

Education update:

Non-aversive techniques effective

The serious behavior problems frequently seen in severely retarded individuals "can be reduced without resorting to the use of aversive consequences," according to researchers Mark Durand and Gloria Kishi.

In a 1987 study, Durand and Kishi reduced the aggression and self-injurious behaviors of severely or profoundly retarded deaf/blind students by teaching them to communicate their needs.

The students were taught signs associated with situations in which they often misbehaved; for instance, students who misbehaved in order to get a break from a task were taught to communicate, "I need a break," verbally or through the use of signs or tokens.

Three of the five study subjects quickly decreased their levels of aggressive and self-injurious behaviors, and began spontaneously using the communication techniques they had been taught. Another subject showed little initial progress, but improved greatly after nine months of training.

"Reducing severe behavior problems among persons with dual sensory impairments: an evaluation of a technical assistance model," V. Mark Durand and Gloria Kishi; *Journal of the Association for Persons with Severe Handicaps*, Vol. 12, No. 1, 1987, pp. 2-10. Address: V. Mark Durand, Department of Psychology, State University of New York at Albany, 1400 Washington Avenue, Albany, NY 12222.

Child-initiated language teaching effective

"Incidental" language teaching may foster more spontaneous use of speech, and be more readily generalized to other settings, than traditional structured methods of teaching language to autistic children.

In a recent study, three autistic boys were taught to use prepositions to describe the locations of food and toys. Structured teaching sessions were alternated with teaching sessions in which the students initiated topics in a natural setting.

In the latter "incidental" sessions, items each child liked were displayed on shelves; when the child requested an item, the teacher asked, "Where is the _____?" Responses including the correct preposition were rewarded by the child getting to play with the item he had selected.

The researchers observed the children following each type of session, and found

that incidental teaching promoted greater generalization and more spontaneous use of prepositions by all three boys.

"The facilitative effects of incidental teaching on preposition use by autistic children," Gail G. McGee, Patricia J. Krantz, and Lynn E. McClannahan; *Journal of Applied Beh. Analysis*, No. 1, Spring 1985, pp. 17-31. Address: Gail McGee, Walden Learning Center, University of Massachusetts, Amherst, MA 01003.

Grocery shopping skills improved by training with negative examples

Autistic students learning to buy groceries perform better when taught to select items carefully through "negative teaching examples," according to a study by Horn et al.

In this study, the students learned to select grocery items using picture cards of the desired items as cues. Then the trainers presented the students with "negative" examples; that is, pictures of items they should NOT select.

The researchers used two different types of negative examples:

- pictures of items only slightly different from the desired objects, and,
- pictures of items very different from the desired objects.

In both cases, the students learned to select the correct items in the store. However, students trained to reject minimally different picture cards were much better at rejecting inappropriate items at the store than those trained with "negative" examples much different than the correct items.

The researchers conclude that "the selection of negative teaching examples may be an important variable in minimizing generalization to inappropriate situations," and that negative teaching should include items that are "minimally different" from the items to be selected.

"Generalization with precision: the role of negative teaching examples in the instruction of generalized grocery item selection," Robert H. Horner, Richard W. Albin, and Ginevera Ralph; *Journal of the Association for Persons with Severe Handicaps*, Vol. 11, No. 4, 1986, pp. 300-308. Address: Robert H. Horner, Specialized Training Program, 135 Education Building, University of Oregon, Eugene, Oregon 97403.

Abnormal response to reinforcers may be key autism deficit

Research indicates that autistic individuals do not respond to reinforcement in the same way as normal children, and that this difference may underlie many of the behavior problems associated with autism.

A study of six autistic and 12 normal children by Mark Mullins and Arnold Rincover has shown that:

- Autistic children do not "maximize reinforcement" — that is, choose responses which will gain the most consistent rewards — as efficiently as normal children. In this study, autistic and normal children could choose any of five cards; one card choice was rewarded each time it was selected, while the others were reinforced on varying schedules (every second time, every seventh time, etc.). While the children in the control group learned to "maximize reinforcement" by selecting the card which was always reinforced, only one of six autistic children did this.
- Autistic children do not "sample" as much as normal children. In other words, they do not explore all the various possibilities open to them before deciding on a course of action. In the card experiment, the autistic children sampled the card choices far less than normal children matched to mental age.
- Autistic children's behaviors take longer to extinguish than those of normal children. In the study, autistic children continued selecting an item long after it stopped being reinforced, while normal children did not.

The researchers believe autistic children's abnormal responses to reinforcers may be "keystone" deficits which, if remediated, would cause improvement in many areas of functioning.

"Comparing autistic and normal children along the dimensions of reinforcement maximization, stimulus sampling, and responsiveness to extinction," Marc Mullins and Arnold Rincover; *Journal of Experimental Child Psychology*, Vol. 40, 1985, pp. 350-374. Address: Arnold Rincover, Surrey Place Centre, 2 Surrey Place, Toronto, Ontario M5S 2C2, Canada.