

Education update:

Problem behaviors point to reinforcers

If you can learn why an autistic individual behaves badly you may discover excellent ways to promote good behavior, according to a study by V. Mark Durand and his colleagues.

Durand et al. found that:

—for students who misbehaved to gain social attention, praise was an effective reinforcer. When praise was used to reward good performance, task performance remained high and students engaged in fewer problem behaviors. Time-out, on the other hand, had a detrimental effect on both task performance and behavior.

—for students whose behavior problems were a means of escaping from tasks, praise for on-task behavior was counter-productive. Praising these individuals actually led to poorer task performance and, in several cases, to more behavior problems. For this group, removing attention and task materials (a form of time-out) as a reward led to better task performance and in most cases better behavior.

Durand et al. say their findings "emphasize the need to individually select reinforcers because, for some individuals, a presumably positive consequence such as social praise can serve as a punisher."

The researchers add that it also is important to carefully determine the true function of misbehavior. For instance, they note, a student who constantly leaves his work and looks at a magazine may be seeking attention (from others watching this activity), escape from work demands, or the visual stimulation of the magazine.

"Reinforcer assessment I: using problem behavior to select reinforcers," V. Mark Durand, Daniel B. Crimmins, Marie Caulfield and Jill Taylor, *Journal of the Association for Persons with Severe Handicaps*, Vol. 14, No. 2, 1989, pp. 113-126. Address: V. Mark Durand, Department of Psychology, State University of New York, 1400 Washington Avenue, Albany, NY 12222.

Communication skills reduce self-injury

Two severely autistic men, taught "functional communication" skills, nearly stopped their self-injury, according to a study by Frank Bird et al. This study supports earlier research (see ARRI 1/4) on the effectiveness of functional communication training as a means of reducing behavior problems.

The researchers' first step was to carefully determine why the two individuals injured themselves (e.g., to escape from tasks, to gain social attention, or for sensory stimulation). Then each individual was taught to

communicate, by signs or through the use of tokens, what he desired.

"Greg," for instance, injured himself most often when he wanted a break from his tasks. Because he was almost nonverbal, the researchers taught him to give his teacher a plastic token when he desired a break. "Jim," who also was nonverbal, was taught the signs for "break," "food," "bathroom," "work," and "music."

Both men reduced their self-injury almost immediately when they learned to communicate their needs, and in each case self-injury dropped to near-zero levels within a few months. (In Jim's case, aggression also decreased greatly.) The men began communicating more, and both increased their productivity in spite of the fact that they could request breaks at any time.

Bird et al. note that the individuals they studied had long histories of self-injury and aggression that had not been controlled by either nonaversive or aversive techniques.

"Reducing severe aggressive and self-injurious behaviors with functional communication training," Frank Bird, Paul A. Dores, Diana Moniz, and Jeffrey Robinson; *American Journal on Mental Retardation*, Vol. 94, No. 1, 1989, pp. 37-48. Address: Paul Dores, Neuro-Care Neurobehavioral Program at Stone Mountain, 16585 Highland Valley Road, Ramona, CA 92065.

Water misting quickly reduces head-banging

Water misting, combined with positive reinforcement for incompatible behaviors, can be an effective means of reducing head-banging when other approaches do not work, according to a study by Al Fehr and B. E. Beckwith.

The researchers treated a multiply handicapped blind child's self-injury by saying "no!" and spraying a mist of water in his face each time he head-banged. Water misting alone was enough to reduce head-banging at mealtimes, but not in the classroom and residential setting. When the researchers followed water misting with a reward for an appropriate behavior incompatible with head-banging (placing pegs in a pegboard), the boy's head-banging dropped significantly in class as well. (In the residential setting, an additional step—having the trainer speak in a lower voice during the water misting—was necessary.)

Fehr and Beckwith say they chose water misting because quick intervention was necessary to protect the child. Previous positive approaches had reduced the boy's head-banging slightly, but it was still severe enough to detach one of his retinas.

While some organization recommend using non-aversive approaches only, the re-

searchers say, "this suggestion may be difficult to follow in many cases of self-injurious behavior because of the potential harm . . . from continued bodily insult." Under such circumstances, they say, aversives may be "the treatment of choice" for self injury.

In addition, they note, water misting is easy to use, requires little training, and is a mild and non-injurious technique.

"Water misting: treating self-injurious behavior in a multiply handicapped, visually impaired child," A. Fehr and B. E. Beckwith; *Journal of Visual Impairment and Blindness*, May 1989. Address: Bill E. Beckwith, Psychology Department, University of North Dakota, Box 7187, University Station, Grand Forks, ND 58202.

Ways to increase vocalizing studied

Language-impaired children vocalize more when positive reinforcement is combined with other procedures, according to a study by Phillip Drash et al.

Drash and his colleagues tested the effectiveness of three techniques while teaching 15 preschoolers with Down syndrome to vocalize. They compared:

—positive reinforcement only (praise, clapping, and playful stroking).

—positive reinforcement combined with light-dimming. Correct responses were followed by the reinforcers above, while incorrect responses resulted in the therapist dimming the room lights briefly. The lights were restored either when the child gave the correct response or when he failed to respond after three prompts.

—positive reinforcement combined with visual screening. In this condition, the therapist reacted to incorrect responses by raising a scarf between the therapist and the child so that the child's vision was blocked. The scarf was dropped either after a correct response or after three failures to respond to the prompt.

Drash and colleagues report that while all three procedures increased vocalizations, "light-dimming and screening, when combined with positive reinforcement, were both significantly more effective than positive reinforcement alone."

"Three procedures for increasing vocal response to therapist prompt in infants and children with Down syndrome," Phillip W. Drash, Sharon A. Raver, Mary R. Murrin, and Roger M. Tudor; *American Journal on Mental Retardation*, Vol. 94, No. 1, 1989, pp. 64-73. Address: Phillip W. Drash, Florida Mental Health Institute, University of South Florida, 13301 Bruce B. Downs Blvd., Tampa, FL 33612.