

# Lovaas study: dramatic improvement seen after intensive behavior modification program

Forty-seven percent of autistic children who received intensive behavior modification therapy at a UCLA program for at least two years were able to complete normal first-grade classes, according to a 15-year study by O. Ivar Lovaas, Ph.D.

Lovaas said his UCLA teaching program is based on the theory that "construction of a special, intense and comprehensive learning environment for very young autistic children (will) allow some of them to catch up with their normal peers by first grade." Age limits for the children in this study were 40 months for mute children and 46 months for echolalics.

*Tests indicate that almost half of the children now seem to have no intellectual or behavior problems.*

In the UCLA program, 19 children received 40 hours a week of individual treatment from trained specialists. Parents also were trained to continue the program at home. In addition, Lovaas said, "considerable effort was exercised to mainstream subjects in a normal (average and public) preschool placement and to avoid initial placement in special education classes with the detrimental effects of exposure to other autistic children."

While the average IQ of the children at the beginning of the study was 50, the scores of the nine who went on to regular first grade classes improved to normal levels. Eight other children progressed to the "mildly retarded" range and were able to enter classes for language delayed students, while only two children needed classes for the autistic or retarded.

Of forty participants in control groups (one group receiving only ten hours a week of behavior modification therapy through the UCLA program, and the other group composed of children in other school programs), only one student was able to attend a normal first grade class; 18 were in aphasia classes, and 21 remained in classes for the autistic or retarded. Control groups were similar in age and IQ to the experimental group.

## Improvements are lasting

Lovaas has followed the experiment subjects for many years and said in a New York Times interview that "If you met them now that they are teen-agers, you would never know that anything had been wrong with them." Extensive testing has shown that the children apparently have no permanent intellectual or behavioral deficits and that their language seems normal.

Lovaas reported that some children benefited far more than others from inten-

sive treatment, indicating that different types of autism might respond differently to therapy.

"Behavioral Treatment and Normal Educational and Intellectual Functioning in Young Autistic Children," O. Ivar Lovaas; *Journal of Consulting and Clinical Psychol-*

*ogy*, Vol. 55, No. 1, pp. 3-9, 1987. Address: O. Ivar Lovaas, Psychology Department, University of California, 405 Hilgard Avenue, Los Angeles, California 90024.

—and—

"Researcher Reports Progress Against Autism," Daniel Goleman, *New York Times*, March 10, 1987.

## Is early intervention critical?

A recent study compared the progress of nine autistic children who began receiving intensive behavioral intervention before 60 months of age with nine other children who entered the same program after 60 months of age (Fenske et al.). The researchers found that early intervention is strongly related to positive treatment outcome.

Of the nine children who began treatment in the program before they were five years old, six made significant progress. All of these six were able to continue living at home, and four were able to attend regular public school classes while two others attended partially mainstreamed special education classes.

Only one of the nine children who entered the treatment program after age five made comparable progress.

These findings differ markedly from those of a 1986 study of 30 autistic children by Sandra Harris, who found no evidence that beginning a training program at an earlier age led to greater progress.

Unlike Fenske and Lovaas (see article above), Harris concluded that "[While] at least half of the children were in excellent behavioral programs for a minimum of 25 hours a week...only two of the children

could now be called normal, and most remain markedly impaired."

However, Harris notes that in her study, initial intervention consisted of training by parents participating in a parent training program, rather than enrollment in a total treatment program.

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"Age at Intervention and Treatment Outcome for Autistic Children in a Comprehensive Intervention Program," Edward C. Fenske, Stanley Zalenski, Patricia J. Krantz and Lynn E. McClannahan; *Analysis and Intervention in Developmental Disabilities*, Vol. 5, 1985, pp. 49-58. Address: Lynn E. McClannahan or Patricia J. Krantz, Directors, Princeton Child Development Institute, 300 Cold Soil Road, Princeton, New Jersey 08540.

—and—

"Brief Report: A 4- to 7-Year Questionnaire Follow-Up of Participants in a Training Program for Parents of Autistic Children," Sandra L. Harris; *Journal of Autism and Developmental Disorders*, Vol. 16, No. 3, 1986. Address: Sandra L. Harris, GSAPP, P.O. Box 819, Rutgers University, Piscataway, New Jersey 08854.

## Savant skills: not just memory

The amazing skills of autistic and retarded savants—for instance, the ability to calculate calendar dates or play musical instruments with no training—involve more than just rote memory, according to London researchers.

The researchers (B. Hermelin et al.) tested eight "calendar calculator" savants, and found that all used at least some strategies based on rules of calendar structure (for instance, four knew that the calendar generally repeats itself every 28 years). While all the savants were retarded, the individuals with the highest IQ scores used the most rule-based strategies, indicating that savant skills are not entirely independent of IQ.

The same researchers compared five musical savants with five normal children with musical backgrounds, and found that the savants understood musical rules and structures and were not simply memorizing.

In fact, the savants not only reproduced music more competently than their normal counterparts, but also were better at improvising.

The investigators say their findings support the theory that savants' "memory capacity (is) not only of an automatic and mechanical kind, but (is) also based on the extraction and subsequent accessing of rules, regularities and structures."

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"Idiot Savant Calendrical Calculators: Rules and Regularities," B. Hermelin and N. O'Connor; *Psychological Medicine*, 1986, 16, pp. 885-893; and "Musical Inventiveness of Five Idiots-Savants," above authors with S. Lee; *Psychological Medicine*, 1987, 17. Address: Dr. B. Hermelin, MRC Dev. Psychology Project, Institute of Education, 18 Woburn Square, London WC1H 0NS.