In Search of Responsible Medicine

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My contacts with animals in childhood were not, I regret to say, demonstrations of precocious altruism. Animals were more likely to find themselves in pieces at the end of a dinner fork or, occasionally, in the sights of one of the shotguns my father bought for me and my three brothers to use as ducks and geese made their long trek south from Canada over the wetlands of North Dakota.

My father had grown up during the Depression on a farm in southern Illinois. Never having known economic security, he devoted his life to assuring it for his family. Unlike his brothers who carried on the family's agrarian tradition at the expense of cattle, my father moved to Chicago to attend medical school and later to Fargo, North Dakota, to practice internal medicine. In turn, his five children never knew anything other than economic security and developed no interest in the subject whatsoever. But we did learn my parents' concern for fairness and morality, which was buttressed by public attention given in the 1960's to the unfairness of segregation and the war in Vietnam.

I attended a liberal arts college in Minnesota, majoring in psychology. The residue of B.F. Skinner was still to be seen there in the conditioning chambers

in which white rats demonstrated simple facts about mammalian learning. And although much of what my professors taught in class was self-evident, they taught us more profound and unintended lessons in the ways they treated animals.

The introductory course in psychology used rats that were deprived of water for three days and then put in a "Skinner box," which delivers a few drops of water when a bar is pressed by the thirsty animal inside. The point of the lab was to show how learning occurs. For example, if an animal is rewarded (reinforced) for an action such as pressing a bar, the animal will probably repeat the action. At the end of the course, the rats are put together in a trash can, chloroform is poured over them and the lid is closed.

Students could sign up to implant electrodes into a rat's skull to show that electrical stimulation of the brain can affect behavior. During the implantation procedure, a stereotaxic device holds the rat's head still, its metal bars thrust into both ear canals, breaking the eardrums. My professor's response to my concern about the effects of this procedure on the rats was a joke, "Well I guess he won't be able to listen to his stereo in the morning." But while I was struck by the callousness of his remark, I was sufficiently desensitized myself that I proceeded without batting an eyelash.

One day, I took a rat home from the lab. This little creature lived for some months in a cage in my bedroom.

AUTO- BIOGRAPHY

And in her cage, she behaved the way I assumed rats behave. But when I started leaving the cage door open so she could walk around, I began to see things I hadn't anticipated. After several days of cautious sniffing about at the cage door, she began to investigate the world outside. As she explored my apartment, under my watchful eye, she took an interest in me and my friends.

She gradually became more and more friendly. If I was lying on my back reading, she would come and stand on my chest. She would wait to be petted, and if I didn't pay her enough attention, she would lightly nip my nose and run away. I knew that her sharp teeth could have gone right through my skin, but she was always playfully careful.

I realized that street rats are to rats as street people are to people. Given food, water, and warmth, most rats are friendly, fun and meticulously clean. If not forced to live in an unclean cage, their skin has a distinct perfume-like scent. If I left a glass of ice water on the floor for her, she would painstakingly take out each ice cube and carry it inch by inch in her teeth away from the glass until all the ice had been cleaned out. One day she labored for hours to pull all my dirty clothes out of a laundry bag. Like a cat, she spent hours carefully grooming herself.

One day, I noticed a lump in her skin. With time, it grew, and it was all but impossible to find a veterinarian who would treat her, since she was not a dog, cat, or "farm animal." One told me that she was a male and the lump was "his" scrotum. Others called it a fat pad. Finally, I convinced a vet who specialized in laboratory animals to take the lump out, whatever it was. It was a tumor. The vet put her in a heavy cast, and said that the operation was successful.

Because rats are meticulous about their bodies and work tirelessly to rid themselves of any bits of dirt, they have to be put in body casts after surgery to prevent them from removing their sutures. When I cut her out of the cast, she painfully tottered a few steps, trembling. I discovered that the vet had not only removed the tumor, but had also inadvertently removed her urethra, the tube that leads to the bladder, so that urine spilled from her bladder into the abdominal cavity and became a caustic irritation under her skin. The vet tried to correct his mistake in a second operation, but he was very uncertain whether it would succeed.

While friends could understand caring for larger animals, I found that few people could understand the suffering of this little mammal. Nonetheless, her

suffering was very apparent. At night I slept with her in the palm of my hand so I would wake up if she tried to chew out her sutures.

Before long it became clear that her condition was worsening. The reconstructed urethra closed off causing her great distress. Finally, I had her euthanized.

I carry with me the vivid image of this tiny animal tottering painfully out from her body cast and of her in the palm of my hand trying to pull out the sutures that were a constant irritation to her. In the months that followed, I began to think about all the animals whose suffering I had taken so dispassionately, and I realized that each one was an individual who can suffer as acutely as the little rat that I had held in my hand. And that suffering was just as real whether the animal was a dog, a dolphin, a rat or mouse, whether the animal was "bred for the purpose" or chained up in someone's back yard.

I became puzzled about the resistance to compassion that I see so commonly in others and that I, too, experienced for so long. Cruelty to animals is diagnosed as a psychiatric symptom predictive of antisocial personality, yet we fail to recognize the cruelties we perpetuate so casually in our own lives.

The psychology animal laboratories showed us the power of human rationalization that suggests that animals do not feel pain or mind the violation of their social needs or physical integrity. They also taught us that barbaric aggressiveness was not necessarily in the service of sadism. Rather, curiosity and new-found academic traditions had simply overwhelmed the restraints that apply to cruelty.

Later, my *alma mater* sent me a survey asking, among other things, who had been my most effective teacher. I'm not sure that they understood my reply.

Before I entered medical school, I worked as a pathology assistant in a hospital morgue. It was in that desolate museum of medical history that I first saw the effects of disease in graphic detail. The pathologist would explain the autopsy findings to me as he did his examination.

"This is garden-variety atherosclerosis," he said as his scissors went crunch, crunch, crunch, through coronary arteries, one of which he sliced open. "This is what cholesterol does. We'll see this again in the carotid arteries." And sure enough, the carotids, the main arteries to the brain, were nearly closed off by plaques. As we finished and we carefully replaced the section of ribs that had been removed to do the examination, I

thought about how almost all the autopsies showed some of this deadly process, even for fairly young people.

Once, after a particularly long procedure, I raced to the hospital cafeteria for lunch. As I removed the lid from the plate, an overturned chicken breast with ribs looking precisely like the chest we had just closed, greeted me with a smell of dead tissue. The connection between diet and death could not have been more graphic. Within the year, I became a vegetarian.

I began medical school in 1976 at the George Washington University in Washington, DC. We studied in endless detail the manifestations of disease in the human body and how to treat them. We learned what heart muscle looks like after a heart attack. We learned how to administer digoxin and nitroglycerin to heart patients and the correct technique for CPR. We looked at lungs under the microscope and saw how smoking leads to emphysema. As we studied, we ate hamburgers from the medical school's vending machine, smoked the cigarettes we bought in the hospital gift shop and had no more idea of how to break these habits for our patients than for ourselves.

At one point, I was required to participate in a "dog lab." A live dog was to be given a variety of drugs and we were to document their effects on heart rate and blood pressure. Then we were to kill the dog and submit a detailed report. I refused to participate. Instead, I drafted a report on the effects of each drug based on information in the medical library. I passed the course, and eventually the "dog lab" was dropped from the curriculum.

After medical school, I completed a residency in psychiatry and took a job at a major hospital in New York. The staff was first class and the care was excellent. But like all city hospitals, it was continually confronted with indigent patients. One was a woman in her mid-fifties who had been found one February day, nude, unconscious, and dangerously hypothermic in Washington Square Park. After several days in intensive care, she regained consciousness but was disoriented, hallucinating and unable to give her name. She was transferred to my ward, where we started a regimen of antipsychotic medications.

A day or two later, I was told that she was to be transferred out as soon as possible. Because she had no apparent means of covering her hospital bill, she would have to be transferred to a public hospital or simply discharged. I was prepared to do nothing of the kind. She was going to stay where she was until she recovered.

Every day I was reminded of how much her care was costing the hospital, and every day I did nothing whatsoever about it. Eventually, she did recover and told us her real name. We found her husband, who had been searching for her since she wandered away from home in a psychotic decompensation. And, as it happened, she had insurance.

By about that time, I decided that it was not enough for me to simply treat one patient after another. They would be treated just as well by the next doctor. I wanted to try to remedy the cruelties I had seen in the laboratory, the failure of medicine to prevent disease, and the stinginess with which medical care is parcelled out. There were other doctors who shared my concerns, but, so far as I knew, no one was doing anything to correct these problems. In 1985, I started an organization called the Physicians Committee for Responsible Medicine. The original intention was to have a think-tank of a few dozen doctors who would advocate for a more compassionate and effective kind of medicine. By 1993, we had well over 3,000 member doctors and the term "committee" was already an anachronism.

We have taken an advocacy role in prevention, research, and medical care. For years now, we have known of the role diet plays in health, yet unhealthy diets are still promoted by the government, livestock industries, advertisers, and even by doctors. Healthy diets must be encouraged by these groups if America's health care crisis is going to be solved. Vegetarian diets, because they are low-fat and high-fiber, are excellent protectors against the most common killers of Americans today. Heart disease, stroke, cancer, diabetes, and kidney disease have all been linked to high-fat, low-fiber diets. Vegetarians also have another advantage, since fruits, grains, legumes, and vegetables contain zero cholesterol.

Dr. Dean Ornish demonstrated that a vegetarian diet, combined with exercise, stress reduction, and a cessation of smoking, can actually reverse atherosclerosis—the hardening of the arteries responsible for heart disease and stroke. High-fat, especially animal-based, diets are also implicated in our epidemic breast cancer rates. High-fat diets stimulate an over-production of estrogen, the hormone that fuels many breast cancer tumors. Studies of other cultures prove that where people follow plant-based diets, the rates of breast cancer are low; where animal-based diets are followed, breast cancer rates are some eight times higher.

We have not only promoted prevention and nutrition. We have also been advocates for alternatives

to animal research. In 1988, we learned of grotesque cat experiments occurring at the University of Cincinnati. A biologist, Patricia Tornheim, was shooting cats in the head with the Remington Humane Stunner, a euphemistically named piston device powered by a .22 calibre cartridge, as a model of brain injury. Approximately \$1 million was spent on the study, funded by the National Institutes of Health. An estimated 1000 cats were used in the 12-year study.

The experiments began as cats were injected with ketamine, a dissociative anesthetic. Their scalps were surgically opened to expose the skull. They were then immobilized, and the stunner forcefully propelled a metal disk against their heads.

Cats that survived the blows were kept alive for up to two days, apparently without food or analgesia. The cats were then killed by having their heads immersed in liquid nitrogen, freezing them solid. They were decapitated, and their heads were sliced into 5 millimeter sections with a band saw. These sections were then examined under a low-power microscope.

We sent information on the experiments to specialists in neurology, neurosurgery, and trauma. It soon became evident that, in addition to the issue of cruelty, the research was of no clinical significance. We brought our findings to the attention of the funding agency. In a remarkably short time, the experiments were terminated.

Soon after that, we learned of similar experiments at the Louisiana State University in which cats were shot through the head in order to study resuscitation and related phenomena. The Army had provided a \$2.1 million grant for the experiments in which over 700 cats had been shot. The "major" finding of the experiments was that animals who are shot through the head stop breathing and need to be resuscitated. We found that the same findings had been demonstrated and published as long ago as 1894. We brought this information to the attention of the federal government. The U. S. General Accounting Office conducted an in-depth investigation, eventually resulting in the cancellation of the experiments.

A bone-breaking experiment on greyhounds at Letterman Army Institute of Research (LAIR) was scrutinized by many of our doctors, who provided detailed information to the office of then-Representative Barbara Boxer and to the media. The experiments were to test a 3M patching material on artificially induced leg fractures. The case generated considerable media attention and some discord at LAIR. It also generated an inquiry into the supply line linking greyhound tracks

and animal laboratories. During the controversy, 3M withdrew its compound from further consideration, and the experiment was abandoned.

PCRM's lengthy critique of experiments proposed for the Silver Spring Monkeys was the basis for a lawsuit to compel an investigation under regulations governing misconduct in science. One experiment was proposed in a highly peculiar manner: it was written up in a cursory four-and-one-half page document, which included no hypothesis, no control group, and no study design and which used hyperbolic layman's terms rather than scientific terms. Because no grant funds were used for the experiment, it did not undergo peer review. It was simply mailed to interested members of Congress. The government, however, has refused to investigate, and our lawsuit continues, three years later.

We have also addressed unethical human research. For example, the U.S. Food and Drug Administration approves synthetic human growth hormone (hGH) for use only in hormone-deficient patients. But in experiments at the National Institutes of Health in Bethesda, Maryland, normal, short children are injected with hGH to test whether the drug will increase their adult height. hGH increases growth in 50-80 percent of such children over the short term. It is not known whether their final height will be affected, and there are indications that, for many children at least, it is not.

The children in the NIH experiments are not hormone-deficient. They are healthy children whose only risk is from the stigma of short stature. But in the experiments, they will each receive 156 injections every year throughout their growth years, which will, if anything, stigmatize them more.

Growth hormone causes the liver to increase its production of insulin-like growth factor (IGF-I), which is thought to play a role in breast cell growth and lactation. It is not yet known whether elevations of blood levels of IGF-1 are associated with a greater risk of cancer or a poorer prognosis should cancer develop. However, several observations support these possibilities. In laboratory tests, IGF-1 encourages breast cancer cells to multiply and is more potent in this regard even than estrogens. The anticancer effect of tamoxifen, a drug used in the treatment of breast cancer, appears to be partly due to its capacity to reduce growth hormone secretion from the pituitary gland which secondarily reduces IGF-1. Slight elevations of growth hormone may be one reason why tall women have a higher risk of breast cancer, compared to shorter women. One study showed that

women over 5'6" have double the risk of women below 5'3", particularly for premenopausal breast cancer.

The cost of hGH is approximately \$20,000 per year. Of all the children born in the U.S. every year, 90,000 will, by definition, be below the third percentile for height. A single year's treatment of the 90,000 nine-year-olds, for example, below this height standard would cost \$1.8 billion dollars. Treatment of all children below the third percentile would be astronomical and is certain to be rationed, one way or another.

Children are not fully capable of informed consent. They cannot appreciate all the potential risks of hGH treatment. Parents may tend to overestimate the potential benefits of hormone treatment and to overlook other ways of handling short stature. Parental consent does not assure that the use of hGH is ethical, either in an experimental setting or in clinical use.

PCRM joined the Foundation on Economic Trends in petitioning for an end to federally funded experiments injecting growth hormone into healthy children. I am confident that eventually we will succeed.

Our magazine, *Good Medicine*, covers these issues and also calls attention to the medical needs of disenfranchised groups: women, minorities, persons with AIDS, and the homeless. My remaining medical practice is at a shelter for homeless women, where once a week I treat schizophrenia, drug addiction, alcoholism, and the other problems that are so prevalent yet so easily swept under the rug. It is my hope that compassionate medicine will one day be no longer a reason for advocacy but, rather, the normal course for medical practice and research.

Books Received

Marian Stamp Dawkins

THROUGH OUR EYES ONLY?

The Search for Animal Consciousness

New York: W. H. Freeman and Co. Ltd, 1993

preface, 181p, further reading

\$19.95 hardcover

Robert Garner

ANIMALS, POLITICS AND MORALITY

New York: Manchester University Press, 1993

preface, abbreviations, 252p, index

\$59.95 hardcover, \$24.95 paper

NAVS

EXPRESSIONS

Chicago: NAVS, 1993

32p

\$4.50 paper

Dale Peterson and Jane Goodall

VISIONS OF CALIBAN

On Chimpanzees and People

New York: Houghton Mifflin Company, 1993

310p, appendixes, acknowledgements, notes, references

\$22.95 hardcover