

# BEHAVIOR

## Friends for the only child

The one-child family, though still rare, is becoming more common as birth rates decline. Therefore, it is time to reevaluate the stereotyped image of only children, says child psychologist Shirley Moore of the University of Minnesota. For instance, only children have often been described as spoiled rotten, socially awkward, lonely and anxious.

"It's just a myth that only children are less popular and less accepted by other children," says Moore. In fact, a study of 3,000 school children found only children to be high in peer acceptance compared with children in general. Observations at the university's laboratory nursery school indicate that the only child enters play groups more slowly at first but soon makes up for lost time. The only child, it seems, is very eager to make friends, unlike some children from quite large families who want to play alone when they come to nursery schools.

Lack of companionship during the early years, however, may have negative effects on the social development of only children, as Harry Harlow's experiments with isolated monkeys clearly demonstrated. Monkeys reared in isolation tended to alternate between being overly aggressive and overly timid in later life. When these animals were then given young monkeys as "therapists," they showed signs of improved socialization. Though monkeys and children are not the same, similar compensations can also be made for only children. Moore suggests that pre-school children need to associate with other children. If there are none in the family, neighborhood friends or an informal play group of some sort could be provided.

## Diagnosing alcoholism

Some people drink a lot. Others are alcoholics, but there are no well established criteria to indicate the presence of alcoholism. Thus, physicians may be hesitant to label (and treat) a patient as alcoholic until all uncertainty has been removed. Now, according to a study reported in the September *JOURNAL OF STUDIES ON ALCOHOL*, it may be possible to diagnose alcoholics on the basis of the physical illnesses they have had. A group of sociologists at Tufts University has come up with a list of illnesses that enabled them to correctly identify 75 percent of a group of known alcoholics, without any reference to whatever else was known about them.

Four categories of illnesses or health problems were used: respiratory, including tuberculosis, upper respiratory infections, bronchitis and smoking; skin, including dermatitis, skin lesions and skin ulcers; bone and joint, including gout, arthritis and bursitis; and gastrointestinal, including ulcers, gastritis, diabetes mellitus, dyspepsia, pancreatitis, jaundice, cirrhosis and hepatitis.

The same test was used on a group of nonalcoholic controls. It was able to diagnose correctly, as nonalcoholics, 78 percent of the controls. Twenty-two percent were incorrectly classified as alcoholics.

## King Tut's grandmummy

For the first time since the opening of King Tut-Ankh-Amun's tomb in 1922, a Royal Egyptian mummy has been discovered. She is Queen Tiy (c. 1397-1360 B.C.), wife of Amenhotep III, mother of Akenaten and grandmother of Tut. The discovery was announced this month by a University of Michigan team headed by James E. Harris. A lock of hair preserved in a miniature gold casket found in Tut's tomb was the clue that led to the discovery of Queen Tiy. Electron probe analysis showed it to be identical with hair samples from an unmarked mummy that had been stored in an isolated Egyptian tomb since 1898 when it was first unearthed and set aside because it was thought to be historically unimportant.

# BIOMEDICINE

## Stimulating the brain to relieve pain

A year ago, Huda Akil and her colleagues at Stanford University implanted tiny electrodes in the brains of a handful of pain patients and threaded the electrodes down the back of their heads and into their chests, where they converged into a silver-dollar-size receiver. Whenever the patients felt pain, they placed a donut-sized inductance device next to their receivers. This electrical stimulation of their brains relieved their pain (SN: 11/22/72, p. 327).

Akil and her co-workers have now applied the technique to 30 pain patients and have achieved dramatic pain relief in two-thirds of them. The patients are mostly cancer patients and accident victims who suffer chronic, excruciating pain that cannot be relieved by drugs. Some of the patients stimulate their brains once a day, others several times. They can even wear their inductance devices clipped to their shirts of blouses while driving a car.

Implanting the electrodes for pain relief is complicated, however. Akil and her colleagues cannot predict whom it will help until they try it. Implantation, while minor surgery, is nonetheless stressful, so the researchers are reluctant to try it on frail or elderly patients. Nor are they anxious to try it on patients whose chronic pain can usually be helped by noninvasive techniques—rheumatoid arthritis patients, for example. Brain stimulation may help rheumatoid patients, Akil says. She simply has not yet tried it on any of them.

## Schizophrenia and brain peptides

During the past decade or so, tiny peptides have been isolated from the hypothalamus, pituitary and possibly other areas of the brain that influence mental states and behaviors (SN: 9/25/76, p. 202). Now three more brain peptides that may have implications for treating schizophrenia have been isolated by Roger Guillemin and his team at the Salk Institute in LaJolla, Calif.

Guillemin isolated the three peptides from some 250,000 sheep brain hypothalamuses and purified them. When injected into laboratory rats, each peptide had its own behavioral effect. The peptide called alpha-endorphin acted as a tranquilizer. The peptide called gamma-endorphin transferred a normally docile rat into an angry one. The peptide dubbed beta-endorphin put the rats into a state in which they remained stiffened from head to tail up to four hours.

These behaviors, Guillemin reported at the recent 10th International Congress of Biochemistry in Hamburg, Germany, resemble schizophrenics' behavior, which is characterized by periods of physical rigidity, negativism, excitement and stupor. "Within a few months," he predicts, "we should know whether or not we can modify symptoms of mental illness in these patients by simply injecting one of more of these compounds."

## Booze, noise and ear damage

Noise probably endangers hearing loss more than usual if one has been drinking alcohol. This is the conclusion of Martin Robinette, an audiologist at the University of Utah.

There is a muscle in the middle ear that contracts to protect the eardrum from loud noise. Robinette measured the rate of contraction of this muscle in four muscles. Then he had the subjects become highly intoxicated, exposed them to high-level noise and measured the rate of contraction of the muscle in their eardrums again. The rate of contraction had decreased, suggesting that alcohol was opening the subjects to greater hearing loss from the noise than if they were not drinking alcohol. Later Robinette measured their hearing ability and found that it was indeed poorer than before they drank alcohol.