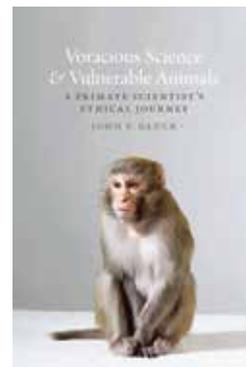


Voracious Science and Vulnerable Animals: A Primate Scientist's Ethical Journey



John P. Gluck
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Reviewed by Jack Coulehan, MD (AQA, University of Pittsburgh, 1969)

When I was a first year medical student, one of our physiology lab experiments dealt with cardiovascular dynamics. We performed surgery on anesthetized dogs, opening their chests and measuring cardiac function with various instruments. Afterward, the dogs were euthanized.

We worked in groups of four, so 36 dogs were sacrificed for our class to observe in situ hemodynamic processes we had already learned by lecture and textbook. As far as I'm aware, none of us questioned the ethics of this exercise. If the question had arisen, I'm sure we would have thought it obvious that the good achieved by educating 144 future physicians surely outweighed killing 36 dogs.

Not too many years later, my medical school, in one of its many curricular changes, eliminated the laboratory component of physiology. No more dog surgery. Yet, somehow students still managed to master cardiovascular physiology.

In *Voracious Science and Vulnerable Animals*, John Gluck describes an almost identical teaching protocol that went before the University of New Mexico's Institutional Animal Care and Use Committee (IACUC) in the mid-1980s. The committee approved the protocol, but several members, including Gluck, decided to observe the cardiovascular exercise in practice. They found that the dogs were inadequately anesthetized, improper cauterizing devices were used, students were confused about proper surgical methods, and an arrogant professor seemed indifferent to all of these problems.

Was this experiment conducted in an ethical manner? Was the sacrifice of these animals morally justified? Gluck describes his growing realization, over several decades, of the salience of such questions, and his internal struggles to resolve them. He began his career as a PhD student in psychology at the University of Wisconsin in the 1960s. He studied primate behavior under the mentorship of Harry Harlow, in an era of strict behaviorism, when only observable behavior was considered worthy of study. Internal states, like feelings or intentions, were strictly out of bounds.

Dr. Harlow was famous for his studies of maternal deprivation and social isolation in rhesus monkeys, and Gluck continued and expanded this work. He worked with three groups of monkeys: six reared for their first nine months in total isolation; six reared alone in wire cages, but with visual access to other monkeys; and six reared with their mothers and physical access to peers. He carried this model of comparative deprivation to study the influence of nature versus nurture on behavior to the University of New Mexico, where he founded a primate research facility.

From the beginning, Gluck demonstrated concern for his subjects' welfare, and valued their individual personalities. He sometimes experienced moral distress when his work caused them harm, but managed to rationalize his experiments as ethical because of their potential contribution to human welfare. As time went on, he became uncomfortable with the insensitive and cavalier way some other researchers treated their animals.

Gluck's journey included several seminal milestones, each of which stimulated an ethical leap forward. The first was his clinical psychology fellowship at the University of Washington in 1977–1978. He discovered that clinicians rarely, if ever, cite animal research in their

teaching and practice. He also experienced the personal satisfaction of direct patient care. On returning to New Mexico, he explained, "I was not the same person I had been before I left."^{p177} His teaching priorities now included "promoting self reflection and compassion," and advocating a more ethical approach toward experimental animals.

A second milestone occurred in 1985 when the United States Congress passed the Animal Welfare Act that established IACUCs, which provided the authority to regulate animal care and experimentation. According to Gluck, membership on New Mexico's IACUC was one of several elements that "combined to shake up my professional life and reinvigorate my ethical reexamination process, which had in recent years been stunted by my own psychological resistance."^{p186}

IACUCs generated some forward movement improving living conditions for experimental animals, and requiring researchers to justify the level of pain to which their subjects were exposed. However, their success was diluted by negative feedback from some scientists who chose to interpret the regulations as disruptive interference.

The final milestone occurred in 1994 when Gluck embarked on a fellowship in bioethics at Georgetown University, where he studied with philosopher Tom L. Beauchamp, and physiologist F. Barbara Orlans. Orlans published *In the Name of Science*, a book on the ethics of animal research, which also became the focus of Gluck's work at Georgetown.

Gluck returned to Albuquerque, and successfully developed a multifaceted Research Ethics Service Project that featured a variety of ethics teaching and consultation functions.

Encouraged by recent cultural change, Gluck closes on an optimistic note:

I remain unreservedly optimistic about the possibility that science, and society as a whole, will come to take seriously the notions that animals are not just property, that they have rights of some kind, and that appropriating animal lives for human use should always elicit ethical analysis that leans toward abstinence as the starting point.^{p283}

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