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ABSTRACT

Criteria for applying aversive stimulation with severely handicapped children are examined, and practical and ethical issues are considered. Factors seen to influence punishment outcomes include timing, intensity, and schedule of reinforcement. Suggested is the need for further research on the comparative effectiveness of positive and negative reinforcement on similar behaviors. (CI)

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AVERSIVE STIMULATION - CRITERIA FOR APPLICATION

U.S. DEPARTMENT OF HEALTH,  
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I approach the task of suggesting criteria for application of aversive stimuli with some degree of reluctance. The topic is difficult to approach in detached and objective ways. The concept of punishment tends to generate recall of educational methods which we would today consider both operationally and philosophically primitive. The use of punishment suggests cruel, humiliating, ego-destructive experiences.

If there is a significant residue of the progressive education movement in the schools today, it is awareness of the need for a more humane educational environment. A significant outcome of the child study movement was the creation of more scientifically based, humane classroom environments. Corporal punishment is now illegal in most states and few knowledgeable professionals would suggest that it should be otherwise.

Why then should the topic of punishment and aversive consequences become the subject of extensive research and inquiry? Why are we again suggesting that perhaps, under certain circumstances, physical forms of punishment may, in fact, be appropriate?

Punishment, whether physical or otherwise, in fact, continues today in every classroom. Perhaps, because of our prevailing philosophical posture, we in this country tend to favor more covert and verbal forms of punishment. The lashing with a whip has been replaced with verbal lashings. We have generally tended to avoid physical punishment. I would suggest, however, that you look very closely at the many forms of punishment which are commonplace in American schools. Many are subtle and difficult to detect, but they are nevertheless present. They are frequently far more dangerous and destructive to the child than some forms of aversive consequences currently being investigated. Emotional blackmail and threats of withdrawal of affection are commonplace in many classrooms. Sarcasm and other forms of verbal punishment are equally prevalent. The teacher may well be restricted by law and collegial pressure from using overt forms of physical punishment. However, there may be little to deter the use of these other potentially far more harmful forms of punishment. Teacher aggression is often masked under the guise of socially accepted forms of classroom control. If one can look beyond the immediate emotional reaction to the concept of aversive consequence, one may find some forms more humane, affective and palatable than types of punishment more commonly in use.

My purposes this morning are two-fold. I would like to analyze some of the practical and ethical problems raised by intervention strategies which

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incorporate aversive consequences in an effort to suggest factors which should be considered. I would hope also to assist in the establishment of a climate of inquiry where continuing research and development is possible. Effective intervention strategies for severely and profoundly handicapped children are hardly so numerous that we can afford to overlook or neglect techniques which can ameliorate some of the many devastating deficits experienced by severely and profoundly handicapped individuals.

There are two major problems which must be considered when discussing punishment. The first problem is the unpredictability of punishment particularly with regard to side effects which may occur. The second problem is confusion concerning the effectiveness of punishment. It is necessary to consider both problems as background before suggesting criteria. The unpredictability of punishment and the occurrence of side effects have been well documented. Some stimulus generalization does, in fact, occur when punishment is applied. The person administering punishment may, in fact, become a secondary aversive stimulus. Problems of predictability of effects can be intensified or reduced by factors such as the following:

- a. timing of punishment
- b. intensity of punishment
- c. nature of punishment
- d. previous history of punishment
- e. status of punisher
- f. schedule of punishment

Any one or more of these factors may influence the outcomes of the punishment. One might also raise the same question of predictability about the effects of positive reinforcement. If positive reinforcement is not administered with certain temporal parameters of the behavior being reinforced, it may well be that the teacher is inadvertently reinforcing inappropriate behavior. The efforts of classroom teachers to administer positive reinforcement are often confused by factors such as the nature of the reinforcing event being inappropriate. Verbal praise may have neutral or negative valence depending on the child and the situation. The quantity of positive reinforcement in classrooms is usually inadequate and schedules of classroom reinforcement are often confused, inconsistent and generally ineffective.

If one analyzes laws governing positive and negative reinforcement, one will find that the laws for both are quite similar. If one wishes to question the use of aversive stimuli on the basis of unpredictability, one might also question the use of positive reinforcement on the same basis. As knowledge of behavioral principles has progressed, we have been able to reduce undesirable outcomes resulting from both positive and negative strategies.

Data concerning the effectiveness of aversive stimuli or punishment is increasingly impressive. Aversive stimulation may produce dramatic and

long-lasting changes in behavior. If aversive stimulation is sufficiently intense, sudden, and is scheduled properly, the outcome can be relatively permanent behavioral change in desired directions. Many of the early concerns about the transient nature of behavioral change tend not to have been substantiated by the research of the last decade.

While further discussion of usefulness may not be particularly helpful at this point, it would be well to explore the more complex philosophical and ethical kinds of questions which surround this topic. Assuming that aversive stimulation is effective and is the desired therapeutic tool, should it be applied? If it should be applied, when and how? The "should" dimension of the problem is by far the most complex.

The use of physical forms of punishment raises certain legal kinds of questions. At the present time, the Supreme Court is considering a case which may result in a mandate that children have legal counsel before being placed in institutions. The question is whether or not a child is entitled to the same rights of choice as an adult. It may well be, given a court test, that it will eventually be decided that children should be represented by legal counsel before the use of aversive stimulation is permitted. The sequence of legal precedents which are emerging in special education certainly suggests that a great deal of caution be exercised prior to the establishment of a program of aversive stimulation.

Before applying aversive stimulation as a therapeutic tool, one should first be certain that all positive forms of reinforcement have been attempted and discarded. Have all other alternatives for behavioral change been exhausted prior to intervention with aversive stimuli. For humanistic and practical reasons, positive reinforcement should certainly be the primary therapeutic tool.

One must further question whether the behaviors being trained or extinguished are behaviors perceived to be good for the individual or simply behaviors good for the organization. We must examine carefully whether we are attempting to ensure maximum development of individual potential or simply ensuring a more compliant and less troublesome child. It is quite possible that the courts will demand evidence that the behaviors are, in fact, being developed as a means of ensuring optimum growth of the child.

One of the most perplexing and perhaps complex concerns involves appropriate controls over the administration of aversive stimulation. Are the aversive stimuli being applied as a means of promoting individual behavior change or are they simply an expression of the frustration or latent aggression of the administrator? What qualifications should be considered minimal for an individual authorized to apply aversive stimuli as a mode of behavioral change? I recently heard about a program for the severely and profoundly handicapped where teachers were armed with spray bottles of Tabasco sauce. The Tabasco sauce was applied liberally to the tongue of any individual who failed to respond in ways desired by the teacher or who responded in ways which the teacher deemed inappropriate. Concerns about scheduling, intensity and similar variables which, in fact, modify the effectiveness of punishment seemed not to have been in evidence. Suddenness appeared to be the only

variable consistently observed. I would have to raise very grave, and serious questions about programs which permit what I would consider to be rather injudicious application of aversive stimuli. Should not an individual demonstrate some degree of competence and knowledge of behavioral principles before being permitted to use or perhaps misuse a technique such as this?

I would further suggest the importance of continuing to study the comparative effectiveness of positive and negative reinforcement on similar behaviors. It may well be that we will identify certain types of behaviors where positive reinforcement tends to be more effective than negative. We also need to determine whether there are certain types of children who respond more favorably to either positive or negative reinforcement. It may well be that, for a variety of reasons, aversive stimuli should be the method of choice with some children for certain behaviors while positive reinforcement should be used with other children for changing the same behavior.

Most data regarding the effectiveness of aversive stimulation has been developed around two classes of unwanted behaviors, namely self-stimulation and self-destructive forms of behavior. Not unexpectedly, the data has been used on occasion to validate the use of the negative reinforcement strategies with a wide variety of behaviors unrelated to those where the data was developed. Quite likely, it has been used on some behaviors and with certain children where positive reinforcement would have been more effective and efficient.

I have only suggested a few of the many cautions which can be raised regarding the appropriateness of aversive forms of behavioral management. I think it is perhaps equally important to point out the many occasions where this form of therapy may be indicated.

Generally, punishment leads to more rapid changes in behavior. At least initially, punishment will quickly suppress unwanted behaviors. There may well be situations where aversive stimulation paired with positive reinforcement will more efficiently lead to the development of new desired behaviors.

Aversive stimulation has frequently been used as a means of extinguishing self-destructive forms of behavior. It would appear that, where the protection of the individual is a concern, the use of aversive stimulation should certainly be explored. Is it better to allow the child to continue self-destructive forms of behavior rather than use a tool which can very quickly extinguish those behaviors? Is it better to allow an institutionalized retarded child to bang his head to the point of death rather than apply appropriate punishment? Is it more humane to leave a child tied to a bed for five or eight consecutive years rather than extinguish the self-destructive behaviors which make restraint necessary?

Aversive stimulation may be the treatment of last resort. In most cases in the literature, the individual subjects had been treated for extended periods of time with more traditional treatment methods. Aversive stimulation was used only after every other form of treatment had proven ineffective.

I realize that I may have failed to raise many other questions and concerns which might be relevant to this topic. I also am aware of the incompleteness of the discussion of some issues. However, I hope I have helped create

a climate where further inquiry is feasible. I have no wish to see severely and profoundly handicapped children exposed to a situation such as that experienced by McMurphy and other participants in "Cuckoo's Nest". However, I also have no wish to see children deprived of intervention strategies which may be their last, best hope for personal growth. It is in this spirit that I hope we can continue to discuss this topic.