

Biomedical/Educational Update:

Teaching retarded individuals to ask

Parents and teachers can increase retarded individuals' communication by offering them incomplete tasks and objects, a new Dutch study suggests.

Pieter Duker and colleagues studied three verbal individuals and three individuals who used sign language. All were severely or profoundly retarded. They tested their subjects under several conditions:

—Baseline condition: when an individual requested an activity or object, the entire object was given (or the individual was allowed to participate in the entire activity).

—Treatment 1: When an object was requested, the individual received one quarter of its pieces (for instance, one quarter of the pieces of a puzzle). The remaining pieces were placed in sight, but no other instructions were given. When an activity was requested (for instance, playing with clay), the individual was allowed to participate for one quarter of the usual time. Each additional request resulted in another quarter of the object or activity being offered by the teacher.

—Treatment 2: Identical to treatment 1, except that objects and activities were presented in halves rather than quarters.

The researchers say that five out of six retarded subjects more than doubled their rate of requesting when only partial objects or activities were offered. They note, however, that the one autistic subject in the study did not increase his communication in response to the procedure.

"A stimulus control procedure to increase requesting with individuals who are severely/profoundly intellectually disabled," P. Duker, M. Kraaykamp and E. Visser; *Journal of Intellectual Disability Research*, 1994, 38, pp. 177-186. Address: Pieter C. Duker, The Process Research Group, University of Nijmegen, P.O. Box 9103, 6500 HD Nijmegen, The Netherlands.

Asperger's defect seen

While the brain defect most commonly reported in autistic individuals is underdevelopment of the cerebellum, Eric Courchesne et al. also have detected defects of the parietal lobes of the cerebrum in 43% of subjects (see ARRI 8/2). Abnormalities of the corpus callosum—the band of tissue joining the two halves of the brain—also were seen in some of Courchesne's subjects. Spanish researchers now report finding similar defects in 10 of 19 individuals with Asperger's syndrome, a form of high-functioning autism. Marcelo Berthier et al. say that "it seems that corticocallous anomalies in patients with high-functioning autism and Asperger's syndrome indicate early abnormalities in development rather than degenerative changes."

"Corticocallous anomalies in Asperger's syndrome," Marcelo L. Berthier, *American Journal of Radiology*, January 1994. Address: Marcelo L. Berthier, Virgen de la Victoria University Hospital, 29010 Malaga, Spain.

Expanding choices for people with severe disabilities

Everyday life involves hundreds of decisions, from where to eat dinner to what to watch on TV—or whether to watch TV at all. But Fredda Brown et al. say that "the range of choices provided to individuals with severe disabilities is quite limited."

For many of these individuals, they say, "most choices are only provided within a pre-determined activity, for example, providing an individual with a choice of apple sauce or chocolate pudding for a snack. Clearly, the level of self-determination achieved through the exercise of only this type of choice is minimal."

Research shows, Brown et al. say, that "persons with severe and profound disabilities do have definite preferences...and can express these preferences when given appropriate training in making and expressing choices." They cite studies showing that increasing choice opportunities can reduce self-injury and aggression, and improve learning.

The researchers outline seven categories of choice that they say should be available to developmentally disabled individuals during daily activities: 1) choice of materials within an activity; 2) opportunity to select among different ac-

tivities; 3) choice to refuse to participate; 4) choice of people to be included or excluded in an activity; 5) choice of location; 6) choice of when an activity occurs; and 7) choice to end a particular activity.

The chart below shows how Brown et al. increased choice-making opportunities for a preschool girl, by allowing choices from as many of these categories as possible throughout the day. (Spaces are left blank when the choices are not relevant to a particular activity.)

"Unlike many complex choices...that may require major systems changes," the researchers say, "these sorts of choices can be provided within any environment."

"Choice diversity for people with severe disabilities," Fredda Brown, Patricia Belz, Linda Corsi, and Bonnie Weng; *Education and Training in Mental Retardation*, Dec. 1993. Address: Fredda Brown, Spec. Ed. Program, School of Education, Queens College, Flushing, NY 11367-1597.

ROUTINE	WITHIN ROUTINE	BETWEEN ROUTINES	REFUSE	WHO	WHERE	WHEN	TERMINATE
Toileting					which stall	now or later	"finished" when done
AM Group	materials	order of activities		choose partner	which seat		"finished" when done
Snack	drink, food, cup		"no"		which seat		"finished" when done
Free Play	all available	music, puzzles, dolls		choose partner			"finished" when done
Music	instrument			choose partner	which rug		"finished" when done

Another fix for autistic children's feeding problems

It's not uncommon for autistic children to refuse to eat all solid foods, or eat such a limited number of foods that their health is endangered (see ARRI 7/4). But James Luiselli suggests that even severe food refusal can be treated successfully, using a technique that does not require force-feeding.

Luiselli worked with two developmentally disabled children: a seven-year-old boy who refused to eat any textured foods (although he would eat plain yogurt and drink from a glass), and a 10-year-old girl who primarily ate liquids, either by mouth or through a tube. The children reacted to demands to eat solid foods by turning their heads away, whining, crying, or spitting out food.

Several times a day for one week, Luiselli took each subject into the area normally used for meals and allowed the child to participate in a pleasant experience (rocking in a rocking chair for one, and rocking plus shoulder and neck rubs for the other). In following weeks, trainers used the following procedures:

—Before a meal, each child spent 30 to 60 seconds rocking in the rocking chair and/or getting shoulder rubs. Afterward, the trainer stopped the chair and started the meal. Neither child was forced to eat anything.

Whenever the girl took a bite of solid

food, she was rewarded with rocking; when she refused, the trainer ceased all interaction with her until she again assumed a "ready to eat" position. Meals continued until all the food was gone, or until 30 minutes elapsed; if the girl did not eat at least 50% of her meal, she received a tube feeding later.

The boy's training involved gradually introducing a spoon, first by touching his lip with an index finger whenever he picked up his glass, and then by touching a spoon to his mouth for increasing periods of time. Each success was rewarded by rocking, praise, and a shoulder/neck rub. Gradually food was put on the spoon. Later, textured foods (fruit, rice, etc.) were added to the yogurt, and the boy began to feed himself independently and no longer sat in the rocking chair while eating.

Luiselli reports that "each child achieved consistent oral consumption" following the treatment program, and that both consumed a wider variety of foods. The girl's tube feedings were discontinued, and the boy was able to eat much more independently.

"Oral feeding treatment of children with chronic food refusal and multiple developmental disabilities," James K. Luiselli, *American Journal on Mental Retardation*, 1994, Vol. 98, No. 5, pp. 646-655. Address: James K. Luiselli, Psychological and Educational Resource Associates, 40 Bronson Way, Concord, MA 01741.