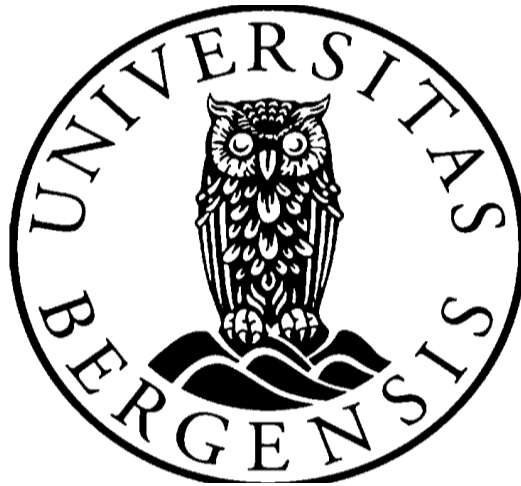


A view on vivisection;

Analysing the Edwardian vivisection debate



Master thesis in History by Lillian Nesheim

AHKR Department of Archaeology, History, Culture studies and Religion

University of Bergen

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The sense of death is most in apprehension;
And the poor beetle, that we tread upon,
In corporal sufferance finds a pang as great
As when a giant dies¹

1 William Shakespeare - *Measure for Measure* - act 3, scene 1, lines 76-79

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Chapter 1 – Introduction

Throughout history, human beings have been preoccupied with the question of life. We have searched and investigated not only the theological but also the physical aspects of what makes animate creatures like humans, different from inanimate structures. At the same time, the strain of living taking a toll on humans made the question not only how is it that we are alive, but also how do we keep ourselves alive - or how do we make physical life as long and good as possible? Out of these concerns, ancient medicine was born. From Galen of ancient Rome through renaissance revival, the discoveries of enlightenment and the catalyst effect of experimentalism which we are still seeing the results of today. Medicine has evolved and spawned sub-genres of medical science such as physiology, pathology, and even genetic research. In its quest, medicine has gone through a long, dark labyrinth, scattered with dead ends and obstacles, and though it has solved many riddles, cured diseases and improved the general health of many a population, the quest has not been without sacrifices.

I started this project with the idea in mind to seek a different version of the history of medicine. I wanted to see and bring forth, not only the history of medical materialism and progress, but also of vitalism and resistance. I wanted to bring forth, not only the scientists, but also their adversaries and critics, and last but not least, the victims of scientific progress. Medicine and medical sciences, in which we in our modern world put so much trust in, were at times under harsh pressure. In the 19th century, experimental medicine grew in Europe, and though it had a late start in England, it regained terrain quickly during the mid and late 19th century. Medical sciences evolved certain practises which caused great public stir. The government answered by appointing The First Royal Commission on vivisection in 1875 which resulted in a law controlling and limiting the practise of animal experiments in experimental medicine. The law however did not succeed in quelling the public, and new controversies and uprisings forced the government to appoint a second commission in 1906. The basis of experimentalism; animal experiments or vivisection, was at the core of this great controversy which had its roots in enlightenment humanism, and ended in the materialism of the 20th century.

Research question

The overall theme for this study is the vivisection controversy of the late 19th and early 20th century.

The vivisection controversy was in short a conflict over the use of animal experiments in experimental medicine in Great Britain during this period. On the surface this controversy may have seemed simple enough; on one side there was a group of animal lovers who could not bear to see pet-animals like dogs and cats be used for medical experiments in fear of it being painful. On the other side, a group of scientists backed up by the medical profession used animals as test objects for new physiological facts, procedures, drugs, and diseases. They saw animals as useful and safe objects, that could be experimented upon, before new acquirements should be used on humans. Beneath the simple surface there was a web of arguments, images, fears, predictions and contradictions. The case of antivivisection was a lot more complicated than an argument between irrational pet lovers and rational scientists.

What I want to do is to untangle this web, and reveal the view on animals, science, medicine and scientists which the antivivisectionists were so eagerly communicating. The task at hand is hence; To investigate the arguments, language and images in the debate concerning vivisection within the context of science and animal welfare in the late 19th and early 20th century. The discussion will focus on the arguments, the language and propaganda material of the antivivisectionists, and the images these created of vivisection. I will also portray how they contrasted and communicated with the language and images used by the ones defending the practise of vivisection. The main focus will be on the matters of vivisection, the vivisector and the animal. What I want to obtain with this analysis is a deeper understanding of the antivivisectionists' world view in the early 20th century, and how it contrasted with the scientists' world view, to form and continue a conflict which was by definition very tenacious. In other words I am trying to get to the core of the conflict, to see how this view was expressed through language and imagery in their sources. This is contrasted to the scientists' sources, though, owing to a lack of space and a wish to focus on antivivisectionism, the cause of science will be represented proportionally smaller than vivisection and will mostly function as a contrast model of some sort. At one time, during the first commission, the cause of physiological science struggled for its base of existence. But the rest of the period, it seems that science had the upper hand, and as they ultimately "won" the struggle, their history has become the general history, and antivivisectionism has become a historical deviation of some sort. I find it interesting that at this period of time when so many discoveries were being made and so many "truths" being challenged, in a time where progress may have seemed almost a religion, that

someone took a step back and asked what the price of progress was. I also find it fascinating that under the humanitarian façade, there is much murkiness to be found, and many contradicting tendencies and understandings of the world. My motivation for this text lies much in discovering these paradoxes, and understanding how the people who called themselves antivivisectionists reasoned about science and animals. When I began the project which has evolved into this text, my intention was first to find a theme where humans and their ambivalent relationship to medicine was in focus. My intention was to write about non-consensual medical experiments on humans, and I feared that I would lose the "humanity" when the project was turned towards vivisection on animals and the antivivisection movement. What has happened is the complete opposite. I have discovered how the presence of human concerns even in the fight for animal rights, is ever evident. At some point I even had to ask myself who it really was these people were defending; Was it the animals being saved from the "torture" of vivisection, or was it the scientists whose humanity was at stake? Or maybe it was society itself which needed to be saved from the expanding monster of medical science?

A secondary goal in this text is to see if the arguments and images which are used have historical roots. For example, the *tu-coque*-argument; the argument used in the 17th century that animals were used for food and clothing, so why should they not be used for experiments as well. Was this kind of argumentation still used by the scientist of the 19th century? It is also interesting to see how antivivisectionists of the 20th century treat the animal as a creature as opposed to the antivivisectionist of the 19th century, and if the arguments remained unchanged throughout 40 years of activism.

The parts of the conflict and controversies are, as Richard French describes it, difficult to discern, because there is not enough material.² They are hard to find beyond the named witnesses of the Second Commission, and the secretaries and boards of the antivivisectionist-organisations. The membership registries of many of the antivivisectionist organisations have been lost, or are incomplete; some members even signing with aliases and pet-names³. Therefore it is difficult to say anything about class, income or occupation when it comes to antivivisectionists. This is a good reason for turning the focus in a different direction, as I have. You may not be able to say much

2 French, R D 1975 p. 221

about who the antivivisectionists were, but the sources I will use are a good starting point to discern what they stood for, what anxieties about the society and the development of science they had. The use of the contrast model of the pro-vivisectionists; physicians, physiologists, surgeons and pharmacologists, is also a part of clarifying what the antivivisectionists fought against, and how far they actually stood from the people they fought. It is, also possible to say that the controversy was to some extent spread throughout the public in England, though its root was urban, and London based.⁴ The second commission would probably never have been set if the controversy was not widespread.

The whole controversy began approximately in the 1870s, and faded out in the 1920s. The period can be divided into two sections, according to the two commissions which were set on the subject. The commissions were held 1875-76, and 1906-08. Each commission had their preludes in massive activism, a competition on propaganda and campaigns held by both pro and antivivisectionist. If one takes this into consideration the first section can be said to have lasted from 1870 to 1880 approximately, and the second from the 1880s to 1915.

Timespan

The span I have chosen for this investigation is both narrow and wide. It is narrow in the sense that the main focus is on sources which represent a specific narrow timespan. It is wide in the sense that together with the historical background and the introductory literary influences and outcomes of the antivivisection movement, it spans three centuries. The narrow span is the core of the paper can be defined from 1900 to 1912, and the wide is the frame from 1750 to 1930. They are related as a picture is to its frame; both are necessary to obtain a sense of wholeness or in this case an historical anchor. I will use sources, both from the core time, and the frame time, but it is the core which is most important to understand the mind of antivivisectionism in the early 20th century. The sources which are given most space and importance in the analysis, namely the material of The Second Royal Commission came into being in the early 20th century, more precisely in 1906-8, and its final report was published in 1912 and the books and plays which are also given room in the analyses were only a few years ahead or before.

The reasons for choosing this section of time are due both to personal preferences, but mostly to the

3 French, R D 1975 p. 221

4 French, Rd 1975 pp. 89-90

historical literature already existing on the field. Richard D. French is notably the author on the field whose text involves the greatest depth and width as he thoroughly investigates the antivivisectionist-movement of the 19th century and its prequel. French does however put his main emphasis on the period of the movement where the most notable antivivisectionists were what I will call "the first generation" of antivivisectionist. The most notable and active of these people were Frances Power Cobbe, George Hoggan, Hutton, and Lord Shaftesbury. By the turn of the century though, their time as activists had played out, and new forces took over. There was a shift of generations in the antivivisection controversy, and a period of renewed vigour and activism which resulted in the government appointing The Second Royal Commission of vivisection in 1906. Although French mostly ignores the antivivisectionist movement after the turn of the century, Coral Lansbury in return treats this in her book *The old brown dog workers, vivisection and women in Edwardian England* Lansbury takes a different approach to the subject than French, and focus mainly on a feminist and socialist interpretation of the controversies which led up to the Second Royal Commission. The approach concerning timespan, which I have taken to this controversy, I believe is justified by two claims. One; as I can see, the written material of The Second Royal Commission on Vivisection has yet to be thoroughly gone through and analysed. The plentiful and long testimonies of both pro- and antivivisectionists have not been thoroughly analysed with the total rhetoric effect in mind. And two; though history has shown the slow demise of antivivisection into obscurity, it is not a viable reason to ignore the fact that there was a time where there existed people who managed to stir society so much on behalf of a little dog, that the authorities who had already dealt with the issue in a way they believed to be adequate⁵ appointed a Second Commission to look into the matters.

Sources

The sources which I will be using in this text can be divided in three; the first ones are the sources of The Second Royal Commission on Vivisection. These sources are the ones which constitute the backbone of the analysis, in occurrence, amount and variety. This commission was a reply from the government to the increased activism around vivisection which took place at the end of the 19th and the beginning of the 20th century. The Second Royal Commission sat from 1907 to 1908. The background and history of this commission will be embellished further in a different section. In volume it encompasses 4 reports plus one fifth final report. The four first reports have a range of

5 French, RD 1975 pp. 112-158

between 100 and 300 pages and encompass the evidence of people called or sent to the commissions to bear evidence from their organisations or societies. The final report is mainly a summing up and conclusion of the commission with appendixes. The Second commission consisted of 10 men of various backgrounds. Their goal and mandate as given them was "to inquire into and report upon the practice of subjecting live animals to experiments, whether by vivisection or otherwise; and also to inquire into the law relating to that practice, and its administration; and to report whether any, and if so what, changes are desirable"⁶

The way they performed this task was through calling witnesses both from antivivisectionist organisations, from scientific associations and neutral parties. The different persons representing their cause were questioned on different topics, and were allowed some long statements, though their arguments were often interrupted by questions being asked. The main sources of the commission are hence the testimonies and cross examinations of the witnesses. I have taken all of the testimonies into use, though not all of them are actively used in the text. Many of them are merely repetitions of arguments and images used by others; also these have a place in the account but not necessarily as quoted sources.

The material of the Commission is somewhat varied, even though it is kept in the same format for every testimony. This is due to the fact that every witness had his or her own agenda to promote, and also that the witnesses are questioned on different aspects of the theme of vivisection in accordance with their field of expertise or speciality. Hence the witnesses with medical qualification, both on the pro- and the anti-side are naturally questioned more thoroughly on aspects of medical nature. These include questions on the durability of anaesthesia, the comparability of animal and man, and the usefulness of vivisection in the different disciplines of science. Naturally, the men who were specialised in a certain field were questioned thoroughly on this and their research. Some of the specialised witnesses were prof. Starling; physiology, Frederick Taylor and Douglas Powell; physicians, Henry Morris; surgery, and Prof. Cushny; pharmacology. All of these were defenders of vivisection. The antivivisectionist were not as fortunate as to be able to call such an amount of witnesses specialised in science, their three most notable ones were Dr Herbert Snow who had been

6 The introduction to The Second Royal Commission on Vivisection 17. 9. 1906

involved in cancer research,⁷ Arabella Kenealy who was a physician, and Mr G. H Burford, a homoeopath. Seen comparatively, the weight of scientific knowledge and prestige lay with the pro-vivisectionist. The moral perspective was also taken into consideration. "To witness upon the moral aspect" was not an unusual initial phrase in the questioning of an antivivisectionist.

The form of the commission's material is necessarily different from the form of other propaganda material from both sides as the witnesses are constricted by the question-answer model. There is generally room for long statements only in the initial phases of the interview, where the interviewee is invited to comment upon a précis they have sent beforehand, or they are allowed to make an initial statement. These statements often sum up the general content of the rest of the evidence of the person in question. Any surprise elements comes from the questions of the members of commission. The members and interrogators were the Viscount Selby; cousin of King Edward VII, Amelius Mark Lockwood; colonel, William Selby Church; baronet and doctor of medicine, Sir William Job Collins; doctor of medicine, Sir John MacFadyean; knight, Mackenzie Dalzell Chalmers; esq. Under-secretary of state to the Principal Secretary of State for the Home Department, Abel John Ram, esq. Learned in law, Walter Holbrook Gaskell; doctor of medicine, James Tomkinson; esq. George Wilson; esq. Doctor of medicine.⁸ The Commission seemingly had a great majority of medical men. How this might have influenced the questioning and the outcome is however not within the reach of this dissertation, and neither is it necessary for the problem. The attitude of the members of commission would of course have an effect, consciously or not, on which questions were asked and especially the way in which they were asked. But the need for a further inquiry into the commissioners is overshadowed by the need to be concise and not have too many loose ends in a text. The inquiry would take up too much time and space in relation to its prospective function. Hence I will abstain from commenting upon the Commission in relation to the commissioners personal roles.

The second section of sources consists of literature of fictional character, and also in one case, a combination of image and text. These sources are; *The four stages of cruelty* by William Hogarth, which was an image series with comments published in 1751⁹, *Frankenstein - or The Modern*

7 Snow, H 1906 The Second Royal Commission on Vivisection report 1 introduction

8 Preface to The Second Royal Commission on vivisection 1906

9 Rupke; Holger-Maehle and Tröhler 1990 p. 33

Prometheus a novel by Mary Shelly, published in 1818, *Tray*, a poem by Robert Browning published in the collection *Dramatic Idylls* in 1879¹⁰, *In the children's hospital* by Alfred Lord Tennyson, a poem published in 1880, and *The Island of Dr Moreau*, a novel By H.G. Wells published in 1896. Mixing fiction together with factual prose may seem haphazard. I do however believe that fictional literature and poetry in general have a great potential for use in historical work. Fiction does not necessarily need to have a message to the world, unlike material of propaganda nature. What fiction does is to convey emotions, sentiments, a world view and a fictional universe which, if the book is popular enough, can have quite the impact on society. Coral Lansbury argues in this fashion on the novel *Black beauty* that its impact in the English society went a far way towards making people, children especially more sympathetic towards horses ¹¹ Richard French also argue that fiction and poetry was a way of getting the antivivisection cause out to the public.¹² Introducing the reader to a concept he had never thought of, or opening his eyes for the prospect of unspeakable horrors are some of the qualities of fictional literature which both relate it to and separate it from factual prose. For fiction cannot, or mostly, even in the 19th century would not be arrested for inaccuracy, unlike prose. The idea of literary influence is also potent when the subjects of analysis are, as here; language and images.

There are many reasons why I have chosen to include fictional literature as sources in this text. One of them is that images and themes which are seen in these works are carried out and developed in the arguments and images, mostly of antivivisectionists. It is a matter of some importance that the works mentioned are sometimes referred directly to in the testimonies as examples or allegories. Louise Lind af Hageby makes a point of fearing that the scientists want to educate a new Frankenstein, in her book *The shambles of science* and Mr Graham denotes both Tennyson and Browning in his evidence before The Second Commission. It can also be of little doubt that some of the works have had an effect on the public, and cemented certain associations in the minds of readers, and that referring to these immediately would evoke such images. In *H.G. Wells - Another life*, Michael Sherborne write of the impact which *The Island of Dr Moreau* had in the public when it was published, and that many evolved a distaste and felt shocked over the novel's brutal display of

10 Cook, George Willis 1891 p. 423

11 Lansbury 1985 chapters 4 and 8

12 French, R.D 1975 p. 256

science gone wild.¹³ Another reason for including these fictional texts is that they each, at their point of publication, was part of a debate or sentiments related to vivisection. Hogarth's prints were critique against cruel treatment of animals and pointed towards the consequences of cruelty, both for humans and animals. It was an integral part of the contemporary debate if cruelty to animals resulted in cruelty to humans¹⁴ Frankenstein, which in essence is a horror novel can be read as a criticism to science or ambitious scientists, as well as a chilling comment to the obsession of natural science at the end of the 18th century; animal electricity.¹⁵ Wells was a known pupil of T.H Huxley, who at the time of publication was a known science lobbyist, and had been a commissioner at The First Royal Commission on Vivisection. Granting Wells' status as a Huxleyan, it is easy to draw the themes of his books towards both evolution theories and vivisectional experiments. The fictional texts are also somewhat chronologically representative as they cover the spectre from the 18th to the late 19th century. Some of the texts, like Browning and Tennyson's poems were also inside the conflict in the way that they were antivivisectionist support-poems.¹⁶

The third section of sources are the ones which combine the two first in genre; the free propaganda sources. These consist of the 70 page long introduction to the play *The Doctor's Dilemma* by George Bernhard Shaw from 1906 and the antivivisection publication *The Shambles of Science* by Louise Lind af Hageby. Representing the pro-vivisection side is the introduction and book from the research defence society published in 1908; *For and Against Experiments on Animals*. All these texts are strongly characterized by their propaganda nature. While the sources of the commission were confined within the frames which the question answers, and sometimes statements provided, this was antivivisection and science-propaganda unchecked. These sources are particularly interesting because they show the antivivisection rhetoric at its best and most influential. Both Shaw and Lind af Hageby was known as great orators, something which in the case of Lind af Hageby is also evident in her material presented at the commission. In *The Shambles of Science*, Louise Lind af Hageby takes on the role as observer of the laboratory experiments and she and her friend was by her own description motivated by a wish to "see for themselves."¹⁷ The book naturally carries the mark of this intent by being structured as it is, as somewhat independent scientific reports all being

13 Sherborne, M 2010 pp. 112-113

14 Rupke; Holger-Maehle and Tröhler 1990 p. 33

15 Piccolini, M 1997 pp. 381-405; Goulding, C 2002 pp. 257-259

16 French, R.D 1975 p. 86

17 Lind af Hageby, L 1903 - *The Shambles of Science - Introduction*

sections of their research project,¹⁸ which unlike the regular vivisector did not necessarily evolve around discovering certain internal physical attributes or properties in different animals under different conditions. Hence Lind af Hageby structure her notes around meticulous descriptions on both surroundings, materials and experiments. In these texts, the speakers or authors are also able to draw their lines and make clear images with long associations and explanations using numbers of examples without being interrupted by questioning or sceptic members of a Commission. I believe that the combination between these kinds of sources and the commission's material is especially fruitful because they show the antivivisection and pro-vivisection language, images and arguments in different settings confronted with different challenges. Because of difficulties in obtaining such sources, as well as a certain limit in how much material I was able to process, I have regretfully not included antivivisection pamphlets, or other antivivisection publications such as the *Zoophilist*. I do however believe that the selection I have provided will be able to help solve the research question, and obtain a deeper understanding of the mind of antivivisectionism and pro-vivisectionism.

Definitions and terms

Before I venture into the background history of the problem, there are a few concepts which need to be defined. As this is a text which discuss events linked to the history of medicine, some concepts of science will inevitably be used. The most important of these is 'vivisection'. According to the Oxford English dictionary vivisection is; "The action of cutting or dissecting some part of a living organism; specifically the action or practice of performing dissection, or other painful experiment, upon living animals as a method of physiological or pathological study."¹⁹ The word came into use in 1707. In relation to this text it is important to specify that the word vivisection is only used on live animal dissection. This however does not mean that the argument, language and images used by antivivisectionist rule out the possibility of human vivisection. Human vivisection, as we will later observe, was a well-known association used by antivivisectionists. Going through the various evidence from the antivivisectionists, the impression one is left with is that the expression vivisection is shifted towards the meaning of any experiment on animals, rather than the explicit cutting of a live animal. The witnesses of The Second Royal Commission also say something about how the Commission regarded vivisection. Listed as witnesses were not only persons involved in

18 Lind af Hageby, L 1903 - *The Shambles of Science - Introduction*

19 Oxford English dictionary 2011

the cutting action, but also pharmacologists, physicians specialised in contagious diseases, and a homoeopath. This, I believe originated in an acknowledgement that vivisection in society, and particularly among antivivisectionists was regarded as wider than just the action of cutting into living tissue with research in mind. In this text, the word vivisection will be used together with animal experiments, and the two are meant to discern the same meaning. The reason for using both is that both occur in the sources. There is however a marked difference in use between the pro- and the antivivisectionists. The antivivisectionists generally use ‘vivisection’, and only use ‘animal experiments’ when asked to elaborate. The pro-vivisectionists generally use ‘animal experiments’ and avoid the term ‘vivisection’ as far as possible. This phenomenon was not surprising when one follows the argument of Richard French, where he claims that the "gruesome experimental details so frequently retailed by speakers on behalf of the movement (...) could be conjured up by the mere use of the word vivisection” and that the researchers hence abstained from using the word.²⁰

The antivivisectionists also seem to treat vivisection as a very negative denomination, and therefore containing different substance depending on the society's status as abolitionist or not. The abolitionists clearly saw all animal experiments as vivisection, while non-abolitionists often pressed more harshly on the painful experiments as being the true vivisection. Especially the animal welfare society RSPCA was for regulation of general experiments and abolishment of the painful experiments, making anaesthesia obligatory.²¹ It was therefore in The Second Royal Commission a certain difference in the statements as to what was considered vivisection, and what was not. Apart from the definition of vivisection, it is also important to clarify the different abbreviations which will be used in this text. These are as following. RSPCA is short for the Royal Society of the Protection of Animals; a powerful animal welfare organisation which was an active actor from the mid- 19th to the early 20th century. NAVS is an abbreviation of the National Antivivisection Society; earlier the Society for the Protection of Animals Liable for Vivisection, also known as the Victoria Street Society. This was a major actor within the controversy from its founding in 1876 throughout the early 20th century. The AAMR is short for the Association for the Advancement of Medicine by Research. This organisation was both an umbrella for other research societies and lobby organisation for science. By RDS is meant the Research Defence Society, an organisation formed as a more active lobbying organisation than the AAMR, by its secretary Stephen Paget.

20 French, R.D 1975 p. 267

Method

The method which I have chosen as a tool to understand the sources is constructed mainly based on the characteristics of the sources, and how they can answer the research question best. What is typical of all the sources, fiction and factual, commission evidence and introductions is that the language can be characterised as rhetoric. In a conflict where much was dependent upon obtaining support sometimes from the general public, sometimes from the nobility and sometimes from the government, language necessarily played a vital part. It is also, I believe, in the language we can find the key to the world view of the different sides. The sources I have make it difficult to say much about the class, work, wage and age of the antivivisectionist. What they do say much about however, is what the antivivisectionists believed in, how they viewed medicine and science and how they expressed themselves. My method can be said to be an analyses of the rhetoric qualities of the sources. I will break the texts into sections of arguments, language and images. The method will hopefully bring about an understanding of how the antivivisectionists reasoned and argued, and how their world view was in the beginning of the 20th century.

It will also be useful in seeing the differences and maybe some similarities in the sources of the pro and the anti-side, which may help deepen the understanding of why the conflict was as persistent and tenacious as it was, lasting as it did from the mid- 19th century and long into the 20th. But in order for the method to work, the three elements must be clarified and separated; by arguments I mean the evidence be it physical or abstract which one use to reach one's goal in a verbal match. It may be deductive, inductive, or by analogy. Language is the vessel which carries the argument; the communicating device that carries the meaning of an argument and reinforces it. By imagery, in this connection I mean the images which are used in the language, such as metaphors, and similes. In a way both arguments, and the language and images that accompanied them were tools of convincing the commission. The argument might, for example be that vivisectors were cruel. What gave the argument impact and force, however was when it was coupled with a language characterised by negative denotations and a visual language which spoke of bloodshed and suffering. Where arguments appealed to reason, language and imagery appealed to other senses of association. Whether the imagery which was used was purposeful or not, it did affect the way the antivivisectionists' cause appeared. There is for example great difference between antivivisectionists

21 Scott, A G, Banbury, F 1907 The Second Royal Commission on Vivisection Report 4 q 19642

using what French Calls anthropomorphism; imbuing animals with human characteristic and speaking of them as sensing, reasoning beings, and pro-vivisectionists speaking of animals as useful and irreplaceable for certain experiments. Of course, language is never an objective entity. And using language analysis as a method is not fool proof. Language constructs meaning, but the meaning can change from time to time and from culture to culture.²² If certain arguments recur, it does not necessarily mean that they have the same significance as they originally had. The period we are talking of stretches after all over many decades, a couple of centuries in the widest sense. The situation was indeed different from the first to the second commission. The witnesses of the second commission had to relate to the Cruelty to Animals Act, and the number of vivisections had increased enormously according to French's graphs, in pathology, pharmacology and physiology, and peaked during the sitting period of the Second Royal Commission.²³ The arguments are formed both by languages and images which support them, but at the same time the images reinforce the language and the language at the same time create the images.

The material in itself also poses certain challenges for analyses. The statements are saturated with meaning, often pointing in different directions. In one example, taken from Louise Lind af Hageby's book *The Shambles of Science* we see this tendency. "It is 'knowledge' they seek, and the only knowledge which they value is bought by tormenting the sub-human races."²⁴ Here she manages to reveal her notions on scientists, their relation to vivisection, and how vivisection works as a method, and also how she herself sees animals, or believes the scientists sees animals.

Literature

Vivisection and antivivisection is a theme which is a part of and encompass many different kinds of histories. Vivisection in itself is a method developed by scientists not only with medical sciences in mind; it hence belongs to medical history, the history of science and intellectual history.

Antivivisection was a movement with connections to and cross-membership with vegetarianism, antivaccination-movements and even suffragist movements.²⁵ Vivisection hence can be put under the umbrellas of social history, gender history and organisation history. It also fits under the more narrow denotation Victorian studies. There is not much literature that has concentrated only on the

22 Hall, S 1997 p. 1

23 French, R.D 1975 - figure 19, 20 and 21 pp. 399-401

24 Lind af Hageby, L 1903 *The shambles of science: the barren tree*

25 Lansbury, C 1985 pp 26-62 and 112-129, French, R D pp. 227-231

vivisection and antivivisection phenomenon. And amongst the literature a division can be made on what is important and functional for such a research question, and what is not. The literature I have chosen not to involve myself in can be divided in two; the first group is pioneer literature; and this I have chosen to abstain from using because they are generally the sources and literature of the authors I have chosen to use. I also appreciate some distance to the period I will deal with and will rather use a book from 1975 than one from 1930. The second group is literature history. These authors have looked at vivisection and antivivisectionism from the angle of literary criticism and history. I will touch this literature to a very small degree, as I myself use some fictional literature and poetry as sources, but in the whole will not use it much. The literature I have chosen have that in common that they focus on vivisection and antivivisection problems from a historical angle and are fairly recently published. The four books I have chosen as main research literature for this text are in many ways the only one of their kind, and hence there is little danger that any important sub-genres are being left out. The four books are *Antivivisection and Medical Science in Victorian Society* (1975), by Richard D French *The Old Brown Dog - Women, Workers and Vivisectors in Edwardian England*, (1985) by Coral Lansbury, *Vivisection in Historical Perspective* (1990) edited by Nicholas A. Rupke, and *Animal Revolution – Changing attitudes towards speciesism* (2000) by Richard D. Ryder.

Richard D. French writes mainly on the social organisation that antivivisectionism was and how it developed and influenced the society and in return was influenced by the society it was situated in. This project firmly roots itself in social history and in general put much emphasis on the events leading up to the organisation of antivivisectionism, what the organisational landscape looked like; what their main fighting causes and accomplishments were and how their view on different subjects like animals, hospitals and medicine, and the movements relationship with religion was. French in many ways has the most comprehensive project. But though he notes the images and analyse the arguments which the antivivisectionists used in the promotion of their cause he never analyse it thoroughly, and his focus is unquestionably the 19th century. This approach contrasts with the approach I have taken where the chronological course of events is of less importance, and the impression of the small period which I am investigating is crucial.

There are two points where I particularly separate my project from that of French; the first one

relates to how the antivivisectionists felt about and expressed their concern over animals. He argues explicitly in his segment on the antivivisection mind that when it came to animals antivivisectionists did not advocate an impartial sense of justice to all animals, but were merely moved by their concern of their pets.²⁶

The section in which I will discuss the way antivivisectionists related to animals will treat this somehow differently. When it comes to timespan, French has his main focus on the period from 1870 to the mid-nineties. He states his reason for this focus as being based on what he perceived as the 'golden age' of antivivisection. His account, he explains, corresponds with the "tenure of the first and foremost intellectually and socially distinguished generation of movement leadership". Frances Power-Cobbe, Richard H Hutton, Anna Kingsford and the Lord of Shaftesbury are distinguished figures of this period. French saw the antivivisectionists of the 20th century as so dependent upon their predecessors²⁷ that there was no need to analyse their activities any further.

Of course, a project has to have its boundaries, and French chose his to be the antivivisectionism of the 19th century, which in itself is extensive enough to justify not going any further. My project contrasts yet again with that of French, for I have chosen the period he chose to ignore. Why, some may ask. The First Royal Commission of 1876 did result in an act, but the Second Royal Commission, which will be my main source, had very little effect on the legal situation, resulting only in some minor amendments. Considering the rather meagre results of the antivivisectionists' effort of 1900-12, it may be no wonder that very few have chosen to focus on this point of animal-protection history. In this text, however, I have chosen to focus on intent and efforts rather than result. Of course the antivivisectionists sought to win the conflict, and were sorely disappointed when they did not get support for their claims, but for us now it seems important that they even managed to cause such a stir as they did. In a time where politicians had more than enough on their hands, these people managed to raise enough noise to cause the creation of not only one, but two Royal Commissions appointed by the Government. It is also important to know that there actually existed such sentiments in engaged individuals and in the public at this time of history.

The events of history may leave an impact in the fabric of history which can yet be read in our time,

²⁶ French, R. D 1975 p. 375

or they may be wiped out in the course of history like water wash away traces in sand. However their lot has been, they deserve to be noted for what they were in their own time, and what they meant for the people involved. The antivivisectionists of the 19th century may have fought a losing battle, and as French remarks, the movement faded into insignificance while the practice of vivisection grew enormously.²⁸ But their battle is still noteworthy.

Another book of influence for this text is Coral Lansbury's *The Old Brown Dog – Women, Workers and Vivisection in Edwardian England*. (1985) Unlike French, she focuses much of her attention precisely on the 20th century antivivisectionists. Her project will therefore be my primary source for the background history of the period. Her focus, nevertheless, makes room enough for other narrations and interpretations of the material of this period. Unlike my project, in where I have chosen, wisely or not, to mostly ignore both gender and class perspectives, Lansbury spends much of her text promoting these. Her main actor of the period and focal point is the women and workers of the 20th century brown dog case. Where French notes the effort to recruit workers into the antivivisection-movement as unsuccessful because the workers' indifference towards the issue²⁹, Lansbury narrates the historical social climate and influences which led to the working class' attendance at the Brown Dog riots, and their ardent defence of the Brown Dog statue of Battersea Park, which was raised as a memorial over vivisected animals in 1906.³⁰ She also attempt to theorise over the decline of antivivisection. I have taken some cues from her in the use and usefulness of fictional literature as explanatory background and inspirational sources. Lansbury also makes use of material of the Second Commission on vivisection and *The Shambles of Science*. Her project, nevertheless lean toward interpretations in the direction of connecting antivivisection and suffragette movements in a common allegory of seeing tortured animals as a metaphor or allegory to suppressed women. This interpretation is both thorough and interesting, but as I have chosen a different focus, our projects do not correspond overtly.

The third text of importance in this inquiry is *Vivisection in Historical Perspective*. (1987/90) This is a compilation of historical articles on vivisection and antivivisectionism throughout history. The spoken purpose behind this book is to provide the context of the on-going debate on vivisection.

27 French, R.D 1975 p. 12

28 French, R.D 1975 p. 405

29 French, R.D1975 pp. 238-39

The text or multiple texts are comprehensive in their scope, but gallantly evades this part of the early 20th century, and have very few references to this era. The text thus provided will be used as historical background, particularly for the context of the older animal-protection sentiments, and the development of experimental medicine in general.

The last book I have used as guide to the world of vivisection is *Animal Revolution - Changing attitudes towards speciesism* (1990) by Richard D. Ryder. This book is in itself not a historical narration of vivisection or antivivisection. Its scope goes beyond vivisection and focus more on animal-welfare and thoughts, movements and events which historically can be linked to this. Antivivisectionism is hence only one amongst many other movements. Ryder does nevertheless correlate the rise of antivivisectionism with a historical peak of animal activism. This book is useful to obtain a wider context to the theme with a focus on animal-rights developments rather than just vivisection. The author of the book, Ryder, is a previous RSPAC secretary, and his focus and sympathy naturally lies with the animals and their protectors throughout the narrative. A problematic aspect of this narration is, however, that Ryder by definition has the motive to find animal protectionism even where it may not have been very extensive. This account, in relation to that does indeed seem to put much clout to a few people.

Structure

I have chosen to structure this text partially chronologically, and partly thematically.

The background and the fictional literature and poetry chapter are both arranged chronologically. This is to trace the developments of the notions expressed by antivivisectionists, who are analysed in the thematically organised chapter 4, and also the notions of the defenders of vivisection in chapter 5. The chapters in which the sources of the antivivisectionists and pro-vivisectionists are analysed are structured thematically. I have organised chapter 4 into three sub chapters. The themes of vivisection, the vivisector and the animal are chosen as sub chapters to answer the research question. Most of the antivivisection argumentation can be traced back to these, or connected to them, so that they encompass much of the vivisection agitation. The sub chapters are sectioned into a part for arguments and one for the language and imagery. There are however internal differences, as some of the themes are marked by a greater richness of imagery than others. Chapter 5 is organised similarly, but without the same internal structure. This is because of the properties of the

material of the defenders of vivisection.

Chapter 2 – Historical background

In the introduction to "vivisection in historical perspective" Nicolas Rupke stated that "history's lessons can be more profound than (...) isolated facts (...). The controversy's roots reach deep down into broad cultural divisions, each stance being inextricably intertwined with other issues. Each is an integral part of a view of society in which science has been assigned a different place."³¹ In order for us to be able to understand the events which led up to the Brown Dog riots and the commission of 1906-08, it is important to obtain a wider perspective on the animal-defence cause, and the development of science and society which led to the clash of ideas and ideals. As with any story, we have to start at the beginning. Because the historical lines are difficult to interweave without certain confusion, the historical background will be explained as three different historical developments. The first one is the development of science and medicine; the history of the method of vivisection. The second is the history of general animal welfare campaigning and animal rights awareness. The third takes over when there is a shift from general animal protectionism to antivivisectionism and encompass the history of the legal proceedings of The First Royal Commission on Vivisection. The third historical line also encompasses the details of the act which was brought forth in the mitigation of the two previous developments.

The historical development of medical science

The development of science and the technique of vivisection is one of the most central founding elements for the conflict surrounding vivisection in the late 19th and early 20th century. Why did medical men as well as scientists find the method of vivisection so important that they chose to fight its cause in legal proceedings? The answer to this lies in the development of medicine and medical sciences up to this point of history, notions and methods which had its roots many hundred years back in time. Western societies tend to trace their origins when it comes to ideas and science back to ancient Greece and Rome and with medicine it is not different. From the beginning of western medicine, physicians were preoccupied with understanding the structures and functions of the body.³² Their methods were dissection of humans and vivisection of animals. Just as Hippocrates (460-370 BC) was the father of medicine, Galen, (130-210 AD) could be named the father of anatomy.

31 Rupke, N 1990 pp. 1-11

32 Rupke; Holger-Maehle and Tröhler 1990 p. 15

He developed the techniques of both dissection and vivisection to a hitherto unknown level.³³ Then, the proverbial dark middle ages came, at least in western medicine, where eternal, not mortal life was the focus, and medical progress stagnated in the western world.

During the renaissance Andreas Vesalius and other anatomists (1514-64) revived the art of medicine based on anatomical studies, dissections and vivisections. During this time, church laws in different countries limited the use of human bodies, but lay no limits on the use of animals, as the Roman Catholic Church had adopted the understanding of animals as something completely separate from humans.³⁴ During this period the first type of argumentation in favour of animal experiments began to take form; the doctor was in need of knowledge of the human body, but human vivisection was a violation and an abomination so the solution was animal vivisection.³⁵ During the 17th and 18th century the vivisectional method prevailed as the common method for natural and medical scientists, though one can hardly say that disciplines were developed as much as methods. This was a time of discoveries; Gaspare Aselli discovered the lacteals in 1627, William Harvey published his discoveries on circulation in 1628. The vivisectional method bore fruits, but at this time the need for a justification of this use of animals also came into focus.³⁶ The first argument drew on the premises that what they were doing was neither illegal nor immoral as defined by authorities, as opposed to human vivisection.³⁷ The success of the method also became an argument for its use, and though the usefulness was limited to knowledge rather than therapeutics, the main justification for vivisection at the time was that it was of great benefit to humankind.³⁸ At the same time, the so-called *tu-coque*-argument appeared. It encompassed the hypocrisy of refusing experiments when animals were used for food and clothing appeared.³⁹ The benefit of experiments was, nevertheless, clouded in uncertainty, as some scientists began to argue the validity of vivisection based on the anatomical differences between animal and man, and the painful conditions of the experiment. This uncertainty continued to be a part of both the medical discourse and was also present in the antivivisectionists' arguments. By the time the antivivisectionists used the argument of pain as a deciding factor, the introduction of anaesthesia had made it less relevant, at least in the eye of the

33 Rupke; Holger-Maehle and Tröhler 1990 p. 15

34 Rupke; Holger-Maehle and Tröhler 1990 p. 17

35 Rupke; Holger-Maehle and Tröhler 1990 p. 18

36 Rupke; Holger-Maehle and Tröhler 1990 pp. 19-20

37 Rupke; Holger-Maehle and Tröhler 1990 p. 20

38 Rupke; Holger-Maehle and Tröhler 1990 p. 21

39 Rupke; Holger-Maehle and Tröhler 1990 p. 23

scientists. Though the effectiveness and validity of the vivisectional method was doubted, the argument for the medical benefit and the *tu-coque* justification had become standard by the time of the eighteenth century, and the practise and extensiveness of vivisection was growing.⁴⁰

The development of the kind of medicine which made vivisection essential and inevitable, however, did not come before the early 19th century. It was in the physiological laboratories and medical schools of France and the German states vivisection became an irreplaceable part of medical science.⁴¹ Experimental physiology was essentially developed in French medical schools and partly in veterinarian schools by systematic experimenting on animals to confirm or deny hypotheses on physiological functions.⁴² Vivisection in this sense was a part of an approach to bodily function and dysfunction which sought to supplement clinical studies and anatomical studies. Slowly, as new techniques were discovered and old ones were used in new experiments, physiology developed into a discipline with its own unique technology, of which vivisection was an essential method.⁴³ The discovery of anaesthesia was also, according to French an important condition for physiology to develop as it did. In 1846 ether came into use, first in America, chloroform followed soon after, and was made famous by its use in Queen Victoria's childbirth of 1850.⁴⁴ Two people have historically been accredited with much of the development in France, and have stood out as founding fathers of modern physiology of some sorts. These were the physicians François Magendie and his pupil Claude Bernard.⁴⁵ The Prussian researcher Robert Koch may also have been a decisive part of the increased use of vivisection in pathological research with his postulates of bacteriological testing. Koch's postulates were as following; one; the organism must be isolated from every case of the disease, two; it must be grown in pure culture, three; inoculation of the organism into the test animal must produce symptoms of disease, and four; the organisms must be re-isolated in a pure culture. This procedure which was adopted in laboratories all over the world, clearly required test animals, and as the study of immunology and bacteriology grew, there must have been an increased demand for laboratory animals. Although, judging by the evidence of both pro- and antivivisectionists, physiology and pathology was equally present in the discussion on the use of vivisection, and

40 Rupke; Holger-Maehle and Tröhler 1990 p. 23

41 Ryder, R. 2000 p. 101

42 French, R.D 1975 pp. 39-40

43 French, R.D 1975 p. 40

44 Snow, S.J 2006 p. 2

45 Rupke; Holger-Maehle and Tröhler 1990 pp. 61-71

physiological experiments were often used as examples of the painfulness of vivisection.

In Great Britain, medical science was lagging behind. According to French, there were a number of reasons why the new laboratory-based disciplines, had not developed as much in England as on the continent.⁴⁶ One of the factors had to do with the educational system consisting of a centralized university system which was more inclined towards natural theology than innovation and experimentalism. Another factor was a widespread antipathy to vivisection. This had to do not only with a detestation of the horrible work that vivisection must have been before anaesthesia, but also with the tendencies of British scientists to refuse laboratory work as fruitful research.⁴⁷ Apparently sanitation theory and clinical work stood a greater chance of curing disease than staring into a microscope. The development of vivisection as method in physiology had since Harvey and Hales been on a standstill in Britain, but through the 1860s towards 1870 a change was driven on by a small group promoting experimental medicine.⁴⁸ At this time most of the factors which had been holding the development back were dissolving. The educational system was reforming, the intellectual climate had mellowed and there was an agreement that the supremacy of British medicine could not be forwarded as earlier by men who were busy in their practises as physicians.

The publication of the evolutionary theory of Darwin in 1859 may also have contributed for science to develop as it did. As Adrian Desmond formulated it, "there was no doubt that evolution became the stock-in-trade of biologists after Darwin"⁴⁹. The theory after all contributed to an acceptance of the founding principle of animal research; that animals and man were of the same family, and not completely different creatures whose anatomical resemblance was random. It is no doubt that Darwin theory and Darwin himself as well was of great help for what Donald Fleming calls "the mushrooming recourse to vivisection by scientific investigators."⁵⁰ Darwin himself was questioned in the first Royal Commission and his evidence was referred to by physiologists in The Second Royal Commission.⁵¹ The stage was set for pure science to play a greater role in the development and practice of medicine. French puts the turning point of events in the year 1870. This was the year

46 French, R.D 1975 p.36

47 French, R.D 1975 pp. 38-39

48 French, R.D p. 41

49 Desmond, A ,1989 p. 1

50 Fleming, D 1961 p. 228

51 Ibid

a group of experimentally inclined physiologists accepted newly formed institutional positions in the British university system. They were to dominate the development of science in England for many years to come, moving British experimentalism from obscurity to the public forefront and at the end of the century Britain would not only be comparable with their continental counterparts, but by far exceed them.⁵² In the years to come,⁵³ the number of vivisections within physiology, bacteriology and pathology increased extremely keeping with the development of experimental medicine in Britain as a leading force in the world.⁵⁴

The historical development of animal protectionism

The vivisection controversy of the late 19th and early 20th century may have lasted a short while in historical comparison, but it was preceded by centuries of thoughts and ideas surrounding the moral and physical relation between animals and humans which in their meeting with modern medicine culminated in hostilities and conflict. Enabling this conflict was not only the development of medicine in a particular direction, but also the development of thought and sentiment in a particular direction relating to animals. This development can be traced back to the 17th century. The French philosopher Descartes launched the notion of the "animal machine" into a scientific climate where such theories were of great use as tools of justification.⁵⁵ The idea was that animal,- and in some degree human bodies were machines, obeying the laws of mechanics, and that the quality which separated men from beasts were thought and speech.⁵⁶ Descartes also, as known, launched the philosophical thesis *cogito ergo sum* where he stated thought and self-awareness as the foundation of a conscious existence, effectively disqualifying animals. But the notion of the animal machine did not go by unchecked. Opposition both to the notion that animals were without soul, and to the popularisation of vivisection did exist, and as more and more people came into contact with vivisection, the ground was set for a more explicit confrontation.⁵⁷ It was especially the English intellectual environment of the eighteenth century which proved hostile to vivisection. Literary

52 Fleming, D 1961 p. 42

53 Tables used; French., RD 1975; The tables measure the years 1887-1917, though the increase in physiology and pathology happened before 1912 when the curve reversed and plunged to a level still far beyond the starting point. (The starting point of physiology being about 300 a year, growing to about 4100 a year in 1912 before leveling at about 1800, and starting at 1000 a year for pathology peaking at above 80 000 in about 1910 leveling at about 30 000 a year in 1917) Pharmacology was, according to the tables of French the only discipline where the use of vivisection increased continually during this period.

54 French, R.D 1975 p 403

55 Rupke; Holger-Maehle and Tröhler 1990 pp. 25-27

56 Rupke; Holger-Maehle and Tröhler 1990 p. 25

57 Rupke; Holger-Maehle and Tröhler 1990 p. 28

figures like Alexander Pope, Joseph Addison and Samuel Johnson rejected the Cartesian notion, and expressed disgust and abhorrence over the practice of vivisection.⁵⁸

At this point of time it is difficult to separate a vivisection discussion from the general animal-welfare discussion. Until the mid-19th century the vivisection debate was an integrated part of a greater debate on the conditions of animals brought on by an increasing awareness of all kinds of cruelties to animals. A particular concern which had its roots in Thomas Aquinas' lessons was that cruelty to animals would lead to cruelty to men.⁵⁹ This was reflected in the popular image series *The Four Stages of Cruelty* published in 1751 by William Hogarth, which will be used as a source later in the text. These images with their accompanying text also scorned mistreatment of domestic animals, and reflected on the proper punishment for such moral decay.⁶⁰ The thought that humans should not be cruel to animals, because it may lead to callousness and lessened sympathy with their fellow man was also taken up by the philosopher Immanuel Kant who lived in the mid- and late 18th century. He, however, did not argue that the animals had any particular rights or value in themselves. They were merely objects.⁶¹ The utility principle of Jeremy Bentham which was launched in the late 18th century based itself upon the two opposites of pain and pleasure, one to be avoided and the other to be obtained by just or good acts. Therefore a good act was one that produced the greatest possible pleasure, or prevented pain. Animals were also included as stakeholders in this equation. But the interests of humans were graded stronger than those of animals, so that humans had a right to use animals for food or convenience. Bentham was however a vigorous activist for animal rights, comparing animals to the slaves of the colonies stating that the right to be free from torture should not be conditioned by the colour or 'villousity' of skin or the number of legs.⁶²

By this time scientists who used vivisection on their side justified it by calling the animals "martyrs of science"⁶³ or saying that a certain sacrifice was justified when the case was contributing to the improvement of science and medicine.⁶⁴ The general intellectual sentiment in Britain towards

58 Rupke; Holger-Maehle and Tröhler 1990 p. 32; Ryder, R 2000 p. 55.

59 Aquinas did however not preach nor support ideas of animals as equals or even as having souls

60 Rupke; Holger-Maehle and Tröhler 1990 p. 33

61 Rupke; Holger-Maehle and Tröhler 1990 p. 37

62 Rupke; Holger-Maehle and Tröhler 1990 quoting Jeremy Bentham

63 Rupke; Holger-Maehle and Tröhler 1990 p. 23

64 French, R.D 1975 p18

vivisection was at this time however ambivalent rather than approving.⁶⁵ During the 19th century, an animal protection-movement was gradually developing in Britain which had its roots and pre descendants in religious moral movements of the late 18th and early 19th century⁶⁶. The movement gradually institutionalized in societies, of which The Society Instituted for the Purpose of Preventing Cruelty to Animals, founded in 1824, was the most important one.⁶⁷ The cause of abolishing cruelty to animals, especially in the lower classes was furthered by this organisation which later became "The Royal Society for the Prevention of Cruelty to Animals", abbreviated to The RSPCA. This organisation was to become the most influential organisation in 19th century England when it came to animal protection.⁶⁸ To the RSPCA, however, vivisection was in the mid-nineteenth century just one of many causes. They spread their efforts to educating the public and enforcing the law which had been passed in 1822; Martin's act.⁶⁹ The act had succeeded in abolishing cruel treatment of larger domestic animals like horses and cattle, but failed to protect pets like cats and dogs from vivisection. It was also elusive as to the point of vivisection.⁷⁰ But this weakness of Martin's act would prove decisive when the shift in the British scientific environment took place and experiments on animals increased. But to the RSPCA, the subject of vivisection was to be of little consequence until the late 1857 when the case of using old horses for vivisection and surgical training in French veterinary schools reached them i and they promptly organized a delegation to plead with the government in France to abolish this cruel practice⁷¹. The efforts in this venture had an impact on public discussions in both England and France and led to an increased attention on the issue of animals being abused for medical purposes also in Britain.⁷²

In 1873 the *Handbook for the Physiological Laboratory* was published. This publication was an eye opener and for many the first meeting with the vivisectional method in detail. It did not help that use of anaesthesia was not specified and that the book was designed for "beginners in physiology"⁷³ According to French, it was the publication of the handbook which was to blame for much of the spread of public outcry, making the conflict over vivisection a nation-wide affair, rather than one

65 Ibid

66 Lansbury, C1985 pp.26-40

67 French, R.D 1975 pp.26-27

68 French, R. D 1975 pp. 26, 64, 66

69 French R D 1975 pp.25-27

70 Ryder, R 2000 p.82

71 Ryder, R 2000 p.104

72 French, R.D 1975 pp.30-31

limited to small groups.⁷⁴ Together with this publication, some rather troubling utterances from E.R Lancaster, one of the first public defenders of vivisection, made it clear that to allow vivisection was almost equal to opening a floodgate of experimentation, of which the end was difficult to see.⁷⁵ The case whether one could justify vivisection, and what kind of policy should control it, what the consequences would be if they were to abolish it; who should be able to perform it etc. was continued in the standard press. The medical press⁷⁶ reacted differently, some hoping for reconciliation between the claims of humanity and science. Generally, however, especially the British Medical Journal (BMJ) reacted with closing ranks, and criticising internal vivisection-sceptics and the public ignorance they saw as characterizing the debate.⁷⁷ The final straw was a demonstration held at the British Medical Association's (BMA) annual meeting which was held in Norwich 1874. The demonstration in question was the scientist Eugene Magnan's experiment with injecting absinthe into dogs to induce epilepsy. Among the spectators were people, obviously with some sympathies for animals suffering, who, naturally reacted harshly when the experiment turned sour, and it was clear that the animals were suffering. It turned into a conflict of some sorts, as some of the onlookers protested and one went to fetch magistrates to apprehend Magnan.⁷⁸ In this situation, The RSPAC, whose secretary was informed of the matter treat to action and formally proceeded to prosecute and brought to trial Magnan and two doctors who were responsible for arranging the demonstration.

The two commissions and the Cruelty to Animals Act

As earlier mentioned, animal protectionist effort had led to Martin's act of 1822, but up until now, no-one had taken any practical measures to limit the practice of vivisection by law. Now, however, vivisection had stood out as a real problem for animal welfare, and it would soon be apparent that the RSPCA effort was not enough to protect animals from vivisection. This section relates the story of the process leading up to The First Royal Commission on Vivisection held in 1875-76, which outcome became the Cruelty to animals Act of 1876. This law would regulate vivisection, but its in-between solutions which sought to reconcile would also lead to a new uprising as the law and

73 French, R.D 1975 p.48

74 French, R.D 1975 p. 48-50

75 French, R.D 1975 p. 51.

76 The medical press, represented by *The Lancet*, *The Practitioner*, *The Medical times and Gazette*, and most noteworthy; *The British Medical journal*,

77 French, R.D 1975 p. 52

78 French R.D 1975 p. 56

administration would be deemed inconsequential, and a new commission would be appointed.

The Norwich trial was held in December 1874, the trial was lost for the RSPCA in the sense that they failed to prove the guilt of the co-defendants. It increased public awareness and the media was increasingly involved. It seemed the favour was on the side of the animal protectionists, as experimental medicine experienced an increasingly hostile public opinion.⁷⁹ In the aftermath of the Norwich trial, the actors of the controversy emerged, of which Frances Power Cobbe was the most noticeable. Others were the mentioned John Colam, and Richard Hutton. Cobbe first stood out in virtue of her personal antivivisection efforts. She had a background in antivivisectionist efforts and now she took it upon herself to gain support to improve the legislation on animal protection.⁸⁰ She tried petitioning the RSPCA in 1875 with a memorial signed by influential members of church and aristocracy, urging them to mobilize and deal more directly with the menace vivisection represented.⁸¹ The outcome, however the effort was meagre. Despite great public concern over vivisection, the RSPCA feared to tread on any toes both within and outside their organisation. They quickly disavowed Cobbe's memorial to make it clear they were not part of her cause.⁸² The RSPCA may have paved the way for the antivivisectionists, and they continued bearing evidence in both of the commissions but, according to Richard French, this was the point where the RSPCA thread out of the spotlight and the antivivisectionist societies claimed the attention.

If Cobbe wanted action to be taken against vivisection, she obviously had to arrange it herself. She joined forces with George Hoggan, a retired officer turned antivivisectionist after experiences at Claude Bernard's laboratory in Paris, the parliamentarians Lord Chief Justice Coleridge, Robert Lowe and Lord Hennessey and launched their first legal campaign to deal with vivisection; the Henniker Bill.⁸³ At the same time as this bill was introduced to parliament, a different group, of more scientific inclinations were working on a bill of their own in order to protect the interests of science and appease the public.⁸⁴ Charles Darwin, T.H Huxley and the physiologist and professor

79 French R.D 1975 p.58

80 She believed Martin's act of 1822 was insufficient to protect animals from cruel experiments, as it had evidently not been effective in the Norwich trial.

81 French R.D 1975 p. 64

82 French R.D 1975 p.67

83 At this time, the effort was not an abolitionist one, and restrictions on vivisection was called for by the public.; French R.D 1975 p.68

84 French R.D 1975 p. 71

John Burdon Sanderson, were some of the men behind the scientist lobby, who along with the chemist and liberal M.P Lyon Playfair launched the Darwin-Burdon Sanderson-bill (only referred to as the Playfair-bill) in May 1875.

As French describes it, the pro- and anti-parties, as they stood at this point were as close, at least in their apparent legal efforts, as they had never been, and closer than this they would never be again. Nevertheless, as the communication and negotiation between the two bills seemed to drag out, the Home Secretary on the 24th of May 1875, announced the appointed Royal Commission "on the practice of subjecting live animals to experiments for scientific purposes".⁸⁵ ⁸⁶ The practical task of the commission was to establish the extent of experimentation on living animals in Britain, the amount of cruelty, and how to best prevent such cruelty.⁸⁷ While the first commission sat, antivivisectionism, according to French increasingly turned more towards sensationalism and hysteria.⁸⁸ During the spring of 1875, the first antivivisection societies began to form, of which Frances Power Cobbe and George Hoggan's Society for the Protection of Animals Liable to Vivisection, later known as Victoria Street Society was the most notable. During the Commissions sitting period the vivisection conflict started using new media and reached new groups in society. The first antivivisection mass meetings were held, pamphlets were being printed and petitions were held. The Royal Commission of 1875 had a difficult task in appeasing public worry of cruelty to animals and at the same time ensuring that medical research could continue without too many restrictions. Physiology was on the defence, or as French express it "British physiology, slowly developing after a generation of neglect, scraping up support from begrudging institutions, was now struggling for its life in an increasingly polarized debate over the morality of its means."⁸⁹ As far as the results at the end all witnesses defenders, accusers and neutral parties seemed to agree that vivisection was increasingly used in Great Britain.⁹⁰ The previously mentioned Handbook of Physiology was one of the points of the interviews, especially with that in mind if it had led to

85 The commission members were T. H Huxley, ardent defender of "sensibly used" vivisection, Lord Cardwell, John Karslake, and Lord Winmarleigh who were apparently without allegiance to either sides, W.E Forster, supposedly neutral, but was apparently opposed to painful experimentation, John Erich Erichsen a professor of surgery inclined toward experimentation, and to represent the vivisection skeptics; R.H Hutton.

86 This commission sat from 1875 to 1876, and during the first three months of the commission, both of the bills which had been presented for parliament were withdrawn. - French R.D 1975 p.79

87 French R.D 1975 p. 97

88 French R.D 1975 p. 82

89 French R.D 1975 p. 91

90 French R.D 1975 p. 91

increased use of vivisection amongst unqualified personnel and beginners of physiology. Another issue was the purpose of the experiments, and among the commissioners this was to some extent important as the experiments for a medical purpose morally weighed heavier than experiments for "mere curiosity".⁹¹ The antivivisectionists who were interviewed criticized the purpose, but also the utility of the experiments, but their claims were mostly not taken seriously and left out of thorough cross examination from the men of scientific claims in the commission.⁹²

All in all, the evidences presented at the commission were of non-explosive material. That was until Dr Emmanuel Klein was interviewed. In short his evidence confirmed the antivivisectionist's worst fears; that vivisectors did not anaesthetise animals properly, and did not care about their pain. He testified that he only bothered with anaesthetics to avoid being scratched.⁹³ This effectively ended all hopes that the sciences utilizing vivisection would ever be trustworthy enough to take care of its own business without causing harm to animals. The evidence of Klein also contributed to splitting the commissioners,⁹⁴ The Commission concluded that preventing animal experiments altogether was impossible, not only because this would lead to underground illegalities and students and researchers moving to other countries, but also because the knowledge acquired in these experiments was of value for improving human life. But the practice clearly needed to be regulated. The regulations recommended by the Royal Commission was that research should not be limited by its purposes because pure scientific research often could result in therapeutic improvements, that experiments for instructional and educational purposes would be allowed under anaesthesia, that curare should not be considered an anaesthetic, that cold blooded animals should be included in the law, and that the legislation should include veterinarian vivisection as well.

After the commission had published its report(s) Lord Carnarvon introduced a bill on vivisection in the House of Lords on the 15th of May 1876. The bill had clauses of such severity for the scientists that they hastened into frantic lobbying. The scientists and after a while, also the physicians and surgeons gathered forces into professional organizations that made it clear to the public that the men

91 French R.D 1975 p. 91

92 French R.D 1975 p. 91

93 French R.D 1975 p. 103

94 Especially Hutton and Huxley disagreed on what the report should recommend, resulting in Hutton publishing a minority report where he recommended prohibiting all experiments on cats and dogs because of their special relationship to humans; French, R.D 1975 p. 109

of medicine stood together against abolition and overt restrictions on animal experimentation.⁹⁵ One of the restrictions they were eager to remove was the cat and dog clause. There was a strong opinion that without these animals, especially the dog, physiology would be impossible.⁹⁶ It ended with considerable amendments and victory for the scientists in The House of Lords. Both Carnarvon and Cross hoped that the amendments would make the passage through the House of Commons calmer, but as it became known that the dog and cat clause was weakened in the House of Lords, the antivivisectionist also increased their lobbying efforts. Now, the passing of the law was torn between lobbying fractions. The government obviously wanted the bill passed fast, and held the last committee hearing at midnight the 11th of August largely unattended and unreported⁹⁷. The Cruelty to Animals Act of 1876 provided for the regulation of vivisection in the following matter. Every scientist who wished to perform vivisection had to apply for a one year only license at The Home Secretary and beforehand obtain the approving signature from one of the presidents of the eleven leading medical bodies in Britain, and a professor of one of the medical sciences. The vivisections were permitted only in registered facilities which were open for inspection from the Home office. The purpose of the experiment had to be the advancement of science or the alleviating of suffering. Experiments could not be performed for the public or to obtain manual dexterity. Experiments under anaesthesia for educational purposes, experiments without anaesthesia, experiments where the animal was allowed to recover, or experiments for testing former discoveries, and experiments on dogs, cats, horses, mules and asses when no other animal could replace these, were under a system of certificates where the applicant again procured the signature and applied the Home secretary. Curare was not allowed as an anaesthetic. The Home secretary could ask for reports and appointed inspector under the act. Penalties were set at £50 or less for first offences, and £100 or 3 months prison for second and subsequent offences.

Between 1876, when the First Royal Commission's efforts ended and the Cruelty to animals act came into being, and 1907 when yet again, a commission on vivisection was being called, there lies almost 30 years. Though it might have been both interesting and fruitful to explore this period, it is here I must jump from one scene in history to the next. It could of course be said that the 1876 law was the start of the build up to a new conflict. The law of 1876 was, as French labels it, constructed

95 French R.D 1975 p. 122

96 French R.D 1975 p. 125

97 French R.D 1975 p. 141

to appease and negate both the claims of science and humanity, and failed gloriously in both capacities.⁹⁸

What is important to say about this middle period is that the tree of antivivisectionism which had set roots during the first Royal Commission grew and branched. As Richard French characterizes it, the antivivisection movement which were to be known in later times actually came to be after the bill was passed and became an act. The movement was also quite active in this middle period, continuing its multiple antivivisection missions by educating the public via pamphlets, novels, poems, pictures, public meetings, discussions in papers and magazines and window displays.⁹⁹ Simultaneously the movement attacked experimental medicine itself by monitoring research literature, bringing cases of both individuals and institutions to the home office, and making the public aware of institutions which were granted public donations and upheld vivisection-laboratories. The third approach was several attempts at legal reforms and passing bills in parliament as well as lobbying towards amendments in the 76-act.¹⁰⁰

The antivivisectionists did not rest the next to 30 years between the commissions. But their efforts did not seem to pay towards causing any greater uprising before the publication of *The Shambles of Science* in 1903. The publication of this book containing eye witness descriptions from within the vivisection demonstration was a part off the Brown Dog affair which developed into the brown dog riots, which eventually led to the appointment of The Second Royal Commission on Vivisection. As Lansbury describes it, the second wave of antivivisectionism in England was started one year before, when a young woman of 24 years together with her friend began physiological studies at The London School of Medicine for Women with the deliberate intent to be able to expose the practice of vivisection.¹⁰¹ These two women were Louise Lind af Hageby, and Liese Schartau. Why it was the former and not the second who would stand out as the champion of laboratory animals in the conflicts which were about to ensue, is unknown as no clue is given in the sources and the historical literature. Louise Lind af Hageby was a Swedish antivivisectionist from a wealthy family, and hence had private means, which meant she was able to lead a life impossible for many women at the time.

98 French R.D 1975 pp. 112-159

99 French R.D 1975 pp. 268-69

100 French R.D 1975 pp. 160-61

101 Lansbury, C 1986 p. 9

In many ways she may have stood out as a mixture of Frances Power Cobbe and Anna Kingsford¹⁰². She had the youth and endless empathy with all animals as well as the scientific education as the one, and the oratory gifts and helpful associations as the other.¹⁰³ After keeping meticulous diaries during their year of education involving the attendance of several vivisectional experiments and demonstrations, the women wanted to get their experiences and impressions from the laboratories out to the public. At this time, British antivivisectionists were mainly divided in two main fractions, one of which was for the total abolition of vivisection- the revolutionary change as Lansbury calls it, , and one of which were for the gradual legislative changes, slowly making vivisection impossible; the gradualist approach.¹⁰⁴ A conflict over abolitionist measures had led to Frances Power Cobbe, now abolitionist after being patient for too long establishing a new society; the British Union for the abolition of vivisection together with R.W Haddon in 1898, while the gradualist Hon. Stephen Coleridge continued as the secretary of The National Antivivisection Society, formerly Victoria street society.¹⁰⁵ It was to Victoria Street and Stephen Coleridge Lind af Hageby and Schartau turned with their evidences. The barrister Coleridge immediately saw that if they had recorded the events correctly, the act of 1876 had been broken on several occasions in physiological laboratories in London. It was especially the case of William Bayliss and the repeated experimentation on a certain brown dog which was recorded in the chapter *Fun* which struck him as a violation¹⁰⁶ The case was that of a dog which had been experimented on by Professor Starling allowed to recover, then operated upon again to see the consequences of the first operation, and then, allegedly while under anaesthesia passed on to William Bayliss to further being experimented on, without ensuring that the animal was both sedated and killed afterwards. He helped the women find a publisher for the book *The Shambles of Science* and simultaneously charged the physiologist Bayliss with having broken the 1876 act. Bayliss answered with suing libel for the smudging of his reputation and the Bayliss v Coleridge case was held in November 1903.¹⁰⁷ Coleridge did not expect to win, but used the trial for all it was worth in publicity for revealing the lacking of the 76 act. The fine of 2000

102 Kingsford was a known vegetarian and antivivisectionist but was somewhat more a spiritualist and radical than Cobbe. Unlike Cobbe she had limited influence on the development, and her main fora was the international anti-vivisection societies. There was a certain conflict between Power Cobbe and Kingsford as it was speculated Cobbe was jealous of Kingsford's youth and vigor, or angry of her somewhat spiritualist remarks and vegetarian ideology.- French R.D 1975 pp. 230-232

103 She argued even for the well-being of frogs- and she was endorsed by the secretary of the NAVS Stephen Coleridge

104 Lansbury, C 1985 p. 9

105 Ibid

106 Lansbury, C 1985 p. 10

107 Lansbury, C 1985 p. 10

pounds, given to Coleridge under the cheerful applause of the medical students which had crowded the court during the trial was soon paid by contributions from supporters via *The Daily News* subscriptions.¹⁰⁸ As calculated by Coleridge, the trial had led to yet another surge of concern over vivisection, and the case of the brown dog was probably especially easy to sympathise with. The dog's status as a pet taken into consideration along with the concerns and anger over the previously weakened dog and cat clause of the 1876 law which was a thorn in the side of many a antivivisectionist may have contributed to the increased efforts on this occasion. The next thing that happened; and without it, the conflict might have ended, was that a Miss Woodward who in the commission of 1907 was one of the representatives from the Church antivivisection league provided £130 for a memorial of the brown dog. It was erected in Battersea Park and unveiled on September the 15th 1906, in a ceremony where amongst the audience were George Bernhard Shaw and Miss Woodward.¹⁰⁹ Its plaque read;

In Memory of the Brown Terrier Dog Done to Death in the Laboratories of University College in February 1903 after having endured Vivisections extending over more than two months and having been handed over from one Vivisector to another till Death came to his release. Also in memory of the 232 dogs vivisected in the same place during the year 1902.

Men and Women of England How long shall these things be? ¹¹⁰

It did not take long before the memorial provoked reactions. It was the "medical hooligans" from the Bayliss trial which stood out as the protesters, but the protests mostly happened at campus, and they did not come near the statue until 1907.¹¹¹ The Brown Dog riots were at their most heated during the sitting period of The Second Royal commission, which was appointed in 1906, sat from 1906 to 1908 and published its final report in 1912. It is this period, which will be the focal point of my analysis.

Some of the material that the antivivisectionists have left behind contains, not surprisingly, strong arguments and overwhelmingly metaphorical language. According to Richard French, the antivivisectionists of the 20th century had inherited the arguments from their 19th century predecessors. Though I agree there were similarities, I believe there had been some changes during the 30 years that had passed. The imagery of the texts, the metaphors and the language they used,

108 Ibid

109 Lansbury, C 1985 p. 14

110 Ibid

111 Lansbury, v 1985 p. 15

may also have been inherited from the first antivivisectionists, but they in turn must also have gotten their ideas from somewhere. And the cultural development during 30 years is not to be scorned. Many factors may have contributed to the view antivivisectionists had on medical sciences, and scientists. I have chosen to look at the possible effect that fiction had upon the mind of antivivisection. Both as pre-dating, paralleling and being involved in the movement. By investigating this literature I hope to find keys to the associations people of the early 20th century might have had to science and to animal experiments, and how this connects to the associations brought forward by antivivisectionists of the early 19th century. As fictional literature work on different premises than the other material I have not subjected it to any thorough analysis with arguments in mind, but have instead chosen to focus on the imagery which is presented. The particular selection of fictional literature which will be debated and analysed in this section is partly thematic, but also based on a selection emphasized by Lansbury, and Rupke. It is also based on the references from the sources; the evidences of the Second Commission, The preface of *The Doctor's Dilemma* and *The Shambles of Science*.

Chapter 3 – Literary influences

Poetry and novels

The interplay between arguments, language and imagery make up an important element of the agitation of the antivivisectionist. In the background history, some of the early arguments, both of animal protectionists, antivivisectionists and defenders of vivisection were described. Now I venture into another part of background; one which may explain much of the intellectual baggage of antivivisectionists as well as some of the concepts they grappled in. The sources of fiction will be analysed to see, first and foremost what kind of images they communicated on science, medicine, animals, vivisection, cruelty and the animal-human relationship; themes which were of great importance to antivivisectionists and which we will encounter in the sources they left behind.

The starting point, chronologically, is the artist William Hogarth's series *The Four Stages of Cruelty*. Hogarth is known amongst other things for his paintings and engravings featuring moral criticism. Though Richard Ryder argues the presence of animal protectionism, at least in spirit, before the enlightenment, it is the 18th century he describes as some sort of turning point.¹¹² And this series

112 Ryder, R 2000 p. 55

from 1751 is set in the midst of it. Coral Lansbury argues in *The Brown Dog Case*, that these prints featuring the figure Tom Nero had a remarkable effect of countering cruelty to animals, especially on the working class public through the late eighteenth and nineteenth century.¹¹³ The images were spread through the working class, hung on walls of houses and pubs, parallel to an on-going religious and moral campaign run by among others evangelists designed to rid the lower classes of their savagery. Tendencies towards blood sports, such as cock-fighting and bull-baiting, or children torturing small animals, were to be abolished for the good of the humanity of the people.¹¹⁴

The four images of this print series show the protagonist Tom Nero in the midst of his crimes. The first print shows a scene where Tom leads in the torture of a dog, while another boy pleads for him to stop. The second image shows Nero as he has become a coachman, furiously whipping his horse because it has collapsed, while scenes of animal abuse are shown in the background. The third image shows Tom being held captive by a mob next to the body of a murdered maid. It is implied that he has seduced and later murdered her. The last image in the series, called *The Reward of Cruelty* shows the hanged, dead Tom Nero as the object of a public dissection, a dog eating his exposed innards. The images are accompanied by a text underlining the meaning of the images, and the deteriorating, barbarous effect of cruelty to animals. Lansbury, in relation to the images argues that the direct association between cruelty to animals and other heinous crimes was apparent. The moral which was to be drawn out of this was that cruelty to animals led to cruelty to humans, and that the reward of cruelty was death.¹¹⁵ The notion of an interconnectedness of cruelty had its roots, as explained in the historical background, in teachings of Aquinas. Roy Porter has a different opinion upon *The Four Stages of Cruelty*. He emphasises its place within a tradition where "artists wished to intimate an endemic fiendishness in medicine, a theatre of cruelty."¹¹⁶ Where Lansbury sees these prints as animal protectionism, Porter sees them as anti-science, or hostility towards medicine. Porter does not reflect the moralising effect so much as the rhetorical question asked by the artist "What is there to choose, Hogarth invites us to ponder, between the murderous malefactor and the dissecting doctors?"¹¹⁷

113 Lansbury, C 1985 pp. 54-55

114 Lansbury, C 1985 pp. 27-35

115 Rupke; Holger-Maehle and Tröhler 1990 p. 33

116 Porter, 1994 pp. 1714-1718

117 Porter, 1994 pp. 1714-1718

The symbolic language used in these prints was a combination of physical images and words, such that the text accompanying the images would elaborate and comment on the messages and associations of the images. To begin with the protagonist, the name Nero had, and still has some associations, one of which is to an insane infamous Roman emperor, and the other is the literal meaning 'black'. The surname 'Black' does not carry any intrinsic meaning, but in this negative connection it seems as though Tom was tarnished and tainted, or was 'blackened' from the very beginning. The language used in the accompanying text emphasise animals as victims, and humans as responsible for their misery, either in their active pursuit of "barbarous deeds"¹¹⁸ or by not stopping such crimes. Hogarth also resorts to getting his message through with direct questions of the rhetorical sort or direct imperative. "Learn from this fair Example," he proclaims. "You Whom savage Sports delight, Cruelty disgusts the view, while Pity charms the sight." Or he asks; "What Int'rest springs from barb'rous deeds? What Joy from Misery?"¹¹⁹ Images of blood, corporal suffering and anxiety in both man and animal are effectively communicated both through the text and in the prints. There is also an obvious use of circular composition by the presence of a dog both in the first and the last print. In this an inverted 'golden rule' is evident; what you have done to others shall be done to you. It is also noteworthy that the act of dissection by scientists hands.

The next work of fiction chronologically is *Frankenstein* by Mary Shelley, published in 1818. This was a horror novel which explored the scientist-figure and the potential horror of science. This novel, in which the aspiring scientist Victor Frankenstein creates life in a being made from parts of dead men, is to many the epitome of the Gothic horror. In her book *The Shambles of Science*, Louise Lind af Hageby grudgingly accuse the fellowship of vivisectors for hoping for that one of them should one day rise to be a new Victor Frankenstein.¹²⁰ Searching for the secrets of life was after all one of the main pursuits of medical sciences. Victor Frankenstein, also, like the medical scientists searched for the mechanism of life in dead matter. An implicit connection between medicine and Frankenstein can in this connection, be found in the dabbling with dead bodies which both Frankenstein and real life scientists undertook as a part of discovering the secrets of the human body. It is formulated in the novel as such; "one of the phenomena which had peculiarly attracted my attention was the structure of the human frame, and, indeed, any animal endued with life.

118 Hogarth, 1775

119 Ibid

120 Lind af Hageby *The shambles of science- The death of vitalism*

Whence, I often asked myself, did the principle of life proceed?"¹²¹ This fascination with life was that of a self-proclaimed natural scientists. The natural scientist did however agree with the men of medicine of the early 19th century on a condition; "to examine the causes of life, we must first have recourse to death".¹²²

The happenings which lead to the Anatomy act of 1832 retrace some of the uncomfortable associations which people may have had with scientists and anatomy studies. In short, the anatomy act was a law regulating the use of human corpses in the study of anatomy.¹²³ The act was brought into being to cope with the problems relating to the lack of bodies in the studies of the anatomical part of medicine. Before the act, only bodies of executed criminals were 'lawful' to claim.¹²⁴ This resulted in an insufficient amount of corpses for the growing study of medicine. John Knott argues that the lack of corpses may even have contributed to British medicine lagging behind in the beginning of the 19th century.¹²⁵ Where there is demand which cannot be met legally, there tends to grow a black market where money can be made. True to this tendency there developed during the late 18th and early 19th century an unsavoury industry of body-snatching¹²⁶. Men popularly called 'resurrection men' would obtain corpses by different means, mostly by robbing graves, and in some cases like the infamous Burke and Hare case,¹²⁷ would resort to murder to profit from the want of corpses.¹²⁸ The act of 1832 made the men performing the dissection responsible for the body they used to the direction that it was not illegally obtained or had any claims on it from relatives. This was to prevent the hysterical conditions which had ensued in London in the late 18th and early 19th century in relation to the extreme increase in grave robberies. People of all layers of society, though the poor and paupers were most vulnerable, were concerned that their dearly departed would end up on dissection table¹²⁹. The connection between resurrection men and the protagonist of Frankenstein is not explicit though Shelley, who's novel was published at the high of the resurrection business, referred to her scientist as having obtained the material for his creation in "charnel houses"¹³⁰ and "the unhallowed damp of the grave."¹³¹ But the connection between

121 Shelley, M 1818 *Frankenstein - Chapter 4*

122 Ibid

123 Knott, John 1985 pp. 1- 18

124 Ibid

125 Ibid

126 Ross, I and Ross C.U 1979 p. 111

127 Also known as the West Port Murders

128 Ross, I and Ross C.U 1979 p. 111

129 Knott, J 1985 pp. 1-18

130 A charnel house is a building, chamber, or other area in which bodies or bones are deposited, also known as a

medical scientists, even doctors, and the use of stolen cadavers was clear.

Another metaphorical line taken up in *Frankenstein* is the implicit references to a particular science which had been pursued by many natural scientists in the late 18th century; Animal Electricity. The discovery that touching newly dead animals with certain metal-pieces made muscles contract had led to Galvani formulating a theory of intrinsic electricity in animals. The idea that electricity was the spark of life brought on a whole world of ideas and experiments.¹³² Or as Marco Piccolini claims, "wherever frogs were available, not only scientists, but also laymen tried to reproduce Galvani's experiments in order to induce contractions in the leg muscles of recently dead animals."¹³³ There were even experiments of resuscitating human corpses with electricity. Through her future husband Percy Shelley who had studied under a physician and natural scientist; James Lind, who was involved in this upsurge of electrical experiments, Mary Shelley came into contact with the notion that would characterize her novel¹³⁴. Though the experiments in real life inevitably failed, the notion of inducing life in lifeless matter would survive as a rather horrific concept through the novel of Mary Shelley.¹³⁵

The novel can also be interpreted as an investigation of humanity, of what makes humans human, and of the beastliness intrinsic in humankind. Who is actually the beast, and who is the human in this tale. Though it lack direct reflection of human relation to animals, the novel depicts an animal-like estranged figure; The Creature, and describes its awakening and education. It also describes how humans meet this creature as an abomination, and fears it. It reflects over cruelty as a forming factor of destruction. The outcast creature seeks its creator to revenge its unholy existence. But what this novel first and foremost seems to reflect is a cautionary warning against man seeking God-like powers without carrying out the responsibility. It tells of the destructive power the quest for knowledge could have over ethics. Victor Frankenstein also embodies a deranged and irresponsible but somewhat tragic figure which gives the creature life, but denies its existence and does not take responsibility for the menace he has created. This leads to the inevitable destruction of his love and himself.

mortuary chapel. Charnel houses arose as a result of the limited areas available for cemeteries. When cemetery usage had reached its limits, the bodies, by then only bones, would be dug up and deposited in the charnel house, thus making room for new burials. - Macmillan Encyclopedia of Death and Dying 2003

131 Shelley, M 1818 *Frankenstein – Chapter 4*

132 Piccolino, Marco 1997 p. 381

133 Ibid

134 Goulding Mlitt, C 2002 pp. 257-259

The theme of the seductive power of science associated with *Frankenstein* was taken up for a new evaluation and put in a different context in H.G Wells' 1896 novel *The Island of Dr Moreau*. This novel circles around protagonist Prendick who is shipwrecked on an island ruled by the mysterious figure Dr Moreau aided by his assistant, the volatile Montgomery. Moreau is scientist which the protagonist vaguely links to an episode of controversy and expulsion in London, owing to revelations of horrible experiments. The island is revealed as the base of Moreau's morbid experiments which goal is to transform animals into the likes of humans by vivisectional operations. The system of transformation and Moreau's dominion collapses when Moreau is killed by his last creation; a puma woman. Montgomery after a while is also killed by the beast-men, and Prendick remains the only human to witness the degeneration of the beast-men back to the ways of the animals they were made of. Prendick at last escape the island in a dingy, and is picked up by a passing ship.¹³⁶

Though Wells never was an antivivisectionist, he was even a member of the Research Development Society, this novel published in 1896 contains certain images and qualities that show a problematic relationship to science, and the relation between man and beast. In his biography written in 2010, the author Michael Sherborne recognise Wells' allegiances but nonetheless claimed "Wells always defended the necessity for vivisection, but there is evidence here and elsewhere that the sufferings of animals under the knife upset a part of him" *The Island of Dr Moreau* reflected and developed themes and ideas found in his previous novel *The Time Machine* on human evolution, degeneration as well as our savage nature.

The island of Dr Moreau can be interpreted in vastly different directions in the sense of notions being presented. John Glendening puts *The island of Dr Moreau* into the perspective of evolution when he views it in the sense of an evolutionary entanglement. He argue for a interpretation where the nature, as well as the human and beast-human population of the island are expressions for the sense of confusion, entanglement and chaos the theory of evolutionary development led to in late Victorian society. The novel may also have been a comment and contribution to the debate which the evolution theory provoked in society and within the ranks of natural science. This

135 Ibid

136 Wells, HG 1896 *The island of Dr Moreau-In the dingey of lady vain/ the man who was going nowhere*

notion is supported by the hints the author gave in the text, for example that the protagonist Prendick was a self-proclaimed student of Thomas Huxley¹³⁷ stranded on an island where a sort of super-evolution was forced on by Moreau.¹³⁸ Questions which this debate raised concerning man and animal can also be seen in the novel. The development and ending of the novel illustrate that "nature will always overcome human endeavour"¹³⁹

Much of the eeriness and horror- effect of this novel, Glendening claim, is based on the tension that is caused in the portrayed relation between animal and man.¹⁴⁰ The idea of the human, and the idea of the animal is both made more clear and distorted at the same time in this novel. The quality of humanity was not necessarily linked to being a human per definition. Moreau is a man, but he has by his own choice tread beyond humanity in more ways than one. His personality waver between man and animal,¹⁴¹ while he seems to seek something more. He strives towards super-humanity, or endeavours to be so in setting himself not only judge over life and death on the island, but also by becoming the master of pain¹⁴². He is apparently not only driven by curiosity, but also by an egoistical ambition to speed up evolution and create the perfect man, devoid of pain and savagery.¹⁴³ In this he fails quite miserably, as his beast-men struggle even to retain the basic humanity and civilisation forced upon them by Moreau. The beast-men are in general savages, and the taming of this savagery can in part be seen as a civilization project. One interpretation is that Moreau is not interested in bringing out the humane in animals, but in rooting out the savage of the human, a project which finds its parallel in the previously described Hogarthian prints. The confrontation and fight with the savage in the human is apparent through much of the novel, even from the beginning where Prendick and his fellow sailors in the dingy contemplate cannibalism. This becomes a parallel to the revelation of the beast- men's carnivorous appetite later in the novel. Indeed it is difficult to separate the humans from the beast-men, as all of them display savage characteristics during the novel.

There is also in this novel, an apparent reluctant admiration for animal qualities. Moreau's first

137 Thomas Huxley (1825-1895) was a key contributor to the evolution debate and a campaigner for evolutionary theory. Wells was according to Peter Kemp, at a point a student of Huxley.

138 Glendening, J 2007 pp. 39-68

139 Sherborne 2010

140 Glendening, J 2007 pp. 39-68

141 Dryden, L 2003 p. 165

142 Wells, H.G 1896 *The island of Dr Moreau- Dr Moreau explains*

143 Glendening, J 2007 pp. 39-68

creation, the dog man, is shown, though by the characteristics of his "canine blood" commands it, to be both faithful and a lesser savage than both Moreau and Montgomery, whose alcoholism and deterioration illustrate his degeneration into a sort of animal himself. In a turning point scene Prendick takes mercy upon the leopard man who has broken the law and is hunted down; "it may seem a strange contradiction in me, - cannot explain the fact, - but now, seeing the creature there in a perfectly animal attitude, with the light gleaming in its eyes and its imperfectly human face distorted with terror, I realised again the fact of its humanity."¹⁴⁴ It is in his animalism that his humanity, and his qualification for pity is revealed. The scene where the most recent victim of Moreau; the puma, escapes also express the tragedy in the mutilation and incarceration of a free being. The dynamic of the story when it comes to man's power over beasts leads us back to the evolutionary perspective, where the power of man over animals is a result of being a stage "higher" in evolution, and hence claiming the upper hand. But the evolutionary perspective is not exclusively one of the right to kill and use the ones lower in rank than yourself. Many antivivisectionists, such as reverend Lewis, Mr Graham and Miss Lind of Hageby represented a different understanding of the human development. To Moreau, the goal was to create superhumans devoid of pain- independent of the harsh evolutionary struggle, because in perfection, pain would be unnecessary. The antivivisectionists understanding of evolution contrasted heavily, but still somewhat resembled the one represented by Moreau. They believed in a positive development of humankind, where sympathy of the fellow creature was the central track¹⁴⁵ Mr Graham claimed that the survivors of evolution was the ones who took care of their family "and learned that more good could be done by trade and cooperation than slaughter"¹⁴⁶

There is certain imagery which pervade this novel, and which is also brought forth later in the evidences of antivivisectionists. That is the imagery of blood and flesh. Even from the start of the novel, before Prendick lands on the island, blood is central. After being picked up from the dingy where he almost succumbed to cannibalism, he is in his confused condition informed that he was picked up from a dingy; "The name on the boat was the *Lady Vain*, and there were spots of blood on the gunwale."¹⁴⁷ He is shortly thereafter given " a dose of some scarlet stuff, iced. It tasted

144 Wells, H.G 1896 *The island of Dr. Moreau - How the beastfolk tasted blood*

145 Graham, JW 1907 *The Second Commission on Vivisection report 2 – Opening statement*

146 Ibid

147 Wells, H.G; 1896 *The island of Dr Moreau - The man who was going nowhere*

like blood, and made me feel stronger."¹⁴⁸ Later, when he ventures into the forest he sees the body of a rabbit torn asunder, head ripped off and blood scattered. The sight makes the dread he has felt about the strange population of the island more distinct¹⁴⁹. His later encounter with Moreau in his private laboratories where he has heard sounds reminiscent of that of a human, awards him with a frightening sight "There was blood, I saw, in the sink, brown, and some scarlet and I smelt the peculiar smell of carbolic acid."¹⁵⁰ He sees the bandaged puma writhing in pain under Moreau's ministrations, looking like a man being tormented. Moreau also ends up succumbing in a bloody battle with the puma. It is also the forbidden taste of blood which is the catalyst of the degeneration of the beast-men. Blood in this situation becomes a symbol of the similarity and the transition between animals and humans, as the beast-men had been forced to vegetarianism while the men of the island continued eating meat.

The island of Dr Moreau is also inspired and influenced by *Frankenstein*. The structure as well as many traits of many of the characters are similar¹⁵¹. Both Moreau's ghastly scientific endeavours, and Montgomery's tragic self-inflicted demise are similar to those of Victor Frankenstein, and the general description of the beast-men as grotesque and strange, but still familiar parallel the description of Frankenstein's creature. In the intersection between these 19th century novels, along with *Dr Jekyll and Mr Hyde* Linda Dryden argues that the question is put forth "How awful can a man get, and still be a member of the community?". This question was also extremely present in the argumentation of antivivisectionists, as they did not only reflect our evolutionary relation with the animals, but also how acts of vivisection, which they saw as torture could change men into cruel creatures, not safe to be trusted in a community, even less as doctors.

How literary references influenced the antivivisectionist can be seen also in the evidence of Mr. Graham of the PAAV who refers to both Robert Browning's and Lord Tennyson's poetry in his evidence. Browning's Poem *Dog Tray* and Tennyson's *In the Children's hospital* are both support-poems for the movement and rhetorical statements in the vivisection debate. Browning's poem describes and salutes the heroism of a dog (which is a symbol for the whole race of dogs) who saves a beggar-child from drowning, and even dives in after the child's doll afterwards. A scientist witnessing the event calls his henchman to have him buy the dog so that the secrets of his brain;

148 Ibid

149 Wells. H.G. 1896 *The island of Dr Moreau - The thing in the forest*

150 Wells, H.G. 1896 *The island of Dr Moreau - The crying of the man*

151 Sherborne, M 2010 p. 112

why he did his act of bravery, can be revealed through vivisection.¹⁵² The poem, as antivivisection poetry emphasize the natural brave character of the dog as a contrast to the morbid curiosity of the scientist who believes that anything can be explained by searching the physical brain. The scientist is also made into a lesser being as he does not appreciate nor recognize metaphysical qualities such as bravery, or self-sacrifice, and has to search for physical solutions.

The other poem, which is referred to, namely Tennyson's *In the Children's hospital* is of a different quality in theme and form as Browning's poem, though they share some of the narrative perspective. Where the authorial perspective in Browning's poem lies with an outsider *In the children's hospital* it is fronted by the nurse of a children's hospital who describes the arrival of a new surgeon on commission for the hospital, which "sends a chill to her heart":¹⁵³

Fresh from the surgery-schools of France and of other lands—
Harsh red hair, big voice, big chest, big merciless hands!
Wonderful cures he had done, O, yes, but they said too of him
He was happier using the knife than in trying to save the limb

It is also implied that this surgeon deals with dissection of dead humans and vivisection as he would "mangle the living dog that had loved him and fawned at his knee"¹⁵⁴. As the nurse puts her faith in god and prays over "the hopeless cases" the surgeon is implied an atheist, believing only in the cures of science.¹⁵⁵ There are also several children present in the poem, amongst them the favourite Emmie who has an illness which can only be cured, as the surgeon sees it, through an operation, which the old doctor and nurse believe she will not survive. Rather than succumbing to her fate, she asks her friend Annie what to do, to which she answer, in a touchingly childlike way that she should ask the dear lord Jesus to fetch her so she would not have to have the operation. As the nurse watches Emmie; awaiting the operation to come, "with dreams of the dreadful knife" Emmie passes away in her sleep, and escapes. This poem is a different kind of attack on the vivisector, as he is put into the hospital context. The context of the hospitalized person being subject to a vivisector, which we will see in later paragraphs, was a great dread for the antivivisectionists. The poem render the stereotype of the continental surgeon as merciless, and cruel just as likely to cut off a limb as to save it, and just as likely to kill as to heal. This is not attributed to his lack of education, as would be the case with quacks, but rather because of his education which have made him into what he is.

152 Browning, R 1879 *Tray*

153 Tennyson, A 1880 *In the children's hospital*

154 Tennyson, A 1880 *In the children's hospital*

155 Ibid

Summarising the fictional sources

Through the prints of Hogarth, the novels of Wells and Shelley, and the poetry of Browning and Tennyson several ideas and images had been developed concerning animals and men and their relationship as well as the potential dangers and mischief of science unchecked. Hogarth dealt with the consequence of cruelty to animals, only including men of medicine as a final warning; or what Roy Porter referred to as the violence and violation of medicine which opposed a threat to the body as well as the mind¹⁵⁶ He described animals as sympathetic victims and humans as possible perpetrators and advocated a harmonious relationship between the two rather than one of cruel exploitation. Mary Shelley explored science and created an image of the natural sciences as imbued with seducing power and promises of power over life and death which in the case of Victor Frankenstein led to his demise. She did not touch upon medicine per se, but concentrated on the natural sciences. Her figure of Victor Frankenstein cannot be said to be a vivisector, though it is implied that he had studied natural sciences and the structure of the living frame. At this time, the natural scientist was a vivisector like any other, and vivisection never was exclusive for medicine. She also introduced the uncomfortable notions of animal electricity and its horrifying potential. Shelley also created interesting imagery around the getting of scientific knowledge as a potentially hazardous endeavour Her whole novel, apart from its fictional nature may almost seem a warning ; there is knowledge which should not belong to man, and which can only be had at a horrifying cost. Shelley's novel also explored man's relation to a creation imbued with life, and apparent intelligence, yet a brute and an 'other'. Though the creature in Frankenstein is not an animal, it is a live structure which is not human, and is at the mercy of humans; much like animals. H.G Wells' novel continues and deepens the exploration of the scientist, this time directly named an infamous vivisector . Like Shelley he is deeply involved with the question of the limits of human knowledge, and the horrifying potential of science for creating unnatural deformities. With *The island of Dr Moreau* he also links the scientist to the new understanding of man's relation to animals; evolution. He explores both the beastly qualities of man and the humanity of beasts, and links this to the Huxleyan notion that humans might revert back to a primitive state. He also refers directly to the pain and suffering which is part of the vivisection-process, by Moreau's premises almost a process of purification. The poem of Browning continue the idea of the vivisector as man with a craving for knowledge, and no scruples at getting what he wants. Browning also describes the animal on a

156 Porter, R 1994 p 1715

closer level and uses anthropomorphism. The vivisector is harshly portrayed against the dog. Tennyson's poem also takes on the vivisector, but places him in a hospital setting where the lives and well-being of the children depend on his mercy; the one ability he has not been taught "in the surgery schools of France"¹⁵⁷ Here, the vivisector is for the first time explicitly connected to the doctor, and the act of cutting animals is connected to the act of cutting little children.

Chapter 4 – The antivivisectionists

Vivisection

Whether it was vivisection, or vivisectors, the antivivisectionists fought, is sometimes difficult to assume from the material. The purpose of this section is to see which arguments the antivivisectionists used in the connection with the method of vivisection and how their language and imagery related to the arguments. Was there any recurring imagery? I will sort out and analyse the arguments, language and images used by antivivisectionists directly on the phenomenon of vivisection. This section will be divided into subsections by the theme of the arguments proposed against vivisection; or made to criticise or question the method of vivisection. Within the different themes, the arguments and language have different relations to each-other in quantity and quality. Sometimes there are few arguments, or little direct argumentation, but much use of imagery and figurative language such as metaphors and anecdotes to support the claims being made. Other times it is the other way around.

The pursuit of knowledge

The pursuit of knowledge has always been a part of western medicine. But this pursuit was not always understood as one sided good. Ever since the beginning of culture, humans have had a ambivalent relation to the getting at knowledge. Some knowledge has been monopolised by different groups in societies, and some knowledge has been seen as forbidden, or unnatural. Among this has long been the knowledge of life and death, and the composition of the body. As life was something imbued by a higher power, trying to understand or obtain such knowledge was a sacrilege. As we saw in the fictional literature, by the nineteenth century certain notions had developed of the pursuit of knowledge, at least within science, as something dangerous and disastrous. This section is dedicated to the arguments which the antivivisectionists proposed around

¹⁵⁷ Tennyson, A 1880 *In the children's hospital*

the theme of medical knowledge, and how they reacted to the vivisectors' methods of getting it. Within this section, the two texts which will be used the most are the texts of Louise Lind af Hageby and George Bernhard Shaw.

Arguments

In 1906, a play by Shaw named "The doctor's dilemma" was published. In the preface to the play numbered amongst Shaw's other polemic plays¹⁵⁸, he accused and attacked the medical society as well as physiological researchers amongst other things for their support and use of vivisection¹⁵⁹. He understood the scientist's and doctor's motivation for vivisection as the craving of unlimited knowledge¹⁶⁰. What these men did not comprehend, Shaw argued, was that the right to know was like any other right reasonably limited by society. He contended that the right of knowledge in some ways was like the right to live. Neither were rights without limitations. Society has confounded life, he said, within necessary rules, such as not killing or hurting your fellow man. In a society your life is either forfeit or diminished in freedom and quality if you break these rules. Likewise he argued, that the right to knowledge was, and ought to continue being a right limited by certain rules.

No man is allowed to put his mother into the stove because he desires to know how long an adult woman will survive at a temperature of 500 degrees Fahrenheit, no matter how important or interesting that particular addition to the store of human knowledge may be (..) The right to knowledge is not the only right; and its exercise must be limited by respect for other rights, and for its exercise by others. When a man says to Society May I torture my mother in pursuit of knowledge?- society replies No!¹⁶¹

Society's rule no 1 about not hurting one's fellow man is portrayed as clear; But what about animals, Shaw asks?

If the scientist, making the best of his disappointment, goes on to ask may he torture a dog, the stupid and callous people, who do not realise that a dog is a fellow creature and sometimes a good friend, may say Yes (..) But even those who say "You may torture a dog" never say "You may torture my dog." ¹⁶²

He ventures on to argue that the knowledge of good that the vivisectors say they will obtain by vivisection, could also be found in other ways. He compares it with the burning of ancient Rome by the emperor Nero. He compared Rome and the London of his day, and came to the conclusion that it was as unsanitary and crowded as Nero's Rome must have been. "Why then", asks Shaw, does he

158 It has been published alongside *The Shewing up of Blanco Posnet*(1909), and *Getting Married* (1908)

159 Shaw, G.B 1911 *Preface to the Doctor's dilemma*, - *Doctors and vivisection*

160 Shaw, G.B 1911 *Preface to The Doctor's dilemma- The tree of knowledge*

161 Shaw, G.B.1911 *Preface to the doctor's dilemma:- limitations to the right of knowledge*

not "as a public spirited man" set someone to burn London "-Any vivisector would, if he had the courage of his opinions" ¹⁶³The answer Shaw gives is that London can be made healthy without burning it down. And, he says;" As we have not enough civic virtue to make her healthy in a humane and economical way, we should not have enough to rebuild her in that way." ¹⁶⁴

Shaw also clarifies that it is not knowledge in itself he wishes to attack- it is the harmful ways of getting at knowledge. He exemplifies progress without vivisection in some acquisitions of modern medicine; "The Rontgen rays need not hurt the patient; and spectrum analysis involves no destruction. After such triumphs of humane experiment and reasoning, it is useless to assure us that there is no other key to knowledge except cruelty. ¹⁶⁵

After his argumentation that vivisection was not a valid method to obtain knowledge, Shaw specified that he was not attacking the right to knowledge. ¹⁶⁶ "No knowledge is finally impossible of human attainment; for even though it may be beyond our present capacity, the needed capacity is not unattainable. Consequently no method of investigation is the only method"¹⁶⁷ The argument that vivisection was not the only way of getting at physiological, pharmacological and pathological knowledge was widely supported amongst the antivivisectionist witnesses of the Second Commission. Stephen Coleridge quoted an earlier thinker; Dr Johnson when he said" What is alleged in defence of these hateful practices everyone knows, but the truth is that by knives, fire, and poison, knowledge is not always sought, and is very seldom attained. "¹⁶⁸ Mrs K Cook, another witness argued for the value of "Good food, regular exercise in the fresh air, regular and sufficient sleep"¹⁶⁹ to promote a good health, and subsequently confirmed her stance within the health perspective of the Sanitarians mentioned in the background who believed that the above mentioned along with cleanliness went a long way in countering disease. The argument that the method of vivisection could be replaced by other means was also supported by Miss Lind af Hageby in her testimony at the commission¹⁷⁰

Summing up, Shaw, amongst with many antivivisectionists argued that vivisection was an invalid

162 Shaw, G.B.1911 *Preface to the doctor's dilemma - Limitations to the right of knowledge*

163 Shaw, G B, 1911 *Preface to the doctor's dilemma - A false alternative*

164 Ibid

165 Ibid

166 Shaw, G B. 1911 *Preface to the doctor's dilemma - Cruelty for its own sake*

167 Ibid

168 Coleridge, S- 1907 *The second commission on vivisection Report 4 opening statement*

169 Collins, M1906 *The second Commission on vivisection Report 1 q 1921*

170 Lind af Hageby, L. 1907 *The Second Commission on vivisection Report 3 q 9710*

method at getting at science, because it was an inhuman method, and because, as he believed, there existed better methods of obtaining medical knowledge. Now we shall take a look at how language and imagery was used to promote this view

Language and imagery

Within Shaw's text, there is a great variety and richness of imagery and ornate language supporting the claims that gaining knowledge by vivisection is wrong. Shaw points his finger at the scientists, the public and the medical society who according to him are "stupid and callous". According to Shaw the scientists had one of two motifs for their use of vivisection The first was what he called the primitive, or savage motive.¹⁷¹ The other motive was curiosity¹⁷²

(...) The greatest force of all on the side of vivisection is the mighty and indeed divine force of curiosity. (...) The curiosity of the ape, or of the child who pulls out the legs and wings of a fly to see what it will do without them, or who, on being told that a cat dropped out of a window will always fall on its legs, immediately tries the experiment on the nearest cat from the highest window in the house- is as nothing compared to the thirst for knowledge of the philosopher, the poet, the biologist and the naturalist.

Here we see Shaw's prominent use of comparison; he compares the scientists' curiosity to that of the child and ape. We also see how he uses irony and metaphors. The Tree of knowledge; as Shaw names this chapter, is one of the metaphors of Shaw which was paralleled in other texts as well. He also constantly use words of uncomfortable associations and emotional impact such as "torture"¹⁷³ "thirst for knowledge"¹⁷⁴, "stupid and callous,"¹⁷⁵ "cruelty,"¹⁷⁶ "savage,"¹⁷⁷ "bloodshed,"¹⁷⁸ and "laceration"¹⁷⁹. He also wield a sharp irony where he contrasts actions and assumptions so that they seem preposterous and unimaginably stupid. Another linguistic effect of potential is the images he portray of fire- or the burning of humans. Through his imagery of dismemberment and burning of humans, cities and animals, Shaw not only manage to put the discussion on the verbal edge, but also to bring forth certain uncomfortable associations to the vivisectors apparent quest for knowledge, which would be well known in Victorian and Edwardian England. First; the obvious

171 Shaw, G.B 1911 *The doctor's dilemma - Preface*

172 The tree-metaphor was also used by Miss Lind af Hageby in *The Shambles of Science*

173 Shaw, G.B 1911 *Preface to The doctor's dilemma - Limitations to the right of knowledge*

174 Shaw, G.B 1911 *Preface to The doctor's dilemma - The higher motive- the tree of knowledge/*

175 Shaw, G.B 1911 *Preface to The doctor's dilemma - Limitations to the right of knowledge*

176 Shaw, G.B 19011 *Preface to The doctor's dilemma - Cruelty for its own sake/ our own cruelties*

177 Shaw, G.B 1911 *Preface to The doctor's dilemma - The higher motive- the tree of knowledge*

178 Shaw, G.B 1911 *Preface to The doctor's dilemma - The scientific examination of cruelty*

179 Shaw, G.B 1911 *Preface to The doctor's dilemma - The scientific examination of cruelty*

comparison between the famed historical figure Nero and the vivisectors. The emperor Nero supposedly burnt down Rome in a fit of artistic inspiration, or madness to be able to rebuild it as a perfect city. With the exact words of "playing the harp in scientific raptures" Shaw links the image of madness with that of science. Shaw may also, deliberately or not, invoke the memory of the previously mentioned figure of Tom Nero, from Hogarth's prints. Shaw also introduced what was seemingly one of the strongest and most uncomfortable associations which were fostered by the antivivisectionists, namely the link to human experimentation which will be handled more thoroughly in a different section.

The metaphor of the Tree of the knowledge is also used by another actor within antivivisectionism; Louise Lind af Hageby. She introduces the image of *the Barren tree*. The tree as Shaw's symbolizes science, or the getting at scientific knowledge. She believes that the 'tree' of science would remain barren as long as vivisection was part of it.¹⁸⁰ Vivisection she argued, would never produce any results "likely to alleviate the sufferings of mankind" because "they are the offspring of science *pur et simple* and their makers scorn the idea of any bondage to the healing art".¹⁸¹ Shaw and Lind af Hageby seems both to have found metaphors of architectonic and organic nature to be appropriate for the way knowledge is obtained and coveted by vivisectors. Shaw likened the diseased condition of humans with the poor, unsanitary conditions of London, and Lind af Hageby likened vivisection to a castle standing on unstable ground. "(...) when we scrutinize the grand castle of their science we find that it rests on no solid ground and that parts of it are continually falling to pieces and built up again on the same slough of deception."¹⁸² These kinds of metaphors might say something about how they perceived the concept of knowledge as a solid or unstable structure dependent upon what foundation it rested upon. In regard to the organic metaphors, both Lind af Hageby and Shaw makes the tree of knowledge when vivisection is involved barren. Vivisection in this connection becomes an element of disturbance or chaos, working against order and nature. Mr Kekewich, representative of the Parliamentary association for the abolition of Vivisection (PAAV) also uses similar language and imagery in his testimony. "I think that it is obvious that the present state of medical knowledge is barren. We see disease and degeneracy on all sides, against which it is equally obvious that

180 Lind af Hageby, L 1903 *the shambles of science; the barren tree*
181 Ibid
182 Ibid

medical art is powerless".¹⁸³

An unscientific science

A part of the antivivisectionist argumentation and language obviously attacked vivisection as a method of getting new knowledge. But they also seemingly argued the value of the knowledge obtained in such manners. The question "can vivisection lead to valuable knowledge?" was in many cases answered by a distinct "No" But to disbelieve or reprove of the method of vivisection in a time of progress may have put one in danger of looking like dated, reactionary quarrellers. The question of what was good for science and what was not seems to have been important for both the pro- and the antivivisectionists. Within this context the scientific quality of the method of vivisection was also discussed. The fight to define science was at this time not settled. Disciplines which to-day are seen as too elusive for the label of science, such as Homoeopathy were in the 19th and 20th century still a part of a mass of pseudo-sciences and quackery, still not completely excluded by dominant professionals. In the Second Royal commission, a homoeopath was consulted on the use of animals and humans in medicine just as regular doctors, physiologists and pharmacologists were. Medical sciences, such as physiology was also under development, and the authorities on the area stood in an ever changing landscape and on scientific ground that might as well crumble under their feet as grow in solidity. In this atmosphere of scientific change, the antivivisectionists also were entitled to their own opinions on the case of medical science. This section explores the view antivivisectionists had of science, and how they defined vivisection in relation to it. One of the main goals is to try to discern the characteristics of the antivivisectionist view of the new kind of laboratory based science which was on the advance in Britain. Within the theme of science, it is interesting to see how the antivivisectionists express themselves. Did their language take on a tint of professionalism¹⁸⁴ which one might expect when speaking of science? Did they use arguments or imagery and language most in their case to blacken the scientific claims of vivisection?

Arguments

An argument handling the scientificity of vivisection which was used by antivivisectionists; especially the ones of medical education, held that vivisection was destroying medical science because of its volatile and fostered unpredictable results. Antivivisectionists seemed to firmly believe that animals were not good research material. Their anatomy was of lesser interest, and in addition

¹⁸³ Kekewich, G 1907 The Second Royal Commission on vivisection report 4 q 20424

the conditions they were put under, it was argued, were bound to produce bad results.¹⁸⁵ Reverend Hopps commented the situation of a science dependent upon vivisection.

One can quite readily see that opinions arrived at in such circumstances might be dangerously wrong. Can any thoroughly reliable inferences be drawn concerning an acutely conscious man from the behaviour of a conscious, an unconscious, or a horribly tortured dog?¹⁸⁶

Animals and humans weren't anatomically similar enough, and if they had been, the pain and the circumstances they endured would destroy any comparability. The antivivisectionists had some medical persons in their ranks, and speaking their cause in the commission. Dr Herbert Snow, senior surgeon, doctor of medicine and expert on cancer, was among them. In the Second Royal Commission on Vivisection he gave his testimony on the behalf of the PAAV on the problems of using animal research as compared with clinical studies as research basis. He argued with basis in his own research on cancer, especially with regard to the use of mice in the research which was publicized in a report from a public funded cancer research institute. Here, the study of the development of what was called Jensen's tumour in mice was used with human cancer in mind. Dr Snow remarked that the research being done in this institute could not result in any valuable information or knowledge of cancer in humans other than the conclusion that it was definitively not of the same type as mice-tumours.

(...) the tumour in mice has nothing in common with the cancer of human beings
(...) because it is utterly impossible to suppose that any human being could walk about with a malignant tumour in the slightest degree approaching his or her own weight.
(...) No case of cancer in the human being ever since the world began has ever undergone spontaneous cure.¹⁸⁷

The notion that animal experiments were misleading was also forwarded by Mr G. H Burford in The Second Royal Commission. He was a homoeopath who advocated that the use of drug- testing in pharmacological experiments first and foremost should be done on volunteer humans. He implied that the knowledge gained from vivisection not only was illegitimate, but also wrong because to deduce from healthy animal to diseased man, or vice versa was not a good method of research. And

184 Using hard proofs instead of moral arguments and emotional language and imagery

185 Hopps, J 1907 The Second Royal Commission on vivisection Report 3 q 8329

186 Ibid

187 Snow, H 1907 The Second Royal Commission on Vivisection Report 1- q 2108

the wrongful conclusions being made out of vivisections, he argued, was not only a potential not yet fulfilled, but something that had already happened.¹⁸⁸ In addition to the concerns if it was possible to liken animals to men, the conditions surrounding the experiments also had to be considered. If one could draw conclusions from men to animals, it was not necessarily possible to draw those conclusions when the conditions of the animals were "unnatural". This notion, which was held by many of the antivivisection witnesses of the Commission, was linked to the already cemented idea that the laboratory animals were suffering horrible pain. The reverend Hopps put the notion this way

The common sense of it seems to be that every function and act of the organism would be affected and in some cases, violently affected, perhaps reversed under torture. We know that secretions of every kind are so affected by fear, resentment, anger, shock or violent pain. What then would be the value of the observed action of drugs with a subject so affected.¹⁸⁹

Hopps tied the physical reaction of emotions in humans, to that of animals, in a way that created doubt on the physical suitability of animals in pain for research. The anger, which would spoil a mother's milk, he said, the furious temper, or filthy thoughts which produced vile tastes in the mouth were not so far from the emotions which a dog on a dissection table would go through.¹⁹⁰ "Is it not highly probable, he said, that similar emotions plus agony may induce conditions and consequences which will go far to invalidate any conclusions that may be arrived at respecting the action of drugs.

Arabella Kenealy was an outspoken doctor who stood witness in favour of antivivisectionism. Her testimony also dealt with the lack of usefulness and possibly dangerous vivisectional comparison. Vehemently she attacked vivisection and "These so-called scientific experiments which are being done today in physiological laboratories"¹⁹¹ which in her view could not be natural sciences since the conditions in which the experiments were held were produced artificially.¹⁹² She presented her notion on the sciences of her day as being confusing, and clouded. When the scientist sought to answer questions, they only ended up in confusion and always in differing results which proved "the scientific worthlessness of vivisection"¹⁹³ The argument that vivisection was a

188 Burford, G.H 1907 The Second Royal Commission on Vivisection Report q 9006

189 Hopps, J 1907 The second Commission on vivisection Report 3 q 8329

190 Ibid

191 Kenaly, A 1907 The second Commission on vivisection Report 2 q 5294

192 Kenaly, A 1907 The second Commission on vivisection Report 2 q 5294

193 Kenealy, A 1907 The second Commission on vivisection Report 2 q 5280

inconclusive and confusing method was supported by Lind af Hageby. Several of the chapters in *The shambles of science* was dedicated to what she saw as a pervading scientific inconclusiveness. She rounded off her book with a list of statements from her lecturers all reflecting the uselessness of the vivisectional experiments they had held. Experiments that were not supposed to be useful, or render any viable results were conducted in large quantities, especially in front of students. In the eyes of antivivisectionists this must have seemed a horrible wasteful practice. Some antivivisectionists went as far in their disbelief of the methods of modern science that they questioned much of the basis of it. The doctors Kenealy and Snow clearly questioned the need for microscopic laboratory medicine as opposed to "natural" clinical medicine.¹⁹⁴ The PAAV went as far as to recruit a specialist; George Granville Bantock; a doctor and surgeon who spent his evidence proposing his case that bacteriology was a fraud and that bacillus were not the cause of diseases but "the accident of the disease"¹⁹⁵ He argued that such diseases as diphtheria was not bacteriological and that the best way to heal wounds was to let the blood dry in open air, not dressing it with sterile compresses.¹⁹⁶ By his evidence it becomes clear that at least parts of the antivivisection movement wanted to get rid of more than just the method of vivisection. They sowed seeds of doubt about the effective, benevolent and useful nature of modern medical sciences. Arabella Kenealy agreed that in the times of Galen, before the microscope, vivisection might have been useful, but now it was a useless science which only told them things they had no need of, such as the properties of monkey brains, when what was needed was knowledge of humans. Vivisection consequently only hampered medical science.¹⁹⁷ Dr Snow also mentioned another factor in the scientificity of vivisection. He attributed failed vivisection research to the fallible nature of humans, claiming to be experts. Laboratory tests' accuracy, after all, depended on humans, but humans were liable to error¹⁹⁸ He also supported another grievance which the antivivisectionists had with vivisection, namely that it lead to less use of clinical studies as basis for research. The antivivisectionists believed that the medical knowledge that was supposedly a result of vivisection could be achieved more safely, and with less pain and sacrifice through clinical studies.¹⁹⁹ In clinical studies, you would conduct the research on a human and would therefore exclude such factors as species

194 Snow, H ;Kenealy, A 1907 The second Commission on vivisection Report 2 q 2138 , 6346

195 Bantock;G.G 1907 The second Royal Commission on vivisection report 4 q 14542

196 Bantock G.G 1907 The second Royal Commission on vivisection report 4 q 14610, 14650-57

197 Kenealy A 1907 The second Commission on vivisection Report 2 q 6476

198 Snow, H 1906 The Second Royal Commission on Vivisection Report 1 q 2137

199 Snow, H 1906 The Second Royal Commission on Vivisection Report 1 q 2138

difference, animal chemistry and pain chemistry. It would also be with a cure in mind, and would hence terminate experimentation for curiosity. Miss Kenealy also pointed to post-mortem observations as a possibility.²⁰⁰ Both Kenealy and also Snow spoke of some of their motivation for their antivivisection effort. Kenealy stated that "the crusade" against vivisection in which she was involved was inspired, at least in her case by a wish to keep medical science pure, to elevate it and advance it. Vivisection in her view, was consequently a nemesis for the purity and future of medical science.²⁰¹ Mr Snow on his side lamented the loss of clinical experience which he believed the new laboratory based research led to, which he felt would deprive medicine, and especially his own special field; cancer research of important resources and experience.²⁰²

To sum up this argumentation; vivisection was not a good scientific method because in short it contained too many volatile elements- the comparability between animal and man, the circumstances around the vivisection, bodily reactions and chemistry in the animal and in the human during disease, the unpredictable results which could be positive in one case and negative in another, the cases which you could study on animals were limited, and of lesser interest, the tests were done by humans, and these were as liable to err as anyone. Some antivivisectionist also did not believe vivisection was a good scientific method because they did not agree with the science it was a part of. Hence they devalued the basis of which much of the modern science was built, such as microbiology, and proposed to replace it with other measures, such as clinical examinations.

Language and imagery

The language which the antivivisectionists used when they argued around the scientific quality of vivisection was somewhat different than when they lamented the cruelty of the vivisectionists or the damaging effect of vivisection on pupils and public. They are more to the case, and use less imagery and anecdotes. This may be attributed to the fact that the three, if one counts the Homeopath Burford, witnesses of antivivisectionist inclination which were questioned thoroughly on science were people who had medical and scientific educations. When cross examination directly on science was restricted only to three people it is natural that the diversity in language is not as great as in other themes which everyone were questioned on such as the existence of pain in vivisection. The other antivivisectionists; the Reverends Hopps and Lewis, Miss Lind of Hageby, Mr Coleridge, Mr

200 Kenealy, A 1907 The Second Royal Commission on vivisection report 2 q5536

201 Kenealy A 1907 The Second Royal Commission on vivisection report 2 q 6470

Kekewich, Mr Graham, Miss Woodward and Miss Cook were not cross examined on the scientific parts of vivisection. Some of them like Mr Graham and the two priests clearly stated that they were there to speak of the moral aspect of vivisection. This did however not mean that they abstained from commenting the scientific quality of vivisection, as we saw clearly with the reverend Hopps.

Louise Lind af Hageby stood out in the examination of the commission, mostly because she was one of the few antivivisectionists who had actually witnessed several vivisections. She also had some degree of physiological education, but it seemed as she was regarded a witness to events rather than facts of science. The way she uses language changes from the descriptions and explanations in *The shambles of science* to her evidence of the commission. This may probably be due to the change of media and audience. The Commissioners were evidently strict in their attitude to long depictions and often attempted to decline requests for long statements from antivivisectionists. The question-answer-format also naturally lead to a noticeable difference in the evidences of Miss Lind af Hageby.

Though her evidence of the commission was characterised by sober expressions and the language was more to the point and less figurative, she had had the opportunity to express herself in *The Shambles of Science*. In this text, she spoke, among other themes of the lack of scientific quality which she saw as inherent in vivisection. The first thing to notice is the way the process and technology used is described as either defect or disharmonious, and sometimes even nightmarish.

To tear living beings to pieces, to analyse the properties of the warm blood that spurts out from lacerated vessels, to mince the twitching muscle and squeeze its fluids for the test tube, to cut vibrating nerves, to bring disorder and disharmony into the perfectly united parts of the living body, are now the highest forms of this science²⁰³

The way in which Lind af Hageby describes the body metaphorically as a harmonious and perfectly united entity which is wrecked by vivisection is mirrored in an image created by another antivivisectionist; Arabella Kenealy. She introduced the image of the body as a watch, and vivisection as the destruction of the mechanical wheels in it.²⁰⁴ Ironically, in this sense, it seems as though both these antivivisectionists have adopted a sense of mechanical view on the animal, or at

202 Snow, H 1906 The Second Royal Commission on Vivisection Report 1 q 2121, 2138

203 Lind af Hageby L 1903- *The Shambles of Science - The death of vitalism*

least on the animal body, though they both fought for a view on animals that preached that they were not mechanical entities.

Another tactic, as seen in the quoted section, seems to have been to emphasize the messy business that the antivivisectionists saw vivisection as. While, as we shall see later, defenders of vivisection was eager to avoid detailed descriptions of vivisections in the Commission, the antivivisectionists used it for all it was worth. Lind af Hageby's book was necessarily full of such descriptions as the whole purpose of it was seemingly to bring vivisection out of the dark secrecy of laboratories and into the public. The way she often emphasize that the vivisections went wrong, that the animals died during the procedure, and that the technology which she described often seemed to come short portrayed a science which is neither effective nor controlled. An instance described an experiment on a cat, where such lack of control was observed. "The lecturer gets very nervous, rushes to and fro, touches a screw here, pulls a cannula there, pokes the quiet cat, abuses the apparatus, whilst the secretion from the kidney demonstrates its entire independence of the changes believed to take place in the volume of the kidney."²⁰⁵ The vivisector is also sometimes described as a performer, worrying more of his audience, than of the animal. The vivisection setting subsequently was made into that of a show, more than a lecture; "I am afraid this experiment is not very successful; says the lecturer with a sigh after various other forms of stimulation; Laughter and applause."²⁰⁶ "Right or wrong, success or failure," Lind af Hageby exasperate exclaims; " an experiment upon a living animal is always interesting and they reward the zealous demonstrator by applause and laughter"²⁰⁷The notion of a vivisection as entertainment, something worth seeing not because of the results draw links to the earlier forbidden blood sports such as bull-baiting and cock-fighting where the messy bloodshed was part of the entertainment. In one instance, she directly compared vivisection to a play; "The physiological theatre offers plays that are as exciting, thrilling, and entertaining as any others; there is quite enough of murderous attempt, and of struggle for life, and the manager is anxious to bring the best performers on the stage"²⁰⁸ This did its part in weakening vivisection as a scientific endeavour.

204 Kenealy, A 1907 The second Royal commission on vivisection, report 3 – opening statement q5280

205 Lind af Hageby, L 1903 *The shambles of science - The quiet cat*

206 Lind af Hageby, L 1903 *The shambles of science - Fun*

207 Lind af Hageby, L 1903 *The shambles of science - The quiet cat*

208 Lind af Hageby, L 1903 *The shambles of science- More experiments*

Summed up, the antivivisectionists' arguments that vivisection was not a science were supported by a language which held vivisection as unprofessional and chaotic. Lind af Hageby also introduced a different dimension of imagery when she portrayed vivisection as entertainment.

Vaccination

The antivivisection movement in their argumentation over vivisection touched upon another contemporary anti-crusade; antivaccinationism²⁰⁹. In this section I will handle the antivaccination tendencies in antivivisectionism, and how they were expressed. As Richard French contends, the two movements; antivivisectionism and antivaccinationism had much in common in that they both appealed to fears and hostilities against scientific medicine, that they allied with the same medical men and women, and that they perceived themselves as battling a materialism which preferred the body over the soul²¹⁰. The antivaccination-movement which according to Nadja Durbach mainly was a working class movement had interesting affiliations and crossed path both member-wise and in ideas and images with the antivivisection cause.²¹¹ The image of the vivisector which Durbach argues was in the Victorian mind undeniably associated with blood, and the image of the dangerous "admixture of blood" between animals and humans were some of the common traits.²¹² To be an antivaccinationist was also often a natural consequence of being antivivisectionist because animal experimentation was an inherent part of the vaccination and sera industry.

Arguments

Arabella Kenealy was one of the witnesses of the SRCV who expressed the greatest disgust with vaccination, and formulated one of the arguments of why vaccination and sera was wrong "I think the admixture of blood is a loathsome, dangerous and abnormal practice and one of which we have no conception of what the results may be"²¹³ With this, she first and foremost meant the use of vaccination as an immunizer, but also the use of other medical remedies obtained through the use of the qualities of animal blood such as sera and anti-toxins. The argument was, apparently that the "admixture of blood" was unnatural and had unforeseeable consequences. The first consequence she

209 Antivaccinationism in its purest form was the fight against immunization by inoculation; a method where lymph from another person earlier inoculated or calf lymph was introduced into a cut pattern in the arm, of the person. Parents were forced to let their children be vaccinated, or inoculated against smallpox by law from 1853 to 1898/1907

210 French, R.D 1975 pp 229-231 1975

211 Durbach, N 2005 pp 143-144

212 Durbach, N 2005 p 143

213 Kenealy, A 1907 The second Royal Commission on vivisection report 3 q 5368

feared was the immunization issue. She believed that to use the artificial immunization which vaccinations proposed was "attempting to divert and thwart the operations of nature without understanding them"²¹⁴ The plan of nature was beneficent, and to cross it was to put back evolution. She also feared that it was a "false" immunity which made children insensitive to the conditions which bred the microbe, but did not make those conditions any healthier.²¹⁵ She worried of the "unforeseeable consequences of this admixture of blood- when we are putting into human blood the blood of one of the lower creatures- we gain not only the immunities of the lower creature but the susceptibilities of that lower creature"²¹⁶ The second part argument was that vaccination was based on the concept of bacteriology, of which she was sceptical. Miss Kenealy did not at all believe in the preventive means of vaccination, but rather in those of sanitation. The new medical sciences, she believed, relied too heavily on the germ- centred microbiology, "modern medicine is more or less a study of the microbe and the habits of the microbe"²¹⁷ It was this kind of focus that led to an industry which produced only such remedies as vaccines and sera. Another objection could be linked to her earlier expressed concern over vivisection as destroying the future of medical sciences. The same, she felt, was correct about vaccination. "I think the ordinary medical scientist nowadays has no faith in anything but sera"²¹⁸ This would lead to stagnation, she argued, "I think we are neglecting treatment because we are expecting to find some serum that will cure everything"²¹⁹

The notion of the natural and mystical qualities of blood was supported by Miss Lind af Hageby in her evidence for the Second Royal commission.

(...) and that wonderful capacity in one's own blood is a proof that we are not meant to lend and borrow blood form one another, and especially not from different species. I also object to it because all artificial immunity which can possibly be induced by these sera is of very little value compared with that of strengthening these normal an natural powers of the blood which, when we have them, are an absolute protection against bacteria and diseases.

Bernhard Shaw illuminated a different aspect of vaccination in his introduction to *The doctor's dilemma* He introduced economics into the question, and accuse the medical society for following the public crazes to such an extent that it is dangerous to health. He argued that what he called "the vaccination craze" was led on by economic interests in the scientific and medical community.

214 Kenealy, A 1907 The second Royal Commission on vivisection report 3 q 5343

215 Kenealy, A 1907 The second Royal Commission on vivisection report 3 q 5447-63

216 Kenealy, A 1907 The second Royal Commission on vivisection report 3 q 5446

217 Kenealy A 1907 The second Royal Commission on vivisection report 3 q 5438

218 Kenealy, A 1907 The second Royal Commission on vivisection report 3 q 5437

(...) the one objection I have never heard from a doctor is the objection that prophylaxis²²⁰ by the inoculatory methods most in vogue is an economic impossibility under our private practice system. They buy some stuff from somebody for a shilling, and inject a pennyworth of it under their patient's skin for half-a-crown, concluding that, since this primitive rite pays somebody and pays them, the problem of prophylaxis has been satisfactorily solved²²¹

Mr George Kekewich supported the notion which Shaw fronted, that there were great economic interests involved in the medical science, as he put forth an accusation during his evidence at the Second Royal Commission for a vaccination scandal. In his description of an on-going plague in India he pointed out that it had both been the first plague to be treated exclusively with vaccinations, and had also been the longest yet to be measured.²²² He continued suggesting that the vaccination manufacturing with its economic interests were behind the long drawn plague. "A manufacture of plague was established, which has been hard at work since, producing its five and a quarter million deaths."²²³ He believed that the plague in India was the ultimate evidence to the fact that the modern kind of animal-infused medicine was not necessarily effective, and the men behind it were driven by a wish for economic success. He did not accuse anyone of wanting to prolong the plague deliberately, but that in the eagerness of testing the effectiveness of these kinds of remedies the people in charge had prioritized an ineffective cure. He contrasted the outbreak of India with another one in Alexandria which was effectively stamped out without the use of sera, only with the help of isolation and hygiene²²⁴. He also underlined the mechanisms of economic profits which he understood were an underlying cause of the hold that vaccination had over medicine. "It is very evident that it would not be worth their while to keep up large laboratories and horse farms for the production of sera if the sale was not profitable."²²⁵ He said, but made it clear that he did not deem the act of pushing the sales on vaccination as immoral. "there is nothing immoral about it anymore that there is in any tradesman pushing the sale of his goods" He proclaimed, and continued " but I want to prove here that there must be a motive in pushing the sale of these goods. I imagine that they are pushed just the same way as the sale of any other article

219 Kenealy, A 1907 The second Royal Commission on vivisection report 3 q 5403

220 Prophylaxis is a term for preventive medicine, under which vaccination belongs

221 Shaw, G.B. 1911 *The doctor's dilemma - Economic difficulties of immunization*

222 Kekewich, G.G 1907 The Second Royal Commission on vivisection, Report 4 q 20471

223 Kekewich, G 1907 The Second Royal Commission on vivisection, Report 4 q 20471

224 Kekewich, G 1907 The Second Royal Commission on vivisection, Report 4 q 20485

225 Kekewich G 1907 The Second Royal Commission on vivisection, Report 4 q 20503

is pushed"²²⁶ He did indeed step interestingly careful for one who had all but accused the vaccination trade to be behind thousands of deaths.

Though some of the antivivisectionists chose to step more carefully in their accusation, their evidence and allegations painted a bleak image of the medical and scientific society. The medical society was depicted as not only greedy, and careless but also advocating a dangerous practice which they had no control over in the eyes of many antivivisectionists.

Language and imagery

The theme of vaccination features many notions concerning blood. The properties, purity, and mystical abilities of blood is some of the concepts handled. The fact that this image is one of the most pervading in this case is no wonder. Though vaccination, even today involves introducing foreign matter into the blood, it was not as clinical as today. In modern vaccination, a syringe with purified weakened microbes is the method. In the 19th and early 20th century the method was more bloody and unclean affair. According to Durbach, vaccination or inoculation as it was known as, involved cutting a pattern in the patients arm, and introducing vaccination lymph into the cut. This could be done with lymph by arm to arm vaccination, or with lymph from calves.²²⁷ Both these solutions were dangerous as there was little control of possible foreign matter being introduced.²²⁸ Arm to arm vaccination, especially with public vaccinations could lead to the spread of diseases like syphilis, which was a socially despised illness because of its connection to prostitution²²⁹. When this is taken into consideration, the focus on the properties of blood is put into perspective. Amongst the antivivisectionists, Arabella Kenealy was the one who concentrated most of her testimony on vaccinations and sera. She was also one of the witnesses who used strong language and very negative words to denote the practice of vaccination in connection to vivisection. Words like "loathsome," "dangerous" and "abnormal" were some of her descriptions of this practice. By these words she created an image of the vaccination-, and sera practice as something unnatural and potentially harmful. Her language around specific properties of blood seem to be in the line with what Durbach characterised as a preoccupation with bodily purity and fear of pollution. Vaccination was "putting into human blood the blood of one of the lower creatures" and doing so without having

226 Kekewich G 1907 The Second Royal Commission on vivisection, Report 4 q20504

227 Durbach N 2005 p 3

228 Ibid

229 Durbach, N 2005 p 97

any clue what the consequences might be.²³⁰ The way in which she portrays animals in this equation will be dealt with under a different heading. The other witness who spoke much of vaccination, Mr George Kekewich used less depreciating language, but in return constructed an understanding of vaccination as an economically driven industry with interest parties.

Sacrifices, cowardice and egoism

Whereas some witnesses, like Arabella Kenealy focused on vaccination and aspects of purity in vivisection, others focused on vivisection as an unjust sacrifice. The idea that the use animals for vivisection was a just sacrifice, and that they were the "martyrs" of science, had been developed in the 17th century, as seen in the background. The *tu-coque* argumentation, that animals were sacrificed for food and clothes was also connected with this. Against antivivisectionism, however, these claims fell short. In this section the notions of sacrifice, and the arguments that sacrificing animals over oneself was egoistic and cowardly will be explored. It will also be seen in connection with the witnesses who pressed hardest on these matters, and what kind of language and imagery they used to support their argumentation

Arguments

One witness of the commission dealing with the notion of sacrifice was Reverend Hopps, as a representative of The Social Purity alliance he voiced a statement in the Second Commission where he arguments that "The justification of vivisection is based upon sheer selfishness". Hence it had not a good motivation. He argued further that the reason that this outrage was permitted was that it was animals that were taken for granted as research material who were the victims²³¹. Hopps questioned the moral grounds upon which the vivisector did his research. "What law of God or Nature justifies this treatment of our poor relations?(..) What right has he to assume that these creatures are at his disposal for torture?" The clear argument seems to be; It is not justified to sacrifice lives in vivisection just because they are animals.

Another priest who spoke against vivisection in the commission was reverend Lewis of the Church antivivisection league. He also drew on the idea of sacrifice and connected it to honour. To use vivisection, and what came out of it was, in his opinion dishonourable cowardice²³². When in a

230 Kenealy, A 1907 The Second Royal Commission on vivisection report 3 q 5368

231 Hopps, J 1907 The Second Royal Commission on Vivisection report 3 opening statement + 8370

232 Lewis, L. S 1907 The Second Royal Commission on Vivisection Report 3 q 8686-8722

shipwreck, or an accident, he said, it was the duty of honourable men to protect the ones who were weaker than them, let women and children go into the life-rafts, and if there was no saving themselves, they would have to bear terrible death.²³³ People of honour, he argued, would not consent to vivisection for the fear of their life and health. This was not because the lives of said women and children, or in the case of vivisection, the lives of animals were more important than the lives of men. It was because it was the right thing to do. And if science as it was could not do without vivisection, they would have to do without science.²³⁴

What we see here is that in connection to the sacrifice of animals, a number of interconnected arguments emerges; One; Sacrifice of animals for vivisection cannot be justified by the fact that they are animals, for what right have we to treat them in this manner; two; Sacrificing animals is egoistic and dishonourable. Three; If scientists cannot do without vivisection, we will have to do without science.

Language and imagery

The fact that there were two priests in the commission speaking on the subject of sacrifice, should not evade analyses. Though religious influences on the antivivisection movement is not a main issue of a here, it is rather peculiar that this image should be taken up and evolved by two priests. Martyrdom is indeed one of the strongest religious symbols, alluding both to Christ himself and several saints. And as both the priests' argumentation and anecdotes it is the strong who must purposely sacrifice for the weaker. The message is quite clear; to sacrifice yourself is honourable, while sacrificing others is cowardly. The image of animals sacrifice was otherwise developed mostly by scientists. Someone had to sacrifice themselves for progress, and the animals had to contribute. Interestingly enough, this kind of justification of contribution and sacrifice would also be used at a later time in the case of human experimentation before and during world war 2 in England and The USA, not to mention Germany. Reverend Hopps, in this connection made an interesting comparison when he compared animals to babies and made the human egoism the deciding factor. He also used irony to underline the message of the human selfishness." The cutting up of one baby may save the lives of thousands of other babies, and the torture of one for an hour might save thousands from suffering for years (...) but that would be no answer society would accept. The killing of the

233 Ibid

234 Lewis, L. S 1907 The Second Royal Commission on Vivisection Report 3 q 8686-8722

cheapest baby would be murder."²³⁵ The question he proposed next is the natural consequence, if one sees the simile between the animal and the baby. Why is then the baby saved, but the animal sacrificed? "Simply because of the egotism of the human animal which have chosen to come to the conclusion that he is lord over all, with rights and sanctities inherent which no other animal possesses."²³⁶ The image of martyrdom for science had earlier been brought forth by Anna Kingsford, an avant-garde antivivisectionist of the 19th century. She went as far as offering herself for vivisection if the scientists agreed not to vivisect animals any more.²³⁷ The antivivisectionists of the early 20th century did however not do such a thing, but some, like Miss Lind af Hageby suggested that if someone was to sacrifice themselves for science it ought to be the vivisectors. She had no objections to them experimenting on themselves, after all "we know that the highest thing is to sacrifice yourself, not others"²³⁸ Within this theme, the language also revolved around the relationship between humans and animals, as seen in the evidence of Reverend Hopps. Why sacrifice the one over the other? The same argument that someone had to be sacrificed for the greater good, the antivivisectionists felt could, as will be seen in a different section, justify experimenting upon humans. What the antivivisectionists believed stood between mankind and savagery was moral, or a moral consciousness "From the purely physical point of view it might be advantageous to kill of a few thousand of our incurable lunatics, imbecile children, incorrigible paupers, worst criminals," Miss Lind af Hageby said. She continued reasoning; "But we refrain from acting in accordance with such a view because we are restrained by a moral consciousness which was non-existent in our savage state"²³⁹ Here she likens the sacrifice of the weakest of society, and animals implied, to savagery.

Summed up the antivivisectionists believed sacrificing animals to be cowardly, egoistic, selfish and savage. They questioned the qualifications of sacrifice and did not shrink from comparing the situation of animals to that of humans. In this way they made a community out of men and beasts, and questioned the human way of ruling over the animals. In the argumentation and imagery surrounding the notions of sacrifice we see both ideas of human- animals relations being developed, but also a question being formed on how we best should administer the resources humans were

235 Hopps, J 1907The Second Royal Commission on vivisection report 3 q 8370, Opening statement

236 Ibid

237 French., RD 1975 p. 390

238 Lind af Hageby, L The Second Royal Commission on Vivivsection Report 3 q 9229

239 Lind af Hageby, L The Second Royal Commission on Vivivsection Report 3q 7204 - statement

given mastery over, such as animals. The antivivisectionists also argue over sacrifice in the direction of justification; who should be sacrificed and what ought to be the qualification and who should decide. However much the notion of sacrifice brought debate, there was another issue, which made the notion of sacrifice of animals even more inedible; the questions of pain and anaesthesia.

Torture, pain and anaesthesia

The idea that animals had to be sacrificed for science was difficult enough for some antivivisectionists to process. The fear and worry that they unanimously expressed over the possibility of pain and badly administered anaesthesia made the issue even more delicate. In this section I will handle the argumentation, imagery and language the antivivisectionists used in connection with the theme of pain and anaesthesia.

Arguments

The anaesthesia question was very central in the commission and is quantitatively the largest. The commissioners questioned each and every one of the witnesses whether they believed the animals which were vivisected were anaesthetised properly, or if they felt pain. The question was naturally very important; If the inevitable pain and torture of animals in the vivisectional practice could be proved it was more likely that an abolishment, or at least further restrictions would be put upon vivisection. The issues which were raised by antivivisectionist in this connection involved the trustworthiness of the anaesthesia being used as well as the persons dispensing it. The paralyzing drug, curare also played a part in the accusations and imagery of the antivivisectionists in this connection²⁴⁰

The argument which was forwarded by antivivisectionists both implicitly and explicitly was clear; Vivisection was painful for the animals, and the pain could not be mitigated by anaesthesia. Especially Miss Lind af Hageby pressed on these matters. Throughout the whole of her evidence, both in the commission and in *The shambles of science* she tried to prove that vivisection was painful, and that by different reasons anaesthesia was ineffective²⁴¹. Her argumentation for the painfulness of anaesthesia was based on the reasoning of ineffective anaesthesia. She argued for several reasons why the vivisectional anaesthesia was ineffective. Firstly she argued that the scientists who had written textbooks for physiology excluded information on anaesthesia, either

240 This drug was first used by Claude Bernard

because they did not think of it because they were focused only on the scientific matter, or because they very well knew that the experiments could not be done under anaesthesia.²⁴² Secondly she argued that the average vivisector had a tendency being to lenient with the administration of anaesthesia, either leaving it to his laboratory attendant, or not paying close enough attention to the animal²⁴³ The argument that using a laboratory attendant for such work was irresponsible was supported by Miss Woodward.²⁴⁴ The existence of the drug curare, of course only complicated things as this paralysing drug would render any animal in pain immobile, and make it seem that it was under anaesthesia. The question of time also came into focus, as seen both in Miss Lind af Hageby's descriptions of experiments throughout the shambles of science and those of Mabel Collins. They doubted that an animal could be kept under anaesthesia for so many hours as the procedure demanded was questioned.²⁴⁵

The problem in the case of anaesthesia was that the antivivisectionists did not trust the vivisector, the laboratory attendant and any students that may have been there for a demonstration. Within this theme we see how the nature of vivisections, as closed scientific events problematized them to antivivisectionists. This may have been the reason for them insisting on a more thorough inspection under the law. Stephen Coleridge, one of the main witnesses of the antivivisectionists in the sense that he was the secretary of the NAVS, concentrated most of his testimony on criticising the Cruelty to Animals Act and its administration. He described the Act as weak in the sense that " under the existing law there is no limit to the agony that may be legally be inflicted upon animals, and we abominate a statute that authorises gross inhumanity."²⁴⁶ He particularly criticised the lack of inspections and the few number of inspectors which had been appointed under the act.²⁴⁷

Summarised, the antivivisectionists questioned the contended painlessness of vivisection, both because they doubted the motifs of the vivisector, and because of the use of curare. They also believed that vivisection could never be painless, both because of the vivisectors and because it was

241 Lind af Hageby 1907 The Second Royal Commission on Vivisection report 3 q 9201

242 Lind af Hageby 1907 The Second Royal Commission on Vivisection report 3 q 7227, 7258 and 7268

243 Lind af Hageby, L 1903 *The shambles of science- A grand demonstration / Anesthesia*

244 Woodward, A.L 1907 The Second Royal Commission on Vivisection report 3 q 8870

245 Lind af Hageby, L 1903 *The shambles of science* ; Collins, M 1906 The Second Royal Commission on Vivisection report 1

246 Coleridge, S 1907 The Second Royal Commission on Vivisection report 3 opening statement

247 Coleridge, S 1907 The Second Royal Commission on Vivisection report 3 opening statement

time consuming, and they doubted the efficiency of anaesthesia over time.

Language and imagery

Through studying the statements and writings of many antivivisectionists I have found that their focus on pain not only dealt with the existence or nonexistence of pain, but also on the degree, the physical expression and not least of the horror of the pain the laboratory animals had to live through. The first thing to notice is the almost²⁴⁸ unanimous agreement of one single word to describe vivisection, and that was 'torture'. The associations of this word mean not only that vivisection was painful, but that it was excruciating, and deliberate to some degree. It also brought with it associations from earlier uses, such as the prying out of secrets or confessions from suspects. But torture had long been gone as a method of interrogation, and it was by the antivivisectionists associated with barbarism; the method of savages²⁴⁹

In *The Shambles of Science*. Louise Lind af Hageby described what she saw as painful experiments , which she had witnessed as part of her courses in physiology.²⁵⁰ Through her descriptions she attained especially horrible effects with the contrasting of the pain of the animals with the artificial and eerie atmosphere of the laboratory and the actions and reactions of the lecturers and students. A typical scene taken from the section called *Pain* is a good example of the way she contrasted animals and machines to create scenes of a torture chamber.

Through the noise of the machines, the buzz of the electrical batteries that stimulate, the whistle of the air pumped into cut throats, through the talking and laughing of men bent over their victims, there comes the cry of pain. Behind the light clouds of smoke from cigarettes, consumed in ease and comfort, from among a mass of delicate machinery, of metal and glass and caoutchouc, of skin slit up and quivering entrails drawn out from the writhing mass of flesh and bone and nerve, there are the eyes that gaze out in anguish, eyes from which the hope of death has fled.²⁵¹

It was the sense-impressions of a keen observer which was expressed. Miss Lind af Hageby obviously wanted to convey the unique atmosphere of the laboratory, the sounds, the smell the visual impressions in order that the readers of her book would know how it was to be a student in a

248 With the exception of Dr Snow and Burford who were called in to witness for antivivisectionism in their professional capacity

249 Kenealy, A; Coleridge, S Graham, J.W 1907 The Second Royal Commission on Vivisection reports 2 and 3 q 6195, opening statement q 6040

250 Kenealy, A The Second Royal Commission on Vivisection Report 2 q 6195

251 Lind af Hageby, L 1903 *The shambles of science - Pain*

physiological lecture. The laboratories were closed, and the only witnesses were by their own accession, unreliable. Miss Lind af Hageby poured out much of her bitterness on the lack of care of the audience of vivisectionists on the pages of *The Shambles of Science*. "No it is true, they do not hear and they do not see, for their ears have been stopped and their eyes blinded by the Deity of Selfishness, whose servants they are. Pity has fled from their temples long ago, and if she tried to enter again she could not breathe the stifling air."²⁵² Resorting to metaphors, she grasped in a sentence startling images of the vivisectionists. They were selfish, and had no pity, and it was hopeless to turn this about as these men seemed incorrigible "They have left off sentiment long ago; they do not think of the possibility that animals, nay, *animal machines* ever feel pain" Here Lind af Hageby dwells on the Cartesian image again. Through this image she managed to link the practice of vivisection to old notions and also to make an allusion to her own descriptions which featured an uncomfortable blend of animal and machines. The title of her book; *The shambles of science* also seem to follow in this track. Derived from the OED "Shambles" can signify A place where meat is sold; a flesh- or meat-market or the place where animals are killed for meat; a slaughter-house. It also signifies a place of carnage or wholesale slaughter; a scene of blood and a scene of disorder or devastation; a ruin; a mess.

The imagery of blood and bloodshed is another characteristic of the antivivisectionist sources' descriptions of vivisection. This is particularly true for *The shambles of science*, which feature an array of bloody descriptions. As mentioned in the case of vaccination, the imagery and language concerning blood could point in many directions in relation to the antivivisection view. In connection with the act of vivisection it seems to have symbolised a physical embodiment of the pain the animals felt, or at least their torn asunder bodies. It may also have been used as a technique to bring about revolt and disgust against vivisection, and gain support for the abolitionist cause. The references to blood throughout *The shambles of science* are many. There is the "Warm blood that spurts out from lacerated vessels,"²⁵³ experiments on blood clotting²⁵⁴ where the eyes of the animal "become bloodshot."²⁵⁵ There is the experiment where lecturer "must repeatedly put a sponge into the hole in the head to soak up the blood"²⁵⁶ in an experiment involving the brain. There is also a

252 Ibid

253 Lind af Hageby, L 1903 *The shambles of science - The death of vitalism*

254 Lind af Hageby, L 1903 *The shambles of science - Blood clotting*

255 Ibid

256 Lind af Hageby, L 1903 *The shambles of science - Scarcely any anesthetic*

dead dog with a flayed head on whom "the blood has clotted on the board under his mangled neck."²⁵⁷ Lind af Hageby at one point comments bitterly ironic; "What could a poor dog do better than give his skin, his blood, his intestine, his sensitive nerve"²⁵⁸. She continues describing another experiment on a poor "half flayed, paralysed dog, with hundreds of small blood-vessels cut and bleeding, with pieces of glass forced into opened veins and arteries"²⁵⁹. In the same experiment the surroundings are described ghastly "there is blood everywhere, on the floor, on the table, on the dog's paw, and on the hands of the vivisector, who goes on lecturing without minding the red colour on his hands"²⁶⁰. The bloodshed is also described on a bodily plain; "In the pain- tortured bodies, trembling under the sharp steel, bathing in their own blood"²⁶¹. After such a litany, it is no wonder that she depreciates vivisection as "teachings and blood-stained theories (..)baptised in the blood of agony."²⁶² As seen, there was no shortage of blood-curling descriptions. Some were as taken out from *The Island of Dr Moreau*; the laboratory scene where Prendick comes upon Moreau uninvited and sees the bloody bandaged Puma, the blood in the sink, and on the hands of Moreau is strikingly similar to the scenes described by Lind af Hageby. In some ways, Lind af Hageby's descriptions seem to be the embodiment of Reverend Lewis' claim that vivisection "by its nature is a perversion of the intention of pain."²⁶³

Lind af Hageby's descriptions of vivisections in *The shambles of science* are very 'rich' in possible interpretations and in what can be understood from them, and the language is expressive. But she was not the only one who used descriptions of vivisections in her evidence was Mabel Collins.²⁶⁴ Both Lind af Hageby and Collins were committed to the accusations that animals who were vivisected suffered greatly because of the incomplete, or uncontrolled administration of anaesthesia and long durability of the experiments They also attacked the use of morphia - and in Lind af Hageby's case curare - as tranquilizers. But the way the two women described the painfulness of the experiments and the experiments themselves differ greatly. Miss Lind af Hageby 'staged' the experiment as a scene; the animal defenceless strapped to an operation table, often conscious; the

257 Lind af Hageby, L 1903 *The shambles of science - The dog that escaped*

258 Lind af Hageby, L 1903 *The shambles of science - A dog injected with the substance derived from a lunatic*

259 Lind af Hageby, L 1903 *The shambles of science - The only completely satisfactory method*

260 Ibid

261 Lind af Hageby, L 1903 *The shambles of science - Vivisection bankrupt*

262 Lind af Hageby, L 1903 *The shambles of science - Vivisection bankrupt*

263 (...)and therefore immoral, cruel and cowardly. Lewis, 1907 *The Second Royal Commission on vivisection - report*
3 Opening statement

vivisector standing over it tightening screws,²⁶⁵ applying electrical shocks,²⁶⁶ wielding his scalpel²⁶⁷ the students of the demonstration sitting on their benches, applauding and laughing²⁶⁸ at the command of the lecturer, almost like an audience at a show. In addition she described the experiments in detail, every act of the vivisector, every sound or movement from the animal, the mood of the students/audience. Mabel Collins' descriptions are in many ways more brief and scarce with emotional language. The experiments she described in her testimony was mostly obtained from various medical journals, and she made few additional comments. While Miss Collins in one instance commented; "This must have been a peculiarly agonising experiment. There is no mention of any anaesthetic being given."²⁶⁹ Miss Lind af Hageby in characteristically said "There is barking and howling, a groaning and snarling- a chorus of inarticulate voices which make the air vibrate with the music of the physiological laboratories. It is a strange music brought about by chords played upon by pain and terror"²⁷⁰. These are two very different way of describing the same problem; the problem of pain in vivisection. The way Collins stated her evidence may of course have been influenced by the receivers; the commission. She may have, strategically chosen a form mostly devoid of emotional language; short and professional as her mission as it seems was to bring evidence that vivisection as it happened in British laboratories was not a painless affair. Lind af Hageby on the other hand had been without noteworthy constrictions in her writing of *The shambles of science*, though some of the descriptions in the chapter *Fun* led to the Bayliss v. Coleridge trial.

Summed up, the antivivisectionist argument that vivisection involved great pain was underlined by descriptive scenes of vivisections. In their use of the word "torture" they also implied that the vivisectors inflicted pain purposely. Seen through Louise Lind af Hageby's descriptions, the pain of vivisection was a horrid sight, dripping with blood. The imagery connected to pain was often characterised by blood in particular, though often accompanied by descriptions of sound and movement.

264 Also referred to as Mrs. Cook, which was her authorial pseudonym

265 Lind af Hageby, L 1903 *The shambles of science - The quiet cat/Scarcely any anesthetics*

266 Lind af Hageby, L 1903 *The shambles of science - Pain/ Fun/Scarcely any anesthetics*

267 Lind af Hageby, L 1903 *The shambles of science - More experiments/A dog injected with the substance derived from a lunatic/ Blood clotting*

268 Lind af Hageby, L 1903 *The shambles of science- Fun/The quiet cat/The dog that escaped*

269 Collins M 1906 *The Second Royal Commission on Vivisection Report 1 q1793*

270 Lind af Hageby, L 1903 *The shambles of science - Fun*

Summarising Vivisection

Now, as we have gone through how the antivivisectionists argued and agitated concerning the method of vivisection. What impressions are there to sum up? We saw that the antivivisectionists argumentation could be divided into the subgroups concerning the dangerous limits of knowledge, vivisection by its scientificity, antivaccinationism, vivisection as an egoistic and dishonourable sacrifice, and vivisection as painful torturing of animals. The antivivisectionists lay different weight on each of them, and different antivivisectionists had two or three fields as their particular concern. The only one whose argumentation encompasses them all is Louise Lind af Hageby. This was because she published *The shambles of science* as well as appeared as a commission witness.

The antivivisectionists in all were very sceptical, and rejecting towards the procedure of vivisection. Shaw and Lind af Hageby argued that this method was not the only way at getting at knowledge, and that it was inhumane and damaged the disciplines which used it. They likened vivisection to both organic and architectural structures and concluded that it only brought chaos and instability. The next complaint by the antivivisectionists handled the scientificity of the method of vivisection and questioned the comparability between man and animal. They also introduced pain as a deciding factor in getting useless results. Vivisection also affected science negatively by producing inconclusive results, only clouding knowledge rather than clarifying it. It also lead to a decreased use of other, better remedies. All in all vivisection as a method had so many unstable factors that it was unreliable and hence not good science. The imagery supplied showed vivisection as chaotic and destructive of harmony. It was especially held that it was unnatural and produced in artificial conditions and could therefore not be held as comparability to real life situations. In connection to all this imagery and notions of the unnatural vivisection came notions on vaccination as well. Vaccination was produced by vivisection, and therefore wrong in itself but this particular method was more problematic because it entailed the direct transfusion of animal blood. This was seen as a potential disaster, and extremely hazardous, because as the antivivisectionists saw it no-one could foresee eventual consequences. With vaccination comes also the only mentioning of economic interests in the evidences, and the industry part of the vivisection driven enterprise was scorned. With vaccination came the imagery of blood, and especially blood pollution which tied antivivisectionism to antivaccinationism. Again there were notions of this as something unnatural and artificial, destroying harmony in the body. The next headlined section handled the notions

around vivisection as a sacrifice. In short, this section was dominated by the two priests'²⁷¹ notions around the idea of vivisection as an unfair and egoistic sacrifice of animals. They did not think the animals status in relation to humans was justification enough to sacrifice them, on the contrary they felt that since animals were weaker, it was dishonorable to sacrifice them to get personal gain. This was connected to savagery, and yet again, animals were compared to humans, this time to babies. Under the last heading, the antivivisectionist argumentation surrounding vivisection as torture, in relation to anaesthesia was handled. Here we saw that the antivivisectionists first and foremost rejected any idea of vivisection as a clean and painless procedure. On the contrary they saw it as deliberate torture on the side of the vivisectors. The lack of mentions of anesthesia in physiology manuals was seen as a symptom of what the antivivisectionists saw as a callousness and carelessness on the side of the vivisector when it came to the administration of anaesthesia. When it came to language surrounding this theme, the antivivisectionists had different approaches. Lind af Hageby stood for the more emotional description characterised by in detail descriptions and elaborate use of metaphors and other figurative language, while Collins described more soberly only commenting occasionally.

The vivisector

The term 'vivisector' was the common derogatory designation the antivivisectionists used on scientists of all kinds who used animal experiment as a part of their work. The aversion and even outright fear of vivisection which seemed to pervade many antivivisectionist societies if one grants the representation of the testimonies, naturally influenced the way vivisectors was regarded. In some ways antivivisectionists might just as well have been called antivivisectionist. Much of their argumentation on the danger and pain of vivisection was based solely on negative assumptions of vivisectors. In this section I will look at the way the antivivisectionists spoke of vivisectors. Was there any general tendency in the language and imagery which was used on the scientists who performed vivisections? How did the antivivisectionists argue that vivisection was dangerous on a human plain? Where did they believe the vivisectors' place in the controversy was? Was he a victim or a perpetrator?

Men of science - And nothing else

When we encounter the direct contact between antivivisectionism and "science", again, it is

271 These two priests were Reverend Lewis, LS and Reverend Hopps, J.

expressed through criticism of the scientist. Earlier we saw that antivivisectionists with their arguments, language and images did not reckon vivisection as scientific pursuit. That is if scientific quality was defined by effect and by not being ambiguous. But parallelly with this understanding of vivisection as unscientific there existed a harsh criticism against vivisectors that they were too absorbed by science to be good judges of moral. This paradoxical claim may be attributed to the same tendency as we saw in Shaw's knowledge- argumentation. As he was not after knowledge per se, the antivivisectionists were not accusing science, or scientists, they were attacking the method of vivisection which they saw as unscientific, and vivisectors.

Arguments

The main argument the antivivisectionists expressed about vivisectors in the connection with the scientific element of vivisection was were that they were engulfed in their experimental work to the verge of obsessions. This, the antivivisectionists believed, made the scientists morally and mentally short-sighted,²⁷² incapable of being responsible for the lives and welfare of countless laboratory animals. The vivisectors were scientists, but for the antivivisectionists they would always the reflection and human personification of the evil system of vivisection which they fought to abolish. The critique that scientists were too absorbed in their work also involved the development of medicine as becoming a more laboratory- focused discipline, evolving away from its original purpose²⁷³. The concept of medicine as a discipline apart from the laboratory had obviously lingered on in society, and in some medical circles from the mid-19th century. As previously mentioned in the background chapter, there were certain conservative forces in medicine and medical sciences in Britain which delayed the use of animal experiments.²⁷⁴ Elements of this conservatism seem to have lingered on in the argumentation of antivivisectionists.

Through some of the argumentation of Louise Lind af Hageby it seems as though at least some of the criticism of medical sciences were based on the new developments in the disciplines. Lind af Hageby expressed her concerns about the "new school of physiology" in this way "In emancipating themselves from the old vital and reverent views, (they) have also expunged the unscientific and misty attributes of mercy and kindness towards inferior creatures which are coveted by less advaced

272 Kenealy, A 1907 The Second Royal Commission on vivisection. Report 2 q 6444

273 Lind af Hageby, Burford, Kenealy, Hopps and Cook were some of the antivivisectionists who argued for alternatives to laboratory based medical sciences

274 French,R.D 1975 pp 36-39

men."²⁷⁵ The argument here was that the new physiologists had removed themselves from the positive influence from vitalism²⁷⁶, and by this had become more callous towards animals. The motive of the scientists for discarding the idea of vitalism, Lind af Hageby argued was that its presence hindered the use of vivisection "Vitalism stands in the way of "the rapid and fruitful" progress of vivisection, materialism, and atheism, and therefore vitalism has to be killed"²⁷⁷. She also argued that the scientists despised the idea of vitalism because they could not recognise "the vital" as something essential because they did not understand it "They do not recognise the vital- they have no instruments with which they can pick up that; and besides, every physiologist of rank these days despises the idea of a mystical something which does not make obeisance to his genius." In this instance he pointed to an interesting element of the antivivisectionists understanding of the vivisectors. As Browning had expressed in his antivivisection poem, the antivivisectionists understood the vivisector as a man who heeded only the material world, and did not recognise abstract or spiritual qualities like mercy, honour and bravery.

Reverend Hopps were one of the vivisectors to express a different view of the vivisectors' apparent fondness of the vivisectional method. He attributed the widespread use and acceptance of vivisection in medical and scientific circles to a fascination which might even have been related to religious sentiments.²⁷⁸ He pointed to the fact that the vivisectors rarely acknowledged the suffering and harm they caused in their work because they themselves were not prone to notice it. They were far too engulphed in the work they saw as a favour to society to notice that they in their work contributed to an increasing callousness²⁷⁹ Hopps also admitted that vivisectors like other men was proud of their work and that if he himself were a vivisector, he would also vivisect without purpose, as he accused them of.²⁸⁰

The argument derived from this can be formulated in the direction that the vivisector was too fond of his vivisectional method because he was caught up in a fascination, or even a delusion that what he was doing was helpful for humanity. That, by antivivisectionist standards, did however not

275 Lind af Hageby, L 1903 *The Shambles of science- the death of vitalism*;

276 A doctrine which describe life in animate organisms as governed by forces aside from physical principles: This doctrine did according to Lind af Hageby supposedly pervade the medical science of earlier times.

277 Lind af Hageby, L 1903 *-The shambles of science- the death of vitalism*

278 Hopps, J 1907 *The Second Royal Commission on Vivisection Report 3 q 8315*

279 Hopps, J 1907 *The Second Royal Commission on Vivisection Report 3 q 8371*

280 Hopps, J 1907 *The Second Royal Commission on Vivisection Report 3 q8364*

change the fact that it was wrong.

Antivivisectionists feared that vivisectors, as the protagonist in *The island of Dr Moreau*, and *Frankenstein*, were seduced by the notion that science had no limits and could conquer even the secrets of life. "Armed with scalpel, microscope, and test tube, the modern physiologist attacks the problems of life."²⁸¹ Commented Louise Lind af Hageby. " He is sure that he will succeed in wrenching the jealously guarded secrets of the vital laws from the bosom of Nature" ²⁸²

Summarized; some antivivisectionists, most notably Louise Lind af Hageby argued that the vivisectors were men who only cared for their work. This, they believed, affected the animals negatively, in the sense that they were viewed by mechanic principles and not seen as living sensing creatures.

Language and imagery

In the argumentation over the vivisectors and their all-consuming scientific endeavour, some figurative language was taken into use. First and foremost, Lind af Hageby spun an image around vivisectors that they were one-sided, a notion which was supported by some of her co-witnesses in the commission.²⁸³ This one-sidedness was first and foremost expressed in what Lind af Hageby saw as a lack of comprehension of abstract concepts from the scientists side. Pain or fear in the laboratory animals expressed through sounds and movements were dismissed as complications or 'reflex motions.'²⁸⁴ The scientists completely disregarded what she refers to as "the vital", what she believes ought to have put man and animal together rather than make the one a subject of research for the other. She also implicitly refers to other qualities of the animals as loyalty and an emotional life, which she believed the scientists ignored in favour of the physical qualities, or the mechanical, which they could investigate with physical means. Amongst the metaphors taken into use were some associated with war. The scientists, according to Lind af Hageby *armed* themselves with microscopes and scalpels. The instruments of research became instruments of combat, weapons. And the war that was led was against nature. The assumption can easily be made from this, that science is no longer in harmony with nature- it has gone from discovering the laws and properties of

281 Lind af Hageby, L 1903 *The shambles of science-The Death of Vitalism*

282 Ibid

283 Mr. Graham, Reverend Lewis and Arabella Kenealy

284 Lind af Hageby, L 1903 *The shambles of science - Painless experiments/ pain*

nature to forcing out secrets best kept. "wrenching the jealously guarded secrets (...)of mother nature from her bosom"²⁸⁵ What the scientists did not understand, according to Lind af Hageby, was that some things was dangerous and even impossible to find out by scientific means. This blindness, she depicted pervaded the scientific circles, "They only want millions more of animals to experiment upon, better knives, better operation holders, more powerful microscopes, finer electrical batteries, and they are sure the victory will be theirs"²⁸⁶ Lind af Hageby also referred to the famous novel of Mary Shelley when she claimed that "They may even cherish the secret hope that one day a real Frankenstein will arise from among the ranks of prominent physiologists."²⁸⁷ In this she connected the aspiration of the scientists who employed vivisection to that of the tragic Victor Frankenstein, and hence depicted them as doomed by their ambitions. She also connected the vivisectional quest for medical knowledge to the quest to solve the secret of life.

Another comparison made echoed the one which we saw earlier in Shaw's text; that of scientists as curious destructive children. This time it was Louise Lind af Hageby who commented; "Our modern physiologists are like children tearing their toys to pieces to see how they are made"²⁸⁸

Lind af Hageby also picked up on the thread spun by Reverend Hopps, that vivisection could produce a fascination close to religious sanctions, when she compared the vivisector to a priest; "The lecturer, attired in the blood stained surplice of the priest of vivisection has tucked up his sleeves and is now comfortably smoking his pipe, whilst with hands coloured crimson he arranges the electrical circuit for the stimulation that will follow"²⁸⁹ By this she contributed to the comparison of vivisection to a religion, but also made an interesting contrast between a solemn situation, and the comfortable stance the vivisector seemed to take in it. Miss Lind af Hageby also compared vivisectors to addicts, who's faith in animal experiments had grown so strong, and who's longing for them had become uncontrollable that they were incapable of lecturing properly without a vivisectional demonstration.²⁹⁰

285 Lind af Hageby, L 1903 *the shambles of science - The death of vitalism*

286 Ibid

287 Lind af Hageby, L 1903 *The shambles of science - The death of vitalism*

288 Lind af Hageby L 1903 *The shambles of science - More experiements*

289 Lind af Hageby, L 1903 *The shambles of science - Fun*

290 Lind af Hageby, L 1903 *The shambles of science - More experiments*

Summed up, the antivivisectionists supported their argumentation that the vivisector was a man of science and nothing else by a number of images. The first was the scientist as cynic who did not believe in abstract qualities like vitalism. Another image linked to the first was the one of the scientists in war with nature. This again could be linked to the "Frankenstein"- image, of the scientists who stepped over boundaries to get at knowledge humans should not have. But this was more a pre-emptive notion of what would happen in the future than an accusation of actual acts. The last noteworthy image was the vivisector as a priest and vivisection as a religion. All these notions pointed towards an understanding of a bilateral unhealthy relationship between the scientist and his method of choice; vivisection. In the next section, we shall see how the antivivisectionists believed vivisectors were negatively influenced by their work.

The crippled and cruel vivisector

In this section, the arguments, language and imagery concerning vivisections negative influence on the vivisector and vice versa will be handled.

Arguments

Let us go back to Hogarth and the notion derived from Aquinas, that cruelty to animals lead to cruelty to men. This notion had been passed down to the antivivisectionists and was developed further and elaborated. "Can man ever inflict pain, except for the actual sufferer's good , without deteriorating of affection and pity?"²⁹¹ Reverend Hopps rhetorically asked in his evidence. The answer both quantitatively and qualitatively if taken from the testimonies of the antivivisectionists was a clear "No". The argument discerned from this was much used by most of the antivivisectionists. Vivisection, it was argued, crippled the vivisectors humanity and made them callous to the pain of the animals. It could also render them dangerous for the rest of society as well, though this will be handled in a different section.

Most of the antivivisectionists who testified in the second royal Commission expressed concerns over the effect the execution of vivisection had upon the ones performing it. Mr Graham who appeared as a witness on behalf of the PAAV was asked by the commission if he found the vivisectors an immoral set of men. To which he replied; I think their work has a bad effect upon

291 Hopps, J 1907 The Second Royal Commission on vivisection report 3 q 8394

their characters in that particular direction.²⁹²

Whether the concerns for the humanity of vivisectors were grounded in a concern for the vivisectors, their pupils, for the animals or for society in general is difficult to discern because of the different statements. Mostly the concern seems to have been aimed at the pain and suffering the inclination of the researchers caused for the animals which were subjects to vivisection. Though there were some who expressed concern, if not on the direct behalf of vivisectors, than at least for the general humanity at stake. "A shining heart, the heart of justice, a manly consideration, a human generosity." was good qualities of men and especially doctors." It is better, a thousand times, I think, to put out men's lives than it is to put out these shining lights by which their souls are led²⁹³

In the argument that vivisection was destructive vivisectors were seen both as active partakers and objective victims. As seen in Ms Kenealy's statement, the vivisectors seemed victims to their work. According to reverend Hopps, however, vivisection in itself was such a "disgusting work"²⁹⁴ of a "dreadful character"²⁹⁵, that to be able to become an "artist of vivisection" you were naturally required to "blunt the fine morale senses"²⁹⁶ This required an active partaking; the vivisectors were purposely making themselves callous to be able to perform their tasks.

If vivisection did lead to callousness, as many antivivisectionists believed, how did it affect society? Mr Graham, who spoke on behalf of the PAAV argued that the callousness brought on by vivisection "(...) is attacking that upon which the stability of human intercourse is built." "If we ignore human sympathy for suffering we cut ourselves blank in the scheme of things, we destroy the balance of nature, we are reverting to a more primitive stage, and we are undoing the last and highest work of creation."²⁹⁷ As seen, he found the problem of callousness to be an extensive one. The first argument to be drawn from this could be that the use of vivisection would lead to a more primitive society without mercy, at least among scientists. Another could be that the vivisectors by their deeds were defying nature by their ignorance of suffering. A third was that the vivisector was offending the laws of God, hinted to by the use of the word creation. These arguments, however

292 Graham, J.W 1907 The second Royal Commission on vivisection Report 2 q 6120

293 Kenealy, A 1907 The second Royal Commission on vivisection report 2 1907 q 5280

294 Rev Hopps 1907 The second Royal Commission on vivisection report 3 1907 q 8329

295 Ibid

296 Ibid

297 Graham, J.W 1907 The second royal commission on vivisection, Report 3 q 5883

were less tangible than others who suggested other more direct consequences of the vivisectors callousness.

The antivivisectionists seemed to have less concern for the vivisectors, than they had for their pupils; the students of medicine and the medical sciences, who at this time was required to sit through demonstrations of physiological experiments as well as reading physiological textbooks featuring descriptions of experiments. Reverend Hopps summed the antivivisection opinion when he said:

It may be said that this is the vivisectors business and that it is his own affair if he likes to take his chance. That is not so. The operator may be a physician, or a maker of physicians. He helps to create the atmosphere in which a powerful and beneficent, or possibly a formidable and maleficent profession works.²⁹⁸

It was particularly the future doctors of England he feared for; "What is likely to be the effect of practising vivisection upon men who so greatly need all the refinements of sympathy, if not its emotions?"²⁹⁹ This mirrors the poem of Tennyson we saw earlier. The concern over students and the consequences their education would have for the future health care of England was also expressed by Miss Lind af Hageby. In a section where she handled an experiment on a reportedly badly anaesthetised cat she described how a young female student who expressed disgust with the procedure and sympathy with the animal was chastised by her fellow students, in particular another woman whom Lind af Hageby describes as having her mind set on a high education in physiology. This pressure for conformity, Lind af Hageby feared would lead to a situation where every newly educated doctor was devoid of sentiments such as mercy, and only thought in terms of science. "What is the influence on the young students who attend vivisectional demonstrations? (...) as a rule it is distinctly brutalising, that the majority of the students are tainted by the callousness towards the sufferings of the animals which is so clearly demonstrated by their seniors."³⁰⁰ She feared also for the boys often employed in the laboratories as attendants "Young boys employed in these laboratories are especially to be pitied. For what can they learn that will help them to become

298 Hoops, J 1907 The second Royal Commission on vivisection Report 3 q 8329

299 Ibid

300 Lind af Hageby, L 1903 *The Shambles of science - The School of Mercilessness*

good unselfish men?"³⁰¹ Mrs Woodward also expressed concern of the laboratory attendants. During her evidence she recalled a conversation with a former laboratory attendant of Victor Horsley's³⁰² who had given up his position because he felt "he would become one of the most cruel-hearted devils alive"³⁰³ had he continued. She also recalled another incident of a purchase of dogs, obviously stolen, from a caterer's boy .She feared that his fate was similar to that of a convicted criminal she had read of from Australia which had come into his criminal path by stealing dogs for laboratories.

If that young man has a similar fate, I say boldly that before God and man the authorities of that college are responsible for his moral ruin and for all the evils brought by the habitual criminal upon the community at large- as responsible as if themselves had practised the profession of Fagin.

Lind af Hageby also commented especially upon women on this occasion. She stated that "even admirers of vivisection may hesitate before the threatening increase in the number of vivisecting women. What future we have to look forward to!(..)Will women who have been trained at the vivisection-table become gentle, loving mothers?" This is the first time gender is mentioned as a part of the equation in antivivisection. It did however seem to be a serious concern for the antivivisectionists that the vivisectors influenced not only the fate of the animals, but also that of the future doctors. The concern for the students of medicine seems to be new, as compared to the points which were brought up by the first Royal Commission. Though the antivivisectionists of the time were worried in relation to the *handbook of physiology* and beginners in physiology, they did not exclaim any direct worry for medical students. This new focus may be attributed to the fact that at this time, vivisection had grown both in extension and importance for the profession of medicine, but also that the antivivisectionists had had more encounters with students of medicine.³⁰⁴

Summarised we see that the antivivisectionists argued that the vivisector through his actions made himself insensible, or callous to the pain of animals. The concern behind the argumentation was

301 Ibid

302 Victor Horsley was a renowned physician, surgeon and physiologist.

303 Woodward, AL The Second Royal Commission on vivisection Report 3 q 8870

304 It is possible to speculate that the conflict between the antivivisectionists and the medical students in the brown dog riots opened the antivivisectionists eyes for what they saw as a wider consequence of vivisection reaching new generations of students. Certainly, medical hooligans marching and singing, according to Lansbury; "little brown dog how we hate thee" was not very constructive for the future doctors of England.

divided between the vivisector, or at least his soul, the wellbeing of the animals and the future of society. The antivivisectionists also argued that by his callous interaction with animals in vivisection, the vivisector was a bad example for the future physicians and scientists of England, and that the cruel and horrible nature of animal experiments in themselves lead to a brutalisation of students. They also argued that the use of presumably stolen animals, and the buying of them from boys was a sure way of introducing them to crime, and that laboratory boys were even worse stricken as they could become as callous as the vivisectors themselves.

Language and imagery

In dealing with the crippled vivisector we are yet again confronted with imagery of blood, especially with Louise Lind af Hageby. The notion of the lecturer as "the priest of vivisection" attired in "the blood stained surplice" with "hands coloured crimson"³⁰⁵ was as much an image of the crippled vivisector as the dangerously obsessed one we discussed earlier. Hopps also touched upon blood-imagery when he stated that the vivisectors' "dabbling in blood"³⁰⁶ would spoil him for "the cure of souls"³⁰⁷ which was his name of the act of curing illness. He also summarized much of the antivivisection argumentation and imagery concerning the crippled vivisector in one short statement "Bloodshed blunts."³⁰⁸

Lind af Hageby also compared the vivisector to a torturer, when she recalled the case of a dog which was kept alive with a mangled neck and a half flayed head. "They are artists in the black art of producing the utmost agony, while the gateways through which death could enter are carefully watched; but sometimes they are not careful enough."³⁰⁹

The notion of the wretched laboratory boy which both Miss Woodward and Lind af Hageby expressed could also be linked to the earlier mentioned novel *The island of Dr Moreau*. In relation to this novel and the laboratory boy image, Coral Lansbury argued that the way in which Prendick after an initial shock seemingly accepts the explanations and justifications of Moreau, was a typical metaphor for how vivisection ultimately blunted the senses and made people involved more

305 Lind af Hageby, L 1903 *the shambles of science - Fun*

306 Hopps, J 1907 The second Royal Commission on vivisection report 3q 8329

307 Ibid

308 Ibid

309 Lind af Hageby. L 1903 *The shambles of science - The dog that escaped*

callous³¹⁰. I do, however not support that notion, but find that in Montgomery we find a striking similarity to the disillusioned, de-humanised laboratory-assistant, that figures in antivivisection arguments. The notable difference between these two figures, nevertheless, is that Montgomery in many ways was the agent of his own demise, while the laboratory attendant in antivivisection arguments is corrupted by vivisection and vivisection.

In connection with the claim that vivisectionists were teaching their students callousness, Louise Lind af Hageby's descriptions of said students played an important role. Her descriptions of the relation between students and lecturer, as mentioned earlier likened to that of performer and audience, and also that within the group of students correcting each other's sensitivity created a group dynamic in her universe which said something of her view on both lecturers and students. The way in which she described the students eagerness to participate, and the lecturers urging them to do so creates an image of a teaching process where the students are taught not only how to do experiments but also how not to feel disgusted at the sight. Lind af Hageby with the exception of one or two cases, portray the students as quite bloodthirsty and eager to poke and prod the animal on the vivisection table, and seemed eager to do the experiments themselves. Sir George Kekewich who witnessed on behalf of the PAAV connected the proposed callousness to the purpose of the operation, and believed that the students became more callous by witnessing an operation that was not for the benefit of the subject. He suggested clinical studies and witnessing surgery on humans who needed it would be better for students³¹¹

Another view of the students of medicine and physiology was expressed by Mr Graham. He portrayed the students as the more sensible in the equation, "shrinking away from the cruelties of [the vivisectionists'] laboratory (...) afraid that God would do the same to them as they did to the animals"³¹² The vivisectionist however, did not fare so well. Graham portrayed the vivisectionist as bound by his human nature to be insensible and unaware to the suffering which he produced.³¹³ The words callous and insensible are repeated throughout the testimonies of many of the antivivisectionists. There is also some use of the term the blunting of morale, or humane senses.³¹⁴

310 Lansbur, C 1985 pp.148-151

311 Kekewich, G 1907 The Second Royal Commission report 4 q 20421

312 Graham, J.W 1907 The second Royal Commission on vivisection Report2 q 5885

313 Graham, J.W 1907 The second Royal Commission on vivisection Report2 q5883

314 These terms are used mostly by Hopps, Graham, Lind af Hageby, Woodward and Collins.

Summarised, the antivivisectionist argumentation on the crippling effect vivisection had on the vivisector and his pupils and attendants were accompanied by certain images and some recurrent language. One of the images which had support in Hopps and Lind af Hageby was that of the vivisector as a priest of vivisection, and as earlier mentioned; of vivisection as a religion. This may have had to do with what they saw as an unfortunate naturalisation, and ritualizing of vivisection. The vivisector was also marked by a characteristic use of the denotations callous and insensitive. The students were portrayed both as willing accomplices, and as a possible reactionary force, which in both cases contributed to the group dynamic in the vivisectional theatre. Other recurring images was that of bloodshed which seemed to underline just how callous the vivisector had become, as he ventured on with his tasks without minding the blood on his hands. The callousness of the vivisector which the antivivisectionists portrayed, was however seen as a greater and more extensive problem than just a question of the suffering of animals. The antivivisectionists also feared for human lives, as we shall see in the next section

The dangerous vivisector

The notions of the vivisector as it developed in the antivivisectionists' language and arguments were, as seen not particularly pleasant. Of course, it had been proved, many antivivisectionists believed, that the vivisector indeed was dangerous to animals. And with the dispensations, and the certificates from the Act in mind, the question of pain and anaesthesia was definitively involved, and the idea of danger to the animal became even more urgent. With the notorious evidence of Dr Klein³¹⁵ in mind, any vivisector may seem inclined to not care about animal pain, had he a certificate or not. It was quite another thing, though, to claim that vivisectors were dangerous to people, to the public, and their patients, as many of them were practising doctors alongside being scientists. But it was this argument which for the antivivisectionists was a natural reasoning from the idea that the vivisector was emotionally crippled. The vivisector was not only crippled, he was cruel, and his cruelty imposed a danger on society.

Arguments

One of the most notable arguments expressed by antivivisectionists were that vivisectors could not be trusted with patients. This was based on different arguments, some said that it was because of

315 French, R.D 1975 pp. 103-105

their inquisitiveness and ruthlessness; others said that the problem lay with the structuring of hospitals. One of the witnesses in the commission who used this argument was Reverend Hopps. He suggested that the closed nature of the hospital wards where the persons of authority often was licensed vivisectors employed by connecting research facilities was a risk for the patients. It was especially charity patients that he feared would be the victims of the curiosity of researchers. He presented and supported this notion by quotes from cases in the newspapers where patients in other countries had been used for experimentation. He blamed partly the hospital structure and partly the vivisector; He both claimed that "hospitals ought to be supported because their inmates are made use of otherwise than for treatment" and that "the vivisector is never safe to be trusted with a hospital patient on an operating table, and a tray of knives at his side"³¹⁶

As the statements showed, the possible victims of involuntary human experiments were not the ones who could afford to pay for their medical attendance, but the ones forced to the wards of the charity hospitals. Reverend Lewis, of the Church antivivisection league also argued in this direction. As a clergyman, he stated, he felt his obligation to the poor, and his fear for their safety from medical scientists. And this fear, he felt was not without reason as he ventured into descriptions of toxology experiments done on children in a charity hospital by a doctor Sidney Ringer in 1883.³¹⁷ Lewis seemed to argue that the vivisector was the troublesome element rather than the hospital organisation. He also connected the human experimentation explicitly to vivisection; it is one of the greatest dangers of vivisection" - he said "that a man who gets callous to pain, and does not inflict it for the good of the sufferer, will not be over particular when he gets straight from the vivisectional laboratory to the bedside of a hospital patient."³¹⁸ This view was supported by Mr Graham who argued that

316 Hopps, J The second royal commission on vivisection report 3 statement 8316

317 Dr Sidney Ringer, as the scientists name was, tested salicine on children who were admitted with different illnesses, with the intention of understanding the effect of salicine poisoning better. The effect was toxic symptoms, amongst which one boy were described to suffer "severe frontal headache. So severe that the lad shut his eyes, and buried his head in his arm; became very dull and stupid, lying with his eyes closed; complaining of tingling like pins and needles- and other symptoms indicating severe depression." Another child, a boy recently recovered from pneumonia, whom this toxin apparently was tested on, Lewis quoted from the report, had suffered from "vomiting, dullness, deafness, labored breathing, spasmodic movements, and quickened respiration and pulse." The scientists, Lewis remarked, had maybe had time to regret their experiments before the boy got better, as he said they closing words of the report of the scientists were "we must confess we felt a little relief when the toxic symptoms, which became far more marked than we had expected abated." Lewis, L.S The Second Royal Commission report 3q 8766-67

318 Lewis,LS The Second Royal Commission on Vivisection report 3 q 8782

(...) if you once get into the habit of mind which regards a living creature as the corpus vile whose principal use is to give up its physiological secrets, it is only too easy to follow on to dealing with human beings if they be criminals, or lunatics, or paupers, or dying, or distant natives at a remote station.³¹⁹

Mr Graham also explicitly linked vivisection and human experiments together when he said that "(...) unless we check the exaggerated claim on behalf of knowledge we may sometime have to meet the demands of a dominant profession saying to us "that the safety of our dearest lives depends upon the sacrifice of a few of the weakest or the worst of humanity."³²⁰ These arguments all shared the common notion that the vivisector was dangerous and that his prime victim was people who could not fend for themselves; paupers, children and lunatics³²¹. George Bernhard Shaw voiced similar concerns when he said that the man who thought himself safe by allowing vivisection was wrong because he was "nothing to the vivisector but a more highly developed, and consequently more interesting-to-experiment-on vertebrate than the dog"³²². Shaw further elaborated by relating the case of a vivisector who had gained public sympathy by experimenting on himself. Only that he did not begin with himself. "His first experiment was on two hospital patients. On receiving a message from the hospital to the effect that these two martyrs to therapeutic science had all but expired in convulsions, he experimented on a rabbit, which instantly dropped dead. It was then, and not until then, that he began to experiment on himself, with (...) modified germicide (...)"³²³ Shaw also remarked that "in this case, where both rabbits and men were equally available, the men, being, of course, enormously more instructive, and costing nothing, were experimented on first."³²⁴ By this he meant to argue against the idea that animals were sacrificed so that humans would be spared. This he believed to be a fallacy.

Summed up, the antivivisectionists argumentation around the dangerous vivisector was divided between seeing it as a structural problem of closed laboratories and hospital wards, and seeing it to be a problem of humanity within the vivisector. They often argued in both directions, making the one factor increase the danger of the other. One thing was sure; the antivivisectionists believed that

319 Graham, JW. 1907 The second Royal Commission on vivisection Report 2 q5890

320 Graham, J. W 1907 The second Royal Commission on vivisection Report2 q 5890

321 Lind af Hageby, L 1907 The second Royal Commission on vivisection Report 3 q7204

322 Shaw, G.B 1911 *Preface to The Doctor's Dilemma – The Old Line Between Man and Beast*

323 Shaw, G.B 1911 *Preface to The Doctor's Dilemma – Vivisectioning the Human Subject*

324 Shaw, G.B 1911 *Preface to The Doctor's Dilemma – Vivisectioning the Human Subject*

vivisection influenced the vivisector in a negative direction, not only making him blind for the pain of animals, but also making him prone towards human experimentation. The victims of such dangerous vivisectors were according to the antivivisectionists charity patients and children.

Language and imagery

When speaking of the dangerous vivisector, there was one notion which was seen in both reverend Hopps' evidence and in that of Mr Graham. Both saw human experiments as a natural consequence of vivisection, and they believed that both these tendencies had come from the Continent. "it is well known" Hopps stated- "that in Continental hospitals experimental vivisections of patients is common"³²⁵ and in connection with his claim that human experiments was a natural consequence of vivisection., Graham noted that vivisection had originally come from the continent, and hinted towards the tendencies of human experiments which went on there.³²⁶ Both Hopps and Graham, as well as reverend Lewis, also specified weak groups as victims. Women and children being experimented on or purposely infected with nasty diseases³²⁷ were some of the rhetorical measures they used to underline the callousness of the vivisectors. The fact that these groups were emphasized was probably both due to the effect it would have on the public, or in this case, the commission. While Shaw appealed to the fear of the public to be victims themselves, Hopps, Graham and Lewis appealed to compassion for those less fortunate. Whether some of this, especially in the case of Shaw may have been meant for people of lower classes as well is difficult to discern. As earlier mentioned, the antivivisection movement had ties with the antivaccination movement. Though both French and Durbach underlined that the movements were separated by a divided concern,³²⁸ they also agreed that both appealed to fear and scepticism of medicine and science in society. One point where these two movements cross are particularly in the question of human experimentation. In the case of vaccination, Durbach stated that the workers had a well-grounded fear of medicine, as smallpox inoculation could result in the transfer of other diseases, and in worst case lead to the death of children.³²⁹ The antivivisection concern of human experimentation was in many ways more elusive, as they only had one or two cases to show to.

325 Hopps, J 1907 The second Royal Commission on Vivisection report 3 -q8319

326 Graham, J. W 1907 The second Royal Commision on vivisection Report2 q 5890

327 Mr. Graham related that "we know that there are frightful instances in which cancer, syphilis, and small-pox have been given to women and foundling children." Graham, J W. The second Royal Commission on vivisection Report 2 q 5890

328 For animals on the antivivisection side, and for humans on the antivaccination side

329 Durbach, N 2005 pp. 38-68

There was also no clear connection between vivisection and human experimentation as there was between vaccination and "blood pollution". That did however not stop the antivivisectionists from using rhetoric and images which led the thoughts in that direction. The point they seemed to be getting at with their images and their arguments was that the vivisector was not to be trusted in any cases.

The notion of the vivisector as dangerous can be seen as the final reasoning of the concepts presented earlier of the vivisector as too involved with his science, and the idea of the crippling and addictive property of vivisection. It should also not be ruled out that the understanding of a cruel vivisector came from his association with cruel actions, and with bloodshed. Mr Cushny, a pharmacologist who was interviewed in the commission brought the claim that the reason for all the protests and opposition against vivisection was that people suffered from a fear of blood which he deemed as unreasonable³³⁰

Summarising the vivisector

What did the antivivisectionists think of vivisectors? And which images did they create around the vivisector. The first notion of the vivisector we explored was that of the obsessed scientist. As we have seen earlier, both in the novels of H. G Wells and Shelley and in the notions of forbidden knowledge portrayed by Shaw, the antivivisectionists did not want to underestimate the dangerous allure of science. The vivisector was, according to them so obsessed with his work that he became blind to the harm he was causing. The change in the sciences was also to blame as it had moved away from vitalistic and reverent views of nature and animals towards a mechanical understanding. This was connected to the actual change in medical sciences from clinical medicine and human to human contact towards laboratory medicine. There was also criticism in this, the vivisectors used vivisection over other better methods. The antivivisectionists also accused the vivisectors of being ignorant and unable to recognise abstract concepts like loyalty and love in animals. The scientist was also directly compared to Victor Frankenstein, and portrayed as a child tearing his toys apart, a priest and an addict. The argument that the vivisector was obsessed or addicted to his work easily lead to the understanding of the vivisector as being under the influence of his work to an unhealthy degree. The antivivisectionists argued that vivisection was influencing the vivisector towards

330 Cushny, AR 1907 The Second Royal Commission on vivisection report q 4957

inhumanity and callousness. The worry the antivivisectionists were expressing was not only for the benefit of the vivisector. They cared just as much for the animals, and how they were affected. They also expressed worry for the students who were exposed for vivisectional demonstrations, and especially the laboratory assistants. The notion of the wretched laboratory boy also echoed the earlier novel of HG Wells.

The vivisectors were the present, but their students were the future; future scientists, doctors, mothers and fathers. The antivivisectionists portrayed the student of vivisection in two different manners. One was seeing them as bloodthirsty and eager to vivisect. Another saw them as shrinking away from cruelty, being more sensible than their lecturers. The antivivisectionists also had a tendency to use imagery of blood in connection with the cruel and crippled vivisector reminiscent of that we find in the two novels; *The Island of Dr. Moreau* and *Frankenstein*. And as in those novels, the notion of the crippled vivisector soon leads to that of the dangerous one. According to the antivivisectionists the vivisector who cared for nothing but his work and had no understanding of the suffering of animals was not to be trusted with humans either. They brought forth the argument that the closed hospitals and the vivisectors 'nature' was a combustible combination which necessarily would lead to involuntary human experimentation. They imagined both vivisection and human experimentation to be a continental phenomenon but as vivisection had spread, so would human experimentation. They brought forth examples which marked women children, paupers and lunatics as easy prey for vivisectors who saw man only as a more highly developed animal. The vivisector was hence portrayed as cruel, callous, obsessed and definitely not trustworthy.

The animal

It may be discussed what the reason behind the antivivisectionism of the early 20th century was, for their agitation enclosed so many elements. As we have now gone through the arguments and imagery which was spun around both vivisection and the vivisectors, it is now necessary to take a closer look at the apparent subject of concern ;the animal, which after all was the supposed victim of the vivisectors. In this section I will look at how the antivivisectionists portrayed the animal, which arguments they use in favour of the animal, and which language they use to describe them.

The animal as a creature with rights

There is no questioning the antivivisectionists' commitment to the welfare of animals. Though antivivisectionism was a movement apart from general animal protectionism, and incorporated other ideas, as seen, besides the right of the animals, there is little doubt of the commitment to the welfare of animals.

Arguments

The notion that animals had rights was a part of the argumentation of some of the antivivisectionists, though many of them never mentioned animal rights directly. The problem, as with all other rights, were to determine which right was the most significant. Most of the antivivisectionists, with the exception of Shaw acknowledged the human right over the life and death of animals. During the commission, most of the antivivisectionists were pressed hard by the commissioners upon their view of the rights of animals versus that of humans. The point of conflict was the possible hypocrisy in allowing the use of animals for food, clothing, transport, leisure and sport, but not for scientific research. The antivivisectionists of the Second Royal Commission mostly avoided falling into the rhetorical quicksand of this reasoning by making pain the point of separation. Reverend Lewis expressed it in this way; "The right to take life does not imply the right to make living life unendurable"³³¹ This reasoning was amongst others supported by Lind af Hageby, Reverend Hopps and Stephen Coleridge.³³² The argument derived from this was that vivisection ought to be either forbidden or put under further restrictions because it caused suffering in animals. The suffering in itself was wrong for different reasons. As seen earlier, the antivivisectionists believed that witnessing such suffering over a period of time could render men callous and destroy their humanity. Mr Graham also saw the pain in vivisection as destructive of harmony in society between animals and men, which we will take a closer look at in another section. The argument could also be interpreted in the direction of at least one right the antivivisectionists believed the animals had in common with humans, the right to be free from inflicted pain. As we saw in the vivisection section under the heading of sacrifice, reverend Hopps questioned the right to vivisect.³³³"What right has this human animal to invade the right of his poor

331 Lewis, LS 1907 The Second Royal Commission on vivisection , Report 3 Opening statement point 8

332 Coleridge,S; Lind af Hageby, L 1907 The Second Royal Commission on vivisection Report 3 Opening statement, q 7204

333 Hopps, J 1907 The Second Royal Commission on vivisection , Report 3 q 8329

relations, and rob them of their freedom and their life, for finery or for "sport"?³³⁴ Reverend Lewis also questioned the human right to "torture" animals³³⁵. He also argued for the rights of the animals, though balanced against the rights of man they were of lesser magnitude.³³⁶ He also referred to Jeremy Bentham's visions on animal rights³³⁷

Language and imagery

In the argumentation of the animal rights, there are some recurring notions and words which relates to the right of animals as compared to the right of man. In one sense, some antivivisectionists obviously compared animals to humans, and found them equal on some points. Both animal and man had rights and both animal and men could feel pain. But many antivivisectionists portrayed the rights of animals more as a duty³³⁸ and gesture of man than something they had in their own right. Some recurrent words like altruism, duty and the focus on the helplessness³³⁹ of animals, and their innocence point towards an understanding of animals as deserving victims rather than subjects in their own right. One may almost wonder if the antivivisectionists fought pain in animals because they saw it as a human problem, creating damage for humans. On the other side, you had the obvious comparisons between animals and humans, like Reverend Hopps' comparison between laboratory animals and babies. Here animals and humans are brought closer by their point of departure. And because they were helpless it was cowardly to abuse them. This contrast between understanding the animals as relations of flesh, and as "inferior creatures" represents a divide in view and opinion among the antivivisectionists. Whether they saw animals as equals, or not does however not change the focus all antivivisectionists had on compassion and sympathy. Lewis put justice and mercy as basis of all rights, and précised that if these are violated, then the rights of men were also at stake.

The animal as a pet

Some of the antivivisectionists clearly believed that animals had rights, though of a lesser magnitude than human rights. But were these rights anchored in the animal itself or by its relation to humans as pets? And did all animals have the right to be free from "scientific torture" or was it only

334 Ibid

335 Lewis, L.S 1907 The Second Royal Commission on vivisection , Report 3 q 8661

336 Lewis, L.S 1907 The Second Royal Commission on vivisection , Report 3 q 8657

337 Jeremy Bentham: "the day may come when the rest of the animal creation may acquire those rights which never would have been withheld from them but by the hand of tyranny"

338 Kenealy, Lewis, Hopps, Graham and Lind af Hageby speaks of the duty humans had not to hurt animals

339 Kenealy, Lewis, and Hopps all used the word helpless on animals several times during their evidences.

the cute and cuddly ones? In this section I will investigate how the antivivisectionists reasoned about animals in relation to their status as pets.

Arguments

Did the antivivisectionists argue for the rights of non-pets? Richard French emphasized the pet-distinction which was made in the Victorian public and private, where the animals which inspired the fight for animal welfare was the pet-trio; cats, dogs and horses.³⁴⁰ He argued that it was in the sentimental connection to these animals that drove the antivivisectionists.³⁴¹ It is implied that other animals were not so high in favour. In the evidence of the second commission in general and Miss Lind af Hageby specific however, the animals who were spoken of, were not necessarily dogs or cats. These of course held their special status along with horses as they were the animals many Englishmen had a close relation to, but into the account came also rabbits, cattle, mice, marmots, apes, and the least thought of- but frequently used frog. In this widening spectre of what and whom antivivisectionists were protecting, I believe there is a key to a change that had happened somewhere along the way, in antivivisectionism. It is clear that a slimy frog is slightly less easy to love, protect and fight for than a cuddly kitten or a loyal dog. The fact that antivivisectionism had widened its spectre tells us something of the antivivisectionists view of animals. Could it be that this was the beginning of the idea of animals as valuable by their own standards, and not only by their relation to humans. There are certainly signs of, if not an argument, then at least use of language and images which went toward a statement that the animal was a valued being who had rights.

Louise Lind af Hageby stands out in her evidence at the commission and in her book as the ardent defender of all animal's right to be free of the pain she believed vivisection involved. Two of the chapters in *the shambles of science* were devoted to the welfare of the most used laboratory animal; the frog. In *Frogology* and *Painless experiments* she described what she saw as a deplorable tendency amongst vivisectors to treat the frog as if it was a thing, and not an animal. She argued most ardently also in her testimony during the Second Royal Commission that the custom of pithing frogs was inhuman and wasteful, and that the so-called reflex movements which pithed frogs exhibited was as good a sign of consciousness as any other. Her basic argument is that frogs are

340 French, R.D 1975 p 375

341 Ibid

animals too, and that animals deserved to be treated as the sentient beings they were instead of lumps of clay.³⁴² Mabel Collins also supported the notion that one shouldn't distinguish between strays and pets, at least when it came to dogs, they all had an equal right to protection³⁴³

A sub argument of the case of the animal as a valued being was that the animal had a status as pet. Throughout the vivisection controversies of both the 19th and the 20th century there was a focus on pet-animals; dogs and cats in particular. Though, as discussed in the previous entry, the effort on behalf of animals, it seemed, had widened in the 20th century, there was still a strong representation, especially of the dog, as a victim. During the Second Royal Commissions period, dog-napping and illegal pet trade was mentioned by antivivisectionist³⁴⁴ and one of the witnesses called to testify was the Secretary of the Canine defence league. The pet focus seemed proportionally strongest on the part of the dog. The dog as an individual creature is strongly represented in the testimonies and other evidences of both the antivivisectionists and the pro-vivisectionists. Hughes, the Canine defence league witness, argued that dogs were never intended by Nature and providence to be experimented upon because of their character³⁴⁵ The dog-focus of the antivivisectionists had not only background in the preferences of notable antivivisectionists, such as Frances Power Cobbe, but was determined by the status the dog had acquired in society. "The Victorian dog fancy", as Harriet Ritvo describes it, had its roots in the development of middle class leisure activities.³⁴⁶ Unlike French, and his focus on pets, and the dog in particular, working as a physical embodiment of an emotional tie to the land and original way of life³⁴⁷, Ritvo believes the dog fancy, and particularly the breeding of dogs was acts of another symbolical nature. She argues for the use of the dog as an instrument of socialising and social mobilization, making the finely bred dog a status symbol, and an attempt to solidify social stature in the higher middle class.³⁴⁸ The dog's continued function in this manner, though it was no longer considered an animal which had to earn its keep, ensured that it remained an important animal in many households through increasing urbanisation.³⁴⁹ The love of the dog in the English society and its presence in many households, it seems had kept the dog on the

342 Lind af Hageby, L 1903 *The Shambles of Science- Frogology/ Painless experiments*

343 Collins, M 1906 The Second Royal Commission on vivivsection q 1986

344 Woodward, AL 1907 The Second Royal Commission report 3 q 8870

345 Hughes, J 1907 The Second Royal Commission on vivisection Report 4 q 17144

346 Ritvo,H 1986 p. 229

347 French, 1975 p. 373

348 Ritvo, H1986 p. 229

349 Ibid

high agenda of antivivisectionists.

Language and imagery

There was indeed a general focus on cats and dogs as victims of the early 20th century, but something had changed from 1876. In many ways the one sided pet- focus had been widened to include animals on a more general basis. To explain it in a different manner, the concern of pets was still there, the difference however, can be spotted in the new material. The contrast can be clearly seen in the focus of Louise Lind af Hageby and Louise Schartau's book *The shambles of science*. In general the book which is structured around laboratory experiment- scenes follows the old cat-and-dog- focus. With headings like "The quiet cat" "A troublesome dog" "The struggling cat" and "The dog that escaped" the path was lay for a lamentation of the horrendous pain and torture these beautiful pets were put through. Lind af Hageby especially uses close up descriptions of the animals to ensure them being seen as individual creatures rather than laboratory meat "when the lecture is over we all go to study the apparatus and the dog closely. It is a fine little terrier with a clean, thick, glossy coat, as white and trimmed as if it had had a bath and a good brushing this very morning. There are brown and black spots on the nuzzle and the ears."³⁵⁰ Whether this kind of description was meant to make the readers associate the animals who were stretched out for "torture" with their own black and white cat, white fox terrier, or black mongrel is difficult to decide. Lind af Hageby's book is of course propaganda literature, and therefore it is natural to think that every word of it is a carefully considered attempt at influence, though the language is also characterised by involvement and emotion.

The contrasting depiction of animals and technology serve their purpose in many ways. It illuminates the animals as the suffering victims of the steadily growing technological world of humans. The contrasting between metal and flesh is especially effective in this connection. The animals naturally beautiful form rendered through Lind af Hageby's description of their soft, gleaming fur, their small or large size is contrasted with the unnatural position they are put in. Their skin is pierced by metal tubes or flayed back to reveal their inner organs, their bodies are struggling on the operation boards. Secondly, if one sees the animals as symbols for humans, which is not so hard with the way they are described by looks, personalities and emotions, the contrasting also has the effect to question how technology influence the world of humans in the sense that it might have

350 Lind af Hageby, L 1903 *The Shambles of Science - Scarcely any Anaesthetics*

broken harmony and clashed with what was natural. This was earlier seen in notions of vaccination as well- as something unnatural. The disharmony of vivisection had also been depicted earlier by the image of the broken watch. This can also be seen as a metaphor on human society. By the early 20th century people of England had seen and were still seeing the effects of modernisation and technology, and how it influenced the lives and conditions of humans, often towards what was worse. It also shows the public a different side of the technologically advanced medicine. The image of the doctor diagnosing by the bedside, or even a more modern one of a scientist with a microscope, did not cover this part of the deal. Most people must have, naturally, wanted a progress of medicine. But this inferno of machines, blood and writhing animals wailing in pain³⁵¹ which was conjured up by Miss Lind of Hageby could turn anyone's appetites off modern medicine.

Reverend Hopps represented one antivivisectionist way of seeing animals; by their natural qualities rather than by anthropomorphism. "Are we so absolutely sure that we know what birds and animals really are?"³⁵² he asked. He went on with the astonishing faculties of the animals, which not only surprised him in their affection to men as pets but also in their wild mysterious form. This kind of view of animals resembles more the reverence of nature we have managed to muster in some part of our society today. Hopps went on to asking if the carrier pigeon was inferior, or if the skylark, an animal more prone to freedom and following its own nature than relating to humans, was inferior to the brute who would shoot it. Was the shepherd dog inferior to the shepherd who might get drunk every fortnight?³⁵³ His rhetorical questions reveal admiration for animals in general, independently from their status as pets. He also downgraded the human counterpart terribly, and in a way humanized the animal as much as he made the man into more of a savage. But this expression of sentiment was different from anthropomorphism as it seemed more an admiration of the animal in the way that it was so completely different from a human, than admiring an animal because it seemed to have idealized human qualities.

Animals and humans

We saw that antivivisectionists had for a long time favoured animals that had a connection to humans, such as dogs and cats. But how did the antivivisectionists see animals in relation to humans? Was the animal compared to humans, or imbued with human abilities, also known as

351 Lind of Hageby, L 1903 *The Shambles of Science- The death of vitalism/ fun / pain etc*

352 Hopps, J 1907 The Second Royal Commission on vivisection Report 3 8626-

antropomorphism? Or were they in some ways looked upon as something completely different? And which of these possibilities would qualify the animal for protection- their development towards humanity or the fact that they differed from humans. The relationship between human and animal, besides that of pet and owner was unfortunately not explicitly argued much upon by antivivisectionists, but in return they often used comparison and descriptive language in their defence of animals.

Arguments

One factor in the question of humanity lies in evolution theory. French argue that antivivisectionists, generally ignored or protested evolution theory as " a philosophy of race selfishness at the expense of sinless fellow creatures"³⁵⁴ , and those who accepted it only accepted the spiritual and psychic relation. Nevertheless, thoughts of development seems to have entered antivivisection argumentation When Mabel Collins sought to illustrate the emotional depravity of vivisection and vivisectionists she used the increasing use of monkeys as an example " (..)the vivisectionists of earlier times found it was too harrowing to their own feelings to inflict pain upon creatures which could ask for mercy in such a piteous and human manner".³⁵⁵ Here she makes the human manner of the monkeys a qualification for sympathy. Louise Lind af Hageby also held monkeys high, and when asked of which amendments to the Act she first and foremost³⁵⁶ wished to abolish all experiments on "the higher animals", of which she at least included dogs, cats and monkeys. Her objection to experiments on monkeys were founded in her experience with them as sensitive and intelligent animals.³⁵⁷ These two abilities were important to her, and intelligence and sensitivity is also explicitly human abilities which, according to Richard Ryder many denied as a part of non-humans.

Language and imagery

The antivivisectionists seemingly had two general ways of approaching the human- animal relationship. One approach was human animal comparison, another was descriptions of animal human friendship. The human animal comparison could take the form of antropomorphism or be comments upon similarities. Lind af Hageby used comparisons much, particularly in the chapter *Painless experiments in the shambles of science*, where the vivisection of a frog is described. In one

353 Ibid

354 French, R.D 1975 p 384

355 Collins, M 1906 The second Royal Commission on Vivisection report 1 q1910

356 Besides getting rid of demonstrational vivisection

357 Lind af Hageby, L The Second Royal Commission on Vivisection Report 3 q 7459

instance she turned to the reader with questioning;"Have you ever notices how extremely childlike the hands of a frog can be, and what a pathetic look can meet yours from that quaint little face?"³⁵⁸ When the frog is cut to pieces and falls down on the table besides a rabbit which had been kept in the freezer."the animal springs back trying to get away, but, half paralysed by the cold and half fascinated by the uncanny thing it falls down again with its glazed eyes riveted upon the bleeding and twitching "reflexes" of what was once a frog."³⁵⁹ In this instance, both tendencies of anthropomorphism, with the rabbit, and human comparison with the frog is used. Mr Graham also believed animals, or at least some of them,³⁶⁰ to be creatures of "wonderful and delightful intelligence, sensitive, sensible and amiable."³⁶¹

The notion of animals as having a special relationship to man is also frequently used. Shaw refers to animals as "those whom St. Francis called his little brothers"³⁶², and Hopps called them "our poor relations"³⁶³. In this lies a sense of fellowship which recognise animals as spiritual kin, if not physical. But animals were not seen as equals to men by any of the antivivisectionists.

Animals may have been seen as symbols of incarnated virtues such as loyalty and friendship in a dog. Lind af Hageby portrays this beautifully in an anecdote where she compares a laboratory dog to a dog she had seen on a churchyard which had sought out its dead master and had succumbed to the cold, lying on top of his grave and guarding him. Mr Graham also referred to such relationships when he said that "the breaking up of the friendly compact between a man and his dog is a catastrophe as real as an earthquake it breaks the harmonious order of nature"³⁶⁴ This harmony between man and animal which is portrayed had a dent in it, besides the obvious vivisection problem. Though antivivisectionists seemed to admire animals and their unique abilities and properties, they still generally referred to them as "lower animals". Of course, this denomination can be seen as a sign of some sort that the antivivisectionists saw animals as a part of their family, in the same way as "poor relations" was used. But the way animals at all times were portrayed as dependent upon the "altruism" and "mercy" of humans showed the unequal status they held. Of course, one should not be surprised to see that though the antivivisectionists objected to the

358 Lind af Hageby, *L The shambles of science - Painless experiments*

359 Ibid

360 Dogs and horses

361 Graham, J.W The Second Royal Commission on Vivisection Report 2 q 5887

362 Shaw, G. B 1911 *Preface to The Doctor's Dilemma - The old line between man and beast*

363 Hopps, J The Second Royal Commission on vivisection report 3 q 8329

364 Graham, J.W. The Second Royal Commission on vivisection report 2 q 5885

exploitation of animals they did not see them as equals. And why should they? Animals, in despite of all their qualities "their courage, their skill, their patience, their sensitiveness, and good taste, their endurance and their love"³⁶⁵, as Hopps formulated it, were helpless victims which could not fend for themselves.

The word "victim" was generally used much in antivivisectionist argumentation, and by using this word they proposed that there had to be a perpetrator; the vivisector. It was the vivisectors of modern medicine who broke the harmonious order Graham spoke of, who committed the scientific torture³⁶⁶ and who invented vaccinations which mixed the blood of humans and animals without knowing what results might come of it. "From the dog we can learn courage, constancy, loyalty, steadfastness, faith, love" said Stephen Coleridge" but it is not these qualities that interest the vivisector; it is the weight of the spleen or the pressure of its blood that elicits his curiosity, and he digs into its living body in his horrid quest."³⁶⁷ With the imbuing of human abilities in animals, and the idea that human experiments was a natural consequence of experimentation on animals, it may seem as though antivivisectionists saw animals as representations of themselves. After all they saw vivisection as barbarism, and claimed that the only thing between the less fortunate humans and the vivisectors scalpel was the development of a public moral they feared would dwindle if vivisection was kept up.³⁶⁸ Shaw was one of the antivivisectionists who reasoned on man's connection to animals, and his possible fate as one of them, a victim of vivisection;

the man who once concedes to the vivisector the right to put a dog outside the laws of honor and fellowship, concedes to him also the right to put himself outside them; for he is nothing to the vivisector but a more highly developed, and consequently more interesting-to-experiment-on vertebrate than the dog.³⁶⁹

Coral Lansbury argues in her book that the main reason why many women were antivivisectionists was that they saw the abused incarcerated animal as a symbol of their own lack of freedom.

Lansbury also likens the scientific torture, the poking and prodding of the vivisectors to sexual abuse of women, and the fight for the animal as the fight for female freedom and right to vote.

365 Hopps, J The Second Royal Commission on vivisection report 3 q 8329

366 Lind af Hageby. Graham. Coleridge, Kenealy, Hopps, Shaw, Lewis, and Collins all used the word torture on vivisection

367 Coleridge S The Second Royal Commission on vivisection report 4 q Opening statement

368 Lind af Hageby- commission

369 Shaw, GB 1911 *Preface to the doctors dilemma - The old line between beast and man*

Lansbury also argued that the reason why workers joined forces with the middle- and upper class women of antivivisectionist organisations to defend the statue of the brown dog in Battersea park was that also they saw animals as representations of themselves; beasts of burden forced and abused by men in higher positions.³⁷⁰

Summarising the animal

As seen, the antivivisectionists had an interesting relation to the animals they were defending. Though they had some difficulties with defining just how far animal rights went before they were stopped by human rights, they agreed that the animals had the right to live without being tortured by men. The rights of the animals, nevertheless, were more or less portrayed as the duty of man rather than a universal fact. The animals were portrayed as dependent upon the mercy of man, hence the human-focus was established. The question of rights and how far they went was also connected to the animal itself in the sense that the animals' status as a pet may decide its qualification for pity. Here antivivisectionists showed mixed tendencies. Lind af Hageby on one side argued for the rights of the Frog; a much used laboratory animal. She argued that every animal should be regarded as a living sentient being rather than as lumps of clay to be used for research. On the other side both Lind af Hageby and other antivivisectionists argued that the dog and cat stood in a special position because of their status as pets. An argument was also developed which claimed that vivisection encouraged pet-theft. When it came to language and imagery, the antivivisectionists under this theme showed tendencies towards portraying pets as special, by use of anecdotes and anthropomorphism. Another tendency was that of mystifications of the animals, expressing admiration of them as the strange and wonderful beings they were.

The animals were also portrayed as a connection to nature, and this was put up against the unnaturalness of vivisection. The images of technology defiling animals, wrecking the harmony may even be read as a metaphor of industrialisations changing and possibly destructive force on society- the animals representing humans having their natural qualities torn apart. The relationship between the animal and the human is also something which is portrayed by the antivivisectionists, though they were not very consistent. They both compared animals and humans, spoke of their unique relationship and friendship, even acknowledged kinship, and the animals were consistently imbued with human abilities. Animals and humans also had the common enemy in the vivisector who saw

370 Lansbury,C 1985 pp 26-62

both as possible experimental material. But on the one side the animals were like humans-relations-kin of spirit, but on the other side, the antivivisectionists expressed scepticism, and even fear towards animal qualities. Their blood should not be mixed with that of humans, and they were denoted as "lower creatures". There is nevertheless a consistency in portraying them as victims.

Chapter 5 – The defenders of vivisection

On the 24th of April, 1908, a piece was written in the Morning Post on the occasion of the public announcement of the inauguration of the Research Defence Society. The society had been formed on the 27th of January and had, according to a letter sent to the newspaper among its goals to "make known the facts as to experiments on animals in this country; the immense importance importance to the welfare of mankind of such experiments, and the great saving of human life and health directly attributable to them."³⁷¹ The newspaper followed up with an enthusiastic piece where the reporter stated:

There is clearly need for an organisation with this object(..) The case against experiments on living animals can [...]be put strongly. There is no objection to that. But there is every objection to [...] the method of putting the case (..) They³⁷² leave out all reference to the science and medicine in whose name alone the pain may be inflicted (..) The Research Defence society [...] must supplement the picture of the vivisector by that of the doctor applying the remedies which vivisection has taught"³⁷³

As presented in the historical background, the scientific and medical interests who supported vivisection, had only begun to organise and gather their forces in the aftermaths of the first Royal Commission of 1876.³⁷⁴ The debate and the commission of 76, has been argued to be a catalyst for the formation of the physiological Society, but a greater interdisciplinary organisation was not to come until the creation of the Association for the Advancement of Medicine by Research, or A.A.M.R in 1881.³⁷⁵ As it was explicitly stated in the introduction to one of the first publications of the RDS, published during the time of the Second Royal Commission, it was now time to inform and educate people to balance off the supposed lies of the "radical extremists"³⁷⁶ which had too long been able to dominate the debate. The Research defence society was founded by Stephen Paget, who

371 Baring, E, Lord Cromer; 1908 letter to the morning post – *Introduction – For and against experiments on animals*

372 by this is meant "the antivivisectionist"

373The morning post 24. 4 1908- quoted in the introduction to *for and against animal experiments* by Stephen Paget

374 Rupke , N 1990 p. 190

375 Rupke , N 1990 pp. 188-190

had long been the secretary of the AAMR.³⁷⁷ The Research defence society, hereby known as RDF, was as opposed to the AAMR a lobbyist organisation, according to the introduction and letters sent to newspapers like the Morning post, who had its mission first and foremost in "education of the public" in the matters of scientific research and animal experiments.³⁷⁸ By this time, it had obviously become a more pressing matter, to influence the public's opinion, than it had been for the AAMR who had been notorious in "shunning the spotlight"³⁷⁹ Now, that the researchers had organised and wanted to defend their cause united; How did they state their case, and by which arguments they try to convince and ruse the public, and the commission to their side? This chapter is dedicated to analyse the utterances of the defenders of vivisection. They will also be investigated with their view on vivisection, the vivisector and the animal in mind. This section will however be proportionally smaller than that of the antivivisectionists. As with the antivivisectionists, arguments, language and imagery will be the elements of analysis.

Vivisection – 'Animal experiments' as a necessity

It has often been said that attack is the best form of defence, but in the case of the scientists who advocated vivisection, the opposite was the case. The experimentalists' defence of vivisection was the best mode of attack they could wish for, as it tended to blacken the antivivisectionist image as humanitarians, and their cause as just, and emphasize the best qualities of the cause of vivisection.

Arguments

The most prominent argument in the sources of the scientists was what I will call the progress-argument, and it proclaimed that the progress of medicine was dependent upon vivisection. In essence it was divided in two; The first could be said to be the argument that the progress of medicine and branches of medical science had happened because of the use of animal experiments, or vivisection. The second stated that the future progress of medicine and sciences was inevitably being linked with the continued use of animal research. In other words; no vivisection; no medical science. Professor Starling, who was the first physiologist to speak his case in front of the Second Royal commission was one of the strongest advocates for this view. He started out with quoting the testimony of Charles Darwin at the Royal Commission of 1876. Darwin was arguably one of the greatest authorities of the matter in the nineteenth century, and his words, as the founder of

376 E, Lord Cromer; 1908 letter to the morning post – *Introduction – For and against experiments on animals*

377 French, R.Dp211

378 E, Lord Cromer; 1908 letter to the morning post – *Introduction – For and against experiments on animals*

evolution theory would probably still hold an influence thirty years later. Darwin had, in the commission spoken of the absolute importance of animal experiments for the progress and existence of physiology. The true potential of the Darwinian argument was fulfilled when Starling tied the progress of physiology to the progress of medicine. "One cannot imagine any rational system of medicine which is not founded on our knowledge of the normal functions gained this way"³⁸⁰ ; he argued, continuing with the evidence for such a connection "It is only necessary to pick up any text-book on physiology to find that every page contains facts which have been gained by experiments, and could only have been gained by such means"³⁸¹ In this it is quite implicit that animal experiments were the basis of physiology, and physiology as he saw it, was the foundation of medicine in any circumstance. Strengthening his claim he continuously throughout his evidence referred to previous experiments and discoveries based on animal experimentation.³⁸²

The idea that animal experiments was and had been essential to medicine which was argued by Professor Starling was supported and added to by several other witnesses at the Commission. It was, interestingly, the representatives of the active performers of medicine, not the physiologists by profession who put forward some of the strongest support for the idea of animal experiments as directly beneficent for medicine. Sir Douglas Powell , president of the Royal College of Physicians of England, member of the AAMR, and Mr Frederick Taylor, MD senior physician at Guy's hospital spent great parts of their joint testimony to defend the use of animal experiments on the basis that it had led to the progress of curative methods, and methods of alleviating pain. They also put forth evidence of progress by the effect of new curative measures on diphtheria, such as antitoxin discovered by bacteriological experiments.³⁸³ They argued that neither bacteriology nor pharmacology would be possible without animal experiments.³⁸⁴ Professor Cushny, who was called to witness as an expert on pharmacology put forth an especially strong argument on the behalf of his profession that animal experiments had led to such progress in medicine that the doctor now had an abundance of remedies to his assistance as compared to before³⁸⁵ Mr Henry Morris, president of the Royal college of surgeons of England, argued accordingly in his evidence, for the progress in

379 French, R.D p.212

380 Starling, E.H 1906 The Second Royal Commission on Vivisection Report 1 – opening statement

381 Ibid

382 E.g. Stephen Hales and William Harvey who investigated blood vessels and circulation in the 15th and 16th century.

383 Taylor, D and Powell, F 1907 The Second Royal Commission on Vivisection Report 2: q 5585, 5593

384 Taylor, D and Powell, F 1907 The Second Royal Commission on Vivisection Report 2 q 5585

385 Cushny, AR 1907 The Second Royal Commission on Vivisection Report 2 q4712

surgery which he believed was due to the use of vivisectional experiments³⁸⁶. He especially put forth the invention of antiseptic surgery and anaesthetics as important in this matter, bringing about the possibility of nearly risk free operations without destructive infections³⁸⁷ Taken from these representatives, vivisection was a blessing for medicine; not a curse as the antivivisectionists would have it.

The last of the most general arguments designed to defend experiments on animals were, unlike the others more or less related to prestige, and most strongly put forth by the president of the Royal society, Lord Rayleigh. Mostly, his evidence consisted of a statement of defence for the use of animal experiments, and warnings of consequences, should it be further restricted or forbidden. The Royal society represented by the president and council, naturally acknowledged the need of restrictions, he complied, but felt the need of reassurance that the restrictions should not be " framed as not unnecessarily to interfere with that advancement of knowledge to promote which the society exists" Unreasonable restrictions would not only" cripple or arrest the growth in this country of an important branch of biological science, but in doing so would reduce the efficiency of both physician and surgeon to mitigate or cure disease" Rayleigh argued further that when the growth was crippled, it might influence the position of the country in the medical world, and would lead to a scientific and medical brain drain, where up-and coming scientists and prominent researchers would leave England for other universities"³⁸⁸

Language and imagery

Vivisection as term was very rarely used by the defenders of the practice. Most, especially in connection with the Commission opted for the more neutral term "experiments on animals" or "the experimental method". This omission might in itself prove, not necessarily that the scientists felt they had something to be ashamed of, but merely that the term "vivisection" had become quite a sensitive word, prone to certain associations. And though some of the scientists and men of medicine who defended vivisection used the word, such as Powell and Taylor did in their concluding statement, none used the term "vivisector" on themselves or on colleagues. Instead they held on to their use of "animal experimentation" of the process, and "scientist" of the person performing the experiment. Put up against "vivisector" and "vivisection", the two other

386 Morris 1907 The Second Royal Commission on Vivisection Report 3 q7909 ,7778

387 Morris 1907 The Second Royal Commission on Vivisection Report 3 q 7715

denominations undeniably sounded more clinical and did not play upon emotions. While vivisection right out meant to cut open a living animal, and vivisector was the man or woman doing this, animal experiments could mean just about anything involving animals and science.

In connection with the progress argument, it is interesting to see how they use a language of progress. The word "progress"³⁸⁹ along with its similar "growth"³⁹⁰ and "development"³⁹¹ were frequently used in the evidences. There is also talk of all which science had "gained"³⁹² from animal experiments, and the evidences of Morris, Taylor and Powell at some points, when they are not framed by other questions seem to be long lists of the accomplishments of vivisectional science. In defending the experimental method, the language is also used contrastive. There is a widespread use of constructive words describing the scientists and their work, and it is contrasted with the raw reality of disease. Lord Rayleigh This is particularly evident in the introduction by Lord Cromer to the Research Defence Society's publication *for and against experiments on animals* of 1912, and in the defence speech of Lord Rayleigh of The Royal Society. Beneficent science represented by self-sacrificing men led a "(...)war against the diseases of man and of animals."³⁹³ And without these men or these experiments, "diseases, which may in time be successfully combated, would continue their ravages unchecked."³⁹⁴ The argumentation, language and images which they used to emphasize the importance of vivisection as a method for improving and advancing science, inevitably led to the conclusion that without animal experiments, disease would run rampant and medicine would still be at the blood-letting stage.

Curiosity as a blessing

Between medicine and vivisection there also existed a field of criticism seen throughout the evidence of both the antivivisectionists and the defenders of vivisection. This criticism centred around the purely scientific nature of physiology. Physiology had been held out as a sort of a main perpetrator by antivivisectionists³⁹⁵, despite the fact that pathology and pharmacology stood for

388 Rayleigh, 1907 The Second Royal Commission on Vivisection Report 2 q5532

389 Rayleigh, Morris, Starling used this word continually

390 Rayleigh, 1907 The Second Royal Commission on Vivisection Report 2 q 5532

391 Morris, Rayleigh, Starling used this word continually

392 Rayleigh 1907 The Second Royal Commission on Vivisection Report 2 q 5532

393 Rayleigh 1907 The Second Royal Commission on Vivisection Report 2 q 5532

394 Ibid

395 Almost all experiments held out as examples by antivivisectionists during the second royal commission, as well as those portrayed by Louise Lind at Hageby were physiological experiments

more vivisections.³⁹⁶ This may have been grounded by the more explicitly cutting operations physiological vivisections involved. What they explicitly accused the scientists and then specifically physiologists of, was vivisections for curiosity's sake without any goals in favour of human medicine. Many of the physiological experiments which were done from the seventeenth to the twentieth century did not seem to be founded on questions of utilitarian nature, but of random researches into separated facts.

Arguments

In the evidences of the experimentalists, and their supporters it is often evident that the witness has an understanding of the public, and especially the antivivisectionist as being misinformed or oblivious of the true nature of scientific investigation and its relation to practical measures. Starling spent some time trying to argue for what he saw as the good qualities of pure science. In this process he defended physiology against accusations of lacking curative results;" Since physiology represents the basis on which medicine, with the aid of observation on man and on cases of disease must be built up, it is evident that in most cases it will be impossible to quote such and such an improvement in treatment as the result of any given research."³⁹⁷ he stated. He did however, add that such measures often would be the result; "In a considerable number of cases however, it has happened that physiological facts have been capable of immediate utilisation in treatment"³⁹⁸

Starling also defended the purely scientific approach by promoting it as the strongest quality of physiology.³⁹⁹ Among the triumphs of experimental physiology he counted Rontgen rays, blood pressure, adrenalin, and treatment of poisoning.⁴⁰⁰ "It would be possible" he said "- to largely extend this list, but my point is that these are, so to speak, accidental results of purely scientific investigations. Starling even had a reply for the criticism knowledge- seeking experimentalists were put through, as he argued for the comparative usefulness of knowledge seeking, as opposed to end-focused experimental work." A purely scientific research may happen to be more useful than research having a direct utilitarian object"⁴⁰¹

396 French, RD 1975 p 399-401 figures 19, 20,21

397 Starling, E.H 1906 The second Royal Commission Report 1 - Opening statement

398 Ibid

399 Starling, E.H 1906 The second Royal Commission Report 1 q 3737- 38

400 Starling, E.H 1906 The second Royal Commission Report 1 opening statement

401 Ibid

Language and imagery

As mentioned, Starling was diligent in his defence of the scientific curiosity in physiology. When confronted with accusations against "mere curiosity" He exclaimed " It is the greatest asset a nation can have, to have among itself a number of men endowed with this mere curiosity". Men who will put everything second to the advancement of knowledge"⁴⁰² Though he had to explain further and tried to trivialize this statement, it showed explicitly his commitment to the getting at knowledge as a virtue above others. It also hinted at a certain anger with what he may have perceived as devaluation of the basis of science. With the antivivisectionists we saw that knowledge seeking was associated with a certain risk, and that some knowledge was unacceptable to obtain. Here, though Starling retracted it later, it seemed as though the advancement of knowledge had priority over everything else. And where the antivivisectionists declared the scientists to be obsessed, the defenders of vivisection used the word "devotion"⁴⁰³

Anaesthetics and animals

Much of the testimonies of the scientists were, like that of the antivivisectionist, focused on pain and anaesthetics. The scientists and medical interests, however, had understandably a different approach to the subject of pain and vivisection. The first characteristic which is noticeable is the evidence is the total prohibition, or perhaps should I say proverbial abolishment of pain. The defenders of vivisection unanimously rejected painful experiments and claimed that their respective sciences did not involve the alleged "torture" of animals. The 'vivisectors' were keen on defending their experimental method and clear their names and the name of their profession of accusations of cruelty and callousness. And as the antivivisectionists, they called tried to back their claims by science; they called amongst others specialists in anaesthesia to witness for the safety and effectiveness of anaesthesia.⁴⁰⁴ And as mentioned, formally the battle over vivisection mostly stood and fell on the question of proper anaesthesia and whether experiments were painful or not.

Arguments

The defenders of vivisection unanimously rejected that they were involved in painful experiments. And their argument for rejecting pain was that painful science was bad science. According to Professor Starling an experiment with lacking anaesthesia was a bad experiment.⁴⁰⁵ "Of all possible

402 Starling, E.H 1906 The second Royal Commission Report 1-3737- 38

403 Rayleigh 1907 The Second Royal Commission on Vivisection Report 2 q5532

404 Buxton, D.W The second Royal Commission on vivisection, report 3 q12390

405 Starling, E.H 1906 The second Royal Commission on vivisection, Report 1 qv3452

disturbing factors in the body, none can be greater than that of pain"⁴⁰⁶ He stated with great certainty. Of this argument one might deduce one or two tendencies of the defenders of vivisection. Either they believed that this was the most beneficial way to argue to ensure that they appeared truthful in their claim of painlessness, or pity for the animals was indeed a secondary priority.

Of the many disagreements of the pro-and- anti side, were the issue of anaesthesia the greatest. If the antivivisectionists credited the vivisectors with administering anaesthetics at all, they did not believe it to be done properly, or with any commitment to the welfare of the animal. This argument was met with starch opposition at the scientists. They insisted, in general that all animals which were experimented upon under license, with the exception of experiments under certificates⁴⁰⁷ were fully anaesthetised and killed before recovery.⁴⁰⁸ This insistence was repeated several times under questioning from the members of the Commission, and if anything it was argued that there was an over- administration rather than skimping out on anaesthesia.⁴⁰⁹ The question of the possible duration and reliability of anaesthetics was also answered to, though variably through the different testimonies. The greatest estimate was given by Professor Starling, who stated himself to have held a dog under complete anaesthesia for 8 hours⁴¹⁰. A more moderate estimation was made by Morris who held 2 hours to be the longest time he had witnessed a dog under anaesthesia⁴¹¹ Powell and Taylor however, admitted some difficulties in the administration of anaesthetics on dogs, but held that it was compensated by giving more anaesthetics than there was called for, and that the real trouble was keeping the dog from dying of the anaesthesia.⁴¹²

An issue which was also attended to by the scientists was that of the drug curare. As we saw earlier, antivivisectionists accused vivisectors of using curare to paralyse the animals without anaesthesia so that they would lie still and be quiet. The scientists, again with Starling in the lead claimed

406 Ibid

407 There were different certificates; one for experimentation without anaesthesia, one for letting the animals recover after experiments, etc which the scientist had to apply for at the home office after having provided a signature from a professor in his discipline and the head of the research facility he used

408 Starling, E.H q3480-88 Morris, H q 7726; Taylor, D, Powell, F q 5571-74; Cushny, AR q5041 1907; The second Royal Commission on vivisection, Reports 1, 2 and 3

409 Starling , E.H Morris, H 1906/07 The second Royal Commission on vivisection Reports 1 and 3,q 7772, 3601

410 Starling, E.H 1906 The second Royal Commission on vivisection Report 1 q 3631

411 Morris, H 1907 The second Royal Commission on vivisection Report 3 q 7802

412 Taylor, D and Powell, F 1907 The second Royal Commission on vivisection Report 2

innocence. "We never use curare as an anæsthetic"⁴¹³ stated Starling, and was supported by Cushny⁴¹⁴ Taylor and Powell.⁴¹⁵ Cushny also accentuated the indefinite qualities of curare. "We have not the same curare that we could have got thirty or forty years ago." He stated- "As a matter of fact, at the present time much of the curare that we get fails to paralyse the muscles or anything"⁴¹⁶ Taylor and Powell also brought up the fact that curare was expensive and difficult to obtain, and that using it besides the original purpose,⁴¹⁷ and especially as a substitute for an anaesthetic "would be a piece of clumsy extravagance which I cannot imagine any sensible man making use of."⁴¹⁸ Taylor and Powell also noted that curare was very rarely used⁴¹⁹.

Language and imagery

Earlier, when dealing with the various antivivisectionists, we were met with a strong presence of animals and images often characterized by emotion and anthropomorphism. When it came to the scientists, however, we are met with a different image. Depicting the animal was not a main priority. The scientists seem to be busy with defending the use of vivisection. This has some interesting consequences for the way animals were described. The general description on animals was unlike those in Lind af Hageby's book, determined by their experimental value. The dog is "indispensable"⁴²⁰, but only as a subject of physiological inquiry and experiments. The rabbit is valuable, but mostly because it is frequently used in bacteriological experimentation.⁴²¹ The word we are most often met with when it comes to animals is "useful". In this sense utility seems the foremost quality of any laboratory-animal. This naturally lead to a certain lack of emotionality in the language. This of course did not mean that passion was void from any subjects, but the interest of the researchers clearly, did not centre on the animals, though they were apt to anaesthetise them. The lack of personal value of the animals, as being something valuable in themselves is also evident in the way dogs in particular are spoken of as almost being a wasted commodity, as strays were being put down in the Battersea Dog's Home regularly.⁴²² The only difference, as Starling formulated it, if dogs were to be forbidden as research animals, was that a few more of them would have to be put

413 Starling, E.H 1906 The second Royal Commission on vivisection Report 1 q3617

414 Cushny, A.R 1907 The second Royal Commission on vivisection Report2 q5011

415 Taylor, D and Powell, F 1907 The second Royal Commission on vivisection Report 2 q5776

416 Cushny, A. R 1907 The second Royal Commission on vivisection Report 2 q5003

417 to prevent reflex muscular movements which would interfere with his experiment under anaesthetics

418 Taylor and Powell 1907 The second Royal Commission on vivisection Report 2 q5776

419 Taylor and Powell 1907 The second Royal Commission on vivisection Report 2 q5778

420 Starling, E.H 1906 The second Royal Commission on vivisection report 1 opening statement

421 Ibid

422 Ibid

down in the Dog's homes. Starling also used the justification that the dog as a species had survived because of its utility to man, and that it was therefore only naturally that it was man's do do with as he pleased, of course within the limits of reason, which they indeed felt vivisection to be⁴²³. The animal is nevertheless in no circumstances described by anything else than how it practically can be used, or cannot be used for certain experiments, as when Cushny explained why dogs were preferred over cats for vivisection

Cats will not permit the necessary handling (...) Cats scratch more than dogs do as a matter of fact. (...) They resist more, and then a cat lies about much more than a dog on its belly, and so on, instead of lying on its side, and that is often awkward. Then a cat has fur which becomes unclean or sucks up fluid and so on, whereas a dog does not do so nearly as much. And then there is the practical fact that the cat will not stand still.⁴²⁴

This language and imagery of animals, clashed completely with the one of the antivivisectionist who clearly depicted animals in a more emotional manner. At the same time in some ways confirmed the claim that animals were but a commodity to researchers. Or you could rather say that the scientist built up an image of their own of the value of animals, and their connection to humans, more prone to utility than to sentimentality. In the language used around anaesthesia, and particularly with respects to curare showed that scientists were trying hard to free and separate themselves from the image created by the antivivisectionists. They dismissed curare as expensive, ineffective and the use of it instead of an anaesthetic as amateurish. While the antivivisectionists prescribed it to be a horror drug of great potency, the scientists seemed to dismiss it as impotent and out of date. The comparison to human surgery was also made more than once⁴²⁵ and reassurance was made that no animal was given less than the care that a human being would have been given. Repeated words like "painless" and "aseptic treatment" were also used.

Scientists and Moral

Arguments

The scientists were a man as moral and compassionate as any man, and the experiments he does is for the benefit of mankind. This was the main argument the scientists promoted when it came to their view upon themselves and their work. As we saw earlier, Starling held curiosity and the

423 Starling E.H 1906 The second Royal Commission on vivisection report 1 q4258

424 Starling E.H 1906 The second Royal Commission on vivisection report 1 q 5086-87

425 Morris, H 1907 The second Royal Commission on vivisection report 3 q 4720-26

knowledge seeking qualities of scientists as something to be proud of, not something to quell. With this argument Starling rendered curiosity an ethic of its own making the men who held knowledge above other things men of good moral.

Another argument for the good moral of the scientist was that Starling argued directly out that scientists were just as humane as any man.⁴²⁶ This claim was supported by Taylor and Powell who argued that the medical scientists was of the highest moral character as his goal was to alleviate pain in humans, and that this work involved a great deal of sympathy. Animals were after all of less importance than humans⁴²⁷ Starling also included animals in the equation by stating it to be in their interest as well as that of humans, that the experiments should go on. He argued that their illnesses and ailments were also cured by the discoveries of medical sciences, and veterinarian sciences⁴²⁸ Lord Cromer who wrote the introduction to the RDS publication *For and against animal* experiments even argued that it was the scientists, and not the antivivisectionists who were the true humanitarians.⁴²⁹

Language and Imagery

When it came to the cost of animal lives which the scientists stood responsible for which they was confronted with they held it contrastively up against the importance of alleviating suffering in man.⁴³⁰ "I do not know that the public always recognises what we, as medical men, know and feel with regard to human sufferings." Taylor and Powell stated, "We see patients day after say, patients going on month after month suffering from diseases which we are trying to alleviate or to prevent their termination" After elaborating more on this suffering, they connected it to animal experiments:

It is said that there are hundreds of dogs experimented upon, but in the whole country- the whole world- there are thousands of people suffering(..) I think have a right to desire to improve their means of alleviating those sufferings; and if it can only be done by means of vivisection then it is a fair question for consideration whether the practice should not still be maintained.

Here we see the suffering of man as comparatively greater, almost incomprehensible. The sacrifice

426 Starling 1906 The second Royal Commission on vivisection report 1 q 3710

427 Taylor/Powell The second Royal Commission on vivisection report 2 - concluding statement

428 Starling 1906 The second Royal Commission on vivisection report 1 - opening statement

429 Baring, E Lord Cromer 1908 letter to the morning post – *Introduction – For and against experiments on animals*

430 Taylor, D/ Powell, F 1907 The second Royal Commission on vivisection report 2- closing statement

of a few hundred animals seems almost insignificant. Here we also see how assessing numbers can influence the portrayal of a situation. While the antivivisectionists reckoned thousands of animals were being used for experiments⁴³¹, the pro-vivisectionists here represented by Taylor and Powell devalue the number to a few hundred.

The way some of the scientists spoke concerning the moral qualifications of their own also have some interesting qualities. One special feature is the use of personal guarantees. Starling and the other witnesses were all asked of the safety of the licensing system. Of this they replied by assuring the commissioners by the absolute safety of the system. Starling claimed he checked each and every one who approached him for a signature in the license application process. He assured the commissioners that he would "take every precaution to know that the man I am signing the certificate for is a proper sort of person"⁴³² This kind of guarantee of licensees was also given by Sir Douglas Powell who claimed to be extremely thorough in his censoring of licenses.⁴³³ Starling also guaranteed the character of every vivisector when it came to the application of anaesthesia when he said;

I can speak to the general practice, and to the intention of every man. I know practically every physiologist in England. (...) And the intention of the experimenter in each case is the same as my intention would be, that is to say, to prevent throughout the whole experiment the animal from feeling pain- to make the whole thing painless.⁴³⁴

Summarising the defenders of vivisection

We have seen what the antivivisectionists expressed over the three factors of vivisection; vivisection, the vivisector and the animal. Now we shall summarise the defenders of vivisection; their arguments and their language and potential images. The first and one of the most notable arguments the vivisectors used in defence of vivisection was that it was the basis of all medical knowledge, past present and future. Get rid of vivisection, modern medicine follows. Vivisection had given the doctor remedies and measures, and the surgeon new operations. This was also linked to the prestige of the country, as an implied threat was that if vivisection was restricted or abolished, the scientists and their students would vacate Britain. With regards to language the scientists tend to

431 And rightly so according to Richard French's figures pp 399-401

432 Starling E.H 1906 The second Royal Commission on vivisection report 1 q3740-41

433 Powell, F 1907 The second Royal Commission on vivisection report 2 q5627

434 Starling E.H 1906 The second Royal Commission on vivisection report 1 q3605

prefer to avoid the word vivisection, and never referred to themselves as vivisectors. They used language of progress to underline the importance of vivisection as a method, and contrasted it to the degeneration and chaos that disease brought about. The pro-vivisectionists, especially Starling held scientific curiosity as a virtue above others. Scientific discoveries were not always gotten by just asking the right question. Sometimes they were discovered by accident, and making curative measure the only qualification for research would destroy much of the scientific spirit. Under this theme the language used was often defensive, as the scientists naturally felt that they were defending themselves against preposterous allegations from people who did not understand the nature of science.

The scientists also had a reply to the accusations of the lacking anaesthetisation of animals. They claimed that they always anaesthetised well, sometimes even too much, but that they never under-administered anaesthesia. This, they argued, was because pain made the experiments unscientific and produced bad results. At least here the pro-vivisectionists and antivivisectionists agreed. Curare was also dismissed as being a impotent, expensive and rare drug which was under no circumstances used as anaesthesia. The language of the scientists when describing the animals was characterised by the view of animals as objects valued by their usability rather than their personal qualities. The scientists' view upon themselves was not surprisingly, very different from that of the antivivisectionists. They saw themselves as men of good moral. This they argued was the case because, though they sacrificed animals, they did it for the sake of humans, and humans were of higher worth than animals. The scientists' actions were portrayed as good moral prioritising. The sacrifice of the animals was also contrasted against the suffering of men which was portrayed as proportionally greater. The scientists, like the antivivisectionists also used the image of the child to present their cause as sympathetic. They also had an extensive use of personal guarantees where one scientist vouched for the character of others.

Chapter 6 – Conclusion

In the introduction I stated that the purpose of this text was to investigate how the antivivisectionists expressed themselves concerning vivisection, the vivisector and animals. This was to be done by analysing the arguments, the language and the images. I also wanted to see what the defenders of

vivisection had to say about the same matters, and by this try to understand why the conflict endured without resolution for so many years. Now at the end of the road, how do we see the antivivisectionists? Were they, as suspected in the introduction; more than just animal lovers fighting for their pets? Did they see pain as the biggest problem? And compared to the scientists, did they seem irrational and emotional?

In order to discern this we will go through the three factors of vivisection, the vivisector and the animal to see which arguments and imagery each side presented on the different themes and what kind of language they used to make their points clear.

First up is vivisection. Vivisection was obviously despised by the antivivisectionists. They attacked it in many different ways. As it was first and foremost used as a method to obtain new knowledge, it is no wonder that the antivivisectionists chose to argue against this notion. Gaining knowledge by vivisectioning animals was wrong and inhumane according to antivivisectionists. There were certain limits of what one could do to obtain knowledge, and torturing animals was far beyond the limit. For the antivivisectionists were deeply convinced that vivisection was torture. Painful and harmful. The descriptions the antivivisectionists used of these painful experiments were extremely detailed, and filled with emotional language as well as strong imagery of blood in particular. This is one of the most elemental separating points standing between the antivivisectionists and the scientists. The antivivisectionists were solemnly convinced that the animals, which were being vivisected, were suffering. The scientists responsible for the vivisections insisted that they felt no pain, were anaesthetised properly and killed before they could recover. This is the first sign of irreconcilable differences.

The antivivisectionists also challenged the scientists of the scientificity of vivisection. One thing they did agree on was that pain was a destructive factor in experiments. But the antivivisectionists used this notion to argue further that since vivisection was painful, as they were convinced that it was, the pain of the animal would certainly botch the results of any experiment. The notion of pain being destructive was only one of the arguments of why vivisection was unscientific. The antivivisectionists, despite of all their notions of animals as kin and having human qualities did not have much belief in the comparability between man and animal purely physically. They even

brought in expert witnesses to explain just how irreconcilable the human and the animal form was, especially when the one was sick and the other healthy but pain-ridden. The imagery they concocted of the unscientific vivisection process could best be described as the wrecking of bodily harmony. The body was a watch, vivisection broke it. Animals were creatures of nature, vivisection constructed artificial conditions. Here we also saw how results or disciplines fostered by vivisection, such as vaccination was despised. Vaccination seemed to be for the antivivisectionists an example of just how unnatural the so called new remedies of the laboratory - and vivisection based sciences were. The antivaccinationist and the antivivisectionists spurred each other on, both expressing concerns over bodily matters, and both basing their movements on an opposition to the modern sciences. They were also linked by the common use of blood-imagery, one of the regular antivaccination arguments of pollution of blood being used by an antivivisectionist during the commission. Antivivisectionism did not only care for animals, and wanted them freed from pain. They also objected to the sciences which used the animal, and the medicine which came out of it. They believed the sciences to be wrongful to the core; even bacteriological discoveries were dismissed as false. The antivivisectionists suggested a more 'natural' approach to the body and healing, and prescribed fresh air, healthy food and exercise as well as cleanliness to be the best remedies both to prevent and counter disease. Clinical studies were also recommended.

The defenders of vivisection had a completely different way of seeing the scientificity of vivisection. Where the antivivisectionists saw it as destructive, they saw it as constructive. In fact they could not imagine medical sciences without vivisection. It was, according to them the alpha and omega of medicine that the execution of vivisection should be allowed to continue as it had. The fact that some antivivisectionists even questioned the basic elements which the new science was built upon, like bacteriology did not seem to concern the pro-vivisectionists. But the continued attacks to the right to know, calling the scientific curiosity of the scientist dangerous, and comparing him to Frankenstein seems to have gotten to the scientists. At one point, an exasperated scientist even argued that holding knowledge above anything else was a good thing. This clashed completely with the way the antivivisectionists regarded scientific curiosity. They saw it as a symptom of the scientists' unnatural obsession with his work. They also looked particularly down upon experiments which were done on animals without any curative measures in mind. This had also been a case at the previous Royal Commission, but was not focused particularly much on in the Second.

These differences between pro- and antivivisectionists in the way they regarded sciences also reveal a piece of the puzzle of why the conflict was so tenacious. The antivivisectionists preached a medicine which was human focused, and devoid of all modern acquisitions. As they saw it, humans could prevent disease by cleanly natural behaviour, and had no need of the artificial immunity of inoculations. The laboratory was a modern acquisition which had only brought about suffering for animals and wrong answers. The doctor and the scientist ought to spend their time by the bedside instead. One antivivisectionist summed it up quite neatly when he claimed "The remedy for most of our maladies is not to be found in the carcase of a cat but on the soul of a man."⁴³⁵ The scientists on the other hand were not only interested in preventing and curing illnesses as they came. They wanted to be ahead of disease, and to know how the body, even if it was an animal body, reacted to a number of conditions; how the proverbial nuts and bolts worked together to make a living entity. In a way it is no wonder the antivivisectionists believed the scientists had a mechanical world view.

The fact that vivisection was characterised as dishonourable and cowardly by the antivivisectionists, and that the vivisectors were marked as immoral men did also affect the scientists. The notion of vivisection and the vivisector was connected tightly and what the antivivisectionists saw in vivisection naturally was reflected in their view of the vivisectors. The view of the sacrifice of animals as driven by pure egoism was especially forwarded by two antivivisectionist priest, giving the image of sacrifice an almost religious denotation. Indeed, the animal had, as seen in the historical background been likened to martyrs, but the comparison had been made by scientists, and the sacrifice was fair. In the eyes of the antivivisectionism it was anything but fair, and the vivisectors should, according to them rather have sacrificed themselves. In relation to the notion of sacrifice it is also noteworthy to see that the *tu-coque* argument was not an explicit part of the scientists argumentation. It did however appear as a problem which the antivivisectionists were confronted with when they were asked where the line between animal and human rights went.

This notion of egoism goes along well with other descriptions of vivisectors. The antivivisectionists, did as seen not trust vivisectors with anaesthesia, as they did not believe vivisection to be painless. The antivivisectionists were convinced that the method of vivisection held power over those

435 Hopps, J 1907 The Second Royal Commission on Vivisection report 3 q 8329

performing it and influenced them in a negative direction. The vivisectors were so fascinated by their work that they lost track of everything else. Here we witness clear parallels to *the Island of Dr Moreau*, and *Frankenstein*. The Hubris of both main characters are indeed very similar to that described as belonging to the vivisector. In his quest for knowledge, the vivisector did not shy anything, and nothing was sacred, not even human lives. For the vivisector the antivivisectionists described were not only obsessed, he was cruel and callous and it was vivisection that had made him like that. The antivivisectionists also had a special concern for the damage vivisection was causing on the young minds of students and laboratory boys. If the vivisector was a Moreau, he would probably drag the Montgomery down with him.

The scientists obviously were stricken by the way they had been accused. But they did not confess to anything wrong. With Starling in the lead, they held themselves as highly moral men. The sacrifices they made were made for the sake of humans. And they held humans higher than animals. The moral qualifications of any scientist in England was even vouched for by Starling as he claimed that everyone cared for the animal and wanted the procedure to be painless. And the scientific curiosity and seeking of knowledge that the antivivisectionists saw as unhealthy obsessions, were held by the scientists as good for progress and the best drive for science.

There was one point, however, where the antivivisectionists accused, and the scientists did not reply. Whether this was because they saw it as below them to answer to such ridiculous insinuations, or because the accusation lacked much evidence is difficult to discern. Whatever the reason, nevertheless they did not answer to the allegations that human experiments were a natural consequence of vivisection. The antivivisectionists' string of argumentation ended here, in the final allegation that vivisectors would eventually vivisect humans as well as animals. They believed the progress from science-obsession through callousness to cruelty, also towards man was logical. They argued that as the vivisector removed himself from humanity and could not comprehend abstract notions of life beyond the physical there was no reason why he should stop at the animal. The vivisector was according to the antivivisectionists the perfect hybrid of Moreau, Frankenstein, Browning's scientist and Tennyson's surgeon. The antivivisectionists believed that the vivisector based his reasoning from animal to man upon evolutionary notions, and the same excuses he made for vivisection, he could also use to experiment upon people who could not defend themselves;

children, the poor, lunatics and imbeciles. Why should society trust a man who "was happier using the knife, than in trying to save the limb"⁴³⁶ This last image of the vivisector as a man completely without scruples, I believe show how much the antivivisectionists distrusted scientists, and the modern sciences. It portrayed also, as mentioned earlier how much power the antivivisectionists attributed to science. They truly believed that vivisection because it involved, according to them, cruelty had the power to turn a normal man into a slave, an addict, a cruel creature operating like a robot in a moral vacuum.

The last element of analysis in this project was the animal. Throughout the antivivisection agitation the animal is painfully visible, almost as a poster image of everything gone wrong in science. And as mentioned earlier it was the pain they believed animals were put through which upset them most. The notion of the suffering animal was also connected to that of rights. As mentioned, the argument that animals should be used for experimentation because it was used for food and clothing, had not been used extensively amongst defenders of vivisection. The antivivisectionists were however confronted with a similar problem during the questioning of The Commission. They did however avoid the hypocrisy trap by setting the limit of animal rights at pain. They seemed to agree that humans had the right to take animal life, but not to maim and torture them for sport or science. The fact that pet- animal still seemingly were held above other animals in importance also showed the way antivivisectionists related to animals. There had however been a change since 1876 when it came to the defence of animals. Now other animals were included as well, and it seems as though the animal- welfare element of antivivisectionism was widening in scope. But animals of presumed intelligence and sensitivity like cats, dogs and monkeys nevertheless held a special position in the antivivisection argumentation. The connection between animals and man was highly valued, but the antivivisectionists seemingly did not see the animal as an equal. The animal was a relation, but a poorer relation, and its helplessness and weakness together with its relation to man qualified it for sympathy. The recognition of the animals as kin of some sort, paired with the way they were portrayed through anthropomorphism could lead the thoughts towards the animal as a symbol of humans. And this notion may not have been as far-fetched. The antivivisectionists truly saw vivisection not only as an animal problem but also as a human problem and especially as a problem of society; or maybe rather a symptom of an unfortunate development in science and society.

436 Tennyson, A – *In the children's hospital*

The allegation of human experimentation may be interpreted as a depiction of the direction antivivisectionists believed society was heading. Society was heading away from nature, away from mercy and harmony and humanity, and away from appreciating and acknowledging the fellowship between man and animal. While the defenders of vivisection saw their methods and sciences as tools of progress, the antivivisectionists saw only degeneration. The vivisector was an obsessed man; a Frankenstein who would violate God's laws in search for knowledge; a Nero whose cruelty would lead him to commit unspeakable crimes against animals and men; a Moreau who would change society and twist nature to his will without care for pain, ridden of all compassion; a scientist unable to recognise the animal as a brave, loyal, sentient being; and finally a doctor who would rather let children suffer than give up on his ambitions.

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Norwegian abstract

Denne teksten har den engelske antiviviseksjonsbevegelsen fra det tidlige 1900-tallet som tema. Med viviseksjon menes fysiske dyreforsøk, blant annet fysiologiske undersøkelser, operasjoner, testing av medisiner og giftstoffer, utvikling av vaksiner og sera og påføring av sykdommer. Hovedproblemstillingen går ut på å finne ut hva som preget uttrykket til antiviviseksjonistene denne perioden med henblikk på de tre begrepene viviseksjon, vivisektoren, eller forskeren, og dyret. Analysen ble gjennomført ved å se på argumentasjonen, språket og de språklige bildene som ble skapt. Vitenskapsmennene som forsvarte viviseksjon som metode ble også analysert i forhold til hva de uttrykte omkring de samme temaene. De to resultatene ble sammenlignet for å forstå bedre hvorfor konflikten mellom forsvarere og motstandere av viviseksjon var så langvarig og steil. Analysen viste at antiviviseksjonistene var ekstremt skeptisk til både vivisektoren, som var deres betegnelse på vitenskapsmennene, og til viviseksjon som metode.

Antiviviseksjonistene så på viviseksjon som smertefull og uvitenskapelig tortur som ble utført i jakten på kunnskap drevet fram av skruppelløse vivisektorer som var besatt av forskningen sin. De koblet viviseksjon som metode og vivisektoren som person til bilder av blod, og fremstilte stor sett hele prosessen som smertefull, unødvendig og blodig. De tvilte sterkt på vitenskapsgrunnlaget viviseksjon ble basert på og pekte spesielt på innvirkningen av smerte. De var overbeviste om at viviseksjon var smertefullt, og at dyrene ikke var tilstrekkelig bedøvet til tross for gjentatte forsikringer om det motsatte fra vitenskapsmennene. De uttrykte bekymring rundt det de så som en økende herding mot smerte, og et fravær av medlidenhet hos vitenskapsmennene..

Antiviviseksjonistene mente at blodsutgytelse gjorde vitenskapsmennene følelsesmessig avstumpet og grusomme, noe som de igjen mente ville gå ut over menneskelige pasienter og dyr

Forsvarerne av viviseksjon hadde, ikke overraskende en totalt motsatt oppfatning både av seg selv og av hva de drev med.

Dyret stod i særstilling hos denne motstandsbevegelsen. Antiviviseksjonistene sammenlignet ofte dyrene med mennesker, og forestilte seg at de hadde menneskelige kvaliteter som kjærlighet, lojalitet og savn.