

A Brief History of Vivisection

Some of the earliest records of vivisection are found in the writings of Galen of Pergamum (129-199), who catalogued the findings of earlier Alexandrian physicians, which included descriptions of functional differences between sensory and motor nerves. Galen himself described the complexities of the cardiopulmonary system and speculated on the functions of the brain and spinal cord. There are scant records of vivisection between the time of Galen and the seventeenth century, when there was a revival of interest in anatomy and scientific method. However, by examining writings and records we can trace the changing attitudes towards animals from early times.

Aristotle (c. 350 B.C.), who studied animal anatomy, argued that animals and man were similar in bodily structure but that man, being a *rational* animal was therefore at the head and animals were for his use. The Romans appear to have been swayed by this argument and the massacre of countless animals in amphitheatres (up to 5000 a day) is common knowledge. However, in their writings, Virgil, Ovid and Cicero show great compassion for animals and the historians Seneca and Plutarch, both of whom were vegetarian, argued that man had a duty of kindness to humans and animals.

Many of the early Christian saints, most notably St. Francis, had affinity and compassion for animals. Francis believed that animals had souls, and preached to them as equals. However, this position was not sustained by the Christian church, who branded his views as heretical. One of the most influential religious philosophers, St. Thomas Aquinas (1225-1274), was influenced by the writings of Aristotle. He speculated on the difference between man and animals and, in his *Summa theologiae*, argued that, as only humans were rational, only they could possess a soul. Non-human animals were merely objects, devoid of personality or rights. They existed only for human needs and were bereft of moral status.

During Medieval times, (c.1300-1600) many humans shared their homes with animals and the majority of people were too concerned with surviving to give much thought to any debate about whether or not animals had souls. However, records show that animals were considered as rational beings and held responsible for their actions - they were tried and sentenced (to hanging etc.) especially when they were suspected of being mediums for witches. In the early 1500's, sparrows at the Vatican were excommunicated for contaminating holy statues with their droppings. Throughout this period bull-baiting and cockfighting were popular sports.

From the early 1600's, there was renewed interest in science and philosophy (Renaissance). In 1628 William Harvey published his treatise "*On The Motion Of The Heart And Blood In Animals*" in which he announced the circulation of blood in animals, which he had demonstrated, by vivisection, over the previous nine years.

He extrapolated his findings to humans, thereby demonstrating the value of vivisection in answering anatomical and physiological questions. A direct result was a significant increase in the rate of animal experimentation, which continued for the next two centuries.

One of the most influential philosophers of the time was Rene Descartes (1596-1650). In his treatise: "*Discourse on the method of rightly conducting the Reason and seeking truth in the Sciences*" he made reference to Harvey and his demonstration of the similarities in anatomy between man and animals. But he expanded on the Christian humanist philosophy, asserting that as animals were incapable of speaking, although they had the requisite organs, this was evidence that they were incapable of rational thought. They therefore possessed neither minds nor souls and were no more than machines that could not think or feel but merely reacted in a mechanical manner to external stimuli. Descartes argued that the cries of pain and writhing of animals undergoing vivisection were no more than mechanical reactions and the squeaking of "uncoiled cogs of robots". This 'Beast Machine' was a convenient, if implausible, concept for vivisectionists.

In 1776 Humphrey Primatt, a theologian insisted that animal cruelty was inadequately controlled by law and maintained that God would require a strict account from man for creatures entrusted to his care. English records of this time provide accounts of pigs being whipped and bulls being baited to improve meat quality, turkeys being slowly bled to death, geese being plucked alive, fish being skinned alive and a hamstrung ram being clubbed to death.

Jeremy Bentham, a philosopher, in a rebuttal of the prevailing Cartesian theory published a paper in 1780 in which he argued "*The question is not - Can they reason? nor Can they talk ? but Can they suffer?*" This helped propel the agitation for anti-cruelty laws. In 1790 two butchers were convicted and fined for cutting off the feet of sheep and driving them through the streets. However, the conviction was on the basis of the sheep not being their own property - at the same time a butcher hanging live calves with gambrels through their sinews and hooks through nostrils could not be tried.

In 1822 Martin's Act, which is widely regarded as the first anti-cruelty legislation was made law. This made it an offence to wantonly abuse, beat or ill-treat any animal the property of any other person or persons. It had taken a long time to achieve this small success and it was another thirteen years before legislation was passed which gave similar protection to animals being cruelly treated by their owners.

The Anti-vivisection Movement

Records show that it was physiologists who first expressed reservations about vivisection. O' Meara, in 1655 suggested that "*the miserable torture of vivisection surely places the body in an unnatural state*". Today, almost 350 years later, researchers who fail to provide adequate analgesia for experimental animals frequently overlook this fact. Several eminent physiologists, including Robert Boyle (1627-1691) and Robert Hooke (1635-1703) expressed concern for the welfare of their subjects but remained convinced that the costs to the animals were justified by the results of their research.

Samuel Johnson was fiercely opposed to vivisection and denounced the practice in his weekly newspaper, *The Idler*:

"Among the inferior Professors of medical knowledge is a race of wretches, whose lives are varied only by varieties of cruelty;the truth is that by knives, fire and poison knowledge is not always sought and very seldom attained.and if knowledge of physiology has been somewhat increased, he surely buys knowledge dear who learns the use of the lacteals at the expense of his humanity."

The new philosophy of Utilitarianism put forward by Jeremy Bentham (1748-1832) and later expanded by J.S. Mill argued that one should always act to produce the greatest balance of pleasure over pain. It was in his "*Introduction to the Principles and Morals of Legislation*" that Bentham emphasised that all humans were worthy of equal and humane consideration. (It was about this time that there was a movement to put an end to slavery). Following on from his argument for equal consideration for all humans Bentham argued that animals should receive similar consideration:

" The day may come when the rest of the animal creation may acquire those rights which never could have been withholden from them but by the hand of tyranny."

The other catalyst for the foundation of the anti-vivisection movement was a series of public lectures given in London by the French physiologist Francois Magendie. There followed an outcry against the unnecessary cruelty in animal experimentation.

Around this time an English physiologist and neurologist Marshall Hall (1790-1857) began to pioneer welfare issues. In 1831 he suggested five guiding principles to ensure that vivisection took into account the suffering of animals:

1. *Is the experiment necessary (will observation alone suffice)?*
2. *Does it have the possibility of achieving the desired result?*
3. *Can the protocol be modified to reduce discomfort?*
4. *Has the experiment been done before?*
5. *Will the protocol produce (statistically) valid results?*

These guiding principles formed the basis of the subsequent Cruelty to Animals Act.

The SPCA had been founded in 1824 and in 1835 received the patronage of Queen Victoria. In 1840, the Royal prefix was granted. It was not until the advent of anaesthesia in the 1850's that the RSPCA began to oppose vivisection.

In 1859 the publication of Charles Darwin's "On the Origin of Species" had an impact on prevailing attitudes regarding the status of humans and animals. Darwin's theory challenged the anthropocentric view of nature that placed human beings at the teleological centre of the universe. The social elite began to question how animals were treated, especially in research laboratories. The same social forces were at work in America, and the practice of animal research and opposition to it began to grow in the late 1800s.

In 1874 Queen Victoria herself expressed concern about animal experimentation. A Bill, aimed at regulating vivisection was presented in the House of Lords and a Royal Commission of Inquiry was set up. In response to this, Frances Power-Cobbe (1822-1904) set up a lobby group - The Victoria Street Society for the Protection of Animals from Vivisection. The society, which argued for legal restriction of vivisection, received considerable popular support. They argued that anaesthesia should be a compulsory component of all experiments involving surgery, that animals should be euthanased before recovering and that public demonstrations should be prohibited. They also sought prohibition of the use of cats, dogs and horses for vivisection.

The Cruelty to Animals Act was enacted in 1876. It appeared to address all of the concerns of the Victoria Street Society but it allowed derogations from the restrictions via signed certificates from designated members of learned bodies. The Victoria Street Society was disappointed with what they perceived as inadequate legislation and subsequently changed their name to The Victoria Street Society for the Abolition of Vivisection, with the aim of abolishing vivisection. When, in 1898, more moderate forces within the society succeeded in having its name changed to the National Anti-Vivisection Society, Frances Cobbe resigned and formed the British Union for the Abolition of Vivisection (BUAV).