

## An earlier head start

By the time he was eight years old John Stuart Mill, the eminent 19th century English philosopher and economist, had read the ancient Greek and Latin masters in the original. This enormous feat and his subsequent intellectual fame were apparently the result of the intensive training he received from his father.

Was Mill an exception or can this type of training be effectively applied to normal children? In the case of black ghetto children, the controversial education psychiatrist Arthur Jensen thinks not. They, he has attempted to prove, are mentally restricted because of their heredity.

Researchers at the University of Wisconsin in Madison feel otherwise. In 1964 they carried out a study in Milwaukee's worst slum (according to census statistics). The survey, conducted with families in which there was a newborn child, was designed to examine the reasons behind the high rates of mental retardation in economically depressed areas. Results showed that mothers with an I.Q. below 80 (less than half of those tested) accounted for almost 80 percent of the children with I.Q.'s below 80. Because this survey showed that the incidence of mental retardation is not randomly distributed or randomly caused, the researchers decided that specific factors other than heredity or slum environment were responsible. The specific factor in question, they decided, was maternal intelligence (most of the fathers were absent from the home). A mentally retarded mother creates a social environment for her offspring that perpetuates retardation.

To test this theory, Dr. Rick Heber of the University of Wisconsin established an Infant Education Center near the tested area. His goal was to see whether intellectual deficiency could be prevented in infants, rather than cured or corrected later. The results of the first five years of his experiment are reported in the July *AMERICAN EDUCATION*.

Infant children of 40 mothers with I.Q.'s below 70 were divided into two groups. The control group consisted of one-third of the children and the experimental group the remaining two-thirds. The Infant Education Center project team began a daily intervention into the lives of the children during the first few weeks of life. At three or four months the child was brought to the center each day and was exposed to a wide variety of mental stimulation on a one-to-one basis with a trained adult. At age two the children were put into small peer groups to specialize in read-

ing, language development and expression or mathematics. Other teachers gave lessons in science, art and music. The half-hour classes were divided into 20 minutes of structured and 10 minutes of unstructured learning.

Over a period of three years striking differences developed between the experimental and control groups. In the experimental group, vocabulary began to increase rapidly after 19 months. This did not happen in the control group until the child was 28 months old. On a wide range of tests the children who had been exposed daily to mental stimulation showed remarkable development compared with the control group. At 42 months the children in the active stimulation program measured an average of 33 I.Q. points higher than the controls. Some scored as high as 135.

These results, obviously due to early educational environment, imply that projects such as Head Start begin too late in the child's life. But they also give real hope that mental retardation among the poor can be prevented. Even so, the report is cautiously written and Dr. Heber intends to collect and analyze data on the project children for another two years. □

## ANTHROPOLOGY

### The earliest ape

Man's evolution has been traced back 25 million years to the species *Dryopithecus* in the early Miocene epoch. Sometime prior to this, in the Oligocene epoch (25 million to 36 million years ago), a specific primate branched off from the main line of ape evolution and began the development of modern apes and man.

Dr. Elwyn L. Simons of Yale University's Peabody Museum of Natural History proposed this family tree in 1967. He based his theory on a fossil found by a Yale expedition to Egypt's Fayum Desert (60 miles southwest of Cairo) in 1966. The expedition turned up the skull of a 28-million-year-old ancestral ape that Dr. Simons named *Aegyptopithecus zeuxis* (SN: 11/25/67, p. 514). This earliest ape, he concluded, was the Oligocene ancestor of *Dryopithecus*.

Other than this skull, little has been known about *Aegyptopithecus*. Now John G. Fleagle, a recently graduated Yale geology student, has identified a fossil from the 1966 expedition as the right ulna of *Aegyptopithecus*. It is, according to Dr. Simons, the only known arm or leg bone of an ape from the Oligocene epoch. This arm bone, he says, "clarifies the question of the manner of movement of man's early ancestors, because it shows how the arms were used." Previously the

## Big money voted

Last week at the convention of the National Education Association in Detroit, President Nixon was described as "an underachiever" and his administration was denounced as "the most anti-education administration this country has had in many years." The speaker was Mrs. Helen Bain, president of NEA, who received a standing ovation.

Congress, in an action that might help mitigate this anti-education image, last week passed the largest education appropriation bill ever written. The Senate voted \$5.6 billion and the House voted \$4.8 billion. Finally a compromise was reached at \$5.1 billion and sent to the President. This represents \$393 million more than Mr. Nixon's budget requested and \$563.1 million more than the fiscal 1971 budget appropriated for education.

Mr. Nixon has vetoed the last two education money bills because they far exceed his requests. But this time, because of strong Republican Congressional support, there is little threat of a veto. □



Yale

Simons with ulna and modern gibbon.

kinds of locomotion employed by these early apes was unknown. It now appears that *Aegyptopithecus* was an adept tree dweller who walked almost erect when on the ground, using his long arms to balance himself like a modern-day gibbon. This contradicts a previously held contention that apes went through a stage resembling the less mobile Old World monkeys. □