

Azrin N H, Kaplan S J & Foxx R M. Autism reversal: eliminating stereotyped self-stimulation of retarded individuals. *Amer. J. Ment. Defic.* 78:241-8, 1973.
[Behavior Research Laboratory, Anna State Hospital, IL]

An overcorrection procedure was found to be effective in reducing the inappropriate stereotyped behavior of retarded persons by 95 percent when combined with a reinforcement procedure. The reinforcement alone had reduced the behavior by about two-thirds. [The *SC*® and *SSC*® indicate that this paper has been cited in over 120 publications, making it this journal's most-cited paper.]

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August 25, 1988

The widespread attention received by this study is probably because it was the first clinically effective method of eliminating the behavioral stereotypy, also known as self-stimulatory behavior, of retarded or autistic persons. A second reason is that the study used a novel method, since known as overcorrection and currently widely used as a general psychological procedure.

I was employed at the time as the director of a research program at a State of Illinois hospital for retarded and mentally disordered patients and had developed a method for toilet training retarded adults.¹ One component of the training was "cleanliness training," a requirement that the trainees shower and clean up extensively after they soiled themselves. Since this cleaning up seemed so effective, I tried to conceptualize it into more general terms that might suggest general applicability. I formulated a principle of "restitution": deterrence for negative behaviors could be achieved by requiring the person to correct the disruption resulting from the action. This principle was tested on the aggressive behaviors of mental-hospital patients and found to be effective, to my delight.² The disruptive

patients were required to clean up, fix the damage they did, and reassure any victims of their aggression. A new psychological principle seemed to have been formulated for dealing with perhaps any negative behavior that caused physical or social disruption.

But, how could this principle be applied to inappropriate behaviors that caused no physical or social disruption and therefore could not be corrected? A limiting case seemed to be the self-stimulatory behavior of retarded, autistic patients since by definition their actions affected only themselves, consisting of repetitive movements of their head, hands, torso, and so on. The answer I arrived at was the "Positive Practice" principle, which states that deterrence will result by requiring the trainee immediately to practice the appropriate response whenever an inappropriate response is made. For self-stimulation, this formulation suggested that upon a self-stimulatory response, the trainee be required to engage in the correct or appropriate use of that same part of the body. The present study evaluated this; it worked, thereby establishing overcorrection/positive practice as a general treatment procedure as well as providing the first procedure for eliminating self-stimulatory behavior. The procedures are now in use for many different problems.³

The specific moment when the new procedure was used was when one trainee, in the toilet-training study noted above,¹ seemed to soil himself deliberately and provocatively in front of the nursing station even after he had been taught to toilet properly. We had tried several of the deterrent procedures available at that time—time-out, extinction, reinforcement of competing behaviors—all to no avail. I remember instructing Richard M. Foxx, who was my research assistant and coauthor, in desperation, "Well if nothing works, at least have him clean up." The surprise was that the soiling accidents then decreased. From that incident was born the overcorrection principle and the effective treatment of self-stimulation.

1. Azrin N H & Foxx R M. A rapid method of toilet training the institutionalized and retarded. *J. Appl. Behav. Anal.* 4:89-99, 1971. (Cited 160 times.)
2. Foxx R M & Azrin N H. Restitution: a method of eliminating aggressive-disruptive behavior of retarded and brain damaged patients. *Behav. Res. Ther.* 10:15-27, 1972. (Cited 175 times.)
3. Macfarlane C A, Young K R & West R P. An integrated school/home overcorrection procedure for eliminating stereotypic behavior in students with severe multiple handicaps. *Educ. Train. Ment. Retard.* 22:156-66, 1987.