A CASE FOR THE SELECTIVE REINFORCEMENT OF PUNISHMENT

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Within the last five years, Risley (1968), Kushner (1967), Lovaas and his associates (1965, 1968) and several others have presented us with some intriguing examples of a relatively new technique for application to clinical problems of behavior. They have been able to show good results of this technique: the problems to which it was applied were remediated, and (especially in the cases of Risley and Lovaas) the side effects were almost entirely desirable ones. These investigators have been able to point to an extensive area of earlier research with animals using analogous techniques, out of which a good deal of the human application was derived. And they have shown that both the animal experiments and the recent human applications can be related to a common body of theory concerning the behavior of organisms in general.

By the usual standards of science, there ought to be great delight and applause throughout the relevant clinical and research communities. Consider: a problem area of human suffering has been attacked, by bringing new ideas to it from what might well be a closely related area of knowledge. The attack has proceeded in a responsible manner, first by repeated and intensive experimentation with laboratory animals; then, following promising results in that effort, by cautious applications to human cases typically not responding well to other, more standard methods of treatment. The human applications have often been made in hospital settings, or under the scrutiny of concerned professionals, and when necessary have sacrificed good experimental design to the interest of promoting the patients best welfare. All of that, I suggest, is of the essence of good and responsible science devoted to man's benefit. Had the technique in question been a vaccination to immunize us from cancer, there would indeed be great delight and applause. The delight would have been tempered by that standard scientific uneasiness about using a technique not yet completely understood, but that would simply have lead to further research efforts in all relevant directions, and the applause, I think, would have been undiminished.

In this particular case, I wonder whether there will be that sort of delight and applause throughout the relevant communities, or whether uneasiness will be the prepotent response. Preliminary sorts of observations over the last few years suggest the latter to me. This case is different, perhaps, because the name of the technique is not vaccination but punishment.

Punishment is something that we may think we know a lot about, and none of it good. My own field of specialization is child development; in that field, I am repeatedly jarred by statements of the form, "We know that punishing a child is worse than ineffective..." We Know? My students are being taught, that we know what we can demonstrate. They are probably happy with the reports of Risley, Lovaas and Kushner, because they are full of demonstrations and references to other demonstrations, with rather good consistency in what they show. I hope that my students are also

entertaining the standard scientific uneasiness that should come with not possessing the whole story about punishment and its total effect on numan behavior. However, their restlessness should mean only that they wish to return to the lab and try some of the unanswered questions in demonstrations of their own. I mean to honor them in this ambition; I have only a few points to make here, and they are essentially moralistic rather than scientific points. Moralistic points are typically brief, perhaps because they require no experimental design.

I have suggested that we know what we can demonstrate. I have also suggested that we think we know that punishment is inherently a bad technique for accomplishing desirable behavioral changes. But the Risley, Lovaas and Kushner demonstrations, and others, suggest the opposite: that punishment may be a very desirable technique indeed for accomplishing certain behavioral changes. If there is a moral point here, it is the one familiar to all scientists and practitioners alike: we had better get what we think we know in line with what we can demonstrate. That leads in a very straightforward way to a deduction: we had better continue a careful and extensive study of the punishment of human behavior. But if I read the feeling of the field correctly, there will be objections to continuing these demonstrations, as there have been objections in the past, and are today. It will be a shame if, consequently, the demonstrations are not pursued, or are not pursued as extensively as our current curiousity and ignorance press us to.

It will be even more of a shame if objections to such research on punishment are intrinsically confused in their own moral stance. For example: suppose that I show you a child, institutionalized as a retardate, who has over the years developed a very successful attention-compelling behavior: self destruction. Suppose that in this case, the child has learned to tug and pull at his ear because it makes his attendants concerned and attentive, and has finally come to the point where, if he is unrestrained, he will in fact rip it literally from his head - he has, let us say, half succeeded in this venture already. As a result, he wears a straitjacket all the hours of his existence, and apparently will continue to do so; or, perhaps, he is so heavily tranquilized that he lies about always in a semi-stupor, gazing vacantly at the ceiling from his sprawl on the floor, and apparently will live out his days primarily in that condition. Now, I suggest to you that he was indeed taught this performance: He was reinforced for ear-tugging rather than for other, more desirable behaviors, because his caretakers were busy, and could ignore acceptable behavior more easily than selfdestructive behavior. Successively in their busy lives, they became used to his current self-destructive ear-tugging, so that only when it was more self-destructive than usual would they condider that they must do something. Thereby, they reinforced intense self-destruction in favor of mild self-destruction. Had they designed a shaping program to instruct the child in his own destruction, they could hardly have proceeded better. Note the care with which they taught him, slowly and systematically, to endure greater and greater pain in return for a few seconds of their attention. Note also how they used one of the cheapest reinforcers available to them: a little glancing at the child, a modest amount of vocal noise, and some

brief laying on of hands. A moral onlooker to this process, if he understood it as such, might understandably display anger and indignation: Do we institutionalize our retarded children so that they may be taught, as cheaply as possible, to approach their own self-destruction; and then frustrate them on the brink of accomplishment in favor of the living death of 24-hour-per-day restraints or the half-living death of 24-hour-per-day stupor?

Certainly not. At least, certainly not by design. Yet it is strange how often it works to the same outcome, design or no design. No doubt we may escape the onlooker's moral indignation by pointing out that we meant well, and that we had no idea that response differentiation could be accomplished that easily with so simple a stimulus as human attentiveness, even in settings where attentiveness is rare. We may even point out that the whole indictment is only a hypothesis, after all. (This last point is in fact a strong one, because the hypothesis is unlikely ever to be proven directly: I am unaware of any behavior therapist who would be willing to shape a child to pull his ear off his head, just to prove to sceptics how easily it could be done by social influence in an institutional setting).

However, we may not so easily escape the next moral trap. That is the one which becomes possible when our behavior therapist colleagues appear, apparatus in hand. They note the existence of self-destroyers in our institution, and wonder if they might not end that horror with some carefully applied aversive faradic controls. Some of us will be very interested in that possibility until we discover that they mean electric shock. If we refuse because they mean electric shock, then I suggest that we have fallen thoroughly into the moral trap. In our professional wisdom, we have assigned people to institutional life, allowed them to be taught their own self-destruction, and confined them to a small hell in consequence. Can we now refuse that they endure a small number of painful episodes over a short span of sessions, designed hopefully to allow them to live the rest of their lives awake and untied?

My example is extreme. But the behavior therapist is also knocking at doors other than those of the institutions, and he is asking about behaviors other than those that are clearly self-destructive. The moral formula, as best I can discern with training only in psychology, is much the same in any case: Is not a small number of brief but painful experiences a reasonable exchange for escape from a life idefinitely distorted by some durable form of maladjustment? It seems to me that this question changes only a little in its meaning, even when the form of maladjustment referred to may vary from the grave problems of drug addiction and alcoholism to a culturally approved form of suicide like smoking, and even to such quirks as excessive blinking. As many as twenty shocks over a few sessions might be greatly preferred to a lifetime of social handicap brought about by the fact that people think you look absurd blinking away that — especially when they find themselves beginning to blink, too, and decide to keep away from you.

It may be objected that I am arguing that a better life is an end which justifies a means to that end even so immoral as punishment. The situation of clinical practice is too complicated, I believe, to allow even that simple

formula to apply. Not to rescue a person from an unhappy organization of his behavior is in itself to punish him, or at least to leave him in a state of recurrent punishment. It may not be electric, but apparently it hurts nonetheless. When the seventy-seventh girl that you have met starts edging away from you, staring strangely as you blink furiously on to new achievements in rate, then I think that in your misery you may ask your therapist some pressing questions. Among these may be the following:

- 1. Why won't you shock those blinks out of me? People hurt me when I blink at them; they do it every day and have done so for years; and either I turn into a hermit or they will keep on hurting me the rest of my life.
- 2. All right, you're going to do it with positive methods instead. How long will it take?
- 3. All right, you're going after the real dynamics, not just the symptoms. How long will it take?

That question, How long will it take? is the morally critical question, in my opinion. For a time goes by while the therapist tries his hopefully more benevolent or more basic methods, the patient still undergoes punishment while he waits for a good outcome. In effect, the therapist has assigned the patient to remain in a punishment condition from which he might have removed him. If he has, this robs that therapist of any moral superiority over the therapist who will assign the patient to shock punishment in the interests of allowing the patient to escape from social punishment. The basic questions would seem to be, which punishment is tougher, and which lasts longer? We have merely a double-entry bookkeeping problem here, not a moral one, in that case.

Is it really true that the therapist might have removed the patient from a socially punishing condition, by shocking his blinks out of him in a few brief sessions? The recent studies suggest that it may very well be true, at least sometimes. If we object to the study of punishment in humans, however, we will not find out much more about it; in particular, we will not find out when it is likely to work well and when it is not, and consequently, we will be unable to do our double-entry bookkeeping. That is tantamount to saying that we will not find out when the process of therapy could be less punishing than it often is, because we object to research on punishment. More specifically, we would be saying that we will not find out how to make therapy less socially punishing than it often is, because we object to research on shock punishment.

One of the delights of moralistic argument, I am discovering, is the ease with which it can be extended in all directions. Let me now warn us all against punishment.

Punishment works, I submit. There is too much in the way of careful laboratory demonstration to resist that conclusion. Consequently, punisher's should succeed often in eliminating the behavior they mean to eliminate. That may reinforce them, which is to say, their rate of using punishment in the future, and in steadily more diverse situations, will rise. Contributing to that tendency is the extreme simplicity of punishment technique and technology. Anyone with a hand to swing is equipped with a punishing device. The Sears-Roebuck farm catalog lists a number of inexpensive and

reliable cattle prods. Furthermore, the punishment contingency is the essence of simplicity, compared to which positive reinforcement and its allied and complex art of shaping looms as a formidable mystery indeed. Thus, there is reason to believe that punishment could become the first and, woefully, the exclusive behavioral technique some carelessly trained persons might use. That would indeed be a tragic outcome. For one thing, punishment is painful, and the essence of my argument (and of everyone else's) is that we should have as little pain as we can. Thus, we want to use as little punishment as we can, not as much. To find out how to use one form of punishment so as to minimize other forms of punishment, and what the exchange relationships can be, we will have to study punishment; to study it, we will have to use it. To use it is not to glorify it. That is an obvious point, I know. But to use punishment successfully, as I have said, is to subject your self to an environmental event which may press you to use it again, and more. That, we shall have to watch with great care. Furthermore, to apply punishment to another is to become discriminative for that punishment, most likely. Stimuli which are discriminative for punishment and for nothing else acquire a punishing function themselves. If the person who applies punishment becomes himself a punishing stimulus for another, he should expect all the behaviors which behavior theory cites: escape, avoidance, and simple removal with respect to that stimulus. One way to remove a social stimulus is to murder it. Clearly, anyone using punishment should look to his total stimulus function with great care. This care is very apparent in the studies of Risley and Kushner, and even more apparent in those of Ivar Lovaas: a very limited use of punishment is combined with quite extensive programs of positive reinforcement of others behaviors, and care again is taken to see that these positive reinforcers are indeed encountered in abundance. In In Lovaas' work particularly, positive reinforcement programs surpass "extensive" and approach "monumental". Probably, it is difficult to err in that direction.

Finally, it should be remembered that punishment is most effective as a behavior-removing technique. Some of the problems of clinical practice are exactly that, but I suspect that they are typically combined with more extensive problems of behavior building, if a good and thorough outcome is to be achieved. But punishment is not an efficient technique of behavior building. In principle, it can be used: one can specify a behavior to be acquired, and punish all response other than that. The behavior may indeed be built up, but very often it will be acquired slowly and with the concomitant learning by the subject that whoever is programming the punishment would be a good stimulus to be rid of.

That last point — that behavior which escapes punishment is likely to grow in strength — is important to the design of punishment studies. If the therapist places himself in the position of programming punishment for the patient until the patient reports improvement, then the therapist should always consider that he may have conducted a verbal conditioning study rather than a therapeutic change in the patient's more critical behaviors. As long as the patient can avoid further punishment sessions simply by remarking that he no longer is impotent, or afraid of crowds, or depressed,

or smoking, it remains possible that he will do just that — and only that. A considerable number of behavior therapy studies seem to rely simply upon the patient's verbal report of his condition as the sole measurement of that condition. Verbal behavior responds to reinforcement, punishment, and extinction contingencies just as do other operant behaviors. The fact that the content of that verbal behavior appears to be a description of other behaviors does not remove it from sensitivity to such contingencies. This truism applies to any therapeutic technique, of course, but it may well have special relevance to punishment techniques.

In summary, then, it must be clear that I have not recommended punishment either as a way of life or as a way of psychotherapy. It is a technique of sharply limited applicability in the processes of behavioral change, but, as recent work shows us, its applicability is well above zero, and when it can be reasonably applied, its benefits may be great. To find out more thoroughly the extent to which this is true, we shall have to use punishment experimentally and carefully — but we shall have to use it. For it may be the case that we are now forcing some patients to endure much greater punishment than necessary, simply by declining to apply a smaller amount of punishment to them systematically and therapeutically.

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