining the activities of applied psychologists. Many clinicians consider themselves "behaviorists", for example, solely because they "use behavioral techniques". This may be the case even if the clinician uses many "non-behavioral" techniques as well. (There are full fledged psychoanalysts who use, say, systematic desensitization and, under some conditions refer to themselves as "behaviorists"). The person using behavioral techniques may eschew behavioral methodology; may not know the meaning of behavioral concepts such as "reinforcement"; and may reject completely the philosophical implications of a behavioral epistemology; yet in some limited sense, they may be meaningfully described as behaviorists.

To take another such example, a conceptually oriented applied behavior analyst who is well versed in such topics as stimulus generalization, behavioral contrast, or schedules of reinforcement is very likely to also know a good deal about single subject methodology; and if treating the deviant behavior of a child is likely to use operantly based techniques. But this individual may have never read much of Skinner's more philosophical writings (e.g., 1974), nor be particularly interested in the issues described there.

The hierarchical relationship between these levels of analysis should not be taken evaluatively — concepts are not implicitly better than techniques in an abstract sense — but simply descriptively. Similarly, the relationship between the levels is not unidirectional. For example, methodological elements certainly influence the development of particular conceptual systems, but the reverse is also true.

Type of paradigm

A second major dimension among behaviorists is the type of paradigm to which they subscribe. A "paradigm" here refers to a relatively well organized system of scientific levels of analysis (cf. Kuhn, 1962); that is, the meaningful grouping of various techniques, methodological stances, concepts, and underlying philosophical positions. A paradigm can usually be defined, at least in part, by

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only a single level of analysis, but at its fullest it involves all four levels.

There are many such behavioral paradigms; the number depends upon how fine a point you put on it. I find it most useful to view the field in terms of two rather broad paradigms, although it is sometimes necessary to distinguish within these and talk about three or even more paradigms. Most of the present analysis will rely upon the more general view produced by considering only two.

One behavioral paradigm is behavior analysis. Its general characteristics can be seen by examining the four levels of analysis of this paradigm, as is shown in Table 1. At the technical level this paradigm typically emphasizes relatively straightforward manipulations of antecedent and consequent events, such as, in the clinical setting, in token economies, time out procedures, and the like. Methodologically, it relies heavily on single subject designs, repeated measurement, direct observation, and graphical analysis. Its prominent concepts include reinforcement, punishment, generalization, and so on. Finally, its view of "cause" is selective, not linear. It has its philosophical roots in materialism and functionalism as represented especially by Skinner's radical behaviorism (e.g., Skinner, 1974); a view with close ties to analytic philosophy (Day, 1969).

Table 1
A few of the Characteristics of the Behavior Analytic Paradigm
in Each of the Four Levels of Analysis

Technical	token economies; shaping; fading; time out
Methodological	single subject designs; repeated measurement; direct observation; graphical analysis
Conceptual	reinforcement; punishment; the three-term contingency
Philosophical	radical behaviorism; functionalism; analytic philosophy; selective causation; anti-mentalism

Another behavioral paradigm is methodological behaviorism (see Table 2). While this term is somewhat unfortunate since it must be distinguished from behavioral methodology, the term has been widely used. The clinical techniques generated by this point of view include many of the traditional behavior therapy procedures. Methodologically, it emphasizes group designs, pre-post measurement, and inferential statistics. Its con-

cepts are frequently stated in terms of associative principles and emphasize the importance of operationally defined states of the organism, such as drives, anxiety, expectancy, attribution, and the like. Philosophically, this paradigm has close ties to operationism and logical positivism, and emphasizes a linear view of causality. While the paradigm need not be mentalistic, it often seems to be so. The reason seems to be due to the use of mediational states as descriptive, systematizing events, which are almost inevitably reified and mentalized into causal events.

Table 2
A Few of the Characteristics of
the Behavioral Paradigm in Each
of the Four Levels of Analysis

Technical	systematic desensitization; implosive therapy
Methodological	group designs; pre-post measurement; inferential statistics; comparative analyses
Conceptual	drive reduction; associative principles
Philosophical	operationism; logical positivism; linear causation; mediationalism

It is possible to distinguish between two major sub-types of this paradigm. The older forms of methodological behaviorism attempt to avoid the problem of mentalism through operationism (Hull's work is an example; this is primarily the type of methodological behaviorism Skinner (1974) has addressed); the newer variety called "cognitive-behaviorism", seems to continue some attachment to operationism, but without an attempt to avoid mentalism or reification. These two points of view could easily be termed two separate paradigms with their own techniques and concepts but for present purposes it is not necessary to do so.

A type of paradigm/levels of analysis matrix

By considering both of these dimensions it is possible to arrange a two by four matrix corresponding to the two paradigms and their four levels, as is shown in Figure 1. Whatever other conceptual values it may have, the matrix seems to order the activities of behaviorists and behavioral training programs rather well. For example, it is relatively easy to place the activities of leading behaviorists into the matrix. Readers familiar with the recent

work and point of view of Risley, Lazarus, Eysenck, and Skinner can assess this for themselves by placing their activities into the appropriate quadrant² in such a matrix (see Hayes & Barlow, in press).

It should be noted that the tendency to move along each dimension in the matrix differs from section to section. Horizontal movement is often difficult since this involves a paradigmatic conflict. As more levels of the paradigm are involved, the conflict becomes more and more obvious. At the technical levels it is not uncommon to see persons largely identified with one paradigm or another borrowing from each other's techniques. But it is quite rare to see philosophically oriented behaviorists of the two paradigms borrowing from each other's conceptual and philosophical systems.

Vertical movement tends, of course, to be unidirectional. By definition technically oriented activity is unlikely to show a great interest in higher levels of the paradigm. Conceptually oriented activity borrows readily from methodological and technical levels.

Finally, diagonal movement is both unidirectional and popular. This occurs when behaviorists attempt to explain the data generated by the methodological and technical activities of the competing paradigm with their own conceptual reinterpretation. By definition, a world view must encompass a great deal of data other than ones own. Skinner's (1974) reinterpretation of the data said to be supportive of "drives" is an example of this diagonal movement.

The Relationships Within Behavior Analysis

The overall perspective provided by this analysis can be applied to several of the proposed dimensions which divide the field. Some of the proposed divisions are immediately dismissable as distinctions without important conceptual implications. For example, the distinction between "clinicians and non-clinicians" refers primarily to an audience variable of no more conceptual importance than the variable one invokes when distinguishing between persons interested in, say, mental retardation and sexual dysfunction. These distinctions are practically useful, of course, but have little to say about meaningful divisions within behaviorism as a scientific point of view.

Other distinctions enter into the dimensions developed here as important. These include distinctions based on paradigmatic differences, such as single subject versus group methodologies, or operant versus non-operant. A particularly interesting variety of this type of distinction is the one between behavior therapy and behavior analysis. Due to historical factors (e.g., see Krasner, 1972), most persons terming themselves "behavior therapists" are primarily identified with the methodological behavioral paradigm. In recent years this seems to be changing, in part because of

²For most general purposes it is useful to consider technological/methodological levels as a unit and conceptual/philosophical levels as a second unit, thus forming a 2x2 matrix (see Hayes & Barlow, in press).

Type of Paradigm

	Behavior Analysis	Methodological Behaviorism
Technological		
Methodological		
Conceptual		
Philosophical		

Figure 1. A representation of the types of behavioral activities as defined by the type of paradigm and level of analysis.

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the introduction of behavior analytic methodology into traditional behavior therapy (e.g., see Hersen & Barlow, 1976), and the subsequent willingness of behavior analysts to describe themselves as "behavior therapists". Consequently, the behavior therapy/behavior analysis distinction seems to be changing from a paradigmatic distinction to one of scope and audience, with "behavior therapy" encompassing both parts of clinically oriented behavior analysis, as well as traditional forms of applied behaviorism.

Applied versus basic

Within behavior analysis itself there is a potentially important, if poorly stated, distinction between the "applied" and "basic" areas; or between the experimental analysis of behavior and applied behavior analysis. This division deserves further analysis.

At one time there was little emphasis on such a distinction. Division 25 of the American Psychological Association is the Division of the Experimental Analysis of Behavior but includes applied behavior analysis without distinction between the two; the Society for the Experimental Analysis of Behavior, publishers of the *Journal of the Experimental Analysis of Behavior (JEAB)* and the *Journal of Applied Behavior Analysis (JABA)* likewise includes both applied behavior analysts and experimental analysts without distinction. *JEAB* published many applied articles before the introduction of *JABA*, showing that the distinction between applied and basic forms of behavior analysis was not a part of *JEAB*'s editorial policy at the time.

Today, there are still many who insist that there are no critical differences between the two areas (e.g., Baer, 1976), or who argue that whatever the differences, they still have much to gain from each other (Michael, Note 1; Catania, Note 2; Note 3). But today it is also easy to hear calls for a clear divorce between the applied and basic realms. These calls are made both by applied behavior analysts (e.g., Bailey, Note 4) and by experimental analysts (e.g., Brownstein, Note 5).

It is probably a mistake to expect an easy or natural relationship to emerge between the two groups, without a more careful analysis of their similarities and differences. Clearly, most behavior analysts *do* reliably describe themselves (and other behavior analysts) as either "applied behavior analysts" or "experimental analysts". Many behavior analysts of both varieties seem to feel that

this distinction is both readily made and important. The question arises: how is the discrimination made, and is it a meaningful one?

These distinctions seem to be made on the basis of both conceptually important and conceptually irrelevant dimensions.

Setting. One possible distinction can be made between persons working in "applied settings" and those who are not. It is useful to note that this is one of the first senses in which behavior analysis was termed "applied". The earliest instance of "applied" behavior analysis was conducted by Lindsley and Skinner at the Metropolitan Hospital in Boston. It consisted, at least at first, simply of schedule work on the reinforcement of arbitrary responses in psychotic populations at Metropolitan, and was "applied" in terms of setting.

Population. A second distinction can be made between work with *populations* who are having problems or are in need of help and those that are not. In this sense, once again, the Lindsley and Skinner work was "applied" because work was done on an "applied population".

Behaviors. A third kind of distinction can be drawn between work with *behaviors* of applied importance compared to those which, at least topographically, seem to have little applied importance. Thus, work on drug abuse or assertive behaviors might be said to be "applied" whereas work on lever pulling may not.

Each of these three distinctions are descriptive or structural in nature. One could easily devise a check list and on the basis of these three characteristics decide if a study is "applied". In this sense, however, the applied/basic division is totally meaningless in terms of conceptually critical distinctions in the field. More important to many applied behavior analysts, it may be meaningless functionally.

Impact. The main reason one might be interested in the setting, population, and behaviors investigated in a study is presumably because the findings of that sort of study are more likely to generalize to similar settings, populations, and behaviors; that is, because of its *applied impact*. "Applied impact" may be defined by the effect a study has on increasing the applied worker's ability to predict, control, and understand the behaviors seen in the target population found in the particular setting. It is by no means clear that this function is necessarily enhanced by relying upon the structural definition of applied behavior analysis.

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Birnbrauer (Note 6) has argued that an insistence upon the structural trappings of applied work seems fundamentally at odds with the stated functionalism of behavior analysis; and may be decreasing, not increasing, the actual applied impact of applied behavior analytic research. If, for example, one is interested in the control of academic behaviors in a classroom, it may not be enough simply to do the research in a classroom to insure applied impact. Classrooms are by their nature often relatively uncontrolled environments, and may differ in important ways from school to school. What is important is not the *appearance* of similarity between the research setting and the setting in which these results are put to use, but the *functional* similarity between the two. Birnbrauer sums his point up this way: "we have reached the point where studies in highly controlled conditions are needed, both because of the nature of the questions and because of ethical and economic constraints on using and wasting subjects and staff". (Note 6).

Bear, Wolf, and Risley (1968), in their seminal *JABA* article on the nature of applied behavior analysis, emphasized structural criteria for applied work. But they also explicitly recognized the potential usefulness of "analogue" studies; that is, studies which are functionally but not structurally "applied". Over the years, however, very few analogue studies have appeared in *JABA*, and there has been increasing resistance to these studies on the part of some well known behavior analysts. Bailey (Note 4), for example, has stated rather forcefully that *JABA* should not publish studies which are not structurally "applied".

While the functional definition of "applied" is practically useful, both the structural and functional definitions have few implications regarding conceptually important differences in the field. There is one special sense of the word "applied" which does engage conceptually, important differences, however.

One way to divide the work of scientists is to do so on the basis of the reinforcers which maintain their activity. Some scientific work is done in order to control a particular behavior in a particular setting and population. The interest here is not with the development of general principles, but with the "how to" of the situation. Other scientific work is much more general, in which the particulars of setting, behavior, and population take a back seat to the overriding interest in understanding behavior in a general sense.

It should be clear that this refers, once again, to the conceptual/technical division previously de-

veloped. But this division overlaps, to a degree, with the applied/basic distinction. Applied workers are often truly interested in the control of a particular behavior, in a particular setting and population; without a strong concern for developing or expanding basic principles of behavior. The interest in general principles, if it is present, is often literally in the application or consumption of this basic knowledge. In other words, a good deal of applied work is technological in nature. The reasons for this are clear: there are very strong and immediate reinforcers for technical activities in most applied settings; such as client satisfaction and fees, agency support through promotions and salary increases, social approval, alleviation of client suffering, and the like. In the settings in which most "basic" behavior analysts work, these reinforcers either do not exist or are not as salient.

This is not to say that technological work is not done by basic behavior analysts, nor that theoretical or conceptually important work is not done by applied behavior analysts. Experimental analysts do technological work when, for example, they develop new instrumentation, or when they develop a convenient way to, say, shape up key pecking in a bird. Applied behavior analysts ask relatively general questions when they investigate, say, the nature of imitation. Nevertheless, technological work is more prevalent in applied settings and for sensible reasons. Therefore, the "applied-basic" continuum partially engages the conceptual-technological continuum.

Stated in this way, the question of the relationship between the experimental analysis of behavior and applied behavior analysis can be seen either in terms of setting, behavior, population, or audience impact — all of which, while practically meaningful, say little about critical differences in the behavior of scientists — or the question can be seen as being *part of* the question of the relationship between conceptual and technical realms of scientific activity. It is part of this relationship only in a special sense of the word "applied", however.

The relationship between theory and technology

The question of "applied versus basic" may therefore be less important than the issue of the relationship between theory and technology in behavior analysis. There are several ways in which these two types of scientific activities can relate.

Technological advances can lead to basic advances. There are many instances in the history of

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science in which a technical development set the stage for revolutionary advances in our view of the world. When the telescope was turned earthward, for example, and microscopic examinations of our environment became possible, a whole new way of thinking about the world emerged. Even in the short history of behavior analysis there are several clear examples of technical contributions to the advancement of our general understanding of human behavior. Skinner himself (1972) numbers the somewhat serendipitous development of the cumulative recorder as one of the important events in the history of behavior analysis. This device, like a microscope, enabled one to see order where there had been chaos, and to evolve whole new ways of talking about behavior.

A more recent example is autoshaping.³ As the name itself implies, Brown and Jenkins (1968) originally thought of this procedure as a convenient way to shape up pecking in pigeons, without the necessity of the careful consequence of units of the final response. To their credit, they quickly realized that this technical convenience had profound theoretical implications for operant psychology. The subsequent work in this area seems to be leading either to a fuller appreciation of the impact of evolutionary contingencies on behavior, or alternatively to the reemergence of classical conditioning as a respectable single factor explanation of behavior (Brownstein, Note 7). In either case, advances in our understanding of behavior seem likely.

Efforts to advance technology can raise basic questions. One of the important ways in which technical work, particularly in applied settings, contributes to advances in our conceptual view of the world is that it frequently forces us to face important basic questions. A very recent example can be had in the autism literature. Very few successful techniques have been developed to reduce self-stimulation in these children (Rincover, Peoples, & Packard, in press). This lack of technical success has led to an interest in the basic processes which could be maintaining this bizarre and problematic behavior. Recent work indicates that this behavior may be due to sensory reinforcement (Rincover, in press). The concept of sensory reinforcement, that is, the role of simple sensory consequences in generating and maintaining behavior, is an old one (see Kish, 1966 for a review) but it has not been well assimilated into our thinking about such things as the nature of reinforcement (cf. Herrnstein, 1977). The need for applied technology may well

force the emergence of this concept into the forefront of behavioral theory.

Conceptual development can lead to the development of technology. A long run effect of advances in our understanding of the world is an increase in our technical skill with regard to specific problem areas. Oftentimes theoretically important work is justified on the basis of this long term effect, as when basic scientists defend the need for support of their research by pointing out that there will be important technical spin-offs from it.

There may be a danger here, however. Brownstein (Note 5) has argued persuasively that, although technical developments may indeed flow out of conceptual advances, they are not consequences which actually maintain the behavior of scientists interested in these advances. He argues that the reinforcer controlling most conceptually oriented scientific activity is simply the entertainment value of these activities. Put another way, humans have the capacity to be reinforced by advances in understanding, much the same way we have the capacity to be reinforced by a movie or by a sporting event. The fact that this leads to technical advances may be important evolutionarily in producing the kind of organism that has such a capacity, but it is not in itself the reinforcer for it.

A metaphor may clarify the point. Sexual activity seems to be reinforced primarily by its immediate sensory consequences. In the long run it may also lead to the production of children. The production of children has evolutionary importance in producing organisms which find sexual activity inherently reinforcing, but it is *not* the reinforcer for most sexual activity.

There is a potential risk in viewing technology as the justification for (reinforcer of) conceptual activity, since it is possible to generate technology without concerning oneself with important conceptual issues. To continue with the metaphor, if children are the *justification* of sexual behavior then the production of test tube babies may threaten the need for sex. Similarly, if the development of technology (in any immediate sense) justifies the social support of conceptually oriented science, then a discovery that technical advances can occur without doing basic science might jeopardize this support.

Brownstein's analysis seems once again to support the separation of conceptual and technical activity. They are related; but they are different. It is

³I am indebted to Aaron Brownstein for providing this example.

one thing to say that technical advances often flow from conceptual development. It is quite another to say that technical development can only come from conceptual development, or that the production of technology is the reason (in an immediate sense) for theoretical activity. Theoretical activity stands on its own, and does not need justification of that sort.

Scientific concepts can provide a useful framework for ordering and developing technology. Technology can be, and often is, developed without any particular theoretical base. Applied behavior analysts sometimes seem to generate their interventions more out of trial and error or common sense than out of behavior theory.

It may be however, that technological development is enhanced by adopting and applying a particular conceptual point of view. Many theoretically oriented behaviorists have argued that applied behavior analysis has actually applied only a small part of the knowledge produced by the experimental analysis of behavior and would advance more rapidly if that were not the case (e.g., Skinner, as quoted by Goldiamond, Note 8). A glance at the pages of *JABA* and *JEAB* seems to confirm the notion that only a small part of behavior analysis has been applied. *JABA* has selectively emphasized both particular types of methodologies (e.g., withdrawal designs) and principles (e.g., reinforcer control), while downplaying other methodologies (e.g., concurrent designs; multi-element designs) and principles (e.g., stimulus control). Much of the work in *JEAB* has not yet been used as a framework for applied technical efforts (Goldiamond, Note 8).

One possible explanation is that *JEAB* work is not relevant to technical development in applied behavior analysis. A more likely possibility is that most applied behavior analysts are relatively unfamiliar with the last ten years of conceptual development in experimental analysis.

Unlike the founders of the field, most new applied behavior analysts in the last several years were never experimental analysts. Accordingly, the type of behaviorism they expound is frequently somewhat out of contact with the current state of behavior theory.

The Role of MABA

It is very interesting to note MABA's stance regarding the issues and trends developed in this paper. One gets an impression of excitement at a MABA convention that can be quite exhilarating; the feeling that "we are doing something new and important here." This seems due to at least two factors:

(a) *MABA encompasses all levels of analysis in the behavior analytic paradigm.* Behavioral organizations and journals in recent years have perhaps overemphasized technical development. MABA also is interested in this, but against a background of theoretical and (especially) philosophical development. The interest of many MABA-ites in radical behaviorism, for example, is a phenomena without parallel in other behavioral organizations. The effect of the infusion of philosophical interests into MABA is hard to overestimate. These interests make possible the unification of diverse audiences under the fully deployed umbrella of "behavior analysis".

By including all levels of analysis, MABA avoids the temptation to exclude areas on the basis of audience. It is a natural relationship, since at the conceptual and philosophical levels audience variables are irrelevant.

(b) *MABA is dedicated to a particular scientific paradigm.* A review of the history of psychology seems to support the notion that advances in the field are made by persons or groups developing a unified point of view. Inevitably these points of view are synthesized into a greater whole, but over the short term at least, it seems desirable to push individual paradigms to their limits. MABA is taking such a course. While some may criticize this as "narrow", it seems to produce a type of *spirit de corps* that cannot be matched by eclecticism.

There are conflicting trends in behavior analysis. The halt in the growth of Division 25; the technical drift of *JABA*; the assimilation of basic behavior analysis into general experimental psychology; the theoretical emaciation of much applied work; the in-fighting between applied and experimental forms of behavior analysis — all of these developments would seem to argue against a more unified field. But there are other, even more recent trends: the establishment of *Behaviorism*; the appearance of purely conceptual articles in *JABA*; and more than anything else, the formation of MABA itself. All of these developments support the notion that a unified field of behavior analysis is possible. As stated earlier, MABA may be successful in part because of the kind of behaviorism it represents. The new factor in the equation is an appreciation of all levels of analysis in behavior analysis. While methodology and techniques form the walls and ceilings of our field, they cannot long stand together without a firm foundation of conceptual and philosophical interest. Perhaps that is the lesson the success of MABA has to teach us.

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