

MYTHS THAT (MIS)GUIDE OUR PROFESSION

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The ultimate lesson of science is humility.

For me, the initial appeal of applied behavior analysis was not the discriminative stimuli, S deltas, or the reinforcers. Rather, the appeal was the notion that human behavior could and should be studied through the use of scientific methods. This approach was in opposition to the subjective and arrogant approaches of schools ranging from psychoanalysis and EST in clinical psychology to "whole-child," and "open-education" philosophies that dominated and failed education. Applied behavior analysis was a humble approach to solving human problems. It asserted that even the most simple claim must be backed with scientific evidence.

Undoubtedly, applied behavior analysis introduced and refined many scientific practices for the study of human behavior. The use of direct and continuous measurement, the application of intrasubject replication designs, and the emphasis on parsimonious explanations created a unique niche for applied behavior analysis.

The fact that the approach was scientific in some respects, however, did not mean that it was scientific in all respects. Thus, early studies required measures of interobserver reliability on the subjects'

behavior, but did not require such measures on the program *implementer's* behavior. Therefore, a study may have centered on the notion that a teacher's contingent social attention increased students' on-task behavior. Yet, measures were not taken to determine whether, in fact, the teachers did perform the stated operations. In this case, the field adjusted its standards, and now many journal editors require measures of treatment integrity.

Other violations of scientific principles also were evident. An applied behavior analyst might speculate that an outcome would occur simply because the events that preceded it would seem to predict such an outcome. Axelrod (1983, p. 64) stated, for example, that an advantage of peer tutoring programs was that they freed the teacher to work with students in need of assistance. Whether, in fact, this outcome occurs is yet to be shown.

The violations of scientific methodology described above may not produce a great deal of harm to the field; other violations may. Presently, a serious disagreement exists within the behavioral community about which procedures are ethical and effective and which are not.

and Kelley (1986) found, for example, that parents considered a punishment procedure, response cost, more acceptable than positive reinforcement in treating noncompliance.

MYTH TWO - POSITIVE REINFORCEMENT HAS SUPERIOR MODIFICATION CHARACTERISTICS TO PUNISHMENT

There are at least two major issues raised by the present claim. The first is that punishment procedures fail to generalize across settings and time (i.e., they lack the properties of stimulus generalization and maintenance). The claim is that the effect of punishment is experienced only in the original setting and that, once the punishment procedure is removed, the progress disappears. The second criticism is that punishment produces adverse side effects while positive reinforcement does not.

An examination of the behavioral literature does indeed reveal the failure of some punishment procedures to generalize across time. That is, in many cases, when punishment procedures are terminated, progress declines. The same, however, is true for positive reinforcement, traffic lights, and many forms of medication. The remarkable buoyancy of behavior is what permits the reversal and multielement research (Ulman & Sulzer-Azaroff, 1975) designs to be useful. If behaviors were not so responsive to impending consequences, the designs could not be used.

A similar point can be made about stimulus generalization. A punishment procedure applied at home tends not to produce improvement in a school environment in which the procedure is not being applied. The same, however, can be said for positive reinforcement procedures, which also lack magic qualities. Again, we must remember that humans show a singular tendency to respond to imminent contingencies.

The failure of behavioral procedures to produce generalization is not all bad. Sometimes stimulus discrimination is exactly what we want. We want children to behave in a docile manner during religious services and in a more enthusiastic manner on the school playground. In other cases, the failure to achieve generalization is a problem. Our field has recognized this difficulty and efforts have been made to address it (e.g., Stokes & Baer, 1977). The point is not that generalization is never a problem, but that it is a problem for all behavioral procedures, whether they are based on punishment or reinforcement.

The second issue is whether punishment results in undesirable side effects. Undoubtedly, there are many documented examples of such side effects. Azrin and Holz (1966) and Newsom, Favell, and Rincover (1983) point to examples of aggression toward both the persons implementing and not implementing punishment, temper tantrums, crying, and social avoidance of the person implementing punishment. To present a balanced picture of the issue, Newsom et al. (1983, pp. 301-305) also point out that such side effects seldom occur, and that a number of desirable side effects have been noted in using punishment. These include improved social relations (once certain antisocial behaviors disappear), increased attention to task, and increased play behavior. Also, a recent article by Matson and Taras (1989) reviewed 23 relevant journals over the period of 1967 to 1987. The authors found that when aversive procedures were used, positive side effects were reported 11 times more frequently than negative side effects.

We also should note that positive reinforcement procedures are sometimes associated with undesirable side effects. Balsam and Bondy (1983), for example, point to inattention, clinging, excessive dependence, lying, stealing, cheating, conniving, and aggression as problems that sometimes accompany positive rein-

forcement procedures. As a personal note, I recently attempted to use a consumable reinforcer with a student with a severe handicap. He became so distracted and enraged at the requirement that he work for the reinforcer that the procedure had to be discontinued.

The point here is not to make a case for punishment and against positive reinforcement. Indeed research may prove positive reinforcement superior to punishment. Rather, the point is that neither procedure is all good nor all bad. Also, punishment may be a necessary component for remediation in many cases, and if adverse side effects of punishment do occur, they may be effectively treated.

MYTH THREE - THERE IS NO EVIDENCE THAT PUNISHMENT PROCEDURES WORK BETTER THAN POSITIVE REINFORCEMENT PROCEDURES

Actually, this is true. A variety of experimental problems make examining this question, as well as other questions comparing different procedures, difficult. Problems include identification of the optimal level of each treatment, the user preference for treatment, the population chosen to serve as subjects, and the behavior selected as the dependent variable (Johnston, 1988; Van Houten, 1983).

The real problem with the claim that punishment does not work better than positive reinforcement, however, is that the wrong question is being raised. Behaviorists are not recommending that punishment procedures *alone* be used; rather, that when punishment procedures *are* used, they be used *in conjunction* with positive reinforcement procedures. This point was made in the review by Matson and Taras (1989) which revealed that practically all studies using aversive procedures also had a component that reinforced appropriate behavior. The question then becomes: Is a combination

of positive reinforcement and punishment more effective than positive reinforcement alone?

Here the answer is clear. The combination of reinforcement and punishment is superior to reinforcement alone. This effect was demonstrated early in the basic literature by Azrin and Holz (1966). It also has been demonstrated in more contemporary applied literature by Pfifner and O'Leary (1987) who found that a reinforcement system, offering such incentives as praise, public posting, extra recess, and special activities, was initially ineffective in controlling the disruptive behavior of eight children in a remedial summer school program. Later, when reprimands for inappropriate behavior were combined with positive reinforcers, student behavior came under control. These authors also demonstrated that they could fade the reprimands without losing behavioral gains.

Other researchers also have shown that adding a positive reinforcement component to a punishment procedure will enhance the program's effectiveness. Solnick, Rincover, and Peterson (1977) demonstrated, for example, that the more reinforcing the time-in environment was, the more effective the time-out procedure would be. Also, Zegiob, Jenkins, Becker, and Bristow (1976) found that facial screening resulted in a partial suppression of ritualistic hand clapping in a boy with schizophrenia. Later, when the boy was reinforced for appropriate verbal behavior, hand clapping almost disappeared and appropriate verbal behavior increased. Thus, an ideal program for eliminating behaviors of some urgency might be to use a combination of reinforcement and punishment, with the gradual removal of the punishment and even the reinforcement component. Meanwhile, it is difficult to see why a program involving two powerful procedures--positive reinforcement and punishment--would not be more effective than a program with only one of the components (Axelrod, 1987).

MYTH FOUR ONLY BE USED ONE IS OBLIGED REINFORCEMENT BEFORE ATTEMPTING PUNISHMENT PROCEDURE

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MYTH FOUR - PUNISHMENT SHOULD ONLY BE USED AS A LAST RESORT-OR-ONE IS OBLIGATED TO USE POSITIVE REINFORCEMENT PROCEDURES BEFORE ATTEMPTING PUNISHMENT PROCEDURES

Sometimes punishment should be used from the outset; at other times, it should not be used at all. The crucial issue here is: How urgent and important is it that a particular behavior cease? In the case of talking out in class, one could argue that punishment should be used as a program component only after curricular modifications and positive reinforcement components have been exhausted. In the case of walking a crooked line from the classroom to the school yard, one could argue that punishment should never be used (perhaps the teacher could change the requirements.) In the case of attempting to stab a homebound teacher with a knife (a case with which I am personally familiar), one can only ethically demand that the problem be eliminated immediately. Failing to use a combination of reinforcement and punishment in such a case is an unconscionable injustice to both the teacher and the student.

Implicit in the present myth is that there is no harm in failing for a while. In fact, there is harm in failing. In one case, I was asked to recommend a procedure to deal with a young man who frequently pushed out his rectum through internal muscular control. My recommendation was to use contingent electric shock (a procedure I had never recommended before, nor have I since). While permission was pending to implement my recommendation, less intrusive, ineffective procedures were used with this client. He killed himself prior to an opportunity to receive electric shock. Sometimes there is great harm in failing.

A variety of problems can occur when ineffective procedures are implemented. For example, the efforts of parents or staff may extinguish following several, or even one or two, failures. Individuals whose in-

appropriate behaviors continue may be responsible for long-term or permanent injury to themselves or others. The individuals may also lose important social, educational, and vocational opportunities, as well as becoming exposed to chemical restraints or institutionalization.

If practitioners are not given ethical and effective techniques, they may find other ways of dealing with the problems they encounter. Rusch, Hall, and Griffin (1986) found, for example, that the exhibition of aggressive and self-injurious behaviors significantly differentiated abused from non-abused people with mental retardation. Other research has shown that the above behaviors were the major factors associated with admission and readmission of individuals with mental retardation into large public institutions (Hill & Bruininks, 1984; Lakin, Hill, Hauber, Bruininks, & Heal, 1983).

MYTH FIVE - HUMAN RIGHTS COMMITTEES ARE THE BEST SAFEGUARDS FOR PROTECTING CLIENTS' RIGHTS

In order to deal with seriously disruptive and dangerous behaviors, a variety of restrictive procedures has been applied in a diversity of situations. The restrictive procedures have included 24-hour monitoring, reduced access to reinforcers, and applications of punishment procedures. Questions that immediately arise are: a) How far can we go in order to modify human behavior?, and b) What are some basic human rights of which people should not be deprived?

The two major mechanisms for ensuring program integrity and client protection are the Peer Review Committee (PRC) and the Human Rights Committee (HRC). PRCs consist of experts in applied behavior analysis who make certain that programs are carried out in conformity with behavioral principles and research. *PRCs determine the clinical appropriateness of programs.*

HRCs consist of interested citizens from a wide variety of backgrounds. Thus, the HRC might consist of a construction worker, a parent of a child with autism, a homemaker, a corporate attorney, a clerk, a person with a disability, a nurse, and a retired senior citizen. The role of the HRC is to determine whether proposed programs meet community standards of treatment acceptability and whether clients are receiving the basic human rights of privacy, medical care, education, social interaction, and physical exercise (Van Houten, Axelrod, Bailey, Favell, Foxx, Iwata, & Lovaas, 1988). The italicized words above hint at the major point of this section. *When HRCs engage in clinical review of behavioral programs, they are violating their mandate.*

A recent study by Spreat and Lanzi (in press) comprehensively examined the role HRCs play in the review of restrictive procedures. Their survey indicated that the majority of HRCs dealt with questions of safety, informed consent, public offensiveness, and *clinical appropriateness*. They further reported that conflict between a facility and its HRC was common in the area of clinical appropriateness. Such conflict frequently resulted in delayed implementation of programs. The Spreat and Lanzi survey also revealed that only about 33% of HRC members had been trained in applied behavior analysis principles. Thus, it was common for HRCs to make clinical judgments while lacking the skills to do so.

In what way can a well-intentioned but unskilled HRC do harm to a person's program? One common manner is to require that a less intense punisher initially be used and that the intensity of punishment be gradually increased if the less intense level proves ineffective. This is in direct opposition to research indicating that punishment be delivered at full intensity, rather than gradually (Azrin, Holz, & Hake, 1963; Masserman, 1946). The effect of the gradual introduction of a punisher is to require a more intense

punisher than would be necessary had the punisher been delivered at a reasonable intensity from the start (Van Houten, 1983). This practice is comparable to requiring physicians to use low dosages of medication when there is evidence that higher dosages are required to effectively treat a medical disorder.

Another common practice for HRCs is to require that a person be released from time-out as soon as she or he becomes calm. Teachers applying the procedure in this manner may find that it helps them to escape the immediate problem, but that it does not produce a future decrease in the disruptive behavior. Due to the immediate negative reinforcement effect of the procedure for the teacher (i.e., it removes the unruly person), time-out may be applied indefinitely although it produces no decrease in the overall rate of the behavior. Proceeding in this manner, a student would be in a more restrictive situation than would be the case had time-out had been applied for a long enough period to eliminate the problem behavior. The benevolent motives of the HRC are hindering, rather than helping, the student. To paraphrase an old expression used by Samuel Johnson, "The path to restrictiveness is paved with good intentions."

Central to the guidelines under which most facilities operate is the theme that the least restrictive alternative should be the method of choice (Spreat & Lipinski, 1986). Van Houten et al. (1988), however, have amended this concept to include the least restrictive *effective* alternative. This modification prevents clients from being repeatedly exposed to ineffective procedures. Ineffective treatment itself is restrictive when it allows an individual to inflict personal injury, or when it interferes with social, vocational, or educational opportunities. Thus, HRCs provide a crucial service to the field when they stay within their bounds. When they exceed their bounds, they become part of the problem, rather than part of the solution.

MYTH SIX - HIERARCHY OF RESTRICTIVE PROCEDURES ALTERS THE BEHAVIOR OF PEOPLE FROM THE LEAST RESTRICTIVE TO THE MOST RESTRICTIVE

In a prevailing view, from receiving restrictive treatment, most people will use a hierarchical approach, moving from one end of the list to the other, considering nonrestrictive to restrictive. At the least restrictive end, procedures that are least restrictive. In a restrictive procedure (in press) found that to be among the most restrictive; exclusion procedures were in the middle; time-out, electric shock were at the most restrictive end.

One may wonder, what are such ratings? Do they seem appropriate? Do the effects of each procedure, the danger of the procedure, individual and the amount of time removed from the program, these factors seem to be a hierarchy of restrictiveness?

In examining the effectiveness of extinction (least restrictive), overcorrection (middle), and electric shock (most restrictive), people generally find that using extinction first can be dangerous to the correction procedure (e.g., Azrin & Lanza, 1973; Lanza, Bruwier, & Lanza, 1973). They found the client's behavior that the procedure continued or greatly increased. On the other hand, there is little side effects of overcorrection (Lovaas, 1983, p. 100).

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MYTH SIX - HIERARCHIES OF TREATMENT ALTERNATIVES PROTECT PEOPLE FROM UNNECESSARILY RESTRICTIVE PROCEDURES

In a prevailing effort to prevent people from receiving unnecessarily restrictive treatment, many facilities devise and use a hierarchical list of procedures. At one end of the list are procedures that are considered nonrestrictive or minimally restrictive. At the other end of the list are procedures that are considered maximally restrictive. In a survey of facilities using restrictive procedures, Spreat and Lanzi (in press) found reprimands and extinction to be among the least restrictive procedures; exclusion time-out and overcorrection were in the middle; and seclusion time-out, electric shock, and water mist were at the most restrictive end.

One may wonder, what is the basis for such ratings? Some bases that would seem appropriate would include the side effects of each procedure, the physical danger of the procedures to the offending individual and the program implementer, and the amount of time that the person is removed from ongoing programs. None of these factors seems to prevail in constructing a hierarchy of treatment procedures.

In examining the perceived restrictiveness of extinction (among the least restrictive), overcorrection (in the middle), and electric shock (the most restrictive), people generally ignore side effects. In using extinction, the problem of extinction burst can make the procedure too dangerous to employ. In applying overcorrection procedures, many researchers (e.g., Azrin & Wesolowski, 1975; Lambert, Bruwier, & Cobben, 1975) have found the client's reaction to be so severe that the procedures had to be discontinued or greatly modified. On the other hand, there is little evidence of harmful side effects of electric shock (Carr & Lovaas, 1983, p. 235).

Similarly, when one examines physical danger to the offender and implementer,

as well as time away from the program, procedures such as exclusion time-out and overcorrection should come out worse than electric shock and water mist. The hierarchy that prevails in most settings, however, is reversed.

What appears to be most influential in constructing treatment hierarchies is *public offensiveness*. This is an important consideration in any program. Ignoring public sentiment would be harmful to the field and to the individuals whom it serves. How, then, should professionals proceed when public sentiment is in opposition to the optimal treatment protocol? Yielding to or compromising with public opinion could be harmful to the individuals whom behaviorists are serving. The best strategy then would be to *educate* the public as to the rationale for applying a certain procedure. In this regard, behaviorists would be no different from physicians who once had to convince the public that dissecting cadavers was not a medical perversion, but a necessary practice for research and educational purposes.

MYTH SEVEN - THE ASSOCIATION FOR BEHAVIOR ANALYSIS IS PROPUNISHMENT

The debate over whether the use of aversive procedures in selected situations is ethical and necessary is similar to the debate over the ethics of medically performed abortions. The emotion on either side of each argument has one obvious similarity. Another similarity is the use of labels in the debates. The abortion question takes on one meaning when one side calls itself "prolife." The implication is that the other side is "antilife" or "prodeath." It takes on still another meaning if one side calls itself "prochoice," the implication being that the other side is "antichoice."

In the debate over the use of aversive procedures, one side can call itself "antipunishment," implying that its op-

ponents are "propunishment." On the other hand, professionals who see the need to use all available treatment options can call itself "protreatment," implying that the other side is "antitreatment."

The use of labels in this manner may be functional in winning a refereed debate or a political campaign, but it does not resolve the question of whether the use of aversive procedures is necessary. The fact does remain, however, that there is widespread disagreement among professional organizations on this key question.

In 1982, the executive committee of The Association for Persons with Severe Handicaps (TASH) passed a resolution that implicitly rejected the use of many forms of punishment with persons with severe handicaps. Later, a book written by LaVigna & Donnellan, (1986) went further in explicitly rejecting all forms of punishment, as well as extinction.

Some professional organizations took a different position on the question of appropriate treatment. The Executive Committee of the Association for Behavior Analysis (ABA) appointed a task force to specify the treatment rights that each individual should be granted. The report of the task force (which was later endorsed by its members and became official ABA policy) specified a number of individual rights. These include the rights to a therapeutic environment, services with a goal of personal welfare, a competent behavior analyst, a program that teaches functional skills, ongoing evaluation of programs, and effective treatment (Van Houten et al., 1988).

In describing the right to effective treatment, the ABA task force specified that exposing individuals to restrictive procedures should be prohibited unless such procedures were necessary to produce safe and socially significant behavior change. The report also stated that individuals should not be unnecessarily exposed to non-restrictive but ineffective procedures.

Such a position can hardly be regarded as "propunishment." Rather, it is a

protreatment position in its most comprehensive and ethical sense. It prohibits the use of restrictive procedures when unnecessary. It prohibits the excessive application of nonaversive but ineffective procedures. Yet, it also recognizes the importance of behavior change in people's lives and extends treatment options to include the use of restrictive procedures when necessary and when in the person's best interests.

In a related manner, the position of B. F. Skinner, the modern founder of behaviorism, has been brought into the debate. Although the opinion of any one individual should not be decisive on any question, it is difficult to ignore the position of a person with Skinner's prestige. At one point, the Community Services for Autistic Adults and Children was circulating a videotaped interview of Skinner that gave the impression that he was opposed to the use of punishment procedures. Skinner complained that the editing of the tape distorted his views, and he clarified his views with the following statement: "Some autistic children, for example, will seriously injure themselves unless drugged or restrained, and other treatment is then virtually impossible. If brief and harmless stimuli, made precisely contingent on self-destructive behavior, suppress the behavior and leave the children free to develop in other ways, I believe it can be justified" ("Skinner Joins..." 1988).

MYTH EIGHT - NONAVERSIVE PROCEDURES ARE NOW AVAILABLE TO TREAT ALL BEHAVIORAL DISORDERS

Claims that aberrant behavior can be managed without the use of aversive procedures are occurring with greater frequency. Donnellan and LaVigna (1987) claimed, for example, "Our review of the literature and experience with over 500 cases convince us that strategies are presently available to deal with *any* prob-

lem without resort to punishment. Yet, a book by the same author, LaVigna & Donnellan, 1987, convinced that such a goal was not reached. Rather, serious misbehavior is dealt with major hands, and people who are not misbehaving are treated with mild reprimands. Also, the authors recommend treatment recommendations that are not supported by research (perhaps, unknown to the authors) using punishment (1987).

A much publicized book, *Gentle Teaching* by McGee (1983), purports to be a guide to punishment procedures. It emphasizes development of a positive relationship between teacher (or clinician) and student (or client) and results in bonding. It helps teachers gain appropriate student behavior.

The assertions of McGee's *Gentle Teaching* are vast. McGee claims to have success with individuals at a psychiatric hospital over a five-year period. He includes self-reports of individuals and the clients were at all levels of mental retardation.

McGee's *Gentle Teaching* reached far different audiences than the book pointed to McGee's *Gentle Teaching* to describe applied behavior analysis and concepts. McGee's book is for individuals with problems and (c) use research to evaluate treatment outcomes. McGee used procedures that he learned from the work of others! McGee argues for the mainstreamed behavior.

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A much publicized alternative to procedures using a punishment component is known as *Gentle Teaching* (Menolascino & McGee, 1983; McGee, 1985). The approach purportedly rejects the use of punishment procedures and, instead, emphasizes developing a humanistic and liberated relationship between student and teacher (or client and therapist) that results in bonding. The bonding is said to help teachers gain control over inappropriate student behavior.

The assertions concerning the effectiveness of the Gentle Teaching approach are vast. McGee (1985), for example, claims to have successfully treated 650 individuals at a psychiatric institute over a five-year period. The behaviors professedly included self-injury and aggression, and the clients were described as having all levels of mental retardation.

Mudford's (1985) examination of McGee's Gentle Teaching approach reached far different conclusions. Mudford pointed to McGee's failures to: (a) describe applied behavior analysis practices and concepts correctly, (b) deal with individuals with profound impairments, and (c) use research designs to evaluate treatment outcomes. He also indicated that McGee used the same punishment procedures that he had condemned in the work of others! Thus, Mudford (1985) argues for the continuation of mainstreamed behavioral practices.

Also, Jordan, Singh, and Repp (1989) point out that there has been no independent evaluation of McGee's success with Gentle Teaching, and that most of McGee's results are in the form of informal observations of client progress. Rather than using experimental control conditions, Jordan et al. (1989) indicate that McGee employs before-and-after videotaped vignettes. In a direct comparison of visual screening and Gentle Teaching in reducing three cases of stereotyped behavior, visual screening was found to be superior in dealing with the target behavior and resulted in more bonding between the clients and the program implementer than Gentle Teaching (Jordan, et al., 1989)!

Rimland (Blake, 1988) recently conducted a survey of professionals on the necessity to use aversive procedures in *selected cases*. The report cited a review of more than 60 studies by LaGrow and Repp (1984) which found that "aversive procedures as a class were more effective than positive procedures, manipulation of the environment, and sensory extinction." Rimland concluded that if his own son, who has autism, were to engage in self-injurious behavior, he would use aversive procedures, including electric shock, if positive reinforcement procedures proved ineffective.

Recently, TASH made its first annual Award for Distinguished Contributions to Non-Aversive Behavioral Intervention (Setting the Stage, 1988). Also, the federal government has awarded Dr. Robert Horner, University of Oregon, a grant of \$5.5 million to explore nonaversive technology for behavior management. I applaud such efforts and hope that more professional organizations and granting agencies will engage in similar practices. As for myself, I recently participated in a study in which the noncompliant and aggressive behaviors of a 40 year-old man were modified without the use of aversive procedures (Neuman, Park-Yu, & Axelrod, 1988).

Regardless of the development of new technologies of nonaversive behavior management, I do not believe that our field should abandon the option of using aversive techniques *in selected cases*. We have not reached the point where we can discard an effective technology. At present, we cannot even be certain of the types of behavior problems that we may encounter. In this regard, we are similar to the medical profession that did not predict the onset of the lethal disease AIDS. If we disallow procedures that might be effective, we are relegating ourselves to a position in which we do not regard behavioral disorders with complete seriousness and with complete commitment. The medical profession does not outlaw surgery when new forms of medication prove effective. Rather, it changes the conditions under which surgery can be used.

I believe this is the same posture our field should take. When we become more sophisticated in this use of nonaversive strategies, we should limit the conditions under which restrictive procedures are used.

MYTH NINE - PEOPLE WHO OPPOSE THE USE OF PUNISHMENT PROCEDURES WITH INDIVIDUALS WITH DISABILITIES NEVER PUNISH PROFESSIONALS WHO DISAGREE WITH THEM

After listening to and reading the comments of those who advocate the use of nonaversive practices in developmental disabilities, one cannot help but wonder whether the advocates have eliminated the use of aversive procedures in all aspects of their own lives. Do they use only positive procedures with their children, with their spouses, with their colleagues, and with professionals who disagree with them?

Obviously, observing the practices of the advocates in their personal lives is difficult. Observing their behavior

toward professionals who disagree with them is much easier. In fact, the advocates have used criticism during television shows (e.g., ABC's *Nightline*); they have harassed presenters at professional conferences; they vehemently have denounced SIBIS (an electric shock device designed to reduce self-injury) at a press conference; and they have called for the closure of the Behavior Research Institute in Providence, Rhode Island.

None of the above actions sounds like a positive approach toward behavior change; nor do the words of LaVigna and Donnellan (1986, p.7) who sarcastically state that if one were only interested in eliminating behavior a "flaming arrow through the heart would be sufficient." The same authors are devious when they state, "Those who are irrevocably wedded to the use of aversive intervention will dismiss our position out of hand" (p. 182).

As mentioned earlier, McGee is aproponent of the Gentle Teaching approach and an opponent of the use of punishment procedures. Yet, in a summary of McGee's tactics, Mudford (1985) stated, "The conclusion is inevitable that (McGee's) ill-researched vitriolic attack on mainstream behavior analysts/therapists...is definitely incorrect and possibly libellous" (p. 268). Iwata (1988) wonders, "Why is it the same people who denounce the use of relatively harmless aversive contingencies to eliminate life-threatening behavior of a retarded individual, not only support aversive cultural practices, but also routinely subject their own children and coworkers to stimuli that are functionally similar to the ones they abhor?" (p. 150).

The advocates also have been consistent supporters of legislation that would punish professionals who disagree with them. For example, a bill that was presented to the Massachusetts Legislature (Senate Bill #607) would revoke or suspend a program's license, approval, certification, and funding if the program violated its position on the use of restric-

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tive procedures. In a similar manner, a bill that was presented to the United States Senate (Senate Bill #1673) would disallow Medicare/Medicaid payments. Neither of these bills, nor ones that were presented to the legislatures of Minnesota and California, have become law to date but, without doubt, their intent is to *punish* the behavior of professionals whose practices they deem inappropriate.

As I observe the actions of the advocates, I must agree that I probably would use punishment procedures also if I wished to change some practices of other professionals. Perhaps that is the lesson in all of this. Sometimes changing human behavior without invoking punishment practices may be impossible.

CONCLUDING COMMENTS

An individual's right to effective and humane treatment is undeniable. Yet, defining the parameters of such a right is a matter of great debate among professionals. Those who reject a procedure on philosophical grounds are obligated to replace it with one that is at least as effective or to show that an individual is better off with the behavior remaining unchanged. In my own opinion, this has not always been done; thus, some people have been denied their right to effective treatment. "*Not to rescue a person from an unhappy organization of his behavior is to punish him, in that it leaves him in a state of recurrent punishment*" (Baer, 1970, p. 246).

My support for the *selective* use of restrictive procedures does not mean that our field does not have important questions to investigate. Some that occur to me are as follows:

1. Are behavior analysis procedures--both restrictive and non-restrictive--being applied properly?
2. Has success with punishment procedures diminished the search for less restrictive alternatives?

3. Are punishment procedures left in effect too long without efforts made to withdraw them?

4. Are procedures used with people with handicaps that would not be used on people without handicaps?

5. Is the term "punishment" so emotionally charged that an objective evaluation of the process is no longer feasible?

Our chore is always to investigate questions and devise procedures that will improve the quality and diversity of behavioral technology. Our present mandate is to implement the least restrictive but effective techniques, while simultaneously devising alternatives that are equally effective, and less restrictive. This outcome will not be achieved by exploiting the emotions of the public, or through political manipulation, but through further development of the same humane and scientific process that accounts for the immense gains that applied behavior analysts have already made.

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