Animal Crackers

M. Josephine Deubler

University of Pennsylvania

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Massa is a lowland gorilla who has been living at the Philadelphia Zoo for forty-six years; he celebrated his fortieth birthday in January. Massa is a lowland gorilla who has been living at the Philadelphia Zoo for forty-six years; he celebrated his fortieth birthday in January.

Since Massa’s arrival to the Philadelphia Zoo in 1935, he’s lived a calm and happy existence. Massa’s earlier life, however, was not as uneventful. When Massa was about one month old, his mother was foraging a West African jungle for fruits and berries with a band of gorillas, with her son upon her back. The gorillas liked to visit the shambas (a Swahili word for a plantation), because the jungle gardens grew such sweet and luscious fruits. Suddenly, angry natives appeared and, before the gorillas could escape, attacked and killed them, sparing only Massa.

The natives took Massa to their village where they fed and cared for him, with the idea that he’d do very well in either their cooking pot, or as a trade item for an animal dealer. Fortunately, a trader visited the village before Massa fell victim to the former plight. A short time after, Massa was the object of another transaction and became the property of a trader in a large, West African, seaport village. It was from there that a Captain Phillips purchased Massa for his Brooklyn, NY friend, Mrs. Gertrude Lintz.

During the voyage to the United States, Massa contacted pneumonia and lapsed into unconsciousness. During the five or so days after his arrival, Mrs. Lintz—a devoted animal lover who specialized in rearing baby exotic animals and especially primates—nursed Massa as one would a child, until the crisis passed. It was Mrs. Lintz who named Massa, which is Pidgin English for “Master” or “Big Boss.”

Mrs. Lintz taught Massa to do many people tasks—how to put on clothes and how to wash a floor, for example. One morning, while Massa was busy scrubbing the kitchen floor, Mrs. Lintz, who had tiptoed in to observe, slipped on the wet floor and inadvertently kicked the bucket causing a wave of soapy water to drench Massa. Frightened, Massa attacked Mrs. Lintz. Luckily, a young woman friend was in the next room and saved Mrs. Lintz from further harm by grabbing a heavy skillet and crashing it down on Massa’s head. It required seventy stitches to close Mrs. Lintz’s wounds.

The spell between mistress and pet was broken. Clearly, Massa realized that he could defy her orders no matter how sternly she commanded obedience. Reluctantly, Mrs. Lintz decided to sell Massa, then believed to be female, to the Philadelphia Zoo, who had been looking for a mate for Bamboo, another lowland gorilla.

In August 1935, zoo officials announced that Massa was discovered to be male and that the “Zoo’s Gorilla Wedding Is Off…” Despite the gender confusion, Massa and Bamboo were allowed to be together as companions. The relationship was not amicable and, after five days of fisticuffs, they were permanently separated.

Since that time, Massa has lived in seemingly splendid solitude, enjoying the attention and gifts of his keepers and visitors.

Fleas...
Birth Announcement

Crackers

Although less than 5% of adult dogs affected died, there is no doubt that this disease causes the loss of many puppies, from the gastrointestinal form in the first two months and the less common heart involvement in older puppies. Continuing research is adding to our knowledge of the disease but there is still much to be learned.

Newer Parvovirus vaccines are available in combination with Distemper, Hepatitis, and other diseases and are being used for the protection of puppies and for "booster" doses for adult dogs. An effective immunization program is the only way to control parvoviral infection. Inactivated and modified live virus vaccines are available. It is necessary to give at least two doses of the killed vaccine several weeks apart to provide protection. A single dose of the modified live product will give protection to 75% of the vaccinates in five days and to 90% of the vaccinates, if a second dose is given in two to three weeks. At this time, it appears that there is no vaccine that is 100% effective. Although the duration of immunity is not definitely understood, "booster" doses every six months are recommended, particularly for show dogs.

Parvovirus infection can be determined by a serological test or by microscopic examination of the intestine post-mortem. The blood test will indicate the antibodies present. If a bitch is blood-tested at the time she is bred, it is possible to predict how long antibodies in the milk will interfere with successful vaccination of the puppies. Usually puppies are susceptible by eight to twelve weeks of age, but vaccine failures may occur if maternal antibodies are present at this age. It seems that even with the most carefully worked-out immunization program, there will be a period when puppies are susceptible. This emphasizes the importance of keeping puppies isolated from infected dogs which might be shedding the virus.

Parvovirus is a resistant virus. It can live in the environment indefinitely, but can be destroyed by a solution of Clorox (1:10). It is spread by fecal material, so watch your footwear...

Virgil had his beginning back on September 3, 1980 when specially treated bull semen was used for the in vitro insemination of an egg obtained from a donor cow. This sounds rather elementary but actually a number of years of dedicated work had already taken place in order for this laboratory event to occur. For example, in 1968 Dr. Benjamin J. Brackett, who heads the research team responsible for this work, was able to fertilize rabbit eggs in the laboratory and in 1980 showed that the same could be done with bovine ova. In the case of Virgil, it was observed that the egg exhibited evidence of fertilisation twenty-four hours after it had been exposed to sperm, and was in the two-cell stage in forty-one hours. After forty-seven hours, the ova had reached the four-cell stage and at that time it was placed in the oviduct (fallopian tube) of the recipient cow. A normal pregnancy followed.

The birth of Virgil represents a major step forward from the commonly used embryo transfer technique. During the last decade thousands of cattle resulted from embryo transfer procedures in which genetically valuable embryos were harvested from donor cows five to twelve days after fertilization, and placed directly in less valuable donor cows who nurture the valuable offspring. Now a major technological barrier has been overcome to enable bovine fertilization to take place when eggs and sperm cells are brought together under exacting incubation conditions that duplicate the normal site of fertilization in the female tract.

While the birth of Virgil clearly demonstrates that normal development can take place after in vitro fertilization in the cow, the significance of the research goes further. The work, for example, provides a useful model for more study on animal and human infertility. It opens the way for new technology in animal breeding and in improving the efficiency of food animal production.

Scientific details of the work are scheduled for presentation at the fourteenth annual meeting of the Society for the Study of Reproduction in Corvalis, Oregon, on August 13, 1981.

Dr. Brackett has been working in this field since 1962. The research team headed by him at New Bolton Center included Daniel Bousquet, D.V.M., Ph.D., Canadian Research Fellow; Melinda L. Boice, M.S., Junior Research Fellow; William J. Donawick, D.V.M., Professor of Surgery; James F. Evans, V.M.D., Instructor; and Michael A. Dressel, M.S., Junior Research Specialist.