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A Moral Framework for Analyzing the Controversy Over Aversive Behavioral Interventions for People with Severe Mental Retardation



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Abstract: This article applies a systematic analysis of everyday moral decision making to the controversy surrounding the use of aversive treatments for people with severe mental retardation. The authors' aim is to provide a framework for analyzing the issue, and they take a position against the use of aversive procedures. The analysis adds some new ideas to the debate. It provides a definition of aversive procedures based upon common moral rules. The concept of protection by the moral rules is discussed and the case made that people with severe mental retardation deserve the protection of the moral rules and that this right is historically new and tenuous. The importance of symbols of dehumanization is discussed in light of this tenuous condition. The idea of moral agency is applied in order to clarify the kinds of societal sanctions that are and are not appropriate when a person with severe mental retardation violates a moral rule. The authors argue that data are always relevant to moral decision making and that a mounting body of evidence indicates that nonaversive alternatives are available and can replace aversive procedures in all but a very small number of highly unusual cases.

The purpose of this article is to provide a framework from a philosophical perspective for examining the issues concerning the use of aversive methods in treating dangerous aggressive or self-injurious behavior in people with severe mental retardation. Two of the authors of this article are social scientists and one is a moral philosopher. Many researchers in the social sciences and philosophers of social science believe that science does not take place in a moral vacuum and that values often shape the questions we ask, the methods we employ, and the interpretations we give to our findings (Root, 1993). Just as research evidence must be carefully gathered and analyzed, values statements are likely to be most useful in application and most persuasive if they go well beyond slogans or bare assertion and instead present logical and empirical evidence in their development.

One purpose of this article is to add a thorough ethical analysis to the contemporary debate about aversive treatments for persons with severe cognitive disabilities. We contrast two points of view by referring to proponents of aversive versus proponents of nonaversive interventions. This structure is deliberately oversimplified for pur-

poses of clarity. We recognize that the arguments in this article are not simply a matter of "us versus them," but a matter of presenting a framework for professionals on both sides to analyze this issue. This article draws on a contemporary analysis of morality (Gert, 1996, 1998; Gert, Culver, & Glouser, 1997). Gert's justification of common morality aims to make explicit the thinking that lies behind everyday moral thinking and ethical decision making. It does not attempt to establish a new or different morality, but rather to explicate the presuppositions that underlie common moral discourse. In this article we are primarily concerned with decision making involving typical, widely accepted moral rules. These rules are familiar to any reader: Do not kill, do not cause pain, do not disable, do not deprive of freedom, do not deprive of pleasure, do not deceive, keep your promise, do not cheat, obey the law, and do your duty. In this article we refer to these rules as *commonplace moral rules*.

Gert (1996, 1998; Gert et al., 1997), unlike most philosophers, has provided a detailed account of the kind of decision making that people commonly employ in deciding when one of these rules can be justifiably vio-

lated, including those situations in which the rules conflict with one another. He has identified certain features of moral reasoning such as the idea that moral rules apply impartially to all who are granted the protection of morality. Gert's justification of these moral rules incorporates aspects of both deontological and consequentialist theories, but in this article we are not concerned with rival philosophical theories of moral justification. Rather we use Gert's description of common moral reasoning. This description makes clear that the moral rules are known to all who are judged by them and that it is never irrational for someone to guide his or her conduct by these rules. Gert's account of common morality also includes an analysis of the morally relevant features that enter into ethical decision making. Although we argue strongly for one position in the debate over aversive treatments, our most important goal is to provide a framework for the discussion so that all the relevant features of any moral decision are considered in the debate.

One of the central features of Gert's account of our common morality is that evidence about the consequences of one's action, although not the only relevant feature, is always relevant in making particular ethical decisions and this evidence is never trumped by reference to some absolutist position concerning morality, rights, or values. Thus, actual moral disagreements are often a matter of differential weighing of evidence, but never one in which the evidence about consequences, available alternatives, and so on is simply irrelevant. It is our hope to steer the debate away from discussion stopping moral claims to either the right to freedom from harm or the right to effective treatment; the appeal to such presumed rights tends to overshadow consideration of relevant evidence. Although most of our arguments are not new, they are presented in a new conceptual framework, which leads us to consider some new aspects of the issue.

The debate over the use of aversive behavioral procedures is an argument about a moral issue. In Gert's account, morality is an informal public system applying to all rational persons who govern behavior that affects others; and it includes what are commonly known as the moral rules, ideals, and virtues and has the lessening of harm as its goal (Gert, 1998). The common moral rules are used to judge people who are moral agents. These individuals must know that others do not want to have any of the five kinds of harm—death, pain, loss of ability, loss of freedom, or loss of pleasure—inflicted on them. These five harms are meant to represent everything that all rational persons want to avoid; the centrality of these harms is shown by the fact that all diseases, disorders, or maladies involve suffering one of these harms, or an increased risk of suffering one of them. To be a moral agent a person must also have the volitional capacity to control urges to harm oneself or another. Moral agents are subject to moral judgments and societal sanctions (e.g., fines, required ser-

vice, imprisonment, the death penalty) for breaking the shared moral rules. When we refer to such societal sanctions in this article, we are not endorsing them as ways to punish offenders but simply describing the present state of affairs.

We define the term *punishment* in a nontechnical sense. Used in this way it does not mean anything that reduces the probability of a behavior occurring. Instead, we use the term to mean unusual punishers involving infliction of four of the five categories of harm: pain, temporary but significant loss of ability, prolonged loss of freedom, and prolonged loss of pleasure. These unusual methods risk the danger of dehumanizing their recipients, and thus encourage the infliction of even greater harms. Examples of such procedures include, but are not limited to electric shock, certain overcorrection procedures that require the people who implement the procedure to overpower the recipient, prolonged time-out, administration of noxious substances, chemical restraints that deprive the person of alertness and ability to learn, helmets that administer white noise and water spray, hitting and slapping, and so on.

Moral Agents and Rules

We address three major issues about morality and the debate over aversive treatment, along with a set of questions that follow from one of the issues. A first major question concerns who is a moral agent. People are assumed to be moral agents and thus subject to moral judgments if they can understand that others do not want harms done to them. That is, they understand that others do not want to be killed, disabled, hurt, deprived of freedom, or deprived of pleasure. Historically, the question of who is a moral agent has also been a major source of ethical controversy. It is, for example, an essential focus of concern regarding the appropriateness of imprisonment and capital punishment for people with mild mental retardation and the controversy over the insanity defense.

Second, a common source of ethical controversy is the question of who should be protected by the moral rules. No one, for example, believes that the moral rules apply to bacteria. But there is considerable debate over whether they apply to animals and fertilized human eggs. We argue that this issue is settled in regard to persons with severe mental retardation. They are protected by the moral rules, but this protection is historically recent and still tenuous.

A third question specific to the debate over aversive treatment asks whether there is adequate justification for violating some moral rules in order to treat severe problem behavior. In order to systematically address this third question, we examine the appropriate morally relevant features of the controversy. These features are specified in Gert's discussion of the justification of violations of the moral rules. Most moral arguments about aversive treatment

focus on what counts as an adequate justification for violating moral rules that prohibit intentionally inflicting harm on a person. No moral rules are absolute; all can be justifiably violated under appropriate circumstances. In examining whether a particular violation of a moral rule is justified, all the morally relevant features must be considered.

In summary, some moral issues focus on who is a moral agent, some on who should be protected by the moral rules, and some on whether there is an adequate justification for violating a moral rule prohibiting intentionally inflicted harm in the circumstances under consideration. In addressing the third question regarding justification, the morally relevant features are examined in turn. We address those morally relevant features that Gert has identified that relate to aversive treatment.

ARE PEOPLE WITH SEVERE MENTAL RETARDATION MORAL AGENTS?

The question of whether people with severe mental retardation who are aggressive or self-injurious should be held morally accountable generates some important confusion because typically we excuse people with severe mental retardation from normal legal sanctions and moral blame for violating the moral rules. Persons with severe mental retardation are normally not considered to be moral agents from a legal perspective. To be a moral agent one must understand that other people do not want to have any of the five harms inflicted on them. A moral agent also must have sufficient volitional control to be able to act on this knowledge. People with severe mental retardation are assumed not to have a sufficient understanding of the moral rules such that they can be held accountable in the normal fashion for transgressions. Alternatively, in some cases, these individuals may not have sufficient volitional control to act on their knowledge. If a person with severe mental retardation hits a co-worker, we normally do not call the police and have that person charged with assault. We excuse people with severe cognitive disabilities from moral blame and subsequent societal sanctions because, in most cases, they are not moral agents in the normal sense of having the understanding that others do not want to have harms perpetrated against them and in the sense of having full volitional capacity to inhibit harmful behavior. By contrast, persons with mild cognitive disabilities are considered full moral agents and are punished for transgression even to the extent of capital punishment. We do not endorse this state of affairs but simply describe it. We believe it is important to recognize that to say someone is not a moral agent is not a pejorative statement; it is simply a description that this particular person either does not have the understanding or the volitional control to prevent himself or herself from doing harm. We usually view children in this way and do not consider it a negative judgment on them.

But because persons are not moral agents does not mean that they are not protected by the moral rules. For example, we normally do not judge 3-year-old children or severely mentally ill people in the way that we judge moral agents. We do not imprison 3-year-olds for hurting other people. But we do safeguard children with the protection of the moral rules. It is not acceptable to hurt children, people with mental retardation, and people with mental illness because they lack a full understanding of what morality requires. Because we excuse people with severe mental retardation from normal punishment for what is usually considered to be immoral behavior does not in turn mean that we are excused from treating them as members of the class of people who are protected by the moral rules but who are not subject to normal societal punishment if they break the rules. Their difficulties in understanding normal social and moral rules should lead civilized society to treat people with severe mental retardation with the full protection of the moral rules and to provide extraordinary efforts to give them opportunity to learn appropriate behavior and to protect them from unethical treatment. Although such people are excused from typical social sanctions such as fines and imprisonment, we should try to educate them about the moral rules and how to behave consistently with them.

WHO IS PROTECTED BY THE MORAL RULES?

Historically, arguments over who should be protected by the moral rules have been the center of major social movements. This argument was an important feature of such major social reforms as the granting of civil rights to members of all social classes after the American and French Revolutions, the abolition of slavery, and the granting of voting and property rights to women. It has required lengthy and massive societal change to extend the protection of the moral rules to people in Western societies who were slaves, members of ethnic minorities, females, poor people, children, and homosexuals. The philosophical view that all moral agents are protected has played a positive role in most of these movements. However, the similar sounding but very different philosophical position that only moral agents are protected is regarded by most as far too restrictive, for it excludes young children and adult human beings who lack the intellectual or volitional capacity to be moral agents. Whether people with severe mental retardation are protected by the common morality is central to the debate about the use of aversives. This question of who should be protected by the moral rules when applied to persons with severe mental retardation has become inappropriately linked with the first issue: whether they should be considered moral agents.

The question of whether people with mental retardation deserve the protection of the moral rules is settled for

the most part. However, because the nature of the social agreement has only recently been to provide this group with normal moral protections, a brutal history still shades contemporary controversies. It has not been long since the major governmental policy response to persons with severe mental retardation was to place them in large institutions, where they were often treated more poorly than prized animals (Blatt, 1973; Fergusen, 1994); that is, they were treated as if they did not have the equal protection of the moral rules. As recently as the 1940s people with disabilities were displayed in carnivals for public amusement (Bogdan, 1986). Within the past two decades numerous court decisions and settlements have provided ample evidence of continuing disregard for the basic well-being of many people residing in institutions as well as poorly run community residences (*Milonas v. Williams*, 1982; *Youngberg v. Romeo*, 1982). The protection of the moral rules is tenuous for this group of human beings in the United States and in many other parts of the world. Consequently, many who are familiar with the circumstances of persons with severe mental retardation believe that vigilance is required to safeguard their rights to be protected by the moral rules. A history of exclusion from equal protection of the moral rules gives cause for extra care and concern about the treatment of formerly excluded persons. Much of the argument concerning the use of aversive treatment procedures for persons with severe mental retardation is a proxy for an argument about whether they have the equal protection of the moral rules or, on the contrary, whether they deserve exceptional safeguards as a protected class. Those who advocate for the use of aversive procedures are vulnerable to the assertion that they do not believe persons with severe mental retardation have the equal protection of the moral rules. For example, the use of strange-looking helmets that administer automatic electric shocks can lead to perceptions that devalue people with severe disabilities. Devaluation has historically exposed people to further harm. Proponents of aversive methods in institutional settings—whether private or public—although typically having good intentions, may appear to give little regard for the importance of the historical mistreatment of persons with severe mental retardation in such settings. Thus the language and context from which proponents of aversive procedures launch their arguments are often laden with symbols of an older order in which persons with severe mental retardation were not given the equal protection of the moral rules. This does not mean that these professionals are immoral or that they do not act with concern and in good faith. Simply, the failure to recognize the danger that devaluation imposes is an important problem.

Opponents of aversive procedures appear in many instances to argue for this larger question when they actually address the narrower issues surrounding aversive procedures. Whether people with severe disabilities should be

equally protected by the moral rules is the underlying issue in the statement that they should not be subjected to dehumanizing treatments (The Association for Persons with Severe Handicaps, 1991). We believe that this argument should be openly acknowledged. The argument is as follows: In the recent past, persons with severe mental retardation were often treated worse than some animals. They were not impartially protected by the moral rules. Because of this long-standing history of mistreatment, they deserve extraordinary vigilance in the protection of their rights. Given their tenuous status as persons protected by the moral rules, we believe that it is extremely important to safeguard against weakly justified violation of the moral rules or the application of any symbols that communicate dehumanization. Consequently, it may be even more difficult to justify aversive treatments that imply devaluation because devalued persons are vulnerable to further losses of protection of the moral rules.

Note that this argument draws on empirical evidence in that our assertion that people with severe mental retardation have been dehumanized and are at risk of dehumanization can be substantiated with historical documents and contemporary evidence about living conditions in poorly run care settings. Historical evidence is one valid source of data to support an ethical argument. Photographs of how people were treated in institutions, records of investigative bodies, and evidence provided in legal suits are valid sources of data regarding this claim (Trent, 1994). Similarly, the argument that associating people with severe disabilities with devaluing symbols (such as cattle prods or electric helmets) places them at risk of being devalued is an empirically verifiable claim. Recent studies of social perception suggest that aversive treatments can be associated with negative public perceptions of persons with disabilities (Bihm & Sigelman, 1991). At the same time, it is likely that untreated severe problem behavior are also associated with public social rejection and thus alternatives to aversive treatments must be effective (Bihm, Sigelman, & Westbrook, 1997).

IS THERE JUSTIFICATION FOR VIOLATING SOME MORAL RULES?

Gert (1996, 1998; Gert et al., 1997) identified certain features of situations in which the breaking of a moral rule is considered relevant to ethical decision making. Gert argues that these morally relevant features, such as the amount of harm suffered, are the only features of the situation that matter in a moral decision. In the following discussion we list the questions, the answers to which are morally relevant features, and apply these features to the controversy over aversive treatments. We highlight the way that different perspectives give different weight to supporting evidence. In this article we do not use all the morally relevant features that Gert identified but instead

focus on eight features that are most applicable for this issue.

What Moral Rules Are Being Violated? By definition, aversive treatment interventions involve intentionally inflicting pain, depriving of ability, depriving of freedom, or depriving of pleasure. Which of these moral rules is being violated is relevant to the justification.

Aversive treatments are often, although not always, recommended as a way to deal with serious aggressive or self-injurious behavior. Aggression toward others and self represents violation of moral rules, although we do not view the people with severe mental retardation as morally culpable. No one seriously argues that people with severe mental retardation should be allowed to hurt others or themselves. To do so would deny the victims of aggression the protection of the common moral rules. Rather, the argument centers on whether inflicting pain or deprivation is justifiable as a way to stop or reduce extreme aberrant behavior.

What Harms Are Caused and What Harms Are Being Prevented by the Violation? Gert (1998) argued that in addition to specifying the kinds of harms, one must include their severity, the length of time they will be suffered, and their probability of occurrence.

What Harms Are Caused by the Violation? Two classes of harms are caused by using aversive procedures: harms to the individual person with mental retardation and harms to the class of people with mental retardation. Harms to the individual involve either infliction of pain, temporary disabling, restriction of liberty, or deprivation of pleasure. Some of the controversy over the use of aversives focuses on the severity of the potential harm that aversive treatments entail. Proponents of aversive treatment argue that administration of the treatments is usually carefully controlled and when they are carefully controlled, the treatments are not as severe as the harms that the targeted person usually inflicts on himself or herself or others. Again, both these arguments are open to empirical challenge. The first claim unfortunately often cannot be supported in many of the applied settings where people with severe mental retardation live, work, and go to school (Horner, 1990).

Often the people who are responsible for the application of aversive procedures are not highly trained, nor are they closely supervised. Most people with severe mental retardation are supervised in living and work settings by people who often have very limited training and infrequent supervision (Horner, 1990). When they are given license to use painful stimuli or prolonged deprivation as a form of treatment, there is always danger that the treatment procedure will be misused. Such "procedural drift," or failure to ensure treatment fidelity, is commonplace

(Hastings & Remington, 1994). The risk of workers losing their tempers, forgetting the procedures, or deciding on their own to intensify the pain or deprivation is great. Again, these assertions could be empirically verified or challenged through case histories, court records, and direct observations studies.

In regard to the second assertion, that aversive stimuli or deprivation can be kept at a relatively low level, empirical evidence from analogue animal studies—as well as case studies of people—indicates that one of the dangers of using aversives is the potential that the recipient can habituate to the aversive stimuli or to the periods of deprivation. Thus, Azrin and Holz (1966) recommended that punishment begin with high levels of stimulation and never be applied incrementally. When habituation occurs, it becomes necessary to increase the intensity of the electric shock or prolong the period of deprivation. As the intensity or duration of the treatment increases, risks of unplanned harm also increase. Increased intensity and duration may expose the person to the risk of injury and, in some tragic instances, to disability or even death. The risks involved in using procedures such as electric shock, prolonged locked time-out, disabling doses of drugs, or enforced aversive overcorrection are not trivial.

The second category of harms involves the larger class of people with severe mental retardation and, perhaps, people with other disabilities. These risks to the larger group of people have been discussed earlier. If violation of some moral rules were to be commonplace against some people with severe mental retardation, there is risk that they will be extended to other people with this disability because the protections against harm are historically new and fragile. Some might argue that a decision to use painful interventions should be focused solely on the one case in point, and not on the larger class. However, moral questions are, by their nature, public questions and have to be regarded as if they initiate a policy that applies to all similar cases (Gert, 1998).

A counterargument is that failure to effectively treat a person with severe aberrant behavior problems can also lead to the creation of negative attitudes toward a class of people. For example, assaultive or otherwise offensive behavior by mentally ill homeless people may cause an increase in negative attitudes about homeless people and people with mental illness (Mechanic & Rochefort, 1990). Similarly, a person with severe mental retardation who is assaultive or self-injurious may stimulate negative attitudes about people with mental retardation if the transgressor is not provided adequate treatment. Both sides in this debate would agree that adequate treatment is necessary. The argument then moves to the issue of whether there are effective nonaversive methods available that can be used in integrated community settings.

A growing body of empirical evidence indicates that there are nonaversive alternatives for addressing even the

most serious behavior problems in people with severe cognitive disabilities (Carr et al., in press; Carr et al., 1994; Horner et al. 1996; Koegel, Koegel & Dunlap, 1996). This evidence includes peer-reviewed studies of the following severe problem behaviors:

- self-injury (Durand, 1993; Durand & Kishi, 1987; Horner, Day, & Day, 1997; Kennedy & Souza, 1995; Lerman, Iwata, Smith, & Vollmer, 1994; Saunders, Saunders, Brewer, & Roach, 1996; Sigafoos, Penned, & Versluis, 1996),
- aggression (Bowman, Fisher, Thompson, & Piazza, 1997; Carr & Durand, 1985; Durand, 1993; Dyer, Dunlap, Winterling, 1990; Horner, Day, Sprague, O'Brien, & Heathfield, 1991; Knapczyk, 1988; Steed, Bigelow, Huynen, & Lutzker, 1995),
- property destruction (Hanley, Piazza, & Fisher, 1997), and
- severe noncompliance (Ducharme, Popynick, Pontes, & Steele, 1996).

Nonaversive interventions have been applied successfully to treat challenging behavior in a variety of settings, including

- public schools (Dunlap, Kern-Dunlap, Clarke, & Robbins, 1991; Durand & Carr, 1992; Karsh, Repp, Dahlquist, & Munk, 1995; Kehle, Clark, Jenson, & Wampold, 1986; Knapczyk, 1988),
- home and community settings with family members (Ducharme, Pontes, Guger, & Crozier, 1994; Lucyshn, Albin, & Nixon, 1997; Sanders & Plant, 1989),
- employment settings (Kemp & Carr, 1995; Smith & Coleman, 1986) and
- a dentist's office (Maguire, Lange, Scherling, & Grow, 1996).

Nonaversive methods have been effective for people with all levels of mental retardation as well as for people with multiple disabilities (e.g., Vollmer, Iwata, Smith, & Rodgers, 1992) and autism (e.g., Koegel, Camarata, & Koegel, 1994). The studies referenced here represent only a small part of a large body of research that affirms the efficacy of nonaversive alternatives to aversive procedures (Carr et al., in press).

What Harms Are Being Prevented by the Violation?

This question focuses on prevention of possible harms in the future. The prevention of future self-injury or future assault is the usual aim of aversive treatment. In our clinical experience we have found that aversives are often initiated when a person is threatened with expulsion from a community program. Aversives are applied as a final effort to prevent expulsion or further restriction of the person's freedom. The rule of rescue takes effect; that is, well-meaning interventionists resort to extreme measures

in order to prevent the harms involved in expulsion from a program or institutionalization. Of course, there are other alternatives such as giving the program the resources, staff, and skills to manage the person with nonaversive procedures. Numerous community programs around the United States now follow such a policy. Nonetheless, proponents of nonaversives must acknowledge that an increase in institutionalization of people with severe behavior problems would be a highly undesirable outcome of reform efforts. Already, severe behavior problems are one of the major reasons for institutionalization and out-of-home placement of individuals with mental retardation (Blacher, 1994). Thus any effort to promote more humane treatment of people with severe mental retardation must work to change the current structure of services, which set the context for many behavioral treatment decisions.

The severity of future harms is a relevant factor. For example, in some rare instances, one more instance of self-injury is likely to lead to permanent blindness in a child who has already destroyed one eye. Or an individual may have been so assaultive in the past that a staff member or fellow resident may have been severely injured. Certainly, treatment methods must ensure the safety of the recipients as well as the people around them. However, in almost all cases there is no reason safety cannot be provided while nonaversive treatments are used. Proponents of aversives often believe that all other realistic options have been exhausted or that aversives will work quickly and will thereby eliminate the danger. In our experience, implementation of the full array of effective nonaversive alternatives is, in fact, rarely tried and rarely carried out well. The claim that powerful nonaversive procedures have been fully tried should always be subjected to very careful scrutiny as it is an easy claim to make in the face of dangerous behavior but a difficult claim to validate. In fairness, it is important to point out that many nonaversive methods, although empirically validated, are new; this is one reason the full array of alternatives is sometimes not used. In addition to data derived from direct observation of the problem behaviors, one must know a good deal about the fidelity of implementation of the failed methods as well as the environmental opportunities available to the person in order for that person to develop new adaptive responses and to come under the influence of a variety of reinforcers. Furthermore, there is little evidence to support the notion that aversive procedures are quicker or expose all parties to less danger than nonaversives. The most violent of individuals with severe disabilities may require specialized settings where skilled and intensive levels of staffing are provided in order to ensure everyone's safety. There is an emerging body of evidence that such settings can be provided in the community without resorting to congregate care institutions (Horner et al., 1996; Koegel et al., 1996).

Those who argue for the exhaustive and exclusive use of nonaversive measures must acknowledge that in the most severe cases, the safety procedures that are required to protect the persons with disabilities and the people around them may involve brief restriction of liberty. Temporary and brief physical restraints and emergency isolation may be needed in dangerous cases. Although these usually are not recommended as treatment procedures per se but rather as emergency responses to prevent harm, they are infliction of harms. These measures should be openly acknowledged as harms and they should be justified by addressing the same questions about morally relevant features. Although using these methods as emergency procedures rather than as standard treatments changes their moral status, it does not relieve the practitioner of the duty to justify their use.

Are There Alternatives to the Violation That Do Not Involve Violating a Moral Rule? and Are There Alternatives That Involve a Lesser Violation of the Moral Rule? A considerable body of research has demonstrated that many severe problem behaviors can be treated effectively with nonaversive measures (Carr et al., in press; Koegel, Koegel, & Dunlap, 1996). Nonetheless, only recently have researchers demonstrated that these methods can be effective with some of the most intractable cases of the most violent or destructive behaviors. Until recently, people with mental retardation with the most dangerous behavior problems typically have been confined to institutions. There have been only sporadic data-based reports of community-based treatment for people with the most challenging behavioral problems. This situation is gradually changing. One significant example comes from Horner and his colleagues (1996), who published longitudinal data on a group of individuals who clearly would qualify as representative of the most difficult-to-treat population. The individuals studied all had long-standing behavior problems that involved seriously dangerous behavior, including aggression that caused numerous staff injuries, self-injury that led to permanent tissue damage, and dangerous running away behavior that led to police involvement. All these individuals had been provided with years of unsuccessful treatment, and all had been subjected to deprivation of their liberty and deprivation from normal pleasures available in community settings. Several had histories of aversive treatments that had been ineffective. Data were collected in the institution prior to placement in specialized community programs and subsequent data tracked changes in their problem behaviors over a 2-year period. Horner et al. (1996) also compared indicators of the quality of life of these individuals in institutional and community settings. Individuals in the community treatment setting had much more enriched lives in terms of social contacts and normal activities. Importantly, the authors also presented data on injuries to staff involved

in providing nonaversive treatments. Injuries to staff, bystanders, and self must be considered morally relevant features in making treatment decisions. They are rarely reported in the treatment literature. This omission in the literature is serious, given that it focuses on a significant morally relevant feature.

Thereafter, Horner et al. (1996) showed that, with sufficient support, people with even the most dangerous problem behaviors can be treated in community settings where they have access to typical activities and where they receive effective nonaversive treatment. For the most difficult cases, these programs are costly and may require staff ratios as high as 2:1. Nonetheless, it was reported that these individuals were slightly less expensive to serve in the community than in institutional settings that necessarily require more restrictions on liberty (Knobbe, Carey, Rhodes, & Horner, 1995).

The finding that people with severe disabilities who have a long history of dangerous behavior can be treated in community settings with nonaversive methods is of major importance. A basic principle in ethical decision making is that when less harmful means are available, they should take precedence over the use of more harmful means. Although ethical arguments and legal arguments are not always equivalent, in this area there is substantial agreement. This principle has been recognized in legal cases regarding penal, medical, and behavioral interventions, where it is known as the principle of the least restrictive alternative. In the case *Shelton v. Tucker* (1960) the Supreme Court ruled that even though a government purpose is reasonable, it can not be achieved by means that widely stifle liberties if it can be achieved through a means that has a lesser negative impact. This principle has been extended by the courts to treatments such as psychotropic medications. In *Rennie v. Klien* (1978) the court ruled on behalf of a resident of a psychiatric hospital who refused to take a medication. The court said:

As a final consideration, many courts and commentators have employed the concept of least restrictive alternatives in regard to the choice of custodial setting. The court feels that this concept should be extended to the choice of medications (*Rennie v. Klien*, 1978).

Thus the notion that the least restrictive alternative should be used when a choice is available is not only a part of common moral reasoning but also of legal precedent in regard to treatment. There is now a growing body of evidence indicating that people with severe problem behaviors can be treated in settings that are less restrictive than institutions, and with means that are less restrictive or less harmful than aversive methods.

What Are the Relevant Desires of the Person Toward Whom the Rule Is Being Violated? This question is primarily useful in addressing moral violations that are aimed

at people who have complex verbal behavior and can express it in the form of desires. For example, physicians consider the desires of a person who refuses extreme life support measures when they are making moral decisions about treatment. In these instances it is often possible to simply ask the person what he or she is thinking or to refer to written instructions or verbal directives that the person made previously. The issue of relevant beliefs is more complex in regard to people with severe cognitive disabilities who may not be able to express complex verbal statements. The fact that they do not have the ability to explain verbally their relevant beliefs entrains important consequences: We rely on surrogates to make decisions on their behalf and we are obliged to provide every available means to permit the persons to express their beliefs or the functional equivalent of beliefs.

Because the problem behaviors are dangerous and the treatment procedures involve a potential trade-off of serious risks and unknown benefits, the principle of informed consent is widely applied to the use of behavioral treatments for severe aberrant behavior. Elsewhere we have urged that full informed consent plus procedural due process should be required for any aversive behavioral treatment in public schools (Singer & Irvin, 1987). The process of obtaining informed consent from a surrogate decision maker requires at least some minimal level of discussion about the morally relevant feature of the decision. We believe, however, that the minimal level of informed consent is not sufficient when proposed treatment involves administering of painful stimuli, prolonged deprivation of liberty, or prolonged deprivation of pleasure, as in decisions to use long periods of seclusion or to remove someone from the community. Because such interventions involve the intentional infliction of significant harm, they require procedural safeguards greater than those required of decisions that do not involve violation of the moral rules (Singer & Irvin, 1987).

Further, parental consent per se is not sufficient in such instances. In *Milonas v. Williams* (1982) the court ruled that parental consent was necessary but not sufficient to authorize aversive procedures for children with emotional and behavioral problems. According to the court, parental consent was not a sufficient rationale to waive constitutionally guaranteed liberties. In this case the procedures involved prolonged seclusion, physical punishment including pulling hair, and required polygraph tests. Following this line of reasoning, we believe that the consent of surrogate decision makers for people with severe cognitive disabilities is necessary, but not a sufficient reason to justify aversive treatments.

Testimonials about the value of aversives and consent to use them are not sufficient evidence or sufficient reason to violate the moral rules when alternative treatments are available. To illustrate this point, consider a case of a medical treatment that involves surgery for a serious disease.

Suppose a new medication is discovered that treats the disease without requiring surgery. This medication has no known side effects and is effective in almost all cases. Suppose someone brings a child who has the disease to the hospital and demands surgery. When the physician asks why surgery is preferred, the adult answers that he has talked to others who liked the surgery and he doesn't trust medications because other medicines had previously been ineffective. Normally, this rationale would not be sufficient to expose the child to the dangers of surgery when a less dangerous means of effective treatment is available. Similarly, surrogate consent to aversive behavioral treatments when effective nonaversive measures are available should not be sufficient reason, in itself, to justify a violation of the moral rules against inflicting pain, restricting liberty, or depriving of pleasure.

Although it is not clear at present that the knowledge base on nonaversive procedures would support a total cessation of all aversives, it would be in the rarest and most unusual circumstances that an aversive approach would have merit in comparison to positive behavioral support. Ideally, we would like to see a complete cessation of the use of aversive procedures and the establishment of enriched community-based settings where individuals with severe disabilities and the most severe forms of challenging behavior receive intensive positive behavioral supports as a long-term commitment. History would suggest that this is not likely to come to pass on a large scale soon. What of the interim? We call for research and development of new legal mechanisms for reviewing aversive treatments for persons with disabilities. We believe that the present system of protections with its reliance on local human subject committees is insufficient and should be supplemented by requiring updated information about nonaversive alternatives.

Does the Person Violating the Moral Rule Have a Duty to Violate Some Moral Rules with Regard to the Person Toward Whom the Rule Is Being Violated Independent of the Latter's Consent? Precedent for this question comes from several areas. For example, physicians are held to have a special duty that allows violation of moral rules in regard to some patients. That is, medical law states the conditions under which a physician may seek to override a patient's or parent's wishes regarding treatment or non-treatment.

This feature also accounts for the facts that we allow parents to punish children when the same action in response to the same behavior, if done by a stranger, would usually not be viewed as permissible. It also accounts for the fact that we permit police to use force against some people.

Our argument is that the relationship between behaviorally trained professionals and persons with severe cognitive disabilities is not so clear-cut as to readily grant that

a professional has the option to violate the moral rules prohibiting intentionally causing harm. In order to make this case it is necessary to examine the reasons certain professions are granted unusual authority as well as the contexts in which these professionals work.

Society governs the power to violate moral rules. In medicine, the right to deliberately surgically cut into another person is regulated via laws surrounding licensure and through professional societies by means of certifications. Except in emergencies, or when a patient is not competent to give consent, however, this cannot be done without the valid consent of the patient. The right to make complex moral decisions is jealously guarded by the medical profession. But this authority has also been restricted in some areas so that some decisions are routinely turned over to the courts or ethics boards, as in cases in which parents refuse a treatment that a physician deems necessary for a child. Nonetheless, with regard to patients who do not understand and thus can't give informed consent, many life-and-death decisions are made by physicians on their own, sometimes with the oversight of other medical professionals. Psychologists have sought and won similar license to make treatment decisions that may involve infliction of pain or deprivation of liberty. In some circumstances such as state-operated congregate care institutions, some oversight by a human rights review committee is required (*Wyatt v. Stickney*, 1972). In most community settings, with the exception of those states that have passed legislation limiting the use of aversive procedures, decisions about the use of aversive methods are left to the judgment of a licensed psychologist or other authorized persons such as a behaviorally trained special educator. The power to make decisions about and oversee these procedures has been jealously guarded by professional societies, as is any societal grant of authority to the professions.

To return to the question: Does a licensed psychologist or a certified special education teacher have a special relationship such that they have a duty to violate some common moral rules without the person's consent? Any response to this question must be highly qualified. As with physicians, such a duty can be the case only under certain circumstances, as described in this article. The answer is also highly qualified, in part, by the current nature of the knowledge that psychologists and educators hold and the limitations of the environments in which they often work. A body of theory, empirically substantiated findings, and skills is not commonly available to the general public and is the basis for a profession's claim to hold this kind of moral grant of decision-making power. A prerequisite for the grant of authority to use aversives or for a physician to operate on a person is a period of education, training, and supervised practice. It is assumed that these experiences then equip the professional with abilities that are uniquely held by persons with the specialized training.

Is the knowledge held by those with behavioral education and training such that they should be authorized to inflict pain or use other unusual means that are normally immoral when they judge it to be needed? The problem with an unqualified yes answer to this question is that the knowledge base regarding aversives and the methodology for deciding when to use them is ambiguous for the former and subject to severe constraints for the latter. The basic infrahuman research on punishment is full of evidence for both the efficacy and the undesirable effects of aversive stimuli (Azrin & Holz, 1966; Azrin, Hutchinson, & Hake, 1967). Findings regarding reduction of targeted behaviors are counterbalanced by indications of undesirable effects: habituation entraining increased intensity or duration of the painful stimuli, induced anxiety and fear responses, and reduction in the reinforcing properties of stimuli. In regard to humans with mental retardation, there is evidence that procedures such as electric shock, aversive overcorrection procedures, and exclusionary time-out can reduce problem behaviors (O'Brien, 1989). However, there is little evidence that these methods are durable and generalizable. Further, there is clinical evidence that these procedures often fail to work, are implemented for long periods of time, involve progressively more severe applications of pain or prolonged periods of deprivation, are highly vulnerable to procedural drift, and may generate negative public attitudes toward the person being treated (Hastings and Remington, 1994; Schopler, 1986).

Applied behavior analysis is an idiometric science. In research, it relies on an analysis of single subjects. Although there is some recourse to accumulated evidence over many subjects, however, the individualized focus of behavior analysis takes precedence. When enough data from individual analyses have accumulated, a kind of nomothetic validity arises for a procedure. For example, there are enough single-subject studies of the effect of praise on verbal children for the profession to conclude that praise is likely to be an important reinforcer for most children with a verbal repertoire, although there is also evidence that it is not effective as a reinforcer for some children. When there is no clear consensus regarding interpretation of findings, it is doubtful that any general, nomothetic conclusions and guidelines can be drawn, and thus the analysis of a specific individual's behavior must remain the major basis for decision making. Thus, behavior analysts must experiment with different interventions and measure their impact. They must decide when one intervention is no longer worth pursuing and another should be tried in its place. There is little guidance in the way of either formal published knowledge or clinical knowledge to know when to abandon one approach and advance along the continuum toward the use of aversives. Here we are asked to trust the training and experience of the designated professional behaviorist (Van Houten et al., 1988). Such decision making, however, is rarely simply a matter of reading the data

and deciding that it “tells” the practitioner that it is time to abandon an exclusively nonaversive regimen and begin delivering painful or highly unpleasant events. The decision making must be informed by current knowledge, constrained by ethical and legal restrictions, and limited by the social and environmental context. Current knowledge includes a body of evidence suggesting the effectiveness of positive behavioral interventions with even the most severe problem behaviors. We believe that this evidence is such that it outweighs the body of research on the efficacy of aversives except, perhaps, in very rare instances.

Contemporary knowledge does not clearly support the use of aversives over nonaversives. An up-to-date, knowledgeable professional is unlikely to have authority based on research evidence that aversive treatments are a preferable choice except, perhaps, in extremely rare instances. Professionals cannot inflict serious harm on a person with severe cognitive disabilities whose behavior violates common moral rules unless they know that there are no effective options that involve less infliction of harm. However, the present professional knowledge base does not provide evidence that aversives are more effective than nonaversive alternatives. Furthermore, the professional ethics of psychology and special education demand that professionals use the least harmful and least restrictive effective methods available.

The ability of professionals is often constrained by the context in which many people with severe mental retardation live. Prominent researchers have urged a recognition of the importance of the overall context in which a person lives and his or her lifestyle (e.g., Meyer & Evans, 1989; Thompson, Robinson, Dietrich, & Farris, 1996). Horner et al. (1996) explained that giving their clients access to many different reinforcing events that were available only in a community and in programs that allowed for flexible and individualized scheduling of these events were essential features of their behavioral treatment regimen. That is, the treatment required giving people a life full of stimulating and reinforcing activities. Such a background of activities and exposure to a variety of environments and events is rarely possible for people who live in large congregate care facilities and other restrictive environments. The context can be so constrained that a full sampling of a person's preferences and means of obtaining them is, in most cases, severely limited and can provide little evidence about what kinds of reinforcers and ways of obtaining them ought to be the focus of treatment. A professional working in one environment may have a whole array of events and activities available, whereas another in a restrictive setting may have only a few options for activities, events, social interactions, and other potential reinforcers. It is particularly in these restricted settings that we should be reluctant to grant a professional the sole authority to decide when to use aversive treatments. The more restricted the setting,

the more there is a need to qualify the professional's decision making authority in respect to breaking the moral rules.

In conclusion, the answer to this fifth question in Gert's system does not yield the ready grant of authority to use aversive treatment that some in the professions desire. We do not mean to suggest that well-trained professionals who are knowledgeable and up-to-date on empirically validated treatments do not possess knowledge that makes them more qualified than others to make treatment decisions. We do, however, believe that those who know the current empirical literature will find that they do not have an empirical basis for using aversives when there is mounting evidence that nonaversive methods are equally effective in treating severe maladaptive behavior. Thus our answer to Gert's question is that the very knowledge base that creates a special relationship now indicates that intentional infliction of serious harm is not needed because, with the exception of an extremely small number of cases, treatments that involve much less harm or no harm at all are now available. There is no convincing evidence that aversive methods are the treatment of choice for severe maladaptive behavior in this population. Furthermore, consideration of this question points out the need to provide more enriched and less restricted places of treatment for this group of people so that professionals can use the full array of treatment methods in supportive contexts.

What Goods (Including Kind, Severity, Probability, Duration, and Distribution) Are Being Promoted by the Violation? Thus far Gert's morally relevant questions about a decision have been concerned with harms. In this next question, we are urged to look at what goods (e.g., benefits) may accrue apart from the prevention of harm. This morally relevant feature of ethical decision making primarily applies to questions of government action but, Gert argues (1998, p. 144), it is also relevant when the previous feature, the existence of a duty to violate a moral rule, applies.

Sometimes severe problem behaviors can be said to reduce opportunities for the person to learn or exhibit previously acquired adaptive responses. Sometimes suppression of the problem behavior leads to an apparently spontaneous improvement in other unprogrammed skills. Consequently, in some cases a behavioral intervention that decelerates problem behavior may set the stage for the emergence of previously masked skills. It may also open doors for the person by allowing him or her access to previously restricted settings and activities. In a few cases these benefits have been shown to endure (Foxy, 1990). However, the fact that some benefits may accrue from treating aberrant behavior does not imply that these ends justify any means. Once again, if these positive effects can be achieved through less harmful means, these less harmful methods must be used.

Is the Rule Being Violated Toward People Because They Have Violated a Moral Rule Unjustifiably or with Weak Justification? This question focuses on whether the person of concern has already committed an act that violates a moral rule without justification or that is weakly justified. In technical terms, this question focuses attention on the consequences of harmful behavior. It returns us again to the argument that people with severe cognitive disabilities are not considered to be moral agents. The attention to justification is a normal feature of moral discourse. For example, a person who actively plans to rob a clothing store by gathering a weapon, drawing a map, and planning a way to break and enter the store is considered to have committed a morally different act than a person who forgets to pay for items and leaves the store. We usually, however, do not attach moral significance to the challenging behavior of people with severe disabilities.

When we analyze the behavior of people with severe disabilities we try to understand the possible causes of problem behavior, but we do not typically concern ourselves with whether a behavior is morally justified. A functional analysis may allow us to understand that a particular behavior functions to terminate a situation in which a student is asked to perform a task that is not preferred. This kind of understanding renders behavior that previously may have seemed random or inexplicable to become understandable. But this kind of understanding, as important as it is, is not the same as determining whether the behavior was morally justified.

The fact that we do not consider people with severe mental retardation to be moral agents has practical significance. It is important to prevent a sense of moral outrage against a person with severe disabilities who does harm. A moralistic response to severe aberrant behavior is undesirable because there is danger that people who feel moral outrage may retaliate, punish, and assign moral condemnation. For example, it takes an unusual and highly trained person to remain calm or at least not angry in the face of dangerous behavior. Granting a person license to inflict pain or deprivation risks involving the person in escalating coercive interactions. Introducing aversives into a treatment setting risks establishing moral outrage as a common attitude among minimally trained staff members. Treatment personnel's behavioral standards can drift so that they may come to overlook or condone retaliatory behavior associated with a sense of moral outrage.

Which approach to treatment—aversive or nonaversive—is most likely to set the stage for people to act on inappropriate feelings of moral outrage? Consider, for example, an aggressive person who hurts another person with disabilities in a group home. Nonprofessional staff members, understandably, might be very angry, but well-trained staff know they cannot act on their anger when they intervene with the violent person. If they are given sanction, however, to hurt or lock up the aggressor, the likelihood that anger and moral outrage may become con-

fused with technical procedure could be great. By contrast, if staff members are trained in less intrusive ways of changing behavior, their temporary feelings of anger and outrage are less likely to have a ready outlet. Energy can be directed toward the positive intervention with little risk of confusion between the interventionist's incorrect judgments and consequent feelings of moral outrage and their intervention procedures.

Is the Situation an Emergency That No Person Is Likely to Plan to Be In? This morally relevant question casts light on the issue of emergency procedures applied during positive behavioral interventions as an interim backup strategy for extremely challenging behavior. Gert (1996, 1998; Gert et al., 1997) claims that emergency conditions must be so unusual that no one is likely to anticipate and plan action in response to the situation. A hypothetical example may help to clarify this point: Say a staff person is driving to a clinic a person who experiences autism. On the way, a violent storm envelopes them. The car is caught in a flash flood and washed off the road. Because of the danger of drowning, the staff person pulls the other young man out of the car. The young man with autism becomes so frightened that he runs toward the freeway to escape. He is a large person, and when the staff person tries to stop him, the young man pushes him out of the way and resumes running. The staff person then tackles him. Unfortunately, when the young man falls, he hits his head on a stone and is injured.

It is likely that most people would not attach moral blame to the staff person's actions. The situation is so unexpected and the danger so dire that his action seems to be all that he could reasonably do to prevent greater injury. Imagine, however, that the group home is located in a region where flash floods happen predictably every spring. That is, the situation goes from a condition that is extremely unusual to one that can be anticipated and planned for. In these circumstances, the staff person or the group home administration might be held accountable for failing to prepare a staff person for such a predictable event.

In regard to positive behavioral support, people who use aversive emergency procedures that are part of a formal or an informal plan are not excused from violating a moral rule simply because the procedure has been designated as an emergency. If it can be planned for, it is not excused from moral scrutiny and possible blame. A program that uses emergency procedures that are otherwise labeled aversive is not excused from providing safeguards against the misuse of these methods. We share the concern of other commentators that emergency procedures must be carefully scrutinized so that they do not become a backdoor way for aversive procedures to reappear (Horner et al., 1990). This concern is not trivial given the fact that procedural drift, or failure to ensure treatment fidelity, has been a common concern about programs that intervene

with people with challenging behavior (Schopler, 1986). In short, if an emergency procedure is one that would normally be considered aversive, it remains an aversive procedure, regardless of how it is labeled. Thus some emergency procedures are likely to require the same kinds of scrutiny (e.g., informed consent, periodic human rights review, thorough staff training and supervision, expert monitoring) in schools, places of residence, workplaces, and other community settings (Singer & Irvin, 1987).

Conclusion

In summary, we have argued that although people with severe mental retardation are not subject to normal punishment or moral blame because they may not understand that others do not want to have the moral rules violated against them, they still deserve the full protection of the moral rules. They, like other minority groups in many societies, have historically been subjected to mistreatment. They are commonly still exposed to abusive or neglectful treatment. This special vulnerability places a duty on society to be especially vigilant in protecting them from harm and in not treating them with methods that entail devaluation because they have been historically vulnerable to dehumanizing treatment. Devaluation raises the risk of further harms being inflicted. Evidence that people with the most severe behavior problems can be treated in community settings with nonaversive methods now exists, and therefore the situation in regard to use of aversives is fundamentally changed. By the widely recognized principle that it is necessary to use the least dangerous and least restrictive alternative, it is now the duty of those who work with people with severe disabilities to try these methods and eschew more painful, more restrictive, or more dehumanizing methods. Positive behavioral methods are more likely to promote collateral benefits, and they are less likely to set the stage for people to act out of misplaced moral indignation. Thus, based on an ethical analysis, we call for the creation of enriched community environments that provide nonaversive treatments and positive behavioral supports as a long-term commitment.

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REFERENCES

- The Association for Persons with Severe Handicaps. (1991). Resolution on the cessation of intrusive interventions, 1986 revision. In L. H. Meyers, C. A. Peck, & L. Brown (Eds.), *Critical issues in the lives of people with severe disabilities*. Baltimore: Brookes.
- Azrin, N. H., & Holz, W. C. (1966). Punishment. In W. K. Honig (Ed.), *Operant behavior: Areas of research and application* (pp. 380–447). New York: Appleton-Century-Crofts.
- Azrin, N. H., Hutchinson, R. R., & Hake, D. F. (1967). Attack, avoidance, and escape reactions to aversive shock. *Journal of the Experimental Analysis of Behavior*, *10*(2), 131–148.
- Bihm, E. M., & Sigelman, C. K. (1991). Effects of behavioral treatment, treatment setting, and client IQ on person to person perception. *Basic and Applied Social Psychology*, *12*, 341–355.
- Bihm, E. M., Sigelman, C. K., & Westbrook, J. P. (1997). Social implications of behavioral interventions for persons with mental retardation. *American Journal on Mental Retardation*, *101*, 567–578.
- Blacher, J. (1994). Placement and its consequences. In J. Blacher (Ed.), *When there's no place like home: Options for children living apart from their natural families* (pp. 213–244). Baltimore: Brookes.
- Blatt, B. (1973). *Souls in extremis: An anthology on victims and victimizers*. Boston: Allyn & Bacon.
- Bogdan, R. C. (1986). Exhibiting mentally retarded people for amusement and profit, 1850–1940. *American Journal of Mental Deficiency*, *91*(2), 120–126.
- Bowman, L. G., Fisher, W. W., Thompson, R. H., & Piazza, C. C. (1997). On the relation of mands and the function of destructive behavior. *Journal of Applied Behavior Analysis*, *30*, 251–265.
- Carr, E. G., & Durand, V. M. (1985). Reducing behavior problems through functional communication training. *Journal of Applied Behavior Analysis*, *18*(2), 111–126.
- Carr, E. G., Horner, R. H., Turnbull, A. P., Marquis, J. E., Magito McLaughlin, D., McAtee, M. L., Smith, C. E., Anderson Ryan, K., Ruef, M. B., & Doolabh, A. (in press). *Positive behavior support in people with developmental disabilities: A research synthesis*. [Monograph]. Washington, DC: American Association on Mental Retardation.
- Carr, E. G., Levin, L., McConnachie, G., Carlson, J. L., Kemp, D. C., and Smith, C. E. (1994). *Communication based intervention for problem behavior: A user's guide for producing positive change*. Baltimore: Brookes
- Ducharme, J. M., Pontes, E., Guger, S., & Crozier, K. (1994). Errorless compliance to parental requests: II. Increasing clinical practicality through abbreviation of treatment parameters. *Behavior Therapy*, *25*, 469–487.
- Ducharme, J. M., Popynick, M., Pontes, E., & Steele, S. (1996). Errorless compliance to parental requests III: Group parent training with parent observational data and long-term follow-up. *Behavior Therapy*, *27*, 353–372.
- Dunlap, G., Kern-Dunlap, L., Clarke, S., & Robbins, F. R. (1991). Functional assessment, curricular revision, and severe behavior problems. Special issue: Social validity: Multiple perspectives. *Journal of Applied Behavior Analysis*, *24*, 387–397.
- Durand, V. M. (1993). Functional communication training using assistive devices: Effects on challenging behavior and affect. *Augmentative & Alternative Communication*, *9*, 168–176.
- Ferguson, P. M. (1994). *Abandoned to their fate: Social policy and practice toward severely retarded people in America, 1820–1920*. Philadelphia: Temple University Press.
- Foxx, R. M. (1990). "Harry": A ten year follow-up of the successful treatment of a self-injurious man. *Research in Developmental Disabilities*, *11*(1), 67–76.
- Gert, B. (Ed.). (1996). *Morality and the new genetics: A guide for students and health care providers*. Boston: Jones and Barlett.

- Gert, B. (1998). *Morality: Its nature and justification*. New York: Oxford University Press.
- Gert, B., Culver, C. M., & Clouser, K. D. (1997). *Bioethics: A return to fundamentals*. New York: Oxford University Press.
- Guess, D., Turnbull, H. R., & Helmstetter, E. (1990). Science, paradigms, and values: A response to Mulick. *American Journal on Mental Retardation*, 95(2), 157–163.
- Hanley, G. P., Piazza, C. C., & Fisher, W. W. (1997). Noncontingent presentation of attention and alternative stimuli in the treatment of attention-maintained destructive behavior. *Journal of Applied Behavior Analysis*, 30, 229–237.
- Hastings, R. P., & Remington, B. (1994). Rules of engagement: Toward an analysis of staff responses to challenging behavior. *Research in Developmental Disabilities*, 15(4), 279–298.
- Horner, R. (1990). Ideology, technology, and typical community settings: Use of severe aversive stimuli. *American Journal on Mental Retardation*, 95(2), 166–168.
- Horner, R. H., & Albin, R. W. (1988). Research on general-case procedures for learners with severe disabilities. Special issue: Direct instruction: A general case for teaching the general case. *Education and Treatment of Children*, 11(4), 375–388.
- Horner, R., Close, D., Fredericks, H. D., O'Neill, R., Albin, R., Sprague, J., Kennedy, C., Flannery, K. B., & Tuesday-Heathfield, L. (1996). Supported living for people with profound disabilities and severe problem behaviors. In D. Lehr & F. Brown (Eds.), *People with disabilities who challenge the system* (pp. 209–242). Baltimore: Brookes.
- Horner, R. H., Day, H. M., Sprague, J. R., O'Brien, M., & Heathfield, L. T. (1991). Interspersed requests: A nonaversive procedure for reducing aggression and self-injury during instruction. *Journal of Applied Behavior Analysis*, 24, 265–278.
- Horner, R. H., Dunlap, G., Koegel, R. L., Carr, E. G., Sailor, W., Andersen, J., Albin, R. W., & O'Neill, R. E. (1990). Toward a technology of "nonaversive" behavioral support. *Journal of the Association for Persons with Severe Handicaps*, 15(3), 125–132.
- Karsh, K. G., Repp, A. C., Dahlquist, C. M., & Munk, D. (1995). In vivo functional assessment and multi-element interventions for problem behaviors of students with disabilities in classroom settings. Special issue: Tom Haring memorial issue. *Journal of Behavioral Education*, 5(2), 189–210.
- Kehle, T. J., Clark, E., Jenson, W. R., & Wampold, B. E. (1986). Effectiveness of self-observation with behavior disordered elementary school children. *School Psychology Review*, 15(2), 289–295.
- Kemp, D. C., & Carr, E. G. (1995). Reduction of severe problem behavior in community employment using an hypothesis-driven multicomponent intervention approach. *Journal of the Association for Persons with Severe Handicaps*, 20, 229–247.
- Kennedy, C. H., & Souza, G. (1995). Functional analysis and treatment of eye poking. *Journal of Applied Behavior Analysis*, 28(1), 27–37.
- Knapczyk, D. R. (1988). Reducing aggressive behaviors in special and regular class settings by training alternative social responses. *Behavioral Disorders*, 14(1), 27–39.
- Knobbe, C. A., Carey, S. P., Rhodes, L., & Horner, R. H. (1995). Benefit-cost analysis of community residential versus institutional services for adults with severe mental retardation and challenging behaviors. *American Journal on Mental Retardation*, 99(5), 533–541.
- Koegel, R. L., Camarata, S. M., & Koegel, L. K. (1994). Aggression and noncompliance: Behavior modification through naturalistic language remediation. In J. L. Matson (Ed.), *Autism in children and adults: Etiology, assessment, and intervention* (pp. 165–180). Pacific Grove, CA: Brooks/Cole.
- Koegel, R. L., Koegel, L. K., & Dunlap, G. (1996). *Positive behavioral support: Including people with difficult behavior in the community*. Baltimore: Brookes.
- Lerman, D. C., Iwata, B. A., Smith, R. G., & Vollmer, T. R. (1994). Restraint fading and the development of alternative behaviour in the treatment of self-restraint and self-injury. *Journal of Intellectual Disability Research*, 38(2), 135–148.
- Lucyshyn, J. M., Albin, R. W., & Nixon, C. D. (1997). Embedding comprehensive behavioral support in family ecology: An experimental, single case analysis. *Journal of Consulting and Clinical Psychology*, 65, 241–251.
- Maguire, K. B., Lange, B., Scherling, M., & Grow, R. (1996). The use of rehearsal and positive reinforcement in the dental treatment of uncooperative patients with mental retardation. *Journal of Developmental and Physical Disabilities*, 8, 167–177.
- Mechanic, D., & Rochefort, D. A. (1990). Deinstitutionalization: An appraisal of reform. *Annual Review of Sociology*, 16, 301–327.
- Meyer, L. H., & Evans, I. M. (1989). *Nonaversive intervention for behavior problems: A manual for home and community*. Baltimore: Brookes.
- Milonas v. Williams, 691 F.2d 931 (1982).
- O'Brien, F. (1989). The punishment of people with developmental disabilities. In E. Cipani (Ed.), *The treatment of severe behavior disorders* (pp. 37–58). Washington, DC: American Association on Mental Retardation.
- Rennie v. Klein, 452 U.S. 920 (1978).
- Root, M. (1993). *Philosophy of social science: The methods, ideals, and politics of social inquiry*. Oxford, England: Blackwell.
- Sanders, M. R., & Plant, K. (1989). Programming for generalization to high and low risk parenting situations in families with oppositional developmentally disabled preschoolers. *Behavior Modification*, 13, 283–305.
- Saunders, R. R., Saunders, M. D., Brewer, A., & Roach, T. (1996). Reduction of self-injury in two adolescents with profound retardation by the establishment of a supported routine. *Behavioral Interventions*, 11(2), 59–86.
- Schopler, E. (1986). Treatment abuse and its reduction. *Journal of Autism and Developmental Disorders*, 16(2), 99–104.
- Shelton v. Tucker, 364 U.S. 479 (1960).
- Sigafoos, J., Penned, D., & Versluis, J. (1996). Naturalistic assessment leading to effective treatment of self-injury in a young boy with multiple disabilities. *Education and Treatment of Children*, 19(2), 101–123.
- Singer, G. H. S., & Irvin, L. K. (1987). Human rights review of intrusive behavioral treatments for students with severe handicaps. *Exceptional Children*, 54(1), 46–52.
- Smith, M. D., & Coleman, D. (1986). Managing the behavior of adults with autism in the job setting. *Journal of Autism & Developmental Disorders*, 16(2), 145–154.
- Steed, S. E., Bigelow, K. M., Huynen, K. B., & Lutzker, J. R. (1995). The effects of planned activities training, low-demand schedule, and reinforcement sampling on adults with developmental disabilities who exhibit challenging behaviors. *Journal of Developmental and Physical Disabilities*, 7(4), 303–316.
- Thompson, T., Robinson, J., Dietrich, M., & Farris, M. (1996). Interdependence of architectural features and program variables in community residences for people with mental retardation. *American Journal on Mental Retardation*, 101(3), 315–327.
- Trent, J. (1994). *Inventing the feeble mind: A history of mental retardation in the United States*. Berkeley: University of California Press.
- Van Houten, R., Axelrod, S., Bailey, J. S., Favell, J. E., Foxx, R. M., Iwata, B., & Lovass, O. I. (1988). The right to effective behavioral treatment. *Journal of Applied Behavior Analysis*, 21, 381–384.
- Vollmer, T. R., Iwata, B. A., Smith, R. G., & Rodgers, T. A. (1992). Reduction of multiple aberrant behaviors and concurrent development of self-care skills with differential reinforcement. *Research in Developmental Disabilities*, 13, 287–299.
- Wyatt v. Stickney, 344 F.Supp. 387 (1982).
- Youngberg v. Romeo, 451 U.S. 982 (1982).

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