

Education update:

"Babytalk" is best for some autistic children

Autistic-like children who function at or below a three-year-old age level respond better to "babytalk" than to conversational speech, according to a report by Suzanne Santarcangelo and Kathleen Dyer.

In their first study, the researchers observed how well six children with autism or other severe behavior disorders responded when spoken to either in conversational speech, or in "motherese" (the high-pitched voice and exaggerated intonations commonly used in talking to babies). The three teenaged children functioning at or below the three-year age level made better eye contact and responded more when teachers used motherese than when the teachers conversed normally. For two of the three children functioning at or above the five-year-old level, the difference was not significant.

In a second study, teachers alternated the two types of speech while they worked with four autistic-like children with language skills below a three-month age level. Again, the children responded best to motherese.

Santarcangelo and Dyer note that babies attend best to certain frequency ranges, and that babytalk falls into these frequency ranges more than normal conversation. They believe that autistic children who function below the three-year level "may be operating within the same perceptual sensitivities as that of normally developing infants . . . that is, severely handicapped learners might filter out speech" that does not fall within certain frequency ranges.

"Prosodic aspects of motherese: effects on gaze and responsiveness in developmentally disabled children," Suzanne Santarcangelo and Kathleen Dyer, *Journal of Experimental Child Psychology*, No. 46, 1988, pp. 406-418. Address: Suzanne Santarcangelo, The May Institute, 100 Seaview Street, Box 708, Chatham, MA 02633.

Combined rewards—any benefits?

Teachers of autistic children often combine rewards—for instance, offering both food and praise when a child does a task correctly. But Glyn V. Thomas et al. say that such combined rewards may be no more effective than a single reward, and may be harder to phase out.

In their first experiment with 24 retarded adults, the researchers found that subjects receiving both social and food reinforcement did not learn a task better than those receiving only one of the rewards. In addition, the combined-reinforcer group lost the trained

skill more quickly when reinforcers were withdrawn than the social praise-only group.

In a second study of 32 subjects, the food-only group and the combined-reinforcer group learned a task equally well; both did better than the social praise-only group. Again, when direct rewards were ended, the combined-reward and food-only groups lost their new skill more quickly than did the praise-only group.

Thomas and colleagues conclude that "neither of the experiments found any beneficial effects of combining the rewards," either in training new skills or in helping to prevent extinction of new skills when rewards were removed.

"Some effects of combining reinforcers in operant training with mentally handicapped persons," Glyn V. Thomas, Hilary Faulkner, and Elizabeth G. Bolt; *Behavior Modification*, Vol. 12, No. 4, 1988, pp. 525-548. Address: Glyn V. Thomas, Department of Psychology, University of Birmingham, P.O. Box 363, Birmingham, B15 2TT, England.

Training for dentist visits is successful

Yugoslavian researchers Alenka Rajic and Goran Dzingalasevic are teaching autistic children to tolerate dental procedures, and to care for their own teeth.

The researchers first take a few children at a time to a dentist's office, where no treatments are performed except fluoridation. Instead, children are allowed to "ride" the dentist's chair, meet staff members, and become accustomed to the surroundings.

On subsequent visits, dental work is done only for short periods of time. The children are verbally encouraged and reassured, and are held down if they resist. Children who cooperate with the dentist are rewarded with small toys.

The researchers note that such preparation for dental procedures can reduce the need to do minor dental procedures under general anesthesia, a common practice with autistic children.

In addition, Rajic and Dzingalasevic stress the need to teach autistic children to care for their teeth. They overcome children's resistance to brushing and fluoride treatments by introducing each process gradually; for instance, children play with toothbrushes and then mimic toothbrushing before learning actual tooth-brushing skills.

"Dental care in autistic children and working procedure," Alenka Rajic and Goran Dzingalasevic, in publication. Address: Goran Dzingalasevic, Av. M. Drzica 76, 41000 Zagreb, Yugoslavia.

Language program easy to learn, use

Karen Laski et al. report that the "Natural Language Paradigm" (NLP), a training program combining behavior modification and unstructured "natural" language teaching, is an effective program for parents to use in the home to increase their autistic children's speech.

Laski et al. teach parents to use this method in play sessions where toys are exchanged between parent and child while a wide variety of words and phrases are modeled for the child. Key features of the program are:

- **Direct reinforcement of verbal attempts.** Parents reward every verbal attempt, even if it is not as accurate as previous attempts, with praise and a toy or activity.

- **Turn-taking.** Toys or other materials pass rapidly between parent and child. For instance, the parent will take a ball and say, "throw ball;" if the child responds (e.g., says "ba"), he receives the toy for approximately 10 seconds, and then the parent has another turn or models another word or phrase.

- **Task variation and multiple examples.** Parents change toys and/or the words they are modeling frequently. For example, a parents may first model "opening a box," and then model "opening a door." Laski notes that varying tasks is an important way to motivate autistic children.

- **Shared control.** Children are given the opportunity to select new toys, to ask for new activities, or to change the conversation. For example if the parent models "blow bubbles" and the child responds, "pop bubbles," the parent will follow the child's lead and repeat, "pop bubbles."

Parents in Laski's study learned to use the NLP techniques effectively in nine or fewer training sessions, and then conducted four 15-minute sessions each week in their homes. The researchers found that following NLP training, parents significantly increased their number of attempts to encourage their children's speech. As a result, all of the eight children in the study spoke more often, both at home and in "non-trained" settings. Laski et al. also report that while the children's appropriate language increased, echolalia (inappropriate repetitive speech) did not.

"Training parents to use the natural language paradigm to increase their autistic children's speech," Karen E. Laski, Marjorie H. Charlop and Laura Schreibman; *Journal of Applied Behavior Analysis*, Vol. 21, No. 4, Winter 1988, pp. 391-400. Address: Karen E. Laski, Affiliated Counselors and Psychotherapists, 9530 E. Imperial Highway, Suite L, Downey, CA 90242.