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State Control, Bureaucracy, and the National Interest from the Second World War to the 1960s

In 1935, Norah Elam, the former Mrs Dacre-Fox—separated from her husband and now using the surname of her lover, Edward Elam—having recently joined, and risen to prominence in, the British Union of Fascists, published *The Medical Research Council, What It Is and How It Works*, a distillation of the information she had gleaned while working in the MRC typing pool during the Great War. In this pamphlet, she questioned whether animal research could safely be extrapolated to humans, and why so many experiments were either repeats, or else yielded results apparently obvious to anyone with common sense. She was not alone in thinking that the use of animal models for human disease had gone too far: some among the medical profession were complaining that laboratory experimentation had become the master rather than the servant of medicine, to the detriment of clinical studies.¹ Elam laid the blame at the door of ‘powerful vested interests’ (which, in the context of her political views, meant Jewry) that had managed to ‘entrench’ themselves behind ‘State-aided research’, where they could exercise control without being accountable to the public.²

British Fascists and Anti-Vivisection

In the political climate of the depression years, right wing activists found common cause with anti-vivisectionists, exploited animals being to fascists, as they had once been to socialists, a symbol for the fate of down-trodden workers in a society where profit came before people, and where a shadowy oligarchy manipulated the poor for its own commercial ends. In Germany, to which other European proto-fascists looked to see their principles put into practice, the Nazis had banned vivisection in 1933, soon after coming to power, a popular move in a country enthusiastic for *Lebensreform*, and also with British anti-vivisectionists, who were of course unaware that the Nazi government would not scruple to sanction experimentation, on animals or humans, when it suited their purposes.

Putting an end to vivisection was for British fascists, as it had been for socialists and the new age movement, part of a utopian plan for liberating the oppressed and re-establishing the natural order, the latter being, as for all ideologues, the state of existence most congruent with their own politico-religious views. Elam was not the only animal welfare campaigner to embrace fascism—Maidie Dudley Ward (d. 1945) was active in the RSPCA, the Animal Defence and Anti-Vivisection Society, the Nordic League, and Oswald Mosley's January Club.³ For anti-vivisection's critics, the link with fascism showed that the movement's supporters were fundamentally misanthropic: in trying to bring animals closer to the level of humans they were in fact reducing the lowest humans to the level of animals.⁴

British fascists were, however, a vocal minority who never came close to gaining power, though their involvement did bring some new life to organised anti-vivisection. Elam invited the former director of propaganda for Mosley's Blackshirts, Wilfred Risdon (1896–1967), to join her at the LPAVS, thereby introducing to the movement one of its most capable leaders, as well as drawing down upon it increased government scrutiny.⁵ Soon after the outbreak of the Second World War, both Elam and Risdon were arrested by Special Branch, an action the police claimed was justified after a search of the LPAVS offices uncovered 'a list containing the names of eight members of the B[ritish] U[nion of Fascists] and a letter from Oswald Moseley [*sic*]'.⁶

It was partly on the basis of this evidence that the historian Richard Thurlow described the LPAVS as ‘a known fascist front organisation’.⁷ This was certainly how it was perceived by the authorities, and Elam made no secret of her political views in Society meetings (at least one other committee member was an active fascist), but to call the LPAVS a ‘front’ is an overstatement. The Society had been active in defence of animals since the beginning of the twentieth century, and Elam had been involved from the earliest days, for most of the time while a member of the Conservative party. As her politics became more extreme, she began to proselytise for the Blackshirts as a personal initiative, and found some fellow anti-vivisectionists sympathetic to the cause, but the LPAVS’s anti-cruelty mission was genuine enough.⁸

As ‘Nazi sympathisers’, Elam and Risdon were imprisoned without trial under Defence Regulation 18B, but Risdon swiftly disowned the British Union of Fascists and was promptly released to return to his work at the LPAVS, of which he became secretary in 1942. In this capacity, he exchanged ideas with Air Chief Marshall Sir Hugh Dowding, the former head of RAF Fighter Command, and certainly no sympathiser with the enemy, whose innovative mind, freed from wartime responsibilities by premature retirement, found an outlet in various new age causes. Elam, however, remained in detention, casting a shadow over the LPAVS and rekindling the suspicion fomented during the First World War that anti-vivisectionists were incipient traitors. The LPAVS did their best to distance themselves from embarrassing political links by putting a notice on the front page of their news sheet assuring readers that none of their committee was a member of any ‘suspect organisation’.⁹

An even greater problem for them was that, now war had broken out, vivisection seemed a comparatively trivial issue. In an editorial, they defended their continued activity on the grounds that firm moral principles were more important than ever in wartime, and that denunciations of Nazi cruelty would be hypocritical on the lips of those who were cruel themselves, though as Germany had stronger legislation to protect animals than any other country in Europe, the argument that anti-vivisectionists were never cruel seemed rather flimsy.¹⁰ The LPAVS chairman, Captain Guy Coleridge, RN (1884–1941), patriotically tried

to show that National Socialism was not the panacea for animals that it seemed, but the best he could come up with was a bizarre story that Hitler had personally given orders that all dogs in Germany should be killed.¹¹

The LPAVS's efforts to show they were not assisting the enemy were unfortunately nullified by their campaign against compulsory vaccination, to which their own and the BUAV's publications devoted an increasing amount of space. There had always been some opposition to vaccination from anti-vivisectionists on animal welfare grounds, for example the Anti-Vivisection Hospital's prohibition of vaccines prepared from live animals, but anti-vivisectionists were now opposing vaccination for libertarian reasons. Hadwen had always been an anti-vaccinationist—Cobbe had recruited him to the BUAV after hearing him speak at an anti-vaccination rally—as he felt that patients ought not to be forced into accepting scientific 'progress'.¹² The outbreak of war had given the government an excuse to impose vaccination on servicemen, but anti-vivisection groups failed to appreciate that, in objecting to what they saw as an experiment on unwilling soldiers they appeared to be interfering with the war effort and showing disloyalty to the national government, an unfortunate impression for a movement linked with pacifism and fascism to give.

The War Years

The impact of the War on laboratory animals was largely negative. There was an initial reduction in animal use as peacetime research projects were shelved for lack of funding, and in July 1944, German bombs achieved what anti-vivisectionists had long failed to do, closing down the infamous Brown Institute, but many additional animals were being sacrificed in military tests, and with private members' bills banned there was no chance of anti-vivisection MPs preventing this.¹³ The last peacetime Home Office returns, in 1939, reported a total of 908,846 experiments in the previous year, but during the war only simplified reports were issued and the secrecy surrounding experimentation was increased, making it difficult to discover how many animals were used and what

experiments were being performed on them. In the absence of reliable information, rumours abounded: the Ministry of Agriculture was said to be seeking 'unlimited numbers' of hedgehogs to 'help to win the war', while 'pet stores' advertised for ten thousand guinea pigs, whose contribution to the war effort remains a mystery.¹⁴

As the war progressed, reports of research carried out in government facilities began to appear in the medical press. The LPAVS reacted critically to a paper by Solly (later Lord) Zuckerman (1904–1993) in the *Lancet* describing a study of the effects of blast injuries on unanaesthetised mice, rats, guinea pigs, rabbits, cats, monkeys and pigeons, which had been placed as little as thirteen feet from seventy pounds of high explosive. Predictably, those that were not blown to bits mostly died from traumatic haemorrhage of the lungs.¹⁵ In retrospect it is difficult to see what purpose these experiments served, since the animals chosen were generally too small for their injuries to be comparable to those of humans, and in wartime there were plenty of human fatalities in which the effects of blast injuries could have been studied at autopsy.

Many other experimenters sought to reproduce in the laboratory the traumas experienced by humans in war: researchers in the anatomy department at Oxford crushed guinea pigs' legs with metal rods and introduced bacteria into the wounds to make them suppurate; at University College Hospital, they burned goats and killed the survivors at intervals to study the pathology of their skin; and in the physiology department of King's College Hospital they administered fifty blows to the thigh bones of cats with a mallet, fracturing them in every case.¹⁶ In all these experiments the animals were anaesthetised when their injuries were inflicted, but they were allowed to regain consciousness later, and some were subsequently experimented upon again. Though these researches were openly reported in medical journals in 1943 and 1944, it was 10 years before the LPAVS ventured to criticise them in print.¹⁷ Other casualties of war included animals of various species that were exposed to poison gas, in anticipation of a gas attack on the British mainland that never occurred, and eighty sheep, infected during the secret testing of an anthrax bomb on the remote Scottish island of Gruinard.¹⁸

Many of the LPAVS's wartime initiatives were uncontroversial: Risdon designed an ingenious air raid shelter for domestic pets, and they continued to campaign against cruelty in the meat industry.¹⁹ It was, predictably, their denunciation of the government's policies on vaccination and military experimentation that led to confrontation: the RDS reported the LPAVS to the Parliamentary Medical Committee as a 'malevolent influence', and asked the Committee chairman, Sir Francis Fremantle, to put 'pressure' on them.²⁰ The Army Director of Pathology concurred: having to answer questions about experiments and deal with complaints about compulsory vaccination (the government grudgingly had to admit that soldiers were free to refuse the vaccines if they chose) was a waste of army time and delayed more important work. 'In addition to jeopardising the safety of the individual soldier', he wrote, 'the activities of these [anti-vivisection] societies are a menace to the national effort at this time, I am, therefore of opinion that the strongest possible action should be taken at once to restrain their further activity'.²¹

Despite these forewarnings, six anti-vivisection societies rashly came together in 1942 to oppose compulsory diphtheria inoculation of troops.²² This ill-timed move gave the treasury the excuse it needed to revoke their charitable status, a change to which Fremantle and the RDS lent their support.²³ The public had grown tired of anti-vivisectionists stirring up dissent in the ranks, and the RDS was pleased to note that 'our society has never done anything more popular'. They swiftly arranged for anti-vivisection societies to be removed from all published lists of charities.²⁴ When the war was over, there was no public appetite for reversing the decision: the House of Lords rejected a final appeal by the NAVS in 1947.²⁵

The judgement was a severe blow for anti-vivisection, whose charitable status had been accepted since the foundation of the VSS in 1875, and upheld in court in 1895. Though it was unusual for charitable status to be granted to any organization whose objects included changing the law, the court ruled that the VSS's overarching purpose was to end what it saw as 'a cruel and immoral practice',²⁶ a goal it believed would benefit humans as well as animals (whether it would actually do so was not for the court to decide, it sufficed

that the charity believed it would). In 1947, however, when the NAVS, as it then was, tried to get its charitable status restored, the Tax Commissioners argued that any benefit to public morals from the abolition of vivisection would be negligible in comparison to the damage to public health. According to the appeal court judge Lord Wright, 'the calamitous detriment of appalling magnitude' that would be suffered by medical science if vivisection were stopped greatly outweighed any 'vague and problematical moral elevation' that society might gain.²⁷ In their judgement, the Law Lords also adverted to the political nature of the Society's objective. It was a judgement based on materialistic utilitarianism, and it is difficult to see how anyone of this turn of mind could have dissented from it, but it totally disregarded the century-long debate about the nature and purpose of science, which had by this time become so passé as to elicit little interest outside the dwindling ranks of committed anti-vivisectionists.

Post-War Problems

In the immediate post-war period, civil experimental programmes were resumed with such enthusiasm that the price of laboratory animals rose sharply owing to shortage of supply. In Bristol, physiologists were prepared to pay up to 17 shillings, a labourer's daily wage, for a cat, which suggests they were no longer being offered sufficient numbers of unwanted or stolen domestic animals and strays, probably because many of them had been euthanized during the war, purportedly in the national interest: 400,000 cats and dogs had been massacred in London alone in 1939 as the result of unfounded fears of wartime food shortages to come.²⁸

As the already illicit supply of 'strays' to laboratories was insufficient to meet their demands, major consumers such as the pharmaceutical company Burroughs Wellcome found themselves purchasing, perhaps inadvertently, stolen pets. In a notable case in 1945, one Mr Bailey located his 'lost' dog, Digger, when he heard his distinctive barking coming from a crateful of dogs bound for the Wellcome laboratories in Bradford. An attempt by the BUAV to use this incident to publicise the

illegal dog trade was blocked by threats of a libel action, and newspaper reports elicited remarkably little public concern: the argument that medical progress was impossible without vivisection was now generally accepted, and anti-vivisection groups had lost their political and charitable credibility.²⁹

Details of Nazi medical experiments, when they emerged, only made things worse. Although Vyvyan has argued that all experiments on humans in Nazi Germany 'were in continuation of, or complementary to, experiments on animals',³⁰ the obvious interpretation of the fact that the most outspokenly anti-vivisection government in history had the worst record on human rights was that ostentatious concern for animals masked an underlying misanthropy in which the value of human lives was debased.³¹ The priority in post-war Europe was to strengthen human rights, and the 1948 Universal Declaration of Human Rights concentrated the attention of moral reformers on issues such as judicial corporal punishment and the death penalty. Animals were not mentioned in the Declaration at all, and a comparable declaration of rights for them is still awaited.³² In some respects, human rights and animal rights had become competing interests: it was apparent that improvements in living standards and health would be critical in preventing future conflicts, and state-sponsored medicine and animal research were seen as vital for achieving this.

In Britain, the National Health Service Act of 1946 was initially welcomed by anti-vivisectionists because they thought it would make it easier for patients to opt out of vaccination, although any who chose to do so were probably more concerned about potential side effects than the use of live animals. In fact, by reducing patient choice, state-run medicine tended to restrict patients' ability to exert moral influence. Although the right of patients to choose their doctor and doctors to choose their patients was enshrined in the Act, it was meaningless in practice because both groups had their freedoms curtailed under the nationalized system.

In 1948, anti-vivisection organizations, concerned that experimentation had become routine, regulation a formality, and dispensations from anaesthesia the norm, requested that the government set up another Royal Commission to revise the 1876

Act, but their plea was ignored.³³ The BMA staunchly defended experimentation and opposed any changes, insisting that all necessary safeguards were in place.³⁴ Clearly, however, the Act's effectiveness as a regulatory agent was highly questionable: when the BUAV asked in 1954 if the government had ever turned down a licence application, the Secretary of State replied that the information was not available, which suggests that they had not.³⁵ It was rumoured that the government's secret animal research programme was still going on, but questions in the House of Commons about whether animals were being used in American-style atomic weapons testing met with a wall of silence, as it was deemed 'not in the public interest' to answer them.³⁶ The director of Britain's atomic research establishment at Harwell did, however, admit that animals had been exposed to radiation, and apparently told a BUAV supporter that 'the end justifies the means'.³⁷

LD50

The major change for laboratory animals in the 1950s was the same as that for the medical profession and the population as a whole: they became increasingly subject to state control. The great majority of research on animals was now a matter of bureaucratic necessity rather than, as it had been when the anti-vivisection movement began, the personal initiative of a few ground-breaking physiologists. Until the 1920s, research had been mostly qualitative, directed at determining how animals functioned and how they reacted to disease, either for academic interest or, more often, to provide a model for human pathophysiology. The total number of animals used in qualitative studies was comparatively small: the antis criticised unnecessary repeat experiments and demonstrations done purely for teaching purposes, but their main complaint was that vivisection was demoralising to those who performed it, to the profession of medicine, and to society as a whole.

Paradoxically, opposition to vivisection in the post-war period, when quantitative testing predominated, became less vocal although the number of animals used increased. This was due in part to experimenters having won the propaganda battle by convincing the public that they were

saving lives and helping their country to prosper, while anti-vivisectionists were sentimental, reactionary, and disloyal to their own species. Also, Joseph Stalin's apocryphal dictum probably applied: 'a single death is a tragedy; a million deaths is a statistic'. A solitary physiologist choosing to vivisect a stolen dog in a private laboratory was more likely to provoke an emotive response than any number of routine tests carried out by white-coated technicians on anonymous animals that would never see life outside a laboratory.

Chief among these bureaucratised consumers of animals was the lethal dose test, which had originated in 1921, when Dr A.J. Eagleton (1891–1925) of the Wellcome Physiological Research Laboratories proposed a method to standardise the potency of tuberculin by measuring its 'minimum lethal dose' in guinea pigs.³⁸ It was the potency rather than toxicity of the vaccine that was in question, but the latter was a convenient proxy for the former, since it was harder to test the strength of a vaccine than to find the lowest dose that would cause death. The test was seriously flawed, because susceptibility to toxins varies both between and within species, and it took only one idiosyncratic result to skew the findings. This problem seemed, however, to have been resolved in 1927, when the Dr J.W. Trevan (1887–1956), who had taken up laboratory work because he 'found clinical medicine too difficult',³⁹ proposed measuring the dose necessary to kill half the population to which it was given, to so-called *dosis letalis* 50% or DL50, which was soon anglicised to LD50.⁴⁰ Trevan intended his method to be used for standardizing drugs such as digoxin and insulin that varied from batch to batch and were dangerous in overdose. He appreciated that this would require 'much larger' numbers of animals than minimum lethal dose testing, and made some suggestions for 'economy', though probably with financial rather than humane considerations in mind.

The potential for using animals to test the safety of medicines caught the attention of the BMA, who raised it during a debate on Joseph Kenworthy's bill to stop public money being spent on vivisection, arguing that animal testing was necessary to guarantee that medicines were safe, and that 'effective control of therapeutic substances can only be ensured by the state...'.⁴¹ Though officially apolitical, the BMA,

as we saw in the previous chapter, wielded significant parliamentary influence, not by 'retaining' (i.e., paying) MPs, but by persuading the medical men among them to ask planted questions, or block legislation by 'talking out' or delaying bills, in the knowledge that no government would give anti-vivisection extra parliamentary time.⁴²

LD50 testing was little used—or at least little reported—in Britain until the Second World War. The first research published in the *Lancet* that employed the technique was a 1943 study, jointly funded by the MRC and Boots Pure Drug Company, into the toxicity of an unknown substance that had been extracted from dead muscle (the object being to investigate the systemic effects of soft tissue injuries).⁴³ The mystery compound was variously fed to, or injected into, the veins or abdominal cavities of unspecified numbers of cats, rabbits, rats, mice and guinea pigs. Not surprisingly, there were 'wide differences' in response, both within and between species. The 'extreme variability' of the rabbit, the investigators concluded, rendered it 'quite unsuitable for biological assays', a recommendation that the pharmaceutical industry would, in decades to come, comprehensively ignore.

A few weeks later, the professor of morbid anatomy at UCL published a report into the LD50 of tannic acid, a substance of interest to the War Office as it was being tried out in the treatment of burns. The experimenters used of a total of 250 goats, rabbits, guinea pigs and rats, a tenth of whose skin surface was burned off under anaesthesia before they were sprayed with the acid.⁴⁴ Wartime necessity allowed such experimentation to escape public censure, as it was intended to alleviate the sufferings of wounded combatants. Another paper in the *Lancet* in 1945 reported the efforts of the biochemistry department at Oxford to develop an antidote to arsenical gases, which, it was feared, might be deployed in a last-ditch German attack. Their LD50 was determined by applying them to the skin of rats, presumably causing considerable pain, since a human 'volunteer' who had as little as one milligramme rubbed onto his arm experienced oozing and redness.⁴⁵

One reason that lethal dose testing did not generate a significant public reaction despite the large quantities of animals used and the suffering it caused was that rodents soon became the animals of choice. Although experimenters typically used multiple species to counter the problem

that interspecies variation was wide, rodents were the default option. The era of the 'lab rat' may be said to have begun in 1909, when a standard strain, the Wistar rat, was bred specifically for experimental use—the ancestor of the majority of laboratory rats used thereafter. The advantages were readily apparent: rats have a conveniently short generation time, reproduce easily, and are seen by the public as vermin and thus engender little sympathy, particularly those bred for the laboratory that have never been wild animals or pets. It is notable that illustrated propaganda from anti-vivisection groups rarely depicted rats, whereas pro-vivisection literature often did. The massive breeding programmes necessary to provide them in the large numbers required also had the desirable side effect of reducing intra-species variability, since the population became unnaturally genetically uniform due to inbreeding.

By the 1950s, LD50 testing was responsible for most animal deaths in the laboratory, and for a huge rise in the total number of experiments carried out. Though toxicity tests did appear in official statistics, the government dissembled by calling them 'simple injections', without adding '...of fatal poisons'. In fact, LD50 was almost bound to produce the maximum suffering possible, since the target dose was one that was only just fatal, perhaps after many days. Unlike the vivisection experiments of the nineteenth century, which were often public and involved mostly domestic animals whose sufferings were easily anthropomorphised, laboratory animals were experimented on in private, with bureaucratic efficiency, and the results reported in such a way that the animals were hardly even mentioned. Phrases in the academic literature such as 'the LD50 was determined' glossed over hundreds of slow, painful deaths. This routine, industrialised killing of creatures, without regard for suffering, was carried out not by medical visionaries but anonymous technicians, to whom the attribution of motives either of brutality or nobility of purpose would have seemed equally redundant.

Such was the confidence placed in LD50 testing that it was extended beyond pharmaceuticals to a bewildering range of domestic products, chemicals and cosmetics, though in many cases testing these for toxicity seems to have served little purpose. The BUAV took up the test case of the insecticide DDT, which was tested on a variety of domestic

animals. Since an insecticide must obviously be poisonous, and since DDT would not in the real world be given to either animals or humans, why, they asked, were the tests needed at all? D.W. Jolly, the veterinary surgeon in charge, replied glibly that it was necessary to test any potentially dangerous chemical, though he added that he personally disliked the work and was reluctant to perform it. In its defence, he produced not the classic utilitarian argument but the bureaucrat's customary excuse for any misdeed: the tests had, he said, been 'planned by a committee', thus, presumably, absolving him, and anyone else, from personal responsibility. The fact that the authorities 'demand' such tests, replied the BUAV, only showed how foolish the system was, since the results were easily predictable.⁴⁶ Their objection was, however, brushed aside, and examples of similar senseless experiments—from injection of known poisons on the one hand to determining the LD50 of water on the other—might be supplied in abundance.

Testing on laboratory animals had now won such widespread scientific endorsement that its value had become practically unquestionable, not least because many of the leading figures in academic biomedicine had built their reputations on repetitive, protocol driven, quantitative experimentation, and continued to support it. Trevan, the inventor of the LD50 test, became a Fellow of the Royal Society, Research Director at the Wellcome Laboratories, advisor to the government, and Chairman of the RDS. His former assistant George Alexander Mogey (1917–2003) was Secretary of the Council for Postgraduate Medical Education, where he commemorated his earlier career in the laboratory by acquiring the car registration plate 'LD50'.⁴⁷

The Sacred Cow of Science

In 1953, the LPAVS's position on medical science was succinctly set out in a review of Anthony Standen's book *Science is a Sacred Cow*: '... Standen shows the sacred cow as an unimpressive figure when she has a halo round her horns and is surrounded by white-coated figures bowing low, but he also shows that she remains just as good a cow, and gives as nourishing milk, when we treat her properly in her barn

or in her meadow'.⁴⁸ Most anti-vivisectionists did not disdain science, but argued against excessive reliance upon it, and in particular against the requirement for every discovery to be 'validated' by experiments on animals. They tended, however, to ignore the rodents that made up the majority of the victims and to concentrate on saving domestic animals, especially dogs, though their efforts to get a dogs protection bill through parliament remained ineffectual. The first case of the 'liberation' of laboratory animals occurred in 1952, when an anti-vivisectionist released eight dogs from the kennels of a dealer. Ironically, considering the number of 'strays' and 'lost' dogs that were being kidnapped daily to supply laboratories, the dog-rescuer was convicted of stealing them, though he was conditionally discharged. The incident prompted the BUAV to start a campaign to raise money to buy up unwanted dogs, and so prevent them falling into the hands of laboratory suppliers.⁴⁹

In an attempt to heal some of the divisions that beset the movement, a 'World Congress' of anti-vivisection societies met in London in 1954, with Risdon in the chair. He was the closest thing that British anti-vivisectionists had to a national leader, and his propaganda experience proved valuable in maintaining their public profile. He tried to improve long term support in the House of Commons by asking LPAVS members to 'badger' prospective parliamentary candidates about animal welfare issues, and contributed to radio discussions whenever he could, though he felt the BBC was biased in favour of vivisection and uncritically presented the government's position as authoritative.⁵⁰

Chief among a dwindling number of anti-vivisection parliamentarians was Hugh Dowding, who had become a theosophist since his elevation to the House of Lords in 1943. In 1952, in a speech against animal experimentation, he rejected out of hand the defence of utility: '... even should it be conclusively proved that human beings benefit directly from the suffering of animals, its infliction would nevertheless be unethical and wrong'. In 1957, he attacked the secrecy surrounding animal research and summed up the regulatory system with military bluntness: '... a hollow sham, maintained to throw dust in the eyes of critics and to save the conscience of the apathetic'.⁵¹ His renewed calls for a government enquiry fell on deaf ears in parliament, and the RSPCA and Universities Federation for Animal Welfare

(UFAW, a graduate-only anti-vivisection society) added their voices to the appeal with scarcely more success. The RSPCA tried to meet the Home Secretary to tell him that five inspectors for millions of experiments was clearly inadequate, but he refused to receive their delegation. They also produced a leaflet, *Cruelty Within the Law*, which pointed out that the licensed experiments performed without anaesthetic included starvation, inoculation with virulent diseases, sleep deprivation, and exposure to poison gas. The Home Secretary's only concession was to appoint a sixth inspector—another doctor rather than the veterinarian the RSPCA had requested.⁵²

Major C.W. Hume, founder and chairman of the UFAW, delivered a keynote speech in (1958) that stressed the historic virtue ethics argument, comparing experimenters who were thoughtless in their use of animals to First World War generals who coldly sacrificed their troops. Even if the latter's actions did ultimately lead to military victory, which must be the prime objective of any commander, their callous indifference to life would still have been wrong, on the grounds of both inhumanity and inefficiency. Hume, who was perhaps mindful, as a soldier, that the most reckless of commanders were often those who faced no personal risk, criticised experimenters for sacrificing animals for what they insisted were worthy causes, and yet declining to make any experiments upon themselves. The *Lancet* reprinted the speech with approval, exhorting experimenters to be more efficient and to reduce suffering whenever they could.⁵³

Wishing 'to see laboratory techniques become more humane for the animals concerned', the UFAW commissioned the Oxford zoologist Dr William Russell to undertake a thorough study of the subject. Russell and his assistant Rex Burch published the results of their several years' work in (1959), as *The Principles of Humane Experimental Technique*, an influential report most notable for proposing the so-called 'three Rs': Replacement, Reduction, and Refinement of animals in laboratory experimentation.⁵⁴

The NAVS, meanwhile, preferred to fight utilitarian science on its own terms by arguing that vivisection was not necessary for effective medical research. In the 1960s it published a series of short books to this effect by the theosophist and anti-vivisection doctor Maurice

Beddow Bayly (whose career at the Anti-Vivisection Hospital had ended so precipitately), the latest of which, *Clinical Medical Discoveries* (1961), described some of the many medical advances that had been made without vivisection. Bayly was the most prominent of the few doctors still working for the anti-vivisection cause in the post-war period, and his writings were lucid and well argued, but his lists of advances that had been made without animal experiments could be no more conclusive than the RDS's lists of advances made with them. How the development of medicine would have been different had vivisection never been permitted is a question of hypothetical history that is unlikely ever to be definitively answered.

The BUAV's latent pacifism resurfaced in the Cold War years, when it renewed its protests against the use of laboratory animals for military research, details of which were not declared in Home Office statistics for reasons of national security. Both the BUAV and the RSPCA noted with concern the use of monkeys and other animals in American rocket tests, and wanted to ensure these were not reproduced in Britain: according to the BUAV, the true objective of the 'conquest of space' was to achieve military supremacy by placing nuclear missiles in orbit.⁵⁵ The public, however, were mostly on the side of scientific progress, and watched developments in the 'space race' between the USSR and the West with interest.

In 1957, the Russian dog Laika (Barker) became world famous as the first living creature to orbit the earth. The Soviet government claimed she had been euthanised after 5 days in space, before her oxygen ran out, though she had actually died of overheating within a few hours of launch. Although the exact mode of Laika's death was not known in Britain until secret material was declassified in 2002, this had obviously been a lethal experiment upon a cooperative domestic animal, and it is significant that reports in the British press were overwhelmingly favourable, despite the experiment having been performed by a political rival and nominal enemy on the other side of the 'iron curtain'. The training of 'space dogs' included being confined in ever smaller cages and spun in centrifuges to accustom them to conditions inside a space capsule. It would not have taken much journalistic imagination to make a comparison between the fate of Laika and her fellow space dogs and

that of the unwilling human victims of the relentless communist pursuit of technological and industrial superiority over the West. Instead, there was praise, without irony, for the 'selfless contribution' that dogs were making to scientific progress.⁵⁶ Indeed, if Laika had been any other species it seems unlikely that any protest would have been made at all, but some feeling that dogs were entitled to special consideration remained: the National Canine Defence League called on all dog owners to observe a minute's silence, and a few protestors gathered outside the Russian embassy, including the 79-year-old Lizzy Lind af Hageby.

The Littlewood Report and After

The RSPCA was still raising concerns over inadequate controls on vivisection in the 1960s: by this time there were over three million procedures annually, six thousand licensed vivisectionists, and still only six inspectors, all medical men.⁵⁷ In May 1963, the Home Secretary finally responded to pressure and set up a committee, under the chairmanship of lawyer Sir Sydney Littlewood (1895–1967), with members drawn from science, the church, politics and anti-vivisection, to make a thorough review of the law on animal experimentation. Early on in its deliberations, the committee decided that 'vivisection' was no longer the appropriate word for the uses to which most laboratory animals were now being put. While the pro-vivisectionists on the committee may have preferred a more euphemistic term in order to avoid the visceral response that the suggestion of being cut up alive elicits, they were right to point out that the experiences of laboratory animals had changed beyond recognition since the 1876 Cruelty to Animals Act. The solitary physiologist who risked public disapproval to make great discoveries was a world away from the soulless, protocol-driven laboratories that consumed thousands of animals in 'routine' tests.

The committee received little response from the public, and had to rely instead on interviewing the editors of national newspapers to get a sense of public opinion. The editors confirmed that, apart from a few tireless correspondents who wrote into express the same pro- or anti-vivisection sentiments every time the subject was mentioned,

they received few letters about it from their readers.⁵⁸ The public's desire for improved laboratory animal welfare legislation had long since passed. When the Littlewood report was completed, in 1965, it ran to 255 pages and made 83 recommendations. The report upheld the government's line that there was no overuse of animals and that the licensing system was adequate, though they did recommend that the 1876 Act, and its administration, be overhauled, and made some practical suggestions: the 'debarking' of laboratory dogs by cutting their vocal cords was to cease; Home Office inspectors were to have greater powers and better training; more inspectors were to be recruited; and the public were to be allowed to see animals under experiment.⁵⁹ The report was, however, never properly debated, and indeed it was 1971 before parliament discussed it at all. Anti-vivisection groups considered it a whitewash, and Risdon showed that public support could still be mobilised with a little effort by presenting a 300,000-signature petition of protest to parliament, but it was too late to make a difference.⁶⁰

To meet the requirement for experimentation on an ever-larger scale, animals were still being illicitly supplied to laboratories. The RSPCA told the Littlewood committee that there was:

A thriving trade in procuring and disposing of animals to hospitals and laboratories. But in all too many instances a certain duplicity is practised and members of the public are misled by vaguely-worded advertisements inserted in local newspapers and tending to create the impression that the dealers concerned are genuinely seeking to place unwanted animals with new owners.⁶¹

Even the RDS admitted that breeders and suppliers were struggling to keep pace with the burgeoning demand: speaking for the Society, Dr Lane-Petter complained of an 'embarrassing lack of animals in this country for trying out all manner of vital new drugs'.⁶²

In 1967, the Medicines Control Agency was established, and by 1970, five times more experiments were being performed than in 1946, the great majority for regulatory purposes, and in particular, LD50 testing. Paradoxically, the methodological flaws that made LD50 an imperfect means of predicting human toxicity (differences in reaction between

species; limited genetic diversity among rats and mice bred for the laboratory) only served to increase the number of animals used. What was needed, said the regulators, were more tests on an ever-greater variety of species. The thalidomide tragedy in 1959–1961 led to a redoubling of animal testing, which was made mandatory in 1969. Of course, it could never be established for certain that a drug was safe until it was given to patients, but the regulators required such large amounts of ‘pre-clinical’ animal toxicity data before researchers could even begin to test a drug on humans, that the *British Medical Journal* complained that over-regulation was delaying the introduction of new drugs.⁶³

Conclusion

We come to the end of our chronological survey of the anti-vivisection movement at what can only seem an inauspicious period in its history. The total number of animals being used was at an all-time high, and anti-vivisection campaigners lacked the unity and the influence to translate a latent public dislike of vivisection into effective protest, still less to effect a change of heart where it mattered: in government, the medical profession and academia. Mindful of the great deal that remained to be done, one might be tempted to dismiss a century of anti-vivisection activity as having led nowhere. The movement’s accomplishments, however, were far from negligible: imperfect and out-dated though the British legislation was, it was still the most comprehensive in the world, and for more than a 100 years the use of animals in scientific research had never been off the ethical and political agenda.

In no other country, over a sustained period, had so much time and effort been devoted to deliberating on the rights and wrongs of animal experimentation. Of course, there were ulterior motives on both sides, from anti-vivisection hospitals hoping to draw funds away from the voluntary sector, to research institutes whose hegemony depended on the supremacy of laboratory experimentation, and both were guilty of manipulating evidence, politicking, and sometimes downright intimidation; there was, however, at the heart of both pro- and anti-vivisection

campaigns, a desire to do the right thing, and a firm belief in the importance of their own convictions.

Underlying their sometimes irreconcilable differences was a fundamental disagreement over what science was, or ought to be, since the anti-vivisection movement was founded on the premise that true progress could never come at the expense of cruelty, and so vivisection could not possibly benefit humanity, since it was intrinsically inhumane. It is a difference still to be resolved, and which keeps the opposing parties from achieving anything like mutual understanding. To many of the recipients of a 'scientific' education, anti-vivisection seems a misguided attempt to introduce sentiment and emotion into a sphere where they simply do not belong. To anti-vivisectionists, however, 'nothing which is ethically wrong can ever be scientifically right'.⁶⁴ Perhaps, having learned their history, even the most hardened experimentalist will grant them 'some credit for humanity'.⁶⁵

Notes

1. 'Medical notes in parliament', *BMJ*, 1 (1934), 1098.
2. Norah Elam, *The Medical Research Council: What it is and How it Works* (London: LPAVS, 1935) (Elam 1935).
3. Julie V. Gottlieb, *Feminine Fascism: Women in Britain's Fascist Movement, 1923–45* (London: I.B. Tauris, 2003), 299 (Gottlieb 2003).
4. Stuart, *Bloodless Revolution*, 442–444.
5. J.L. Risdon, *Black Shirt and Smoking Beagles: the Biography of Wilfred Risdon, an Unconventional Campaigner* (Scarborough: Wilfred Books, 2013), 340. Mosley replaced Risdon with William Joyce, 'Lord Haw-Haw', in 1934 (Risdon 2013).
6. Gottlieb, *Feminine Fascism*, 64 (2003) (Gottlieb 2003).
7. Richard Thurlow, *Fascism in Britain: a History, 1918–1945* (London: I.B. Tauris, 1998), 148. Kean, *Animal Rights*, 258, states that LPAVS members were 'totally committed' to anti-vivisection (Thurlow 1998).
8. Risdon, *Black Shirt*, 396 (2013) (Risdon 2013).
9. *Anti-Vivisection News-Sheet*, July 1940, 1.
10. 'Victory is ours' (editorial), *Anti-Vivisection News-Sheet*, July 1940, 3; 'We are not amused', *Anti-Vivisection News-Sheet*, July 1940, 19 (Victory is Ours 1940; We are not Amused 1940).

11. Guy Coleridge, 'Dog murder in Germany', *Anti-Vivisection News-Sheet*, July 1940, 19 (Coleridge 1940).
12. Nadja Durbach, *Bodily Matters: The Anti-Vaccination Movement in England, 1853–1907* (Durham: Duke University Press, 2005), 232 (Durbach 2005).
13. 'Vivisection—a depressed industry', *Animals' Defender*, 60 (1940), 1; Hopley, *Campaigning Against Cruelty*, 11 (Vivisection—A Depressed Industry 1940).
14. 'Very "hush-hush"', *Anti-Vivisection News-Sheet*, September 1940, 1; 'Our law allows this', *Animals' Defender*, 61 (1941), 1 (Very "Hush-Hush" 1940; Our Law Allows This 1941).
15. 'Blast!' (editorial), *Antivivisection News-Sheet*, September 1940, 2 (Blast 1940).
16. 'Estimate the suffering', *Animals' Defender*, 60 (1941), 1 (Estimate the suffering 1941).
17. M. Beddow Bayly, 'Recent experiments in British Laboratories', *Anti-Vivisection News-Sheet*, October 1953, 72 (Bayly 1953).
18. "'Interesting" experiments', *Animals' Defender*, 60 (1941), 1; Hopley, *Campaigning Against Cruelty*, 51 ("Interesting" Experiments 1941).
19. They also campaigned for a ban on the kosher method of killing, a not uncommon demand at the time: E.J.E., 'The History of Torture Through the Ages' (review), *Antivivisection News-Sheet*, October 1940, 2 (E.J.E 1940).
20. Letter, H. Marrian Perry to Sir Leonard, 10 July 1940, Well SA/RDS/C2.
21. Memo, 10 July 1940, Well SA/RDS/C2.
22. Memo from the honorary secretary of the RDS, September 1942, Well SA/RDS/C2.
23. RDS memoranda: 7 June 1943, 217; 20 January 1941, 207, Well SA/RDS/C2.
24. RDS archives, November 1945, 259, Well SA/RDS/C2.
25. RDS archives, 26 April 1946, 233, Well SA/RDS/C2.
26. *Times Law Reports*, 11 (1895), 541.
27. Peter Radan, 'Antivivisection and Charity', *Sydney Law Review*, 35 (2013), 519–539 (Radan 2013).
28. Bristol physiology department order books, Well GC/108/1; Risdon, *Black Shirt*, 346, 369.
29. Hopley, *Campaigning Against Cruelty*, 54–55.
30. Vyvyan, *The Dark Face*, 159.
31. Boria Sax, *Animals in the Third Reich: Pets, Scapegoats, and the Holocaust* (New York: Continuum, 2000) (Sax 2000).

32. A Universal Declaration of Animal Welfare was drafted in 2000 but has yet to be endorsed by the United Nations.
33. 'Deputation to the Home Secretary', *Animals' Defender*, April 1948, 47; Ryder, *Victims of Science*, 224 (Deputation to the Home Secretary 1948).
34. Ryder, *Victims of Science*, 226.
35. 'Do they ever say "no"?', *Animals' Defender*, March 1954, 46. I have been unable to discover evidence of a licence being refused under the 1876 Act (Do They Ever Say "No" 1954).
36. 'Atomic weapon experiments', *Animals' Defender*, 68 (1948), 1. The following year, the first historical account of the subject was published, E. Westacott's *A Century of Vivisection and Anti-Vivisection* (Ashington: C.W. Daniel, 1949) (Westacott 1949; Atomic Weapon Experiments 1948).
37. 'What happens at Harwell', *Animals' Defender*, January 1954, 1 (What Happens at Harwell 1954).
38. A.J. Eagleton, 'The standardization of tuberculin', *Lancet*, 1 (1921), 429–431 (Eagleton 1921).
39. J.H. Gaddum, 'John William Trevan, 1887–1956', *Biographical Memoirs of Fellows of the Royal Society*, 3 (1957), 273–288 (Gaddum 1957).
40. J.W. Trevan, 'The error of determination of toxicity', *Proceedings of the Royal Society of London*, 101 (1927), 483–514 (Trevan 1927).
41. 'The prohibition of vivisection', *Lancet*, 2 (1930), 1360.
42. Harry Eckstein, *Pressure Group Politics: The Case of the British Medical Association* (Stanford, CA: Stanford University Press, 1960), 75–78 (Eckstein 1960).
43. Marian Bielschowsky and H.N. Green, 'Fractionation, chemical properties and effective doses', *Lancet*, 2 (1943), 1531–1535 (Bielschowsky and Green 1943).
44. G.R. Cameron and R.F. Milton, 'Toxicity of tannic acid: an experimental investigation', *Lancet*, 2 (1943), 179–186 (Cameron and Milton 1943).
45. 'Antidote to arsenicals', *Lancet*, 2 (1945), 854–855.
46. 'Correspondence With a vivisector', *Animals' Defender*, June 1952, 7 (Correspondence With a Vivisector 1952).
47. Obituary, *BMJ* (2004), <http://www.bmj.com/content/suppl/2004/04/15/328.7445.960-e.DC1>, viewed 24 June 2016. Dwindling membership led the LPAVS to merge with the NAVS in 1957. Risdon became secretary of the merged organization, and worked towards unity with the BUAV up to his death in 1967, though as the BUAV remained

- committed to total abolition as the only option, unity was never achieved: Risdon, *Black Shirt*, 496 (Obituary 2004).
48. 'Books reviewed', *Antivivisection News*, January 1953, 2 (Books Reviewed 1953).
 49. Hopley, *Campaigning Against Cruelty*, 57–59.
 50. Risdon, *Black Shirt*, 493, 659–668 (2013) (Risdon 2013).
 51. Ryder, *Victims of Science*, 224–225.
 52. Ryder, *Victims of Science*, 226.
 53. C.W. Hume, 'Soldiers and laboratory animals: an analogy for experimental biologists', *Lancet*, 271 (1958), 424–426.
 54. W.M.S. Russell and R.L. Burch, *The Principles of Humane Experimental Technique* (London, Methuen, 1959).
 55. 'Those rocket tests', *Animals' Defender*, 72 (1952), 1 (Those Rocket Tests 1952).
 56. Tacium, 'A history of anti-vivisection... Part I'.
 57. Niven, *History of the Humane Movement*, 86.
 58. John Bleby, 'The Littlewood Committee report on experiments on animals', *Journal of Small Animal Practice*, 7 (1966), 205–214 (Bleby 1966).
 59. Ibid.
 60. Risdon, *Black Shirt*, 498 (2013) (Risdon 2013).
 61. *Report of the Departmental Committee on Experiments on Animals* (HMSO, 1965), 177 (HMSO 1965).
 62. *The Anti-Vivisectionist*, July/August 1965, 44.
 63. Bleby, 'The Littlewood Committee'.
 64. 'Animals and us: quotations', *Quest*, 89 (2001), <https://www.theosophical.org/publications/quest-magazine/42-publications/quest-magazine/1325-animals-and-us-quotations>, viewed 24 June 2016 (Animals and Us: Quotations 2009).
 65. Robert Knox, 'Xavier Bichat: his life and labours; a biographical and philosophical study', *Lancet*, 2 (1854), 393–396 (Knox 1854).

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