

BEHAVIOR THERAPY WITH AN ACROPHOBIC MENTALLY RETARDED YOUNG ADULT

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Summary—A case is presented in which an acrophobic mentally retarded young adult was successfully treated by systematically sequencing and combining the behavior therapy techniques of imaginal systematic desensitization with visual supports, *in vivo* desensitization, and behavior shaping.

THE APPLICATION of behavior therapy techniques to less articulate individuals, such as children or those with certain neurological handicaps, has often required modifications of procedures normally used. For example, Lazarus and Abramovitz (1962) successfully employed a technique referred to as emotive imagery to a variety of phobic children. In this procedure, considered by them to be a variant of systematic desensitization (Wolpe, 1958), children are asked to imagine stories that engender a highly positive affective response. The feared events are then gradually woven into the story in accordance with a previously established anxiety hierarchy. Related procedures can be found in reports by Lazarus, Davison and Polefka (1965) and Obler and Terwilliger (1970). The following is a case study in which an acrophobic mentally retarded young adult was successfully treated by a procedure involving the systematic sequencing and combining of the behavior therapy techniques of imaginal systematic desensitization with visual supports, *in vivo* desensitization, and behavior shaping.

METHOD

Subject. David is a 21-yr-old mongoloid (Down's syndrome) male currently enrolled in a private residential institution. His severe acro-

phobia was a constant source of anxiety, markedly restricting his participation in the general program at the treatment center. A recently administered Stanford-Binet intelligence test (Form L-M) revealed an I.Q. of 33.

Procedure. The specific behavioral goal selected was standing for 3 min on a 16-in. high ledge attached to a wall in the gym and jumping to the floor without difficulty. This activity was chosen because David displayed unusually intense fear in this situation, especially during the physical education period.

In order to obtain the necessary environmental control, a simulation of the ledge standing task was set up in the therapist's office. Materials included a series of large blocks of graduated height and a sturdy chair 20 in. in height. The chair was placed firmly against a wall containing a short edge that could be used to hold on to while standing on the chair. An anxiety hierarchy was constructed beginning with standing for brief periods at a very low height while being supported by the wall and holding on, and terminating with three minutes of unsupported standing on the chair (20-in.-high) while observing various objects in different corners of the therapist's office, and then jumping to the floor. The expectation was that performance on this simulated task would generalize to the ledge in the gym.

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The first five sessions, each generally lasting approximately 30 min, were partly devoted to firmly establishing a positive relationship with the client. David was engaged in conversations about pleasant events by the therapist and presented with ample amounts of candy, food and praise. Additionally, relaxation training was introduced in the second session and continued for four sessions. The procedures described by Wolpe (1958) were followed, but relaxation training was applied only to the major muscle groups in the arms, legs and abdominal and neck regions.

Preliminary observations had revealed David's extensive fear even at very low heights. Consequently, at the beginning of the sixth session, he was relaxed and asked to imagine himself walking over to the 2-in.-high block, lying only a few feet from his chair, and then briefly placing one foot on it. The therapist provided substantial verbal descriptions of the scenes. David was asked to respond to questions as the scene was being developed, such as "Are you standing in front of the block now?" or "Is your foot on the block?"

Immediately following three presentations of a scene in which no fear signal was given and no signs of fear were observed, David was asked to *produce* the behavior described in that scene. When, occasionally, he was unable to do this, further desensitization successfully produced the desired behavior.

Once David was able to make the initial approach response with little indication of fear, the duration and other characteristics of the response were shaped using the method of successive approximations (Skinner, 1953). Specifically, food, candy and verbal praise were made contingent upon his spending progressively more time standing on the block or chair. In

addition, the occurrence of eye, head and leg movements was shaped to enable David to gain control over the apparent movement of the visual field and to assure himself of its stability.

Each step in the anxiety hierarchy, such as adding another block or asking David to let go of the edge, involved the entire three-component procedure.

RESULTS

Forty-two sessions were required to complete the 31-item anxiety hierarchy. At the end of the therapy, David was able to easily stand on the 20-in.-high chair without any support, move his head and eyes to observe all aspects of the room, turn completely around, engage in conversation and jump to the floor, all with no apparent signs of fear. In fact, he had become eager to show off his new skills and manifested extreme pleasure upon doing so.

As therapy progressed, his instructor reported that he had begun to stand on the ledge during the gym period. This occurred four sessions after David had succeeded in standing on the chair. My own observations in the gym supported this. David could easily stand on the ledge without support and jump off. Later, he was able to climb a wooden ladder attached to a wall almost to the ceiling and then turn to look out at the gym expanse with little indication of fear. Before treatment, he would only ascend the lowest rungs of the ladder, refuse to turn around, and show extreme fear. At present, much of David's behavior in the gym is maintained and further developed by social approval from the instructor and his peers for engaging in physical education exercises he was previously too fearful to attempt.

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REFERENCES

- LAZARUS A. A. and ABRAMOVITZ A. (1962) The use of "emotive imagery" in the treatment of children's phobias, *J. ment. Sci.* 8, 191-195.
- LAZARUS A. A., DAVISON G. C. and POLEFKA D. A. (1965) Classical and operant factors in the treatment of a school phobia, *J. abnorm. Psychol.* 70, 225-229.

- OBLER M. and TERWILLIGER R. F. (1970) Pilot study of the effectiveness of systematic desensitization with neurologically impaired children with phobic disorders, *J. consult. clin. Psychol.* **34**, 314-318.
- SKINNER B. F. (1953) *Science and Human Behavior*, MacMillans, New York.
- WOLPE J. (1958) *Psychotherapy by Reciprocal Inhibition*, Stanford University Press, Stanford.

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