behavioral sciences

COMPARATIVE PSYCHOLOGY

Aggression not universal

"Pacifism is the rule in the animal species," says Dr. Edward O. Wilson, professor of zoology at Harvard University. He feels that competition and aggression, although widespread, are not universal.

Experiments with insects and various animal species, Dr. Wilson reported to the Smithsonian Institution's Third International Symposium on Man and Beast: Comparative Social Behavior, resulted in conclusions that can be applied to man. Aggression—a genetically programmed trait—without competition is improbable, he says. The idea that man's ancestors were territorial and very aggressive may be true, "but the evidence from comparative studies of primate sociology is wholly inconclusive on this point."

His position contradicts that of a presently popular theory, recently propounded by Desmond Morris in "The Naked Ape." Morris, along with Konrad Lorenz and Robert Ardrey, from investigations of human-like primates and the incomplete evidence from two million years of human evolution, argue that an aggressive drive in humans is inherited from the evolutionary past (SN: 11/23, p. 523).

Dr. Wilson feels that aggressiveness in man might not have been left over from prehistoric times. It might even have originated during historical times, he says, "since both theoretical considerations and empirical studies on animal populations show that some behavioral traits can evolve significantly with 10 generations or less."

ANTI-DEPRESSION THERAPY

Kind firmness technique

Depressed patients are improved most when a staff member takes over completely for the patient, allowing him to make no decisions on his own, an experimental program shows.

Dr. James C. Folsom, director of the Veterans Administration hospital at Tuscaloosa, Ala., reports that his hospital has discontinued electroshock since 1963 and has successfully used the paternalistic anti-depression therapy.

Patients with other ailments might be prescribed active friendliness, passive friendliness or matter-of-factness.

When the take-over method was used consistently in combination with the assignment of monotonous, meaningless tasks, "the patient eventually expressed his anger toward the staff and their expectations," says Dr. Folsom. When the patient expresses anger outwardly he is on the road to recovery.

CULTURAL ANTHROPOLOGY

Instinct and behavior

Behavior is not 99 percent learned and, hence, cultural, says Prof. Robin Fox of Rutgers University. The capacity for specific or unlearned behavior is in all humans, he says. But how this will show up will depend on the information fed into the behavior potential system of the individual.

Reporting at the Smithsonian Institution's Third International Symposium on Man and Beast, Prof. Fox says human behavior is like a system of computers. Man is set up or wired to behave in a certain way.

Even without exposure to cultural tradition, Prof. Fox believes, the human will develop very specific and highly complex patterns of behavior. This is an outcome of the "biology of the animal because it is programmed to behave in certain ways that will produce these phenomena given a certain input of information."

PSYCHOLOGY

Nature-nurture split unrealistic

An Australian psychologist feels that organisms in the biological world never really fitted into such a dichotomy as nature-nurture, instinct-learning, innate-acquired. Instead of being dichotomous, behavior is made up of various factors and must be examined in detail, he believes.

Dr. Glen McBride of the University of Queensland, speaking at the Smithsonian Institution's Third International Symposium on Man and Beast, says that in animals there is a hierarchy of main behavioral units. Two separate but interdependent systems can explain the organization of these main units. The two systems he terms chemical and electrical. They have a complementary relationship with no room for dichotomy.

The chemical environment involves biological processes affecting behavior.

The electrical part of behavior would be responses, activities or behavior that operate through the electrical or neuronal system, greatly affecting interactions.

SCHIZOPHRENIA

Male offspring and disease

A causal relationship has been suggested between the birth of a male child and the onset of schizophrenia in the mother.

Dr. M. A. Taylor of the New York Medical College reports in the May 9 SCIENCE that of 26 pregnancies involving schizophrenic women, 22 were associated with delivery of a male and four with a female.

Earlier studies have shown that schizophrenic women whose psychotic symptoms became apparent before or after the first month of conception delivered only live female babies. These data suggest that when the mother becomes schizophrenic within the first month of pregnancy, the male embryo is destroyed. If she becomes psychotic during the second or third month of pregnancy, the male fetus develops abnormally or dies slowly. Among defective offspring, there were four stillbirths, all male. Of six offspring with birth defects, five were male.

Dr. Taylor suggests from his own work and a review of the earlier observations, that if the onset of schizophrenia occurs later in the pregnancy "the fetus may physiologically 'defend' itself by the production of functionally high hormone levels which suppress the disease in the mother."

Delivery of a male fetus "unmasks the mother's schizophrenia," he says.