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**Victorian Medical Men and  
Their Understanding of the Female Condition  
1859-1900**

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2007



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## **DECLARATION**

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## ABSTRACT

Gender relations, particularly in the second half of the nineteenth century, were negotiated against the backdrop of a separate spheres ideology. The doctrine assumed a sexual identity for women based on their natural and distinctive biology. These so-called laws of nature asserted a specific female destiny making them peculiarly suited to a reproductive and domestic existence. This thesis sets out to explore why there were good reasons for medical men to welcome the idea of sexual difference, and by what means a number of them sought to frustrate the ambitions of many middle-class women who were questioning their allotted role and actively challenging the legal obstacles blocking their path in achieving equal status with men.

Although many women subscribed to the idea of exclusion from the public arena, being quite content to run the domestic sphere, there were significant numbers who were openly demanding changes to their subordinate position. The passage of the Matrimonial Causes Act of 1857, the Married Women's Property Acts of 1870, 1882 and 1884 and the repeal of the Contagious Diseases Acts in 1886 confirmed that many feminists and their supporters were making steady inroads onto male territory.

As the lot of middle-class women improved, albeit very slowly, accounting for their distinctive physiology became increasingly difficult to sustain on a rational level. To forestall further any ideas women entertained about moving from their dedicated sphere, some normal female functions were medicalized and many women found themselves directly implicated in the production of pathology. The thesis focuses on the scientific theories and discursive practices that lent support to the notion that women were naturally governed by their reproductive faculty. Their reproductive aptitude became the manifestation of developmental failure, explaining why they had been unable to keep pace with men on their evolutionary journey and achieve equal standing.

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Researching and writing a PhD is a lonely task, and my family has had to suffer the ups and downs over many years. To my children Sara, Alexander, Nicholas and Rebecca, I thank you all for your forbearance. However it is to my husband Richard that I dedicate this piece of work. I never believed him when he told me I could do it.

**ABBREVIATIONS**

<i>Jnl.</i>	<i>Journal</i>
<i>Assoc. Med. Jnl.</i>	<i>Association Medical Journal</i>
<i>BMJ</i>	<i>British Medical Journal</i>
<i>DNB</i>	<i>New Dictionary of National Biography</i>
<i>Ed. Med. Jnl.</i>	<i>Edinburgh Medical Journal</i>
<i>JAMA</i>	<i>Journal of the American Medical Association</i>
<i>JRSM</i>	<i>Journal of the Royal Society of Medicine</i>
<i>Obstet. Jnl.</i>	<i>Obstetrical Journal</i>
<i>Proc. Med. Soc. London</i>	<i>Proceedings of the Medical Society of London</i>
<i>Proc. RSM</i>	<i>Proceedings of the Royal Society of Medicine</i>
<i>TLS</i>	<i>Times Literary Supplement</i>
<i>Trans. Obstet. Soc. London</i>	<i>Transactions of the Obstetrical Society of London</i>

## CHAPTER ONE

### INTRODUCTION

Man is the hunter; woman is his game:  
 The sleek and shining creatures of the chase,  
 We hunt them for the beauty of their skins;  
 They love us for it, and we ride them down....

... Man for the field and woman for the hearth:  
 Man for the sword and for the needle she:  
 Man with the head and woman with the heart:  
 Man to command and woman to obey;  
 All else confusion.

The Princess: A Medley. Canto V (1847)\*  
 Alfred, Lord Tennyson (1809-1892)

The changing dynamics of Victorian family life have provided one of the starting points for this thesis. The mass urbanisation associated with industrialization and the unforgiving demands of the market place left many middle-class men with a deep sense of social alienation. The Evangelical revival of the late eighteenth century provided the framework for the establishment of a separate domestic sphere for middle-class wives where they were entrusted with the moral welfare of household members. It was an ideal formulated and promoted by both men and women to safeguard and enhance their different interests. For many women, withdrawing from the labour market lifted an enormous burden from their shoulders, given their

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\* This long poem was written at the height of the Chartist unrest over electoral reform. In the late 1840s, the women's movement had barely begun to organize itself.

frequent pregnancies and other domestic responsibilities. For men it meant the certainty and protection of a shady bower to compensate for their feelings of estrangement.<sup>1</sup> As John Tosh has argued, domesticity was central to masculinity not only because men were unquestionably at the head of the household exercising protection and control over the family, but also because the home offered the space where their deepest needs could be met.<sup>2</sup>

One telling aspect of the new economic and social relations was the domestic reassurance needed by men. It exposed their own dependence not simply on the comfort of wife and family, but on the institution of marriage itself. In this sense the privacy of the home sanctioned a patriarchal system at the same time as undermining masculine traits of resolve and self-determination. The need for female solicitude shows us, in the domestic setting at least, that men were fully aware of the value of their ‘angels in the house’.<sup>3</sup> Moreover it was very much in men’s interest to instil in their womenfolk the notion of ‘a woman’s mission’ both in the matter of morality and of duty.

While social and cultural historians of the period will be all too familiar with this tableau, this thesis sets out to explore the female condition through the eyes of Victorian medical men. It is important at this point to explain what is meant by that term. ‘The female condition’ should be understood as an unnatural state of being,

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<sup>1</sup> See the pioneering work of Davidoff, L and Hall, C *Family Fortunes: Men and Women of the English Middle Class, 1780-1850* Routledge: London (1987) esp. ch.7 which deals with the role of marriage in family formation.

<sup>2</sup> Tosh, J *A Man’s Place: Masculinity and the Middle-Class Home in Victorian England* Yale University Press (1999) p1

<sup>3</sup> This term has come to exemplify the Victorian middle-class ideal of submissive womanhood, used originally by the poet Coventry Patmore (1823-1896) in his domestic epic *The Angel in the House* (1845-62)

dependent for its gendered status on the social, cultural and political mores of the day. The female condition we shall be looking at was one constructed against the background of a separate spheres ideology that coincided with increasing commercial wealth and a punishing work ethic. In its idealised form it depicted a state of morality, of modesty and of motherhood. In reality it often translated into a stifling existence revolving around husband, home and childbearing.

The reasons for choosing to look at doctors above any other profession were twofold. Firstly, medical men were nearly exclusively members of the middle class even if they straddled either end of that classification. Furthermore, although their patients came from all levels of society, in their professional encounters they were likely to be well acquainted with the kind of lives experienced by their middle-class female patients. The second reason was medical men's access to and special knowledge of the human body and its functions. Their unique professional position allowed for confidentiality and intimacy without any charge of prurience. Indeed there would have been many occasions when the medical man was more familiar with a woman's physical and psychical life than her husband was ever likely to be.

The question I am posing is how medical men came to understand the female condition in the way the majority did, and why the need to do so became pressing during the last four decades of the nineteenth century. The purpose of this thesis is to open up new avenues for thinking about the very close and interdependent relationship that existed between medical men and the women they encountered in their professional capacity. The research centres upon the men and their thinking while recognising the important role women played in the formulation of medical

men's views. At the same time it takes account of the struggles over status that these men were engaged in as they sought to establish themselves professionally.

In the following pages I discuss the way in which the existing historiography has helped me to frame and develop my own argument about the female condition.

Initially my own curiosity and interest in the medical men of the nineteenth century led me to embark on the job of systematically looking through every copy of the *Lancet* for the years 1859-1890 knowing that this was a key text for doctors. Within a very short time I was struck by the disproportionate amount of column inches given over to women's diseases, neurotic women, and indeed any illnesses that seemed to be female in character. Furthermore there was a palpably hostile tone adopted towards women who exhibited pretensions beyond their sphere, or were in any sense morally reprehensible, or indeed any woman who inclined towards activities considered 'unfeminine'. From my initial readings I could see that there would be rich seams to mine.

I was also aware of the burgeoning literature on the history of sexuality. A whole new dimension was given to the subject by Michel Foucault's three-volume examination of the means whereby nineteenth-century sexual attitudes and assumptions were discursively constructed.<sup>4</sup> It was a curiosity directed at the unconscious laws of language that give rise to institutions at particular times and to the repressive nature of those institutions, revealed in their injunctions. In particular Foucault questioned the long-held belief that the Victorians prudishly and repressively shut the door on any

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<sup>4</sup> Foucault, M *The History of Sexuality* (3 Vols.) *The Will to Knowledge* (1976); *The Uses of Pleasure* (1984); *The Care of the Self* (1984) Penguin Books: London

matters relating to sex; that it was to be unobtrusive and disciplined, the very conditions evident in the supposed genial attributes associated with reserve and control.

Whilst Foucault's work helped in channelling my ideas, I also found the increasingly sophisticated feminist scholarship invaluable. The marked change from the 'suffering and wounded' school of writing that characterised earlier studies to one that gave a voice to women changed the emphasis of the whole debate about female sexuality. There were three key texts relating to women and their bodies that proved important to this thesis: Ornella Moscucci's *The Science of Woman*, which is concerned with the gendered dynamics of gynaecology; Hilary Marland's book *Dangerous Motherhood*, a close study of puerperal insanity in Victorian Britain which sheds light on the relationship between childbirth and mental incompetence; and Cynthia Eagle Russett's *Sexual Science* which offers an analysis of the construction of femininity in nineteenth-century science.<sup>5</sup> My research has allowed me to build on published work by setting my focus on one profession that was almost exclusively a male bastion yet spoke for both genders.

In order to do full justice to the title of this thesis, we need to look on it as being essentially concerned with the scientific theories and medical discourses that contributed to and shaped medical men's conceptions of the female body. Although at one level of meaning this body was a chimera, it was also a rationally constructed one that would allow maleness and femaleness – that is respective roles and identities – to

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<sup>5</sup> Moscucci, O *The Science of Woman: Gynaecology and Gender in England, 1800-1929* Cambridge University Press (1990), Marland, H *Dangerous Motherhood: Insanity and Childbirth in Victorian Britain* Palgrave Macmillan (2004), Russett, C *Sexual Science: The Victorian Construction of Womanhood* Harvard University Press (1991)

be understood as fixed in the body's constitution. Having read through large samples of articles and monographs on diseases peculiar to women, it became evident that a medical consensus existed in affirming that a woman was ruled by her reproductive organs and that it was this unique organization that gave rise to diseases that had no counterpart in the male.

For this core assumption to work, it had to be established that nature, not man, notified sexual difference. This was fundamental to the argument since nature by its very essence was eternal and final. So in order to square the circle and allow this apparent distinction to be tenable and to gain wide acceptance, diseases had to be created in order for sexual difference to be represented correctly and substantiated properly. My interest is in the construction of this consensus, while recognising that there were always significant voices, both male and female, that opposed the consensus on a variety of fronts.

The picture of the ministering angel attending to her flock may have been the preferred image, and indeed many intelligent women cultivated and defended it vociferously, but for many more the real situation was very different. A great number of wives, daughters and sisters belonging to the middle-classes did not see themselves as decorative, pious or servile. Indeed the 1851 census had revealed that many single and widowed women were living alone and their situation gave them a great incentive to fight for employment opportunities and economic independence. Being immersed in domestic functions held out little promise for these women wishing to exercise their intellect. Many middle-class families saw educating their daughters as a necessary precaution against the ignominy of spinsterhood. Some girls were fortunate



enough to be members of more enlightened professional families who were keen for their daughters to receive an education for its own sake. Many of these lucky ones had free access to journals and not infrequently attended public meetings.

One good example is provided by Jeanette Marshall (1855-1935) whose diaries are the subject of Zuzanna Shonfield's book *The Precariously Privileged*.<sup>6</sup> She was the elder daughter of the eminent anatomist John Marshall F.R.S. (1818-1891) who himself had sponsored the Ladies' Sanitary Association from its inception in the late 1850s. His chief concern was to teach the poor the rudiments of health and diet via the ladies who attended his specially designed course on physiology held on Saturday afternoons at University College during 1861. One of his students, Jane Agnes Chessar (1835-1880), became Jeanette's tutor and managed to persuade her mother Ellen Marshall to allow her to attend meetings of the Royal Geographical Society of which she was a member. For a young girl who craved intellectual stimulation, this encounter with the outside world reinforced her natural inclination towards women's rights, a cause she was to champion more from instinct than any political motive.<sup>7</sup>

It was the lack of educational opportunities coupled with the absence of control over their bodies that contemporary feminists considered as being at the root of women's oppression.<sup>8</sup> The 1850s saw the emergence of a women's movement preoccupied particularly with issues of education and employment opportunities.<sup>9</sup> In 1858 the

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<sup>6</sup> Shonfield, Z *The Precariously Privileged: A Professional Family in Victorian London* Oxford University Press (1987)

<sup>7</sup> *ibid.* p16, p75

<sup>8</sup> The word 'feminism' was not coined until 1895. Before then they associated themselves with 'the woman question', a generic term for women's educational, political, economic and social emancipation.

<sup>9</sup> Alexander, S *Becoming a Woman: And Other Essays in 19<sup>th</sup> and 20<sup>th</sup> Century Feminism* New York University Press (1995) esp. her chapter 'The Women of Langham Place' pp135-148

Langham Place Circle was established, named after the offices at 19 Langham Place, from where two leading feminists and close friends Bessie Rayner Parkes and Barbara Leigh Smith Bodichon financed, edited and published *The English Woman's Journal*. The offices provided a perfect setting for the recruitment of other middle-class women interested in reforming campaigns. A library, dining room, employment lists and classrooms were available as a base from which women could build social networks and thereby advance their collective interests.<sup>10</sup>

From the late 1850s a number of significant Parliamentary Acts and a series of campaigns mounted by women challenged men's power in a number of ways.<sup>11</sup> In 1857 the first Matrimonial Causes Act came into force. The Act allowed divorce through the law courts, instead of the slow and expensive business of a Private Act of Parliament. Although this gave many women the opportunity to seek a divorce, there were major qualifications. For under the terms of the Act the husband had only to prove his wife's adultery, but the wife had to prove her husband had committed not just adultery but also incest, bigamy, cruelty or desertion.

Although Victorian feminists were predominantly members of the middle class, their interests and activities were not confined to their own grievances. One of feminism's greatest triumphs concerned the appalling treatment meted out to prostitutes. The Contagious Diseases (C.D.) Act of 1864, which aimed to reduce venereal diseases in the British armed forces by the forcible examination of prostitutes, had seen double standards enshrined in law. In addition, the women who serviced these young men were held to be responsible for their client's transgression. Josephine Butler (1828-

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<sup>10</sup> See Caine, B *English Feminism, 1780-1980* Oxford University Press (1997) esp. pp93-102

<sup>11</sup> See appendix 1 for the English Statutes that had a direct bearing on Victorian women.

1906) was supported by a number of leading feminists in her moral and religious crusade to have the C.D. legislation overturned. The degraded position of these women who were wholly dependent for their living on men's sexual appetites, attracted vociferous opposition to double standards in sexual morality from a number of middle-class men, including doctors.<sup>12</sup>

Physicians George Drysdale (1825-1904), his brother Charles Robert Drysdale (1829-1907) and Charles' wife the gynaecologist Alice Vickery Drysdale (1844-1929) were important contributors to the campaign.<sup>13</sup> George Drysdale's writings were central to the Malthusian League's provocative arguments and his brother was its first president.<sup>14</sup> C.R Drysdale, senior physician to the Metropolitan Free Hospital London and an expert on venereal diseases, was one of the most vocal critics of the C.D. Acts during their extension until their final repeal in 1886.<sup>15</sup> He firmly believed that the availability of prostitutes would diminish if more women had opportunities to better themselves. He was very keen for women to enter the medical profession and often took students with him on his hospital rounds. Against the run of opinion of most Victorian doctors, C.R. Drysdale also championed 'preventive sexual intercourse' (birth control), arguing that sexual freedom would enable women to enjoy love without the constant fear of pregnancy. In addition their husbands would have less recourse to prostitutes as a means of limiting their own families.

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<sup>12</sup> Butler had little regard for medical men. She saw the police, magistrates and doctors as part of "a whole network of men who were engaged in the systematic surveillance, degradation, and oppression of women". Caine, *English Feminism* p109

<sup>13</sup> Strauss, S "*Traitors to the Masculine Cause*": *The Men's Campaigns for Women's Rights* Greenwood Press: Westport, CT (1982). Also Soloway, R *Birth Control and the Population Question in England, 1877-1930* University of North Carolina Press (1982)

<sup>14</sup> The Malthusian League (after Thomas Malthus and his theories of unchecked and exponential population growth) was founded in 1877 as the first birth control organization in the world.

<sup>15</sup> The Contagious Diseases Acts of 1864, 1866 and 1869 were suspended in 1883, three years before their repeal.

Sometimes marriage between doctors witnessed joint action. For example George and Francis Hoggan who had married in 1874,<sup>16</sup> not only co-authored several papers including one on smallpox, but they campaigned together on several issues concerning women's rights such as education and civil rights. As Barbara Caine has noted, "the existence of strong male support for feminist objectives is one of the striking characteristics of Victorian feminist agitation".<sup>17</sup> This interaction should not be underestimated. It was vital to have the backing of both sexes if changes were to come about although it should be noted that on occasions support was equivocal, with some men wishing to 'take over' the objectives of their female associates.

It was in this context of debate over opportunities for middle class women that questions of sexual difference were being voiced and emphasized. How sexual difference was understood in the Victorian period was linked to the grounding of gender relations in biology, in particular evolutionary biology that described processes with definite stages and immutable laws. Under those terms, being defined by her sex meant a specified and distinctive destiny, and that faithfully translated into a destiny of reproduction. As a consequence, the Victorian woman's life events were expected to be punctuated by disturbances that easily lent themselves to a disordered state. Physiological explanations were offered to shackle nervous disabilities to reproductive systems. It was a cradle to grave endurance test where the ordinary milestones of menstruation, parturition, lactation and the menopause were all susceptible to derangement and pervious to disease.

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<sup>16</sup> In 1885 Francis Hoggan became the first female doctor to be registered in Wales.

<sup>17</sup> Caine, B *Victorian Feminists* Oxford University Press (1992) p14. See also the chapter on Josephine Butler, pp150-195

The grounding of the relationships of the sexes in a new biology, it has been argued, marked a unique rupture in the history of the human body. Hitherto it had not been the case that individuals of the same species occurred in two forms according to sex and function. How this sexual dimorphism arose has been examined by Thomas Laqueur and his work on reinterpreting the female body has been particularly pertinent in relation to this study.<sup>18</sup>

Laqueur's contention is that around the close of the eighteenth century a paradigm shift occurred whereby a biology based on an hierarchy of one sex, what he termed a 'one-sex/flesh model' ceded to a biology of incommensurability between two sexes, a 'two-sex/flesh model'. The 'one-sex/flesh model' reflected gender roles by arranging men and women along an hierarchical line, with women being inferior but not different from men. In other words, their inferiority was born of degree, not of kind. This was expressed by men being more perfect than women on account of their excess of vital heat. According to Aristotle for instance, the production of the menstrual flow was the effect of insufficient heat being available to transform it into semen, its superior and more perfect state. So man being the hotter and stronger displayed his sexual organs outside his body, whereas the female's organs remained hidden since she had insufficient heat for their extrusion. This was denoted by the vagina as an inverted penis, the ovaries as homologous to the testes, and the labia

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<sup>18</sup> Laqueur, T 'Orgasm, Generation, and the Politics of Reproductive Biology' in Gallagher, C and Laqueur, T (eds.), *The Making of the Modern Body: Sexuality and Society in the Nineteenth Century* University of California Press (1987); Laqueur, T *Making Sex: Body and Gender from the Greeks to Freud* Harvard University Press (1990); Laqueur, T 'Sex in Flesh' *Isis* Vol.94 No.2 (June 2003) pp300-306

resembling the scrotum.<sup>19</sup> On that basis woman could be understood as essentially the same as man, though a less perfect version of him.

Laqueur suggests that this 'one-sex/flesh model' collapsed as social arrangements required biological distinctions to be expressed through a wholly different rhetoric. Reappraising the female body in evolutionary terms allowed inequalities to be understood as natural, with differences marked in kind and which no amount of reordering could alter. Laqueur's thesis offers a good vantage point to examine the climate in which this study is placed. It was a climate in which those who held dogmatic views of sexual character and function had them supported by the presumed authority of science.

Scientific speculation and the thirst for facts accelerated markedly after mid-century. Partly this reflected the technological leaps of the time that seemed to herald such a promising future. But it would be a mistake to believe that technology provided the trigger for scientific inquiry. Instead we need to understand technological advance as part and parcel of the quest for certain and sure knowledge. In the immediate post-Darwinian years, evolutionary biology, because of its diverse applications, underpinned much of the belief in the truth of facts and the debt to Darwin was unmistakable. The very language of evolutionism encouraged the extension of many of his ideas to non-biological areas.<sup>20</sup> Indeed the tendency to derive moral prescriptions from evolutionary theories became increasingly forceful as the years passed and various legal constraints were either revoked or enacted.

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<sup>19</sup> See Laqueur *Making Sex* esp. pp78-91 for the sixteenth and seventeenth century anatomical drawings illustrating the correspondence of the male and female sexual organs.

<sup>20</sup> Fichman, M *Evolutionary Theory and Victorian Culture* Humanity Books: New York (2002) p15

Cynthia Russett's examination of the scientific literature of the nineteenth century on the differences between men and women targets this point. The very title of her book, *Sexual Science*, suggests an intense and zealous enquiry into sexual difference, and that quest fed a comprehensive spectrum of debates about the females' moral and intellectual potentialities. As she explains, "physical anthropologists studied the physical and mental traits of human beings in the context of their relationships to the great apes. Cultural anthropologists assessed civilizations and races on an evolutionary scale of perfection. In psychology interest centered on the neurophysiological development of brain levels in the individual, as well as the development of intelligence and morality in humanity as a whole".<sup>21</sup>

In terms of human evolution these ideas could explain that woman lagged behind man in much the same way as primitive people lagged behind Europeans. Their development was incomplete. To emphasise this point, women were positioned so as to be constantly at the mercy of downward pressures that would remind them of their place in nature and warn of the consequences of stepping beyond the bounds of decency to satisfy intellectual or other ambitions. Not having reached the apex of perfection evinced by the white European male, a woman's precarious foothold on the evolutionary ladder meant there was always a danger of her slipping off the rung and recapturing her earlier evolutionary form.

In exploring Victorian medical men's notions about female sexual function being indwelling and representative of her nature, my interest has centred on public discourses acknowledged in the public domain. Therefore the hard evidence comes to

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<sup>21</sup> Russett, *Sexual Science* pp4-5

us through the printed word, from contemporary medical monographs, lectures and letters. Obviously not every medical utterance carried weight, was instructive, or was even noticed. But by and large those words that did make an impression came from the medical practitioners who constituted the medical establishment in London in the period following the passing of the 1858 Medical Act. The long fought-for yet only partial reform of the medical profession demarked the ‘qualified medical practitioner’ from those trading in unorthodox remedies. In addition all qualified practitioners appeared in the Medical Register, an annual publication of the newly created General Medical Council. However the legislation did not outlaw quack medicine and furthermore it failed to touch “the privileges, powers, and internal structure of the old corporations... [thus] the distinctions of rank remained, and hierarchy was preserved”.<sup>22</sup> Not surprisingly, for the majority of qualified doctors this unsatisfactory and incomplete piece of legislation provoked a great deal of professional anxiety.

With London as the geographical focus, three key criteria for this study are addressed. Firstly, London was the city with the heaviest weighting of medical men; secondly, the capital had the greatest number of teaching hospitals, lying-in charities and private institutions; and thirdly it was the major centre for medical education. This last point needs underlining, for those who held the highest positions in the Ancient Colleges also acted as gatekeepers for entry into medical practice, were responsible for the medical curriculum, and set codes for medical conduct. It was here that medical

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<sup>22</sup> Peterson, M Jeanne *The Medical Profession in Mid-Victorian London* University of California Press (1978) pp36-8. See also Digby, A *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* Cambridge University Press (1994); Bynum, W *Science and the Practice of Medicine in the Nineteenth Century* Cambridge University Press (1994)



authority and medical power was forged and executed.<sup>23</sup> Importantly, London was the principal arena for medical advancement and for medical reputations to be made and to be broken. This last point comes to life in my chapter on Mr. Isaac Baker Brown, a one-time celebrated surgeon whose ventures into psychological surgery were to prove a cut too far. As we shall see, his fall from grace was orchestrated by a relatively small number of his peers whose chief concern of protecting their own reputations as well as the standing of their profession overrode all other considerations.

The temporal framework for this thesis spans approximately the last four decades of the nineteenth century. This was a period of unprecedented activity as far as women's struggles were concerned. However, changes to property and divorce laws as well as the iniquitous C.D. Acts also affected the thoughts and actions of many in the medical profession. The Medical Act of 1858 did little to ensure a medical monopoly on health. The public seemed sceptical about the value of 'science' and had "serious reservations about medical men's social authority and prestige".<sup>24</sup> With many in the profession feeling threatened both by their ill-defined status and an atmosphere of insecurity, few would chance rocking the boat by voicing "any vigorous dissent from prevailing attitudes".<sup>25</sup> Professional self-interest always had the upper hand and was particularly evident when opposing the idea of women embarking on a medical career.

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<sup>23</sup> It is essential to give weight to other important centres in Britain, most notably Edinburgh. Many important journals were published from here and the city had a very strong Enlightenment connection. It was also the centre of much female agitation for educational rights. Sophia Jex-Blake's well documented attempts to get a medical education at Edinburgh is the most obvious example.

See Blake, C. *The Charge of the Parasols: Women's Entry to the Medical Profession* The Women's Press: London (1990) and Bonner, T.N. *To the Ends of the Earth: Women's Search for Education in Medicine* Harvard University Press (1995)

<sup>24</sup> Peterson, *The Medical Profession* p38

<sup>25</sup> Harrison, B 'Women's Health and the Women's Movement in Britain: 1840-1940' in Webster, C. (ed.) *Biology, Medicine and Society 1840-1940* Cambridge University Press (1981) p20

The parameters of the study also coincide roughly with two vital discoveries for the scientific community: the publication in 1859 of Charles Darwin's *The Origin of Species by Means of Natural Selection*, and the rediscovery in 1900 of Gregor Mendel's lost paper of 1865 'Experiments in plant-hybridization' that he had originally read at a meeting of the Natural History Society of Brünn in Moravia.<sup>26</sup> These two publications were to have a profound impact on thinking in these decades and for quite different reasons.


Darwin's theory was not only a masterpiece of biology; it challenged the truth of the Bible and transformed attitudes towards the human race as the *raison d'être* of the creation. Following the 'cosmic blow' of the Copernican revolution when man was dislodged from his geocentric safe-house and shunted into a heliocentric hinterland, this 'evolutionary blow' put paid to the cosy and familiar idea that the world had been created merely a few thousand years before. To grasp an idea that was historically 'short' merely required a lively imagination. After all, Biblical characters may have been long gone, but they were certainly familiar enough to be considered 'one of us'. But to engage with ideas or events with vast time scales such as natural selection, that could only be described mathematically and for which there was no tangible evidence, was quite another matter. For these reasons evolutionary theory was deeply unsettling, left deep wounds in the intellectual consciousness and called for a rethinking of man's place in the natural world.

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<sup>26</sup> It was not until 1900 that the science of genetics was formulated and the importance of Mendel's discoveries recognised. See for example Posner, E & Skutil, J 'The Great Neglect: The Fate of Mendel's Classic Paper Between 1865 and 1900' *Medical History* Vol.XII (1968) pp122-136

That said, by the time Darwin published *Origin*, evolution had been ‘in the air’ for some twenty years. The 1830’s saw the publication of Sir Charles Lyell’s three volume *Principles of Geology* that reviewed evidence of the course of earth’s history thereby aiming to separate the sciences from religion. Moreover, the scientist Alfred Russel Wallace had been pipped at the post when Darwin stole a march on his paper on natural selection and decided to publish in 1859 even though both men had jointly presented their independent findings to the Linnaean Society the previous year. Nevertheless, when Darwin went public the upheaval and disturbance of his theory to the whole structure of accepted thinking did provide the ready-made and necessarily new paradigm for fresh modes of inquiry. Evolutionary biology became one of the dominant metaphors for studying human behaviour and society more generally. This new frame of reference became especially important, for it allowed those charged with the social construction of a new kind of femaleness to have access to vocabulary that would express freely questions of ancestral linkages in terms of evolutionary imperfections and adaptive qualities in terms of changes over time.

Darwin’s *Origin* speculated only obliquely on the idea that his theory of evolution would shine a torch on human origins. By the time *Descent of Man, and Selection in Relation to Sex* was published in 1871 his thoughts were more explicit, arguing that in Africa evidence existed for human ancestry and evolution. Discussed in this light, it could be demonstrated that women were endowed with a particular cast of mind and an inborn aptitude for domesticity that had evolved over time, and that these biologically determined qualities were best suited to the private sphere.



**Fig.1** Charles Robert Darwin (1809-1882) photographed in 1868 by Edward Walford.

For example, Darwin argued that sexual selection probably played an important part in determining the difference in the mental powers of the two sexes:

“It is generally admitted that with woman the powers of intuition, of rapid perception, and perhaps of imitation, are more strongly marked than in man; ... the chief distinction in the intellectual powers of the two sexes is shewn by man attaining to a higher eminence, in whatever he takes up, than woman can attain – whether requiring deep thought, reason, or imagination, or merely the use of the senses and hands ...”<sup>27</sup>

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<sup>27</sup> Darwin, C *The Descent of Man, and Selection in Relation to Sex* [1871] Princeton University Press (1981) Pt.2 Ch.XIX pp326-7

Yet despite the vaunting of man's superiority and dominance, on a more mundane level the features that came to identify woman's spiritual role as homemaker and helpmeet were part of a belief system that was far from assured.

Gregor Mendel's work on heredity brought its author only posthumous fame (he died in 1884). Thus the scope of this study does not entail any account of the generally accepted scientific understanding of how characteristics are transmitted generationally. But what this ignorance does offer is the chance to see how medical men of the period were able to speculate on the laws governing inherited characteristics without having access to any real understanding why and how particular traits came to be exhibited. The two chapters, on 'Our Genetic Connection to Bruteland' and on 'The Laws of Inheritance' have relied heavily on precisely this lack of understanding as important supports of the framework for my argument. Hence my proposition that the second half of the nineteenth-century heralded an intensely interesting period for examination in this thesis, bounded by two arguments; the first resulting in a wholesale rethink of human nature and women's position in it, while the second, through its very absence, having an enormous influence on thoughts about the state of the human stock and the future of the species.

My own investigations have shown how the institution of medicine can be fruitfully examined using a Foucauldian lens. His thesis on sex and sexuality states that from the seventeenth century, sexual practices and sexual expression moved from a state of freedom and liberty to a state of repression, and that the 'advent of the age of repression' coincided with the development of capitalism and was a condition of it. In

other words, the new bourgeois order and its attendant work ethos was at odds with a sexuality that did not have reproduction as its overriding objective.

However, one of the weakest links in Foucault's argument as far as this thesis is concerned has been his total disregard for a gendered dimension. The access to knowledge and employment of power was severely distorted. After all, if the means whereby knowledge could be gained was only granted to men, then *ipso facto* women were in no position to use or apply power. This was clearly the case. But there were plenty of instances where power was withheld irrespective of any access to knowledge. One only needs to think of the lack of female suffrage in the period, or the slow reforms to the Matrimonial Causes Acts or to the Married Women's Property Acts. These examples show that any powers denied to women were contingent on the organising principle of sexual difference.

The question of sexual difference was very much the interest of evolutionary biology. Notions of progress and decay were necessary to the theory of evolution for the very reason that it was concerned with specialization and the survival of the best adapted. Although not medically trained, evolutionary biologists had close links to the medical fraternity. The most notable and influential theorists were the philosopher Herbert Spencer (1820-1903) and Charles Darwin's cousin Francis Galton (1822-1911). Evolutionary theory was not necessarily the province of Darwinists and natural selection. Indeed Spencer was a confirmed Lamarckian, believing in the inheritance of acquired characteristics. But that did not alter the fact that evolutionary theory was strongly gendered precisely because it was deeply implicated in the composition of sexual differences and biologically determined natural spheres. As a result many

extrapolations were made, especially cultural ones, which impinged directly on women's lives.

As a concept, the idea of a woman as a reproductive creature rather than a productive one had great utility. The chapter devoted to menstruation probably offers the most striking instance of women's natural rhythms being meddled with and obstructed in order to line up with the prevailing cult of femininity. As Julie-Marie Strange suggests, "medical discourse rendered menstruation a problematic physiological function whilst creating (and perpetuating) a conception of women that implicitly privileged marriage and motherhood".<sup>28</sup> Menstruation expressed a clear definition of body difference yet it also revealed signs of decay in the products of a missed pregnancy. The medical discourse relating to a woman's indwelling nature set her on a path of near constant anxiety.

For girls, puberty was invariably flagged up as the moment when sexual crises were set in train. Irrespective of whether or not disease was present, menstruation was always understood as evidence of a functionally disturbed uterus. Moreover, if the uterus was considered unable to cope with the periodic volume it was expected to evacuate, medical men regulated its action by extracting blood vicariously, by cupping, applying poultices or inserting leeches into the cervix. But an absence or paucity of flow was also a cause for concern. Chlorosis or green sickness was the common diagnosis for young girls showing an unhealthy pallor. It signalled not only

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<sup>28</sup> Strange, J-M ' "I Believe It To Be a Case Depending on Menstruation": Madness and Menstrual Taboo in British Medical Practice, c. 1840-1930' in Shail, A & Howie, G (eds.), *Menstruation: A Cultural History* Palgrave Macmillan (2005) p102

impaired menstruation but also general indolence and mental deficiency.<sup>29</sup> Physical frailty and nervous irritability were manifestations of the unsound female condition. Menstruation, along with many other physiological events peculiar to women became the standard bearer for a woman's chronic limitations.

The fulfilment of a woman's femininity could be attained through motherhood. But given the decline in fertility from the 1870s, the medical discourse associated with competing claims of the prestige of motherhood and intellectual aspirations became increasingly alarmist. As Jeff Hearn has stressed, "Medical men ... were prime actors in the construction of 'womanhood' and female/feminine sexuality, particularly so in terms of procreation ... and the overwhelming significance of reproductive organs".<sup>30</sup> Brian Harrison too has noted that the demands of academic study were said to have deleterious consequences for the female physique.<sup>31</sup> Yet while the dangers associated with the state of motherhood itself were well recognised, the psychological problems associated with the immediate post-natal period took on new meanings in the nineteenth century.

Hilary Marland's study of the prevalence of puerperal insanity in Victorian Britain has drawn attention to its close links with childbearing and the female life-cycle. Of particular interest to this thesis is Marland's consideration of disruptions to the bourgeois household when a wife succumbed to 'insanity'. As well as a lamentable dereliction of duty, the family was confronted with the obverse of domestic

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<sup>29</sup> King, H *The Disease of Virgins: Green Sickness, Chlorosis and the Problems of Puberty* Routledge: London (2004)

<sup>30</sup> Hearn, J *Men in the Public Eye: The Construction and Deconstruction of Public Men and Public Patriarchies* Routledge: London (1992) p105

<sup>31</sup> Harrison, 'Women's Health and the Women's Movement in Britain' p25



selflessness, namely “alarming spectres ... distorted mirror images of their ‘true selves’”.<sup>32</sup> The new mother appeared to turn her back on propriety, delicacy and the assumed rewards of motherhood. Instead she began to challenge and flout social norms as this exclusively female illness took its toll. The value she had placed on hearth and home severely diminished, so it was in everyone’s interest to ensure that the errant woman be brought back to a state of moral sensibility. As Marland has argued, “puerperal insanity was very much a disorder that ‘belonged’ to the nineteenth century in terms of its medical and social setting”. Doctors had long recognised the dangers and fears of childbirth, and these anxieties were always expressed through a discursive medium. The nineteenth century identified puerperal insanity as a specific disorder of childbirth and a new emphasis was placed “on careful monitoring, ‘expert’ guidance and the possibilities of medical intervention”.<sup>33</sup>

Thomas Laqueur located the splitting of sex from pleasure to the eighteenth-century paradigm shift we have already mentioned. He suggested that the shift arose because the body could no longer be accommodated by flesh alone. Instead, two branch lines were created, a biology of reproduction and a medicine of sex, each going its separate way. In this new arrangement a much greater surface area was made available for distinct discourses to operate. Much of Laqueur’s writing chimes well with Foucault’s views that there was an exponential growth in post eighteenth-century texts on diseases and disorders peculiar to women. This rush to publish was indicative of medical men of the period ‘discovering’ women for the first time, not as a sub-species but as a separate species subject to wholly different rules of engagement from those

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<sup>32</sup> Marland, *Dangerous Motherhood* p65. Today this condition is known as post-partum/post-natal depression

<sup>33</sup> *ibid.* pp3-4, pp24-5. Marland further notes “the term ‘expertise’ increasingly entered the English language around the mid-nineteenth century”. p29

entertained in previous millennia. Laqueur stated that “as cultural and political pressures on the gender systems mounted, a passionate and sustained interest in the anatomical and physiological dimorphism of the sexes was a response to the collapse of religion and metaphysics as the final authority for social arrangements”.<sup>34</sup>

I would argue that this is only partly correct. Although there were those articulating a secular framework for discussion to replace religious-based beliefs, Laqueur has failed to appreciate the strength and importance of evangelical Christianity’s core belief in a God-given steady state, nor has he acknowledged evangelicalism’s very powerful influence over the middle class.<sup>35</sup> In addition, my research has shown that rather than cultural and political concerns exerting pressure on gender systems, the new arrangement for the sexes was a driving force for change. John Tosh’s argument that “men’s investment in ideas of sexual differences was [thus] a defensive response to the improvement in the status of women”<sup>36</sup> is an endorsement of my critique of Laqueur and is developed further in this study.

Allowing for these provisos, my own research has confirmed that there was an increasing emphasis placed on the existence of two distinct sexes. A woman’s lot was being bettered, albeit very slowly, by the legal curtailment of her husband’s powers beginning with the Matrimonial Causes Act of 1857. As a result of unsettling the status quo, underlining and highlighting the contrasts between the sexes became compelling. Most obvious was the increasing number of handicaps imposed on

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<sup>34</sup> Laqueur, ‘Sex in Flesh’ p306

<sup>35</sup> See Tosh, J ‘Masculinities in an Industrializing Society: 1800-1914’ *Jnl. of British Studies* Vol.44 No.2 (April 2005) pp330-342

<sup>36</sup> *ibid.* p337

women either to prevent them having aspirations above their station or from upsetting economic arrangements that would have imperilled their reproductive obligations.

Typically the handicaps were thought to be natural. One of the greatest exponents of this notion was Herbert Spencer. He considered these natural handicaps as evidence of a woman's permanently arrested development. By that he meant that she never *could* fully develop since she had stopped short on the path of evolutionary development. Nancy Paxton discusses Herbert Spencer's explanations for male dominance in terms of female subordination that he articulated in the second of his three volumes on *The Principles of Biology* published between 1864 and 1867.<sup>37</sup> Spencer's contribution judged women to be intellectually 'arrested' on account of the greater expenditure of energy given over to reproduction, and that infertility in middle-class women was the predictable outcome of an over-expenditure of mental labour.

The idea that energy levels were finite and were allocated to the most needy areas of the body was widely accepted by the medical profession. The model's importance in understanding the late nineteenth-century obsession with the volatility and unpredictability of the female mind is recognised throughout this study. Generally referred to as 'conservation theory' the model owed its strength to the discovery and formulation of the first law of thermodynamics by Hermann von Helmholtz in 1847. Simply put, it stated that all of nature possessed an energy store that was fixed and finite. It could neither be augmented, nor diminished, nor could it be destroyed. It was like a closed system where available energy levels remained constant. Its application

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<sup>37</sup> Paxton, N *George Eliot and Herbert Spencer: Feminism, Evolutionism, and the Reconstruction of Gender* Princeton University Press (1991)

to the human body however was interminable. As Anson Rabinbach has argued, “the social consequences of this new physiology and psychology of energy were far reaching... Throughout the nineteenth century, the search for the physiological and psychological manifestations of thermodynamic processes confirmed the primacy of energy conservation as a social principle”.<sup>38</sup>

**Fig.2** Portrait after a photograph of the physicist and physiologist Hermann Ludwig Ferdinand von Helmholtz (1821-1894) by C.H.Jeans. His first important scientific achievement was the 1847 physics treatise on the conservation of energy, written in the context of his medical studies. He discovered the principle of conservation of energy while studying muscle metabolism.

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<sup>38</sup> Rabinbach, A *The Human Motor: Energy, Fatigue, and the Origins Of Modernity* University of California Press (1992) pp67-8

This has helped me to understand that if the body could be described as an unvented system with a given amount of energy at its disposal, then clearly that energy had to be deployed prudently. Considering that a woman was assigned a reproductive role, her energy quota would always tend to the direction of her reproductive system. It would then follow that if there were a call on her finite energy to another part of her body, particularly her mind, it would be allocated at the expense of her reproductive organs. The upshot of diverting limited resources away from their intended goal was unquestionably dire: she could expect a total loss of femininity, and become an unsexed woman subject to any or all combinations of sterility, hirsuteness, depravity and insanity.

Cynthia Russett's *Sexual Science* has been of value in this area. She explains that as a physical theory, energy conservation had enormous implications for perfecting mind/body entirety, because it so readily availed itself to economic and material metaphor. The demands of the nervous and reproductive organisation of the female meant that the limited and definite quantity of vital energy dispersed around the body would always be readily available to be called up when needed. However, if too great a haul were to be transferred elsewhere, a shortfall would be incurred by these primary systems.

The symbolic 'profit and loss' signalled much more than mere hydraulic dynamics. The metaphor was clear: comparing the human body to an economic system showed how draining one's reserves would inevitably lead to bankruptcy. Only the fastidious and prudent husbanding of a scarce resource would ward off nervous debility and reproductive failure. This 'dog-eats-dog' system of competing demands was not

something a woman was expected to cope with, given that the bulk of her energy quota was always going to be claimed by her reproductive equipment. Spencer's idea of women as intellectually underdeveloped by virtue of their reproductive responsibilities permitted that disadvantage to be adapted for moral, physical or psychological purposes. Indeed many in the medical field together with colleagues in allied disciplines warned that reproductive negligence carried grave penalties for those women who insisted on harbouring ambitions above and beyond their assigned place.

Help came from many quarters when biology was called on to add weight to claims relating to the role of the female body. For instance Londa Schiebinger in her essay 'Skeletons in the Closet'<sup>39</sup> noted that it was not until 1733 that there had been any reason to depict a female skeleton. No need, that is, until social and political inequalities needed to be understood as natural, etched in one's physical nature. Schiebinger stressed this point in her robust rebuttal of Michael Stolberg's claims that the sexing of skeletons began some 150 years earlier at the tail end of the sixteenth century.<sup>40</sup> Far from it, replied Schiebinger. Rather it was "the novel political climate that generated new conventions of anatomical illustrations". No one in the sixteenth or seventeenth century would have thought to present the female skeleton as evidence in the adjudication of women's political rights. Yet by the eighteenth century "female skeletons were being used to demonstrate female incapacity". Evidence therefore had to be mustered to underscore the incommensurability of the sexes and to stifle any

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<sup>39</sup> Schiebinger, L 'Skeletons in the Closet' in Gallagher & Laqueur (eds.) *The Making of the Modern Body*

<sup>40</sup> Stolberg, M 'A Woman Down to Her Bones: The Anatomy of Sexual Difference in the Sixteenth and early Seventeenth Centuries' *Isis* Vol.94 (2003) and Schiebinger, L 'Skelettstreit' *Isis* 94 No.2 (2003). See also Stolberg, M 'Menstruation and Sexual Difference in Early Modern Medicine' in Shail, A and Howie, G (eds.), *Menstruation: A Cultural History* Palgrave Macmillan (2005) pp90-101

prospect of women being able to ‘catch up’ and become equally matched to men. Her wide pelvis, relatively small skull and a waspish waist offered proof enough that she was a woman right down to her bones.

The majority of middle-class women had no desire to become like men, but they did seek emancipation and autonomy. This was hardly surprising considering that inequalities were trumpeted as being as natural as a glove fitting the hand; the one offering support whilst the other gave cover. Presenting as proof that these inequalities were in place to compensate for any shift from a reliable and steady state were the best available means of creating distance between the sexes and countering natural rights. As Schiebinger has argued elsewhere, 1758 was the year the Swedish botanist and taxonomist Carl Linnaeus (1707-1778) coined the term ‘mammalia’, shortly after the female skeleton took on and reflected its new political meaning.<sup>41</sup> She has suggested that interest in the mammae arose alongside the eighteenth-century trends that saw restrictions in women’s lives that defined their role in nurturing terms.

As Cynthia Russett has explained, anthropologists looked to nature for leadership, pointing to the great beasts that suckled their young, and decrying the unnatural fashion of wet nursing.<sup>42</sup> Schiebinger argued that Linnaeus’ neology helped to legitimise women’s natural role as tender, loving, and nurturing. We see evidence of this in the chapter on menstruation. Well-formed breasts were an expression of a feminine outlook and feminine aspirations. Flat-chested girls who failed to suckle their young had sacrificed their reproductive calling to satisfy other ambitions.

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<sup>41</sup> Schiebinger, L *Nature’s Body: Gender in the Making of Modern Science* Beacon Press: Boston (1993)

<sup>42</sup> Russett, *Sexual Science* p 4-5

According to Herbert Spencer, the cost of moving finite energy levels away from their proper deployment would bring absolute or relative sterility in its wake. But this image of a well-upholstered voluptuous body produced a menacing undertow: women were close to nature in a way that men were not. Their breasts may have symbolised fecundity and generation, but they also brought them to the level of other viviparous animals, either through the act of suckling, or through the image of the twins Romulus and Remus suckled and brought up by a she-wolf.

Degeneration was perhaps the spectre most feared by late nineteenth-century medical men and intellectuals. The question was, why in this evolutionary march to perfection was there such evidence of mental, moral, and physical morbidity? It is worth looking here at Daniel Pick's admirable study of the theories of degeneration that were promulgated in France, Italy, and England during the nineteenth-century.<sup>43</sup> Although they inhabited shared worlds, if anything the French and Italian degeneration theorists were even more vituperative than their English counterparts in their condemnation of 'criminal types' and 'racial relapses', but it was a close call. Having looked at the work of Bénédict Morel in France, and Cesare Lombroso in Italy, Pick turned his attention to England's arch-pessimist, the alienist Henry Maudsley (1835-1918).

Maudsley was at the vanguard of English psychiatry in the nineteenth century, jointly editing the *Journal of Mental Science* from 1863-1878. He was lecturer on insanity at St. Mary's Hospital from 1868-1881 and professor of medical jurisprudence at University College, London from 1869-1879. He wrote copiously on mental disease and his prolific output came to dominate much of the thinking regarding the physical

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<sup>43</sup> Pick, D *Faces of Degeneration: A European Disorder, c.1848-c.1918* Cambridge University Press (1996)



basis of mental illness and the hereditary influences that expressed themselves in mental enervation. Daniel Pick's assessment of Henry Maudsley as the towering figure in nineteenth-century psychiatry who gave heredity and degeneracy pole position in the catalogue of mental disease, accounts for his interest in locating the shift towards a central preoccupation with the economy of the body and the social effects of its reproduction. What Pick discerned was the need to apply biological and medical truths of the body in any explanations of the pernicious effects of urban living associated with huge population growth. Incest, inbreeding and consanguineous unions were not uncommon when families lived cheek by jowl. The fear of insidious mongrelism focused the minds of medical men as never before.

During my researches I found that a sophisticated discourse developed around the question of hereditary descent and its connection to things getting out of control. After all, self-regulation and continence were bywords for improvement and progress. So the idea that all that had been gained could be undone or even put into reverse through the production of idiots, alcoholics and the morally feeble, needed fresh injunctions to halt the decay. Maudsley had been deeply affected by Darwin, developing and interpreting evolutionary ideas in his writings and lectures. Throughout his career Maudsley was convinced that science was the key-holder for all information relating to the soundness or otherwise of the mind and the body, and that conviction remained unshakable. With the body being so closely involved with social reproduction, the susceptibility of national progress to insalubrious urban living made it imperative that science should step in and 'burn off' the waste products, thereby preventing them from entering the chain. Maudsley's idea that the body

possessed an immortality, not in terms of its flesh, but with respect to atavistic information, made the problems of reproduction ever more precarious and urgent.

However I would challenge Pick's point, taken from Morel's *Traité des Dégénérescences*, that degeneration "had a hidden narrative development – a genesis, a law of progress, and a denouement. Complete idiocy, sterility and death were the end points in a slow accumulation of morbidity across generations".<sup>44</sup> My investigations have shown that degeneracy, however expressed, was invariably imbued with a regressive consistency. Degradation, atavism, throw-backs, and the like all pointed to earlier evolutionary episodes as well as to a general lack of expectation. This is apparent from the outset because of the female dimension of this study. Women as innately flawed creatures provided a promising reference point on the horizon from which medical men and biologists could take all manner of bearings. Maudsley may well be remembered as the towering figure in nineteenth-century psychiatry, quoted liberally by many in the profession. He may also be remembered as displaying a profound pessimism and a notoriously dismissive attitude towards women. But in the context of this thesis, evidence of this kind did not single him out as far as medical men and their understanding of madness was concerned. He was merely the first amongst equals, a position we would now consider of dubious merit. For there is no getting away from the fact that nerves, in all their forms, gave rise to conjecture and experiment on an unprecedented scale.

Nerves and nervous prostration were both well suited to being gendered and domesticated. Although men were just as susceptible to bouts of invalidism – one

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<sup>44</sup> Pick, *Faces of Degeneration* p51

only has to think of John Stuart Mill, Herbert Spencer and Darwin himself – it was usually attributed to overwork and stress, both masculine terms. Occasionally as in Mill's case, it was thought to be the outcome of an effeminate constitution. Darwin was a chronic invalid, but no doubt his extraordinary intellect was handsome compensation for his infirmity. In literature we need only look at George Eliot's *Middlemarch* to encounter the heroine Dorothea Brooke's husband, the elderly pedant Mr. Casaubon, wizened and bent double from too much study. However, in the case of women, nervous disease took on a quite different hue.

Foucault spoke of the emergence of the 'hysterization of women's bodies' from within the private world of the bourgeois family. He argued that this bourgeois family was where sex was sited, and rather than have it suppressed and hidden, it colluded in its deployment by offering sundry disorders and complaints to whoever was prepared to listen. The family could count on personalities from their own number to enact this hysterization and psychiatrization. In this domain, the first constituent to be sexualized was the idle woman who deviated from the proper exercise and discharge of her connubial and maternal duties. From her emerged the nervous woman, and in her the hysterical woman could be located.

Most medical men of the period were able to tie up the nervous and reproductive systems by subsuming them under the nomenclature 'female disorders'. In examining this particular designation I have derived help from Janet Oppenheim's excellent book "*Shattered Nerves*".<sup>45</sup> Her chapter on 'Neurotic Women' warrants special attention for it is here that we learn of "the monotony with which medical spokesmen

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<sup>45</sup> Oppenheim, J "*Shattered Nerves*": *Doctors, Patients, and Depression in Victorian England* Oxford University Press (1991)

[in the last three decades of the nineteenth century] commented on the feminine nervous and reproductive systems in the context of evolutionary choices involving limited supplies of nerve force".<sup>46</sup> As far as my own researches are concerned, nothing could be nearer the truth. The most obvious emplacement for these two systems was the menstrual cycle. Whilst not every woman bore children and lactated, none could escape her monthly uterine upheavals.

As we have noted, initial 'problems' became manifest at the menarche, the moment when the reproductive system was becoming established. It was at this critical time that the sexes diverged and were sent on different tracks. Thereafter, a woman's biological distinctiveness tethered her reproductive faculty to her nervous system. All aspects of her physiology, anatomy and psychology anchored her firmly to her natural orbit. Nervous collapse lurked around every corner since that part of her system, along with all the other aspects, had never developed into a fully-fledged, sophisticated centre. Although the proper development of the female's reproductive responsibilities was considered paramount, linking it to an unfinished nervous system ensured its inherent instability and brittleness.

There appeared to be no escape from a life marked by degrees of sickness and disease. As I researched this subject, I was confronted by the terrible prospect of a normal life marred by the words of various medical authorities. For instance, the gynaecologist Edward Tilt (1815-1893) managed to fill pages with warnings of the costly consequences that would be visited on young girls if they became too excitable. Dancing vigorously, reading racy novels, not wearing the correct underwear, even

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<sup>46</sup> *ibid.* p188

eating other than nursery food, all would expose them to menstrual disarray. As Oppenheim quite rightly emphasized, "...menstruation itself was pathological. In fact, Victorian medicine insisted that *all* the biological phases of a woman's life resembled ill health. Pregnancy and childbirth, the very times when a woman was fulfilling her divinely ordained purpose, were equally suspect... [indeed] generally speaking, the nineteenth-century medical profession considered women's bodies to be defective – suitable companions for their inadequate minds".<sup>47</sup>

The limitations imposed on women by the supposed inadequacy of their mental powers alerts us again to the heightened anxiety levels implicit in much of the contemporary medical discourse. In proportion to the delicacy and fragility of the female was the virility and power of the male. Such arbitrary ratios not only required imaginative diagnoses to keep them effective, but also as Oppenheim noted, a liberal underpinning of metaphor. I have already highlighted the widespread use of conservation theory to warn of excessive calls on limited resources. But in addition to the hydraulic features of that particular theory, where energy was hived off to supply one area at the expense of others, many of the female conditions I have considered comfortably submitted themselves to financial vocabulary. Economic metaphors were obvious tools in the box because they carried terms that were common to both sites and were easily recognized by the bourgeoisie. Reversals of fortune, failed investments, lack of control, and paralysis were indices of a bankrupt system. Throughout this thesis, Victorian medical men can be heard warning of the strains placed on the reproductive and nervous systems by those seeking a life away from the fireside.

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<sup>47</sup> *ibid.* p190 [orig. itals.]

Evolutionary biology acted as guarantor for these restrictions, most notably so following the publication of Charles Darwin's *Descent of Man* in 1871. Multiple meaning could be culled from this work and applied with the scientific brush of truth whenever it was needed to stem the anxiety encapsulated in the concluding words, "Man still bears in his bodily frame the indelible stamp of his lowly origin". For example, in the second part of *Descent of Man* that relates to sexual selection, the chapter concerning the mental powers of man and woman set up a discursive argument that appeared at first glance to be irrefutable:

"no one will dispute that the bull differs in disposition from the cow, the wild-boar from the sow, the stallion from the mare, and, as is well known to the keepers of menageries, the males of the larger apes from the females. Woman seems to differ from man in mental disposition, chiefly in her greater tenderness and less selfishness; and this holds good even with savages..."<sup>48</sup>

According to Darwin, a woman's maternal instinct, said to be the expression of her tender and sentient aspect displayed towards her children, was more than likely to extend "towards her fellow creatures". However that instinct depended on characteristics such as intuitive powers and rapid perception which were evident in "lower races, and therefore of a past and lower state of civilization".<sup>49</sup> I suggest that this posed a serious conundrum for medical men in particular, since they were in the front line when dealing with the health and future well-being of the collective human body. For if this distinction between lower and higher races was held to be normal and therefore expected, a strong case had to be made for a woman having little appetite for rivalry and ambition, traits clearly earmarked for the male. In other words

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<sup>48</sup> Darwin, *Descent of Man* Pt.2 Ch.XIX pp326-29

<sup>49</sup> *ibid.*

if the female displayed no evidence of these traits, it would be seen as the supreme affirmation of compliance and compromise. Yet considering the degree to which many middle-class women in this period were pooling their resources for civil, legal and educational parity, the patriarchal notion that women were content to stay put on the domestic pedestal was clearly at odds with the growing influence of the women's movement throughout the second half of the century.

This misfit has been examined by Peter Gay in the *Cultivation of Hatred*, the third volume of his large-scale work on nineteenth-century bourgeois culture.<sup>50</sup> The title of the fourth chapter, 'The Powerful, Weaker Sex', alerts us immediately to the discord I have outlined. Peter Gay, being an unapologetic defender of the psychoanalytic method in history, puts forward the idea that one of the primal anxieties met with in all men is "the unpalatable truth that their mother was a sexual being ... [and] that the mother had carried the man within her, giving him life and nourishment".<sup>51</sup> John Tosh has also commented that "psychological reassurance and refuge from the hard world outside are what children turn to their mothers ... [so] it is not surprising that for men the wife became hopelessly confused with the mother"<sup>52</sup> At the same time as shoe-horning women into the domestic space and occupying them with the business of reproduction, many men had the latent but most distasteful desire to contemplate incestuous activity with the forbidden mother figure. Her sexuality was so unsavoury and dangerous that it had to be disabled. The paradox of the idealized woman

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<sup>50</sup> Gay, P *The Bourgeois Experience: Victoria to Freud* Vol.3 *The Cultivation of Hatred* Harper Collins (1994)

<sup>51</sup> *ibid.* p289 & ff.

<sup>52</sup> Tosh, J *A Man's Place: Masculinity and the Middle-Class Home in Victorian England* Yale University Press (1999) p68

passively tending the sacred bower and her subversive alter ego was embodied in the construction of a domestic goddess and her dismemberment.

For many historians, Gay's attachment to psychoanalysis as a tool for understanding what Foucault referred to as "the unconscious laws of language" is, at best, treated with scepticism.<sup>53</sup> However, I suggest this scepticism is ill-founded and often an excuse for insufficient thinking. For throughout my own research I found subliminal operation of these 'laws', the most glaring examples appearing in the chapter on Mr. Isaac Baker Brown, the disgraced clitoridectomist. One hardly needs to be familiar with Freudian language to pick up on Baker Brown's contention that since the clitoris was not essential to generation, its removal could not be considered any more of a mutilation than any other type of surgical intervention. Neither can we pass over as fact Baker Brown's claims that following surgery "these ladies ... have been able to return home and live in health and usefulness". Again, when I came to research electrotherapeutic forms of treatment meted out to women, the sadistic sexual nature of many interventions point clearly to the anxieties men were experiencing in relation to their potency and virility levels. We shall see how electricisers placed conductors into the vagina "in order to procure energetic contractions of the uterus". Often the electriciser would position himself between the woman's thighs which were held aloft by stirrups, in order to "introduce the forefinger of the left hand into the vagina ...". Mechanical sex, at least in this setting, became the ersatz manifestation of the deeply disturbed male.

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<sup>53</sup> Gay, P *Freud for Historians* Oxford University Press (1985)



Not all writers give Freud a wide berth. Indeed some, like Laqueur and Gay quite openly acknowledge their debts. Another is Gillian Beer. Two of her books, *Darwin's Plots* and *Open Fields* have been of invaluable help in writing this thesis.<sup>54</sup> In the foreword to *Darwin's Plots*, we learn that Beer is engaged in a study of Darwin's language, "not merely in its literal meanings, but in the way tone, syntax, semantic substance play against each other and help shape thought and open up more possibilities than it can openly articulate". One reason Beer's books have been important to this study of the mid to late nineteenth-century intellectual world is because she is alert to the fact that the *Origin* was widely read by Darwin's contemporaries and caused an immediate stir. The first edition of 1250 copies sold out on the first day and a second run of 3000 copies had to be printed in early 1860.<sup>55</sup>

Interest however was confined to the literate and educated, the book being ignored by large circulation popular publications. Nevertheless, what was surprising was the interest it did generate given that its 500 pages were packed full of facts and data. The likely reasons for its appeal lay with the fact that "in the mid-nineteenth century, scientists still shared a common language with other educated readers and writers of their time ... they shared a literary, non-mathematical discourse which was readily available to readers without a scientific training".<sup>56</sup> This is important to note because it meant that medical men, as members of the educated minority, would have enjoyed similar levels of understanding and therefore could assimilate ideas and language

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<sup>54</sup> Beer, G *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* [1983] 2<sup>nd</sup> ed. Cambridge University Press (2000). Beer, G *Open Fields: Science in Cultural Encounter* Oxford (1996)

<sup>55</sup> See also Ellegård, A *Darwin and the General Reader: The Reception of Darwin's Theory of Evolution in the British Periodical Press, 1859-1872* University of Chicago Press (1990)

<sup>56</sup> Beer, *Darwin's Plots* p4

from texts outside their own specialist spheres, applying them without difficulty to their own discourses.

Another strength of Beer's analysis is her appreciation of Freud's influence before Freud. She argues that as we live in a post-Freudian world, it is hard if not impossible to imagine "a world cleansed of the Freudian".<sup>57</sup> Today we are buffered by the post-Darwinian/Freudian world through our familiarity with it, but no such protection was on offer in the mid nineteenth-century. Like Darwin before him, Freud completely disrupted previous ways of thinking. Much of what Darwin had to say was deeply unpalatable, especially regarding our closeness to apes and the absence of a benevolent Creator. Beer links Darwinian theory to Freudian psychoanalysis by recognising that both existed before there were words available, either conscious or unconscious, to describe them. Both were new stories in the sense that they needed new paradigms in order to be heard. Both involved "a world in which old assumptions ceased to *be* assumptions". Thereafter 'the struggle for existence' needed new intellectual territory altogether in order to operate. It was indeed disturbing given that everything now "was subject to irreversible change. Whole species had vanished and even the evidence of their existence had crumbled away".<sup>58</sup> No small wonder then that evolutionary theory was in part spun to buttress the ideal of manliness and his place in an uncertain world.

Uncertainty and its bedfellow fear were pervasive and reveal themselves in each of the five chapters of this thesis. Gillian Beer has been especially helpful in this area through her thoughts on 'a missing link' which in this context refers to intermediate

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<sup>57</sup> *ibid.* p3

<sup>58</sup> *ibid.* p37

forms supposedly linking modern humans with their ape-like ancestors. The position adopted by evolutionists was a broad tendency towards advance, an approach along Whiggish lines with the human male at the apex of development. In one sense we can understand the word evolution connecting with ideas about irreversibility, continuity and purpose. However as we have already noted, alongside that view there existed an intellectual upheaval that not only questioned accepted ideas, but also overturned them.

One particularly threatening idea was our common ancestry with apes. However complex the relationship, being bound together with far-off species brought promoted anxieties that I refer to as 'our genetic connection to bruteland'. Where Beer has been instructive, especially for my chapters on monstrous births and laws of hereditary descent, is in highlighting the paradox of fascination with an idea, and the dread of its realisation. She argued that although monsters and missing links were not necessarily contiguous, "the distinction between them was not, however, readily apparent in nineteenth-century England before genetics".<sup>59</sup> However, understanding this shared borderland between monsters and missing links in very concrete terms served the purpose of "fix[ing] attention on the gap between man and what the Victorians usually, in such settings, called 'the brutes'".<sup>60</sup> As long as evidence of this missing link remained elusive and conjectural, human beings stood at the pinnacle of civilization. But as soon as evidence of the link was established, or merely admitted into consciousness, monstrous possibilities became imaginable.

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<sup>59</sup> Beer, *Open Fields* p123

<sup>60</sup> *ibid.* p128

In the cases of monstrous births I have examined, medical men's inventiveness and imaginative thinking was frequently in full flood. Since so little was understood about the production of blighted infants, the simple solution was to cast aspersions on the mother who, as Gay has argued "carried the man within her, giving him life and nourishment".<sup>61</sup> On another level, instances of congenital deformity could be recruited as evidence to prove the existence of these missing links. I suggest that women who brought forth babies with webbed fingers, or were covered in hair or indeed had any degree of blemish or deformity, were exposed as reproductive opportunists by allowing the missing link to be absorbed through the back door when the superintendence of the male was in temporary abeyance. Policing the female life-cycle, whether surgically, clinically or morally, was a full time occupation for medical men. This is not to suggest a general persecution against women, nor indeed any expression of ill will towards them. Surveillance was registered on many levels, but the underlying need was to protect the biological basis of femininity and the whole edifice of the family. Evidence of this art of management is manifest throughout this study. Invasive treatments and therapies were almost *de rigueur* for those showing signs of domestic discontent.

My research has expanded on the limited attention given to perhaps the most shameless example of medical invigilation in the second half of the nineteenth-century. The chapter dedicated to Mr. Baker Brown tells of a surgeon driven to eliminate female masturbation by amputating her clitoris. Ornella Moscucci's work



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<sup>61</sup> Gay, *The Bourgeois Experience* p289

on clitoridectomy however needs to be acknowledged.<sup>62</sup> She has explored the idea of “clitoridectomy as a chapter in the history of the social construction of [racial and] sexual differences” and has attempted “to elucidate the reasons why Baker Brown’s operation so outraged the Victorian medical profession”.<sup>63</sup> We shall leave the details of the cases and the outcry over the operation to the chapter itself. What needs attention here are Foucault’s words that the Victorian bourgeoisie was intent on creating an economically useful and politically prudent sexuality. But in order successfully to achieve this end, sexual perversions had to be put in place to act as the appropriate counterpoise. Moscucci has put this rather more succinctly: “the propriety of clitoridectomy was a debate not only about the nature of female sexuality, but also about normalization of sexual practices...”.<sup>64</sup> Herein lies the difficulty. Given that masturbation was an alternative expression for sexual deviation, removing the clitoris would have adversely affected sexual gratification within marriage, a crucial element in that institution’s stability.

Of all the sexual perversions, and by that I mean any sexual activity that did not have reproduction as its objective, masturbation was the most reviled. It may have been and still remains the most common of all sexual practices, yet in the early eighteenth century, at the dawn “of a new secular world ... the most secret, private, seemingly harmless, and most difficult to detect sexual acts [was made] the center-piece of a program for policing the imagination, desire, and the self that modernity itself had

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<sup>62</sup> Moscucci, O ‘Clitoridectomy, Circumcision, and the Politics of Sexual Pleasure in Mid-Victorian Britain’ in Miller, A & Adams, J (eds.), *Sexualities in Victorian Britain* Indiana University Press (1996) pp60-78

<sup>63</sup> *ibid.* p62

<sup>64</sup> *ibid.* pp62-3

unleashed”.<sup>65</sup> By the second half of the nineteenth century, as the stress amplified on self-esteem, continence and control, the sin of self-pollution was well and truly medicalized. In men, it was classed as a solitary vice leading to moral torpidity, mental and physical lassitude, and a loss of self-government. Occasionally mechanical restraints were prescribed for the inveterate masturbator, or for those ‘suffering’ from nocturnal emissions.

But for women the situation was different. The separation of sex from pleasure, as we have noted, marked the onset of the ‘age of repression’. Women were no longer heirs to their Georgian sisters who were able to enjoy sexual intimacy for its own sake. Instead reproduction became the end point of passionless sexual activity. Female sexual desire was incompatible with current ideas on respectability and virtue. However, that is only half the picture. For as Janet Oppenheim has reminded us, and with Foucault’s words echoing in concert, “the Victorian banishment of sensuality from the public sphere by no means signaled its removal from the private”.<sup>66</sup>

This is precisely the point. Victorian carnal appetites and sexual predilections were no different from previous or subsequent ages. What did mark out this particular Victorian period was what Ornella Moscucci referred to as “the sexual etiology of much female insanity”.<sup>67</sup> *The Science of Woman* has lent weight to my arguments concerning invasive techniques and the loss of liberty that these entailed. Moscucci also underlined the social subordination of women that arose specifically from their physiology and this has provided help when considering the role of the gynaecologist

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<sup>65</sup> Laqueur, T *Solitary Sex: A Cultural History of Masturbation* Zone Books: New York (2003)

<sup>66</sup> Oppenheim, “*Shattered Nerves*” p164

<sup>67</sup> Moscucci, O *The Science of Woman: Gynaecology and Gender in England, 1800-1929* Cambridge University Press (1990) p105

in the Victorian period. In particular, her study has been relevant to this thesis because she has defined femininity as a cause of disease rather than a consequence of it. However as Moscucci has also argued, far from depicting women as feeble and dependent, “medical ideas about woman’s social destiny ... were far more complex than has generally been assumed”.<sup>68</sup> It is still necessary to echo these thoughts.

As well as her work on clitoridectomy, Moscucci looks at the ‘unsexing’ of women through the removal of one or both ovaries. This operation on the ‘grand organs’ of sexual activity was usually performed following the (often mistaken) diagnosis of cystic ovaries. Where clitoridectomy and ovariectomy truly met up was through the obsession with disablement. Both operations reduced the intrinsic worth of the patient regardless of the presenting symptoms. Clitoridectomy denied a woman her sexuality. Ovariectomy denied her the capacity to engender life. Even more telling “is the asymmetry it reveals in the treatment of similar conditions in man and woman”. Nowhere did I read of a man having his penis cut off as a cure for masturbation, and similarly Moscucci noted that “surgeons do not remove testicles for the cure of hydrocele, they resort to the palliative drainage of the cyst by tapping”.<sup>69</sup>

Invasive treatment was not confined to surgery, or to the growing use of the speculum, or to developments in anaesthesia that rendered the patient insensible. As I noted at the outset, there was concomitancy between technological advance and the thirst for knowledge. Nowhere in this thesis can this synchrony better be demonstrated than in my examination of electricity as a therapeutic agent. Electricity’s physical properties placed it comfortably close to the body’s image as a

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<sup>68</sup> *ibid.* p36

<sup>69</sup> *ibid.* p134

closed system dependent on the judicious use and allocation of nervous energy. Both were forces providing vitality, and electricity's use in restoring power to areas of the body depleted of vital force became part of orthodox medicine from the 1840s. One reason for this, which is pertinent to my study, concerns the hardening up of professional authority over the female body. As Britain established itself as an industrial society, confidence grew in the ability of science to explain many of nature's imponderables. The experimental successes of Luigi Galvani, Alessandro Volta and Michael Faraday convinced many members of the medical élite of the value of administering electrical shock to correct aberrant nervous states. Furthermore, given the elaborate and complicated machinery involved, electrotherapeutics availed itself not only to a visible expertise which could only belong to the context of a hospital setting, but to a more concrete distance between the possessor of knowledge and the lay person.

The application of electricity to medicine has, as yet, not been studied to any great degree. It is usually dealt with in passing, referred to as just another therapy in the medical man's arsenal. Or we might come across its mention in books dealing with freak shows and public displays of extraordinary phenomena. Nevertheless, two books have demanded my attention; Iwan Rhys Morus' *Frankenstein's Children*, and Alison Winter's *Mesmerized*.<sup>70</sup> As we know, women were especially prone to hysterical and nervous disorders, and for this reason they became the main targets for electrotherapeutic treatment. In particular, diseases of the generative tract provided a rationale for treatment by electricity because by definition it obeyed certain physical

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<sup>70</sup> Morus, I R *Frankenstein's Children: Electricity, Exhibition, and Experiment in Early-Nineteenth-Century London* Princeton University Press (1998); Winter, A *Mesmerized: Powers of Mind in Victorian Britain* University of Chicago Press (1998)



laws. Morus explains that “the inherent instabilities of the female physiological machine endangered the patient such that the need for direct, external intervention and control could not be denied.” More importantly, electricity was “a means of restoring the female body and therefore the Victorian family to a proper state of equilibrium”.<sup>71</sup>

While these observations accord with my own research that has exposed the correlation between physical and vital forces and the analogies common to and favoured by both, Morus has failed to demonstrate the underlying need to keep women in a state of sexual subjection. This is an important omission, for it cannot explain either the sadistic nature of many treatments nor the arcane sexual character of the discourse. Failure of nerve force indicated not only a loss of tone, but also a break in a circuit. The model of a woman’s fixed energy system being notoriously vulnerable to constant demands on its limited supplies, could not have found a better companion to express the laws of action than the power of electricity. Whilst Morus’ scholarship warrants attention in exposing the effects of electricity in a consumer society, I found it more celebratory than critical, with insufficient attention paid to the effects of powerful shocks on a supine woman.

Electrotherapy promised intervention without recourse to the knife. It could be given in a number of ways, with some doctors preferring the faradic or interrupted current, whilst others favoured the galvanic or continuous current. No part of the body was considered out of bounds, and this was to have dreadful repercussions for the woman unfortunate enough to present with obstetric or gynaecological complaints, or functional disorders with no organic basis. Regularizing the body by means of a

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<sup>71</sup> Morus, *Frankenstein’s Children* p243, p248

machine had the advantage of absolving the physician from direct responsibility for causing pain and suffering. Policing the body through a third agent also had the advantage, as Morus did note, of overcoming the problem of a medical practitioner bearing the taint of the technician. The gentleman doctor was a non-negotiable rank. Any connection with trade would have immediately demoted him to the level of the unskilled. The rise of the expert lets us examine the problematic borderland contested by orthodox and quack medicine in the Victorian period.

Electrotherapeutics was but a stone's throw from quackery. Alison Winter's study on mesmerism shows just how proximate was that relationship. Mesmerism was a forerunner of electrotherapy in terms of display, performance and the monitoring of mental states. Although my thesis touches only briefly on mesmerism, which flourished in Victorian society between the 1830s and 1860s, through Winter's book I have understood better the need of medical men to exercise their power and consolidate it through knowledge. Intellectual authority did not belong to the public domain. It was far too risky a site because it so readily betrayed discretion and deference, and frequently promoted unpredictable states of mind. Moreover, the exotic nature of the mesmeric *séance* and the ubiquity of lay involvement put it beyond the pale as far as 'proper' science was concerned. As my chapter describes, the medical use of electricity promoted a special kind of expert, one who could serve his interests without the intrusion of other claims to knowledge.

In this thesis I have attempted to demonstrate how medical men of the period endeavoured to control all aspects of the female's mind and body, thereby expecting to protect and to fortify their own precarious claims to knowledge and power. I hope

to have given a sense of the anxiety contained within the medical discourses as well as the aggression that was a product of that anxiety. Relying on a disordered reproductive female to represent the sanctity of home and hearth was a paradox that inevitably failed since it could only operate at crossed purposes. Wherever possible I have attempted to unpack the medical discourses that constructed a very strange creature that at once was domesticated and wild, submissive and insubordinate, pure yet defiled. None of the pairings could exist independently if the ambivalence of the dangerous woman and the malleable woman was to be vindicated.

This was the dilemma facing medical men in the second half of the nineteenth century. More and more inroads were being made in their professional lives, notably by Elisabeth Blackwell and Elizabeth Garrett, the first women to be accepted onto the Medical Register in 1859 and 1866 respectively. In addition, along with many other men of the middle class, their domestic power base was being eroded by the activities of middle-class feminists, backed up by their supporters, who no longer were prepared to accept the exacting role of subordinate.

## SOURCES AND METHODS

This thesis is concerned with medical men, specifically members of the medical establishment working in London in the second half of the nineteenth century. Although the object of their interest was the female condition, women themselves played a not insignificant role. Many women and the vast majority of feminist sympathisers had begun to challenge the sentimentalization of home and family and were united, perhaps not in their means but certainly in their resolve, to rectify their legal, political and sexual subordination. But in doing so they were tampering with the pyramidal image of the father figure and manliness itself.

The bulk of my research has focused on medical and scientific publications in the public domain. Contemporary journals such as the *Lancet*, *British Medical Journal*, *Medical Times & Gazette* and *The Journal of Mental Science* have been central to my inquiry, along with publications associated with medical societies such as *Transactions of the Obstetrical Society*. These were widely read and consulted by medical men. The discourses that formed opinion, influenced it or responded to it were vigorously discussed in the columns and at meetings of the various societies. I also found a wealth of material in the printed books of the period and was struck by the prolific output of many medical men.

At the points where it has been important to access unpublished archival material, I have done so. For instance the details relating directly to the downfall of Isaac Baker Brown could not be gleaned from the public debate alone. Various people had axes to grind, either on a personal level or for professional reasons. Their actions would not

have been explicable without examination of their reservations about the surgeon expressed in private and under non-litigious circumstances.

As explained in the introduction, the decision was made to focus primarily on the physicians, surgeons and psychiatrists who constituted the London medical élite in the second half of the nineteenth century and on the numerous publications they consulted and contributed to. In addition, close attention has been paid to the work of those active in allied fields, most particularly evolutionary biologists and physicists. I have relied heavily on the traditional tools of the historian, namely a detailed textual analysis of the published material that lies at the heart of this thesis.

## SUMMARY OF THE CHAPTERS

The topic of each chapter has been selected as a lens through which to investigate the close connection between Victorian medical men and their treatment of female disorders. The structure of the thesis is supported by the chapters' common bonds that allow us access to the female's fertile decades. For this reason I begin with menstruation's centrality to the female's reproductive cycle. It alerts us to the inherent pathological states women were seen as heir to during their fecund years. It will be argued that medical men promoted the ideal of the domesticated female with reference to the taming and domestication of animals for human purposes. We shall also learn about vicarious menstruation whereby bleeding could be procured from an alternative source to ensure the evacuation of impurities and to return the body to a state of counterpoise. Throughout this chapter will run the theme of a woman's limited cerebral capability that depended on her being kept in a perpetual state of crisis up to and beyond her reproductive usefulness

The following chapter considers workings of the maternal imagination during pregnancy. Motherhood may have been the fullest expression of domestic contentment, but sadly not all babies arrived unscathed. We encounter infants born with blemishes or deformities as a result of malign influences allegedly inflicted by the mother during its embryonic or foetal development. It will be argued that given the supposed waywardness of the female mind, medical men were far from reticent in ascribing 'mother's marks' to her closeness with lower creatures. We shall see how monstrous births were dovetailed with the notion of transgression and that medical men were able to cement their arguments about female limitation by noting that a

healthy pregnancy and the production of a normal baby required no cerebral input. Noxious influences had to be expunged if the value of the human stock was not to decline.

Chapter four focuses on the transmission of characteristics through the generations. Surprisingly little attention has been paid to this subject considering the debates surrounding urban decay and moral depravity. There was deep attachment to Lamarck's theory of the inheritance of acquired traits which seemed so plausible given the absence of Mendelian genetics. The theme here is of taint and degeneration, both eliciting fear and deep mistrust. It will be argued that these anxieties operated as a displacement for concerns relating to civilization and perfection. But the underlying fear was woman as a developmental anomaly and her propensity to effect atavistic disease. We shall also encounter the idea that at a woman's first fertile intercourse, every one of her quota of eggs was marked by that particular male, blighting all subsequent progeny regardless of any future liaisons she might enjoy. This was especially worrying in respect of inherited wealth. For if a wife had children from a previous relationship, and they were blighted in some way, the prospective father would have the anxiety that his own infants would be similarly affected and that he would have to leave any accumulated wealth to impaired heirs.

Chapter five examines the use of electricity in medicine. As a new discovery it promised to light up dark passages never before accessible to the medical practitioner. We shall see that many large teaching hospitals gave over part of their building to an electric department, revealing how quickly medical electricity became absorbed into mainstream therapy. There is no question that the electric current was used on men

and women alike, predominantly for incidences of paralysis. For women patients however, electrotherapeutics was also used gynaecologically. We shall be witness to its employment in organic and functional disease and to the thinly disguised sexual currents that flowed from the conductors.

Lastly, my chapter on Mr. Isaac Baker Brown pulls together all the themes I have aimed to address throughout this thesis. Here was a man, ambitious and acquisitive, brought down by his peers for reasons of collective repute. His operation to remove the clitoris because it was understood as the fount of female insanity could not disguise the fact that he considered the organ much too dangerous to be left exclusively in a woman's hands. The clitoris represented far more than a rudimentary homologue of the penis. It threatened male bastions of power; it spoke of a life set apart from the superintendence of the male; and it sexualized the female who was expected to display sensual anaesthesia, at least in a medical context. Baker Brown's operation offers a microcosm of the characteristics of the whole study. His fall from grace had little to do with his surgical skills, but everything to do with the collective interests of his fellow doctors. Too much had been gained, too much was still uncertain. Like the female in this study, he had to be cut down to size in order to save the few.



## CHAPTER TWO

### PERIODIC PROBLEMS:

#### FROM THE ONSET OF PUBERTY TO THE FINAL SETTLEMENT

“As physicians – the priests of the body and the guardians of the physical and mental qualities of the race – we are, beyond all doubt, bound to oppose strenuously any and every kind and mode of education that in any way lessens the capability of woman for healthy maternity, and the reproduction of future generations strong mentally and physically. Why should we spoil a good mother by making an ordinary grammarian?”<sup>1</sup>

These few words from Thomas Clouston (1840-1915) Physician Superintendent of the Royal Edinburgh Asylum for the Insane, will alert us to the many layers on which medical men spoke. Woven within are notions of power, knowledge, superintendence and unquestionable authority over the female’s reproductive responsibilities. As the nineteenth century advanced towards its last decades, many women, especially those of the middle classes, were actively challenging male stereotyping of their supposed incapacities and consequential handicaps they would encounter in their quest for equal status. By the end of the century many legal improvements to a woman’s position, with the notable exception of female suffrage, had undermined the structure of the status quo. This in turn served to fuel male prejudice and indeed contributed to and shaped many of its value-laden responses. Nowhere can this partiality be better viewed than through medical men’s understanding of the key role played by the

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<sup>1</sup> Clouston, T.S. *Clinical Lectures on Mental Diseases* J. & A. Churchill: London (1883) p529

Victorian uterus and its appendages in determining the operation and function of the female's fertile years.

This chapter will explore why the nineteenth-century medical man viewed the period bounded by the two events of puberty and the menopause as at once natural and pathological. Particularly from mid-century when gynaecology was becoming established as a speciality in its own right, the paradox of these two correspondent states became known collectively as 'diseases of women'. Interestingly, Irvine Loudon has described the allied discipline of obstetrics as "a despised subject" in medical schools where "the elite physicians and surgeons ... saw obstetrics as a messy and unscientific activity divided between ignorant, illiterate, unskilled, untrained midwives and the lowest level of medical men, the general practitioners". Indeed until the Medical Act Amendment Act of 1886, "English students could, and often did, qualify and become registered as medical practitioners without any obstetric education whatsoever".<sup>2</sup>

Focusing on menstruation, Julie-Marie Strange has argued, "despite the scientific rationale that a regular and healthy menstrual flow would stimulate anatomical organs and enhance 'personal loveliness', physicians persisted in referring to menstruation as an unfortunate, unpleasant and distasteful subject to address".<sup>3</sup> This however has not been my reading of the situation. Instead, I found that far from being a topic best articulated *sotto voce*, those medical men who had an interest in women's diseases showed a distinct lack of inhibition, aversion or reluctance in their discussions.

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<sup>2</sup> Loudon, I *Death in Childbirth: An International Study of Maternal Care and Maternal Mortality, 1800-1950* Clarendon Press: Oxford (1992) p173

<sup>3</sup> Strange, J-M 'Menstrual Fictions: Languages of Medicine and Menstruation, c. 1850-1930' *Women's History Review* Vol.9 No.3 (2000) p609

This was not altogether surprising. Insofar as the regular appearance of the menstrual flow may have been indicative of a healthy physiology and a balanced constitution, it also exposed the relentless tax on the female body in terms of the periodic draining of vital nerve force “to prevent its undue accumulation within the limited space of the body and its vessels”.<sup>4</sup> Since most medical men of the period were wedded to the idea of energy conservation that depended on the prudent deployment of available nerve force, this notion was used extensively to bolster arguments for gender specific destinies. The female’s reproductive equipment demanded a substantial and reliable flow of the body’s finite supply of nerve force to ensure its proper function. If insufficient force was available, for instance if the mind or brain was taking an inappropriate draught, her reproductive apparatus could not function correctly and her biological prospects would be bleak.

Yet even if a woman attended to her reproductive duties at the expense of all other physical and psychical demands, invariably the pathology of menstruation was granted the greater emphasis. It was argued that mental soundness depended on the regular and normal action of the uterus, and by the same token any mental instability associated with uterine disturbance caused normal menstruation to become unhealthy. Almost without exception, menstruation was understood and described as a pathological condition where “the menstruous woman was perceived as physically ‘unwell’ and psychologically vulnerable”.<sup>5</sup> This notion of inherent fallibility has exposed some of the resources and expedients used by medical men to both sustain and vindicate the myth surrounding the functional separation of the sexes. So what we

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<sup>4</sup> See for example Stolberg, M ‘The Monthly Malady: A History of Premenstrual Suffering’ *Medical History* 44 (2000) pp301-22 and Stolberg, M ‘A Woman Down to Her Bones: The Anatomy of Sexual Difference in the Sixteenth and early Seventeenth Centuries’ *Isis* Vol.94 (2003) p294

<sup>5</sup> Strange, ‘Menstrual Fictions’ p610

witness notably in the second half of the nineteenth century is an attempt by some medical men who exercised power – that is power over the human body – to consolidate that power through a series of findings and assertions about the female sex (her biology) and her sexuality (her sexual activity).

For medical men, bringing together into one bundle a concept rent by internal contradictions was no mean feat, since it depended on understanding sexual difference and division as an organising principle through which the psychical and physiological distinctions marking the sexes could be revealed, deciphered and above all, rationalized. Medical facts or rather what were claimed as scientific truths played a highly significant role in the production of a discourse about women's putative physical and mental thresholds.

Menstruation offered the perfect foil for medical ideas to be presented *ipso facto* as medical facts. As a naturally occurring regular event, it could enhance the link between the repetitive disability that the cycle entailed and the social meanings it construed. Although this link was not readily apparent, the separate spheres ideology lent itself well to medical semantics that coated underlying non-scientific popular prejudices with the gloss of medical expertise. I suggest that this obscurantism was important since one of the crucial supports underpinning the discourse was constructed from fears over male virility.

The historian Peter Gay captured this well when he spoke of “the notion of female power radiating out from the hearth to the world, of recessive, modest mothers and wives determining the careers of men”. It may not have been expressed in its crude

form, but nevertheless it was a fact in many men's lives. Here we see the germ of the almost unrecognisable thought - of "men's buried dependence on women, beginning with their mothers".<sup>6</sup> Indeed a huge literature exists from within England on women's mission and their place in the making of a new and civilized society. Leonore Davidoff's and Catherine Hall's seminal study of a rising English middle class between 1780 and 1850 for example, shows that women played as important a role as men in the creation of a new bourgeoisie.<sup>7</sup>

For the majority of men, particularly of the professional class, personal status needed to be experienced not only in economic terms but also as a sign of independence, effort and maturity. As John Tosh has argued, "for most, but not all, men patriarchy is an immediate personal agenda, a standard by which relations of dominance with wife, daughters or female employees are to be measured ... all men benefit collectively from the structure of inequality and thus have a vested interest in the maintenance of patriarchal values".<sup>8</sup> This objective gave rise to frequent unsubstantiated and specious assumptions about the female's innately inferior situation.<sup>9</sup> Many of the explanations for a woman's distinctive body, disabled by its very nature, offer opportunities to examine the very limiting and ultimately fallacious thinking that gave rise to what Peter Gay has dubbed "alibis for aggression". Gay's proposition may be somewhat hyperbolic, but not wholly fanciful. For in this context he understood aggression more in terms of frustration than belligerence, where "beliefs, principles, rhetorical

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<sup>6</sup> Gay, P *The Bourgeois Experience: Victoria to Freud, Vol.3 The Cultivation of Hatred* Harper Collins: London (1994) p299

<sup>7</sup> Davidoff, L & Hall, C *Family Fortunes Family Fortunes: Men and Women of the English Middle Class, 1780-1850* Routledge: London (1992)

<sup>8</sup> Tosh, J *Manliness and Masculinities in Nineteenth-Century Britain* Pearson Education Ltd: London (2005) p115

<sup>9</sup> Indeed the 1851 census saw introduced a 5<sup>th</sup> class designed to comprise the 'wife', the 'mother' and the 'mistress' who occupied the domestic sphere. Davidoff and Hall, *Family Fortunes* p272

platitudes ... legitimated verbal or physical militancy on ... best of all, scientific grounds".<sup>10</sup>

Several of these fears or frustrations were sublimated by setting political, social and productive matters against a backdrop of women's physical and mental infirmity. As demands of daughters, wives and sisters intensified after mid-century, increasing strain was put on men's capacity to deal with the scent of rivalry. This in turn had an exaggerated effect on arguments over the biological essence of womanhood. Furthermore, as Janet Oppenheim noted, "unlike other alarmed and baffled Victorian men, doctors and scientists spoke on the issues of women's health and education with an authority that most of the general public assumed could not be questioned".<sup>11</sup> So in addition to exploring why the female's fertile years were rent by paradoxes, the object of this chapter is to assemble these competing tensions and pay close attention to the various anomalies and incongruities that became attached to and absorbed in a woman's alleged limitations and consequential disadvantages.

Medical men's analysis of a woman's fecund years performed the function of ameliorating many of their own anxieties. The growth of gynaecology as a specialist practice and the establishment of dedicated hospitals harnessed the medicalization of menstruation.<sup>12</sup> Since gynaecology was a discipline specific to females it could readily account for gender discrimination based on a woman's supposed chronically weak constitution. The presumption of indwelling frailty allowed a particular kind of

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<sup>10</sup> Gay, *The Bourgeois Experience* p6

<sup>11</sup> Oppenheim, J "Shattered Nerves": *Doctors, Patients, and Depression in Victorian England* Oxford University Press (1991) p194

<sup>12</sup> For example The Hospital for Women in Soho Square, London (1842) and The Chelsea Hospital for Women (1871). See Moscucci, O *The Science of Woman: Gynaecology and Gender in England, 1800-1929* Cambridge University Press (1990) p76

discourse to develop whereby the physician could appear disinterested in his personal stresses and strains by articulating prejudices about female capabilities under the guise of medical expertise. Perhaps unsurprisingly it was one of the first practicing female physicians, Elisabeth Blackwell (1821-1910), who came close to noting these pretexts.<sup>13</sup>

**Fig.3** Portrait of Elisabeth Blackwell, 1834. This early portrait was produced two years after she had emigrated with her parents to America. It shows a modest young woman, eyes slightly downcast, yet managing to convey her reserve and sobriety with ambition and purpose.

Referring to the adult woman and her place at the centre of home influence, Dr. Blackwell told her readers that “a woman is mother always, not only of the infant, but

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<sup>13</sup> Dr. Blackwell had qualified in the State of New York in 1849. When she began lecturing in England, under a once-and-for-all arrangement for resident practitioners holding foreign qualifications, she was admitted to the new Medical Register in 1859. See Donnison, J *Midwives and Medical Men: A History of the Struggle for the Control of Childbirth* Heinemann Educational Books (1977)

of the growing and grown man”, and furthermore, to let it be known that a mother has an “infinite maternal yearning to guide and ennoble her man-child”.<sup>14</sup> Blackwell’s assertions chime well with Peter Gay’s “notion of female power” and allow us to examine ways in which the arguments posed in support of women’s handicaps came to be so well-rooted and established.

The “perceived explosion of female diseases during the nineteenth century” provides a good example of misrepresented handicaps.<sup>15</sup> These developed in an attempt to offset the growing realization that those women who felt driven to abandon their traditional place were claiming rights for which there was no precedent. We can tease this out as being part of an attempt to revivify the archaic roots that had given rise to the baneful effects of female assertiveness. For had not God spoken to Eve after she had eaten the forbidden fruit, and told her that He “will greatly multiply thy sorrow and thy conception; in sorrow thou shalt bring forth children; and thy desire shall be to thy husband, and he shall rule over thee”?<sup>16</sup> Yet however deeply entrenched were these Biblical fiats, and despite their legacy that “Christian women should accept them [period pains] as part of the primæval curse and bear with patience that portion which cannot be removed by the assistance of medicine”,<sup>17</sup> these taboos needed to be revalidated and modified in order to be understood in a rational language.

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<sup>14</sup> Blackwell, E. *Counsel to Parents on the Moral Education of their Children in Relation to Sex* [6<sup>th</sup> ed.] Hatchards: London (1882) p81 p92

<sup>15</sup> Figlio, K. ‘Chlorosis and Chronic Disease in Nineteenth-Century Britain: The Social Constitution of Somatic Illness in a Capitalist Society’ *Social History* Vol.3 No.2 (May 1978) p171

<sup>16</sup> *Genesis* 3 xvi

<sup>17</sup> Tilt, E. *Elements of Health and Principles of Female Hygiene* Henry G. Bohn: London (1852) p223



**Fig.4** Photograph of Sir Thomas Smith Clouston. The body language is most revealing. Clouston sits with both sets of limbs crossed, directing his rather stern gaze away from the viewer. This lack of engagement and somewhat cultivated distance, it could be suggested, extended to his professional encounters with his female patients.

The codification of inferiority in a more secular period required raising the profile of temporal thinking as the social arbiter at the expense of Christian folklore. While there is no way of knowing how many medical men subscribed to these ideas, it was certainly the position adopted by Alfred Wiltshire, the obstetrician to St. Mary's, who wished that "the physiology of the [reproductive] function may be brought within the domain of science, and cease to be a wonderment and mystery".<sup>18</sup> Furthermore it was assumed that the discovery of scientific laws would allow aberrations and deviations of the system to be corrected. The alienist Thomas Clouston also saw things in

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<sup>18</sup> Wiltshire, A 'Lectures on the Comparative Physiology of Menstruation' *BMJ* i (1883) p396

mechanical terms, referring to puberty as an event marked by “this awakening into intense activity of such vast tracts of encephalic tissue”.<sup>19</sup>

At a time of colonial dominance, the words of these medical men spelt out in veiled yet unmistakable terms that it was they who were charged with mapping the territory of women’s minds and that they had exclusive access to a toolbox of correctives. Both forming and reflecting the socio-political landscape of their time, professed intellectual rigour became entangled with matters that stretched beyond medical diagnosis.

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<sup>19</sup> Clouston, *Clinical Lectures on Mental Diseases* esp. Lecture XVI ‘The Insanities of Puberty and Adolescence’.

## THE ROAD TO FEMININITY

Edward Tilt (1815-1893) Senior Physician-Accoucheur to the Farringdon General Dispensary and Lying-In Charity was perhaps one of the most prolific writers on women's diseases, an achievement not matched by particular eminence. He received his medical education at St George's Hospital, London and then continued in Paris, graduating MD on 15 May 1839. Tilt finally settled in London around 1850, yet until he became a member of the Royal College of Physicians in 1859 held no English qualifications. Nevertheless Tilt was widely quoted by his peers, although the suspicion remains that this was more a testament to his prodigious output than to notable substance. He became one of the original fellows of the Obstetrical Society filling various offices before being elected president for the year 1874-1875.<sup>20</sup>

**Fig.5** Portrait of Edward John Tilt, 1874. This portrait was taken in the year when Tilt reached the apex of his professional career.

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<sup>20</sup> *DNB* (2004-5)

Aptly but probably unknowingly Tilt summed up the subtle connections being forged between scientific and non-scientific interests. For him, “a profession which has the confidence of women holds in its hands the fate of society”<sup>21</sup>. This view did not accord with the unsettled status of the medical profession at the time, neither would it have cut much ice with the first pioneering middle-class women who were beginning to organize themselves politically. But if put differently, the idea that science’s role in the process of civilization would enable many women to embrace a life of domesticity was real enough. Significant numbers of middle-class women were attached to the idea that they could exercise and achieve their ‘mission’ in the private realm in their own right. It was a notion with close ties to Victorian views on domestication and seclusion.

These ideas have been examined by Harriet Ritvo in her trenchant study of the bonds that the Victorians forged with their animals. In *The Animal Estate* she argued that “the divine justification of domestication made it particularly attractive as a representation of human relationships... fully domesticated animals were the most useful, and their condition expressed the clearest acceptance of the hierarchy of nature”<sup>22</sup>. Indeed in this context, the words domestication, civilization and seclusion frequently fed into each other, and bolstered if not advanced the value accorded to the sentimental hearth.

The biologically determined division of labour was one of the many sub-sets of domestication and an expression of the hierarchy of nature whereby the sexes were made aware of their proper places. Women, at least those not of the working class,

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<sup>21</sup> Tilt, E *On the Preservation of the Health of Women at the Critical Periods of Life* John Churchill: London (1851) p41

<sup>22</sup> Ritvo, H *The Animal Estate: The English and Other Creatures in the Victorian Age* Harvard University Press (1987) p17

were exempted from toil as a mark not only of their husbands' economic vigour, but also to maintain them in a state of dependence and servitude. The primatologist Sarah Blaffer Hrdy put it well when she wrote "what men would define as civilization depended on patriarchal constraints on female sexuality".<sup>23</sup> Unable to mature on her own terms, the ornamental and fragile woman would remain in a state of infantilism, separated from the manly male by providential laws.

Female specialization and the narrow Victorian ideals of femininity, were also commended by evolutionary biology and its terms for underwriting the inequality that existed between the sexes. Darwin demonstrated this when he distinguished between the sentient woman with her "powers of intuition, of rapid perception and perhaps of imitation" and the rational sobriety met with in men.<sup>24</sup> These words resounded down the century. In a series of lectures delivered by Clouston a little over a decade later, the author maintained that before puberty the mental development of the sexes ran roughly on parallel lines. But once the pubertal period was under way and adulthood was proclaimed, their developmental paths diverged, the male psyche developing "in the direction of energising and cognition, in the woman in the direction of emotion and the protective instincts".<sup>25</sup> Again, just a few years on, another doctor was declaring that until puberty, development of the sexes showed little divergence but thereafter there was a marked contrariety with the male moving away from his childhood state in a far more acute fashion, leaving the female truer to her pre-pubertal arrangements. The reason given for the continuation of this child-like

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<sup>23</sup> Hrdy, S. Blaffer *The Woman that Never Evolved* Harvard University Press (1999) p xv

<sup>24</sup> Darwin, C *The Descent of Man, and Selection in Relation to Sex* [1871] Princeton University Press (1981) p327

<sup>25</sup> See Clouston, *Clinical Lectures on Mental Diseases* Ch.XVI 'The Insanities Of Puberty and Adolescence'.

condition was that “her career is for the most part circumscribed, and calculated to foster the weaker points of her character rather than, as his is, to strengthen it”.<sup>26</sup>

It is difficult to know how the supposed separate paths of mental development came to be axiomatic of the female’s closeness to the inferior grade of child, other than to imagine it in terms of a bulwark against the ascendancy of women. Despite the supposed neutrality of critical thinking, the arguments were well rehearsed and polished to such a degree that Darwinian biology was held to give an accurate account of the inexorable laws governing the different mental dispositions of the sexes. For although men no longer had to overpower rivals in their quest for a mate, “they generally have to undergo, during manhood, a severe struggle in order to maintain themselves and their families; and this will tend to keep up, or even increase their mental powers, and as a consequence, the present inequality between the sexes”.<sup>27</sup>

It was at puberty that a woman’s sexuality, and therefore her sexual peculiarity unfurled like a newly raised flag to flutter capriciously in the wind until it was hauled down to mark what was described as “the death of the reproductive faculty”.<sup>28</sup> It was a loss that went hand in hand with a sharp decline in her femininity and social worth. Tilt imagined this as metamorphosis, “for the body of a girl is like a chrysalis which up to puberty has gone on well; but if ovarian evolution remains imperfect the human chrysalis will not have the strength to proceed with those ulterior changes destined to

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<sup>26</sup> Campbell, H *Differences in the Nervous Organisation of Man and Woman: Physiological and Pathological* H.K. Lewis: London (1891) pp153-62

<sup>27</sup> Darwin, *The Descent of Man* Pt.2, Ch.XIX ‘Difference in the Mental Powers of the Two Sexes’ p329

<sup>28</sup> Tyler Smith, W ‘The Climacteric Disease in Women: A Paroxysmal Affection Occurring at the Decline of the Catamenia’ *London Jnl. of Medicine* Vol.1 Taylor, Walton, & Maberly: London (1849) p601

bring it to perfection”.<sup>29</sup> Yet ‘perfection’ only existed as a chimera, a caprice. Herbert Spencer understood this only too well, for he knew that women would never attain the perfection exhibited by men given that their development was early arrested by procreative functions. His woman was an arrested man: or as Vertinsky put it another way, reproduction was “a biological and social tax”.<sup>30</sup>

A woman’s situation was additionally hampered by nineteenth-century ignorance over the role and nature of sex hormones that were not identified until the 1920s. Only then was it established that menstruation and ovulation were separate rather than concurrent events.<sup>31</sup> As Moscucci has remarked, “by the 1850s, the ‘ovular theory’ of menstruation provided the chief scientific explanation of the biological basis of femininity”.<sup>32</sup> The theory stated that the most likely time to conceive coincided with the release of the egg from the ovary, “and least likely in the middle period”.<sup>33</sup> Not only was the menses thought to be effected by the release of the egg, its arrival also marked the time of a woman’s greatest sexual receptivity. One of the reasons it was imperfectly understood was the lack of distinction drawn between the human female cycle being marked by menstruation and the female animal cycle by oestrus.

This misunderstanding arose, as Helen Blackman stated, because zoologists in the 1840s believed “that menstruation was analogous to oestrus” which in turn explained why “the extent to which attitudes to women were interwoven with attitudes to other

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<sup>29</sup> Tilt, *Elements of Health* p231

<sup>30</sup> Vertinsky, P *The Eternally Wounded Woman: Women, Doctors, and Exercise in the Late Nineteenth Century* University of Illinois Press (1994) p47

<sup>31</sup> Strange, J-M ‘‘I Believe it to be a Case Depending on Menstruation’’: Madness and Menstrual Taboo in British Medical Practice, c.1840-1930’ in Shail, A and Howie, G (eds.), *Menstruation: A Cultural History* Palgrave Macmillan (2005) p113

<sup>32</sup> Moscucci, *The Science of Woman* p34

<sup>33</sup> Leith Napier, *The Menopause and its Disorders* p7

female animals became more apparent”.<sup>34</sup> Most medical men thought that “in the human female the sign of ovulation being about to take place is the occurrence of menstruation”,<sup>35</sup> but its purpose sometimes seemed indistinguishable from that of its oviparous neighbour, a vivid description offered by the eagle which “when it moults is sickly, and rids itself of the old beak by dashing it against a stone”.<sup>36</sup> Even in the late 1880s Robert Barnes (1817-1907) an important voice in the history of women’s diseases, contended that ovulation was the immediate cause of the flux which witnessed “the casting off and casting out of the useless decidua”, and that its purpose was “to discharge the superfluous material and energy prepared for the missed pregnancy”.<sup>37</sup>

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<sup>34</sup> Blackman, H ‘Embryological and Agricultural Constructions of the Menstrual Cycle, 1890-1910’ in Shail, A and Howie, G (eds.), *Menstruation: A Cultural History* pp119-20

<sup>35</sup> Matthews Duncan, J ‘The Theory of Menstruation in Early Pregnancy, Superfoetation, and the Site of Insertion of the Ovum’ *Monthly Jnl. of Medical Science* (April 1853) ff.1 p7

<sup>36</sup> Oliver ‘Facts Relative to Menstruation’ p998

<sup>37</sup> Barnes, R ‘On Vicarious Menstruation’ *The British Gynaecological Jnl.* Vol.2 (1887) p154



## MEDICAL POLEMICS

The pathology of menstruation, in itself, was considered normal. As Julie-Marie Strange argued, “in the latter decades of the nineteenth century, the assumption that menstruation necessitated rest and restricted activity permeated most medical paradigms of gynaecology”.<sup>38</sup> Even before the menarche, the pre-pubertal girl was being warned of her future impairment, in terms of what it represented both physically and psychologically. Sex had declared itself from an early age, which explained why “woman had clearly missed out on the very final stages of cerebral evolution”<sup>39</sup> So having stalled early, a woman’s mind had deferred to her reproductive system so that it be allowed to develop and specialize without hindrance or obstruction.

“In general”, wrote Tilt, “menstruation is regularized by marriage”.<sup>40</sup> This view, voiced after the Matrimonial Causes Act of 1857, was subscribed to by many of Tilt’s colleagues although the connection to a legal sanction was only dimly noted. Frequently, as medical terminology confirmed, irregular menstruation was also closely allied with insanity and even considered “potentially correlative”.<sup>41</sup> Robert Lawson Tait (1845-99) a respected Birmingham gynaecologist suggested that menstrual epilepsy, a condition arising from “disturbed or deficient menstruation” was readily relieved if a patient took the advice to marry in order that “her altered social condition will ensure a permanent cure”, and that it be sustained further by the

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<sup>38</sup> Strange, J-M ‘The Assault on Ignorance: Teaching Menstrual Etiquette in England, c. 1920s to 1960s’ *Social History of Medicine* Vol.14 No.2 (2001) p260

<sup>39</sup> Oppenheim, “*Shattered Nerves*” p184

<sup>40</sup> Tilt, E *On Uterine & Ovarian Inflammation; and on the Physiology and Diseases of Menstruation* [3<sup>rd</sup> ed.] John Churchill: London (1862) p163

<sup>41</sup> See Strange, ‘Menstrual Fictions’ p618

birth of a child.<sup>42</sup> Another noted that some patients with an erratic flow “became perfectly regular after marriage”.<sup>43</sup>

This helps to clarify the suggestion that menstruation became less painful and burdensome when a young woman established her own independence from her mother, set up her own household and lived under her husband’s watchful gaze. For if marriage signalled the male’s capacity to awaken only faintly conscious aspects of a woman’s natural desires, it was imperative that the path leading to this sublime state was resolutely policed.<sup>44</sup> This duty fell to medical men who were well placed to ensure that before she “has become unto herself a mystery” they were on hand “to prepare her to expect what is the common lot of her sex”.<sup>45</sup>

The advance of civilization was said to have a direct affect on menstruation. One striking version of late nineteenth-century views held that organic periodicity was “not an inherent function of woman, but one acquired by heredity or custom ... a healthful crisis artificially acquired by civilized women”. As a result of luxurious living and a rich diet, their systems became overloaded with blood and it was this plethoric condition that gave rise to the menstrual flow. This was compounded by the civilized woman’s distance from her savage forebears who did not need to temper their sexual drives. As a consequence of the civilizing process, women began to acquire different sentiments that had a restraining effect on their sexual appetites. In

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<sup>42</sup> Tait, L. ‘Menstrual Irregularities and their Relation to Diseases of the Nervous System’ *The Obstetrical Jnl.* Vol.1 (April 1873-March 1874) J. & A. Churchill: London p98

<sup>43</sup> Oliver, J. ‘Facts Relative to Menstruation’ *Ed. Med. Jnl.* Vol. 34 pt.2 (Jan-June 1889) p1003

<sup>44</sup> The taboo on menstruation was laid down in the key text of *Leviticus* 15, xix-xxvii and 20, xviii which show how spiritual purification went hand in hand with corporeal cleansing. Less anciently, we see the ritual of “churching”, the religious decontamination of a new mother four to six weeks following parturition and before she may (safely) re-enter society.

<sup>45</sup> Tilt, E. ‘Management of Young Women Before the First Period of Menstruation’ *London Jnl. of Medicine* Vol.3 (1851) p569

turn there “arose irritation of the uterus and haemorrhagic crises followed”.<sup>46</sup> So far from being a petty inconvenience to be endured for a few days each month, it became the outward expression of “a continuous process, and one which permeates the whole of a woman’s physical and psychic organism”. According to that view, she was “periodically wounded ... [and] always menstruating”.<sup>47</sup>

Even into the Edwardian years these ideas still had currency. In a paper of 1916 published in the history of medicine section of the *Proceedings of the Royal Society of Medicine*, Sir Raymond Henry Payne Crawford (1865-1938), physician and medical historian, went back to the Ancients to discuss views on menstruation through the ages.<sup>48</sup> We learn that under domestication ovarian activity increases and that “domesticity has done for animals what civilization has done for man”. Moreover the writer noted that town girls, that is those with a degree of sophistication, on average began to menstruate earlier than country girls, but that this phenomenon was accompanied by an unwelcome side effect, namely “that in most mammals, non-satisfaction of sexual desire by intercourse tends to a quicker return of heat than normal; and it may be that the greater frequency of menstruation in the human female may in part be referable to the fact that civilization has brought it about that in the human female sexual desire is often compelled to go unsatisfied”.<sup>49</sup>

It is a little tricky to follow Crawford’s argument, but he appears to link an increase in the frequency of bleeding to a diminution of a healthy sexual appetite. If that was the

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<sup>46</sup> Discussed in Leith Napier, A *The Menopause and its Disorders (with chapters on menstruation)* The Scientific Press: London (1897) p4

<sup>47</sup> Ellis, H *Man and Woman: A Study of Human Secondary Sexual Characters* Walter Scott: London (1894) esp. Ch. XI ‘The Functional Periodicity of Women’ p246, p256

<sup>48</sup> Crawford, R ‘Of Superstitions Concerning Menstruation’ *Proc. RSM* Vol.9 (1916) pp62-4

<sup>49</sup> *ibid.*

case, then Crawford had feasibly hit on a dangerous situation, as clearly an unsatisfied woman posed a potential risk to a man's virility. For as Peter Gay suggested, "much of the hectoring literature labored [sic.] to reassure domestic women, build up their morale, and save them from the fanatics seducing them into discontent with their lot".<sup>50</sup>

Evolutionary biologists had plenty to say on the process of civilization. They held that the cerebral activity demanded by civilization resulted in bigger heads and a consequential loss to the spermatoc economy. It followed that "in social terms, this division of labour into males and females allowed the male to expend his energies in more noble and civilized pursuits while placing the entire burden of procreation and childbearing on the female".<sup>51</sup> Thus from both medical and evolutionary viewpoints, the modesty imposed by the ascendancy of civilized existence in the case of human females "operated on their reproductive systems as to enhance their powers and repeat, in the intensification, the frequent display of the catamenial phenomena".<sup>52</sup>

Clearly then, a girl could only be said to be healthy if her menstrual cycle was regular, the flow copious and unimpeded, the discharge of a sufficiently sanguineous grade, and that it took place without pain. These universal benchmarks were scrupulously tabulated by medical men in order to drill into women a conviction of their imperfection and to be alert to the prospect of a series of disorders "chequering life with infirmity".<sup>53</sup> Proper management to save those who might otherwise have fallen

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<sup>50</sup> Gay, *The Cultivation of Hatred* p297

<sup>51</sup> Farley, J *Gametes and Spores: Ideas About Sexual Reproduction, 1750-1914* Johns Hopkins University Press (1982) p112

<sup>52</sup> Wiltshire, 'Comparative Physiology of Menstruation' p502

<sup>53</sup> Tilt, *Elements of Health* p173

victim to these infirmities can best be understood as a poorly disguised distortion of the instinct to self-preservation. As Gay has argued, “without the cult of womanliness, central to nineteenth century bourgeois culture, the alibi for manly aggression remains incomplete”.<sup>54</sup> It was by offering to their female patients a powerful rationale for their natural characteristics that the ‘alibi for aggression’ could remain sound and in good odour.

However, this does give a somewhat two-dimensional impression of a much more complex picture. If we turn our attention to the actress and feminist writer Elizabeth Robins (1862-1952)<sup>55</sup>, we encounter a situation described with far greater subtlety. In her novel *The Dark Lantern*,<sup>56</sup> the young heroine Katharine Dereham is introduced into society by her god-mother Lady Peterborough. At the party she falls for a Prussian soldier Prince Anton of Breitenlohe-Waldenstein but although the feelings are reciprocated there can be no future as he needs a wife of higher rank. When Anton suggests a morganatic marriage, Katharine recognises the hopelessness of the relationship, feeling she has been naïve and credulous and worse still, appearing to cut a ridiculous figure.

The collapse of relations coupled with the illness of her ‘opium sodden’ father placed her under great strain. She consulted many doctors who all agreed that her heart was the cause of her trouble. She was offered a concoction of drugs and ordered to rest at home but predictably became weaker. Her friend Blanche Bruton then suggested she

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<sup>54</sup> Gay, *The Cultivation of Hatred* p96

<sup>55</sup> Although an American by birth, Robins spent a great deal of time in England. She began her career as an actress and became the first woman in Britain to play the part of the tortured Hedda Gabler in Ibsen’s play of that name. See John, A.V. *Elizabeth Robins: Staging a Life* Routledge: London (1995)

<sup>56</sup> Robins, E *The Dark Lantern: A Story with a Prologue* The Macmillan Company: New York (1905)

try another medical man who worked from Cavendish Square. Unknowingly, Katharine had already met him at a party at Hans Crescent given by Lady Wilks. His name was Garth Vincent, a young man whose swarthy features reminded Lady Peterborough of “a dark lantern”.<sup>57</sup>

Determined to get well, Katharine placed herself entirely in Garth’s hands, agreeing to undergo the Weir Mitchell cure: to go home, rest in bed, to receive no visitors, messages or telegrams, indeed to have “no communication of any sort for six weeks”.<sup>58</sup> Soon Garth is prescribing a fattening regime and a masseuse is brought in. For such a headstrong girl, cooperation took a surprisingly short while. It would be the first time in years that her thoughts did not centre on Anton or her father. Garth told her she would only get better if she did as she was told, but instead of rebelling, Katharine told herself that he had cultivated his ferocity because the pampered and self-indulged “had to be terrorized into obedience and harried into health”.<sup>59</sup> Realizing the aimlessness of her past life and its moral bankruptcy, “that he should obsess her, like this, was partly a result of her recoil from the rottenness of her old standard”.<sup>60</sup> With the turning of the tide Katharine began to wish she remained ill so she could continue his treatment.

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<sup>57</sup> *ibid.* p56

<sup>58</sup> *ibid.* p135 See chapter 5 of this thesis for details of the Weir Mitchell cure. This is virtually the same treatment meted out to Charlotte Gilman Perkins in her personal study of depression and insanity vividly described in her book *The Yellow Wall-Paper*. She is forbidden to work, plied with phosphates, separated from friends and any mental stimulus, and forced to spend her hours retreating into childhood in a one-time nursery at the top of the grand colonial house her husband had rented. Perkins Gilman, C *The Yellow Wall-Paper* (1890) in Shulman, R (ed.), *The Yellow Wall-Paper and Other Stories* Oxford University Press (1995) Although an American, Perkins’ story could just as well have been penned by an Englishwoman. Many views on female disease and its treatment corresponded across the Atlantic.

<sup>59</sup> *ibid.* p174

<sup>60</sup> *ibid.* p201

They eventually married, but Garth was always jealous of any admiration shown to his wife and made her give up anything, however important, if she “dared show a face too pale to please him”.<sup>61</sup> On her behalf, he even declined an invitation to dine at the palace. At times he could be horribly violent, descending into black sulks all too frequently. Yet Katharine remained loyal, saying “I would rather be unhappy with the man I have chosen, than happy with any other”.<sup>62</sup>

The story may suffer from melodrama, but it does suggest a far more textured view of the relationship between men and women than medical men would have us believe was the case. The novel’s interest lies in its exposure of the fallacy of the dependent and servile woman. At first inspection Katharine appears to fulfil this role with few qualms. But a closer reading reveals that it is Garth who is in need of protection and reassurance. The author reminds us that Katharine had lived too much with men “to share the frequent feminine delusion that they were utterly different from women”.<sup>63</sup> Although Katharine handled her husband with kid gloves, and became well-practiced in the cult of self-sacrifice, each needed the other in equal measure and both depended on the courage and resolve of the other. Garth had nobody in his life other than his invalid step-brother and no interests other than his work. He was constantly testing Katharine’s devotion, often in a cruel and sadistic way. But it was Garth the infant who always felt he was about to be abandoned. The tale ends when we learn that all he wanted was to feel that nobody other than himself was near to her. “*She* would take care of the Future”.<sup>64</sup>

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<sup>61</sup> *ibid.* p347

<sup>62</sup> *ibid.* p395

<sup>63</sup> *ibid.* p159

<sup>64</sup> *ibid.* p399 [orig. emphasis]

## HEADS I WIN, TAILS YOU LOSE

As I have suggested, the nineteenth-century woman had her normal life events medicalized, and was finalised for reproduction in a particular way that found no counterpart in the human male. During her child-bearing years, the healthy female who displayed no obvious signs of organic disease, was nonetheless periodically subject to functional disturbance of her uterus which was expressed “by haemorrhagic discharge”, invariably accompanied by severe pain. Any turbulence of the nerve centres that were responsible for the integrity of the uterus, such as shocks to the emotions, could compromise the flow and “the resulting disturbance will depend essentially upon the state of the nervous system and its proneness to molecular instability”.<sup>65</sup>

The integration of two systems, the reproductive and the nervous, placed women in a stricken and ill-starred orbit as “the mental characteristics of the normal woman come under the dominating influence of her special functions”. It was a phenomenon that had its initial exposure at puberty when the differences between the sexes became evident as “a vast psychical change occurs in normal girls: they become shy and reserved, and adopt a modest demeanour in the presence of men”.<sup>66</sup> This argument was stale and repetitive, adding little to earlier well-rehearsed arguments. For as women were organising themselves to push for equal rights and full citizenship, all manner of claims for their enfeebled constitution were trotted out by medical men in a desperate effort to sustain and stabilise questionable mandates as well as to protect their own backs.

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<sup>65</sup> Oliver ‘Facts Relative to Menstruation’ pp998-1000

<sup>66</sup> Blair Bell, *The Sex Complex* p101



In the front line of the medical ranks, standing against any challenges to the sexual order, was the towering figure of Henry Maudsley whose own childless marriage seemed to have provided extra barbs to his pen. Given that an individual only embodied a certain amount of nerve force and what was gained in one direction was lost in the other, Maudsley argued that sensual beings “are notably incapacitated for great intellectual exercise”. Nature was not able to compensate in both directions; it was as if she “were exceedingly jealous of allowing to any one individual an immortality both in his works and in his progeny”. Of the great names of the past, Molière, Milton, and Newton included, all were either childless, left only daughters or were never married. “When a family can trace its genealogy up to the time of William the Conqueror,” he chanted, “it is presumptive evidence that it has never produced a true man of genius”.<sup>67</sup>

In a bitter disagreement with Henry Maudsley in the pages of the lay journal, the *Fortnightly Review*,<sup>68</sup> Elizabeth Garrett Anderson exposed the deep splits existing within the medical ranks. Maudsley was clearly very concerned about the prospect of women entering higher education. He argued forcibly against “mental training” for women and railed against the zealots whose enthusiasm “borders on or reaches fanaticism”. Again he invoked the physical laws governing the conservation of energy to argue that since energy could be neither augmented nor destroyed, only converted into another form, one’s fixed supply needed to be deployed prudentially. The *Lancet* concurred, maintaining that only those “ignorant of the real nature of cerebral

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<sup>67</sup> Maudsley, H ‘Considerations with Regard to Hereditary Influence’ *The Jnl. of Mental Science* Vol.8 (1863) pp496-8 These views are in complete contrast to the environmentalist position taken by Mill, who argued that “much of all this is the mere overflow of nervous energy run to waste, and would cease when the energy was directed to a definite end”. Mill, J.S. *The Subjection of Women* (1869) in Gray, J (ed.) *On Liberty and other Essays* Oxford University Press (1991) p536

<sup>68</sup> Maudsley, H ‘Sex in Mind and in Education’ *Fortnightly Review* Vol.15 (1874) and Elizabeth Garrett Anderson’s reply in the same volume.

functions and of the influences which are reciprocally exerted thereon by all the inferior organs of the body” could suggest there be no sex in mind and none therefore in education. Moreover, “if the woman possesses superior powers of penetration, delicacy, and rapidity of thought to the man, she lacks his energy, judgement, power of sustained thought, and creativeness”.<sup>69</sup>

Although this view of a ‘direct deduction’ entailed in ill-considered and precipitate actions was taken to dismal lengths by Herbert Spencer,<sup>70</sup> Edward Tilt had earlier noted that even beyond the crisis of puberty “there should be a general relaxation from study, which otherwise might too forcibly engross the mind and the energies required by the constitution to work out nature’s ends”.<sup>71</sup> In the case of men, who were subject to the same laws, it had been well recognised in the eighteenth century that the excess of mental labour experienced by ‘men of letters’ was apt to cause constipation, rather than to diminish the powers of generation. But whilst Maudsley laboured the point of woman’s duty to prudently deploy her scarce resource and not be seduced into thinking that there was an inexhaustible fund on which to draw, a more telling remark lay hidden in the rhetoric. That “whatever aspirations of an intellectual kind they may have, they cannot be relieved from the performance of those special offices so long as it is thought necessary that mankind should continue on earth”.<sup>72</sup>

This dire warning was not merely echoed, but was anticipated, and held good for the entire fertile epoch. During the adolescent years, when the full weight of the

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<sup>69</sup> ‘Sex in Mind Education’ *Lancet* i (1874) pp663-4, p772

<sup>70</sup> Spencer, H *The Principles of Biology* Vol.2 Williams and Norgate: London (1884) esp.pp485-492

<sup>71</sup> Tilt, *Elements of Health* p209

<sup>72</sup> Maudsley, ‘Sex in Mind and in Education’

reproductive sacrifice had yet to be fully experienced, the gynaecological surgeon Lawson Tait noted that there was twice the number of suicides amongst females than amongst men, drawing the predictable conclusion “that the sexual peculiarities of women form a powerful factor in the production of this disastrous result”.<sup>73</sup> However, at the climacteric when the most common form of insanity - melancholia - was observed, “the suicidal attempts are silly, half-hearted, and undecided”,<sup>74</sup> indicative, or so it would appear, of a loss of courage and a diminution of vigour. It seemed as though a woman could not even destroy herself properly, for a patient “will sometimes employ the most *outré* methods ... as swallowing her garters, or pieces of blankets, or she will attempt to strangle herself with her hands, dash her head against the walls, or plunge it in water, and keep it submerged with a determined persistency hardly conceivable”.<sup>75</sup>

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<sup>73</sup> Tait, ‘Menstrual Irregularities’ p177

<sup>74</sup> Leith Napier, ‘The Menopause and its Disorders’ p197

<sup>75</sup> Skae, F ‘Climacteric Insanity’ *Ed. Med. Jnl.* Vol.10 (July 1864-June 1865) pp709-10

**SPENCER AND EVOLUTIONARY BIOLOGY**

The idea that the well-being of the female reproductive faculty could be compromised by external factors exerting malign influences on the mind, can be found in much of Spencer's writings. He held to the view that extreme individuation necessarily resulted in a decrease in reproductive activity. In other words, anything too individual ran the risk of evolving into another species. Speaking of the multiplication of the human race, Spencer began by stating what for him was obvious; "that absolute or relative infertility is produced in women by mental labour carried to excess". In his estimation, the inability of many women to suckle their young testified to the effects of high-pressured education on the reproductive powers and the resulting numbers of "flat-chested girls".<sup>76</sup> Bearing in mind the matter of energy conservation, which applied to both sexes but with different outcomes, women experienced a disproportionate loss at the expense of intemperate action elsewhere.

Spencer illustrated this decrement in reproductive resources by calling up the image of the fuel burned in a furnace of a steam engine, showing that "the amount blown off at the safety valve answers to the proportion which goes to the propagation of the race". Furthermore, the two proportions may be altered, so that one can produce more steam at the expense of locomotion, and vice-versa. The transformation of energy, so often invoked in nineteenth-century medical literature, was then applied by Spencer to suit his conclusions. One could, he believed, actually improve on the amount of steam given off by a given amount of fuel by either improving the quality of the fuel, or better insulating the engine itself. In any event, these arguments paralleled "the

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<sup>76</sup> Spencer, *The Principles of Biology* p485

augmentation of individual expenditure and of reproductive energy caused by some superiority of an organ on which the utilizing or economizing of materials depends”.<sup>77</sup>

Spencer was not alone in his marked lack of scientific scepticism. The *Lancet* too was quite adamant that there could be “no question as to the possibility of educating women to the level of men [since] the total amount of cerebral tissue available for the production of a highly educated mind organ is not so great in the case of the average female as in that of the average male”.<sup>78</sup> For Spencer, the development of woman was early arrested by procreative functions, a sacrifice Maudsley was familiar with when he pronounced that “the female prefers the strongest male, for she looks quietly on until the battle for the possession of her is ended, and then contentedly yields herself up to the victor”.<sup>79</sup> These remarks, and countless ones like them were designed as a timely warning to “those who had egged women on to overstep the boundary lines of the path marked out for them”. Yet the burden fell to women, for it was their mission to discharge the duty that nature had devolved upon them “for the prosperity of the race as a whole”.<sup>80</sup>

Nearly two decades later, Professors Geddes and Thomson used a similar argument in their pioneering study *The Evolution of Sex*.<sup>81</sup> Here we find, in amongst the tadpoles and the aphids, the case of bees. What determined the three kinds of inhabitants of an apiary, and more especially the difference between the workers and the queen, had echoes of Spencer’s ideas. It appeared that the richer and more abundant diet

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<sup>77</sup> *ibid.* pp490-2

<sup>78</sup> *Lancet* i (1881) p379

<sup>79</sup> Maudsley, ‘Hereditary Influence’ p511

<sup>80</sup> *Lancet* i (1881)

<sup>81</sup> Geddes, P and Thomson, J *The Evolution of Sex* Walter Scott: London (1900)

developed the reproductive organs of the future queens, but “sparser and plainer food retards the sexuality of the future workers”, that is those who are “better-brained, but non-fertile working female[s]”.<sup>82</sup> This was the logic behind the fattening-up regime for those women who were failing to bleed sufficiently or regularly. Most professionals shared the belief that the stomach offered an important access route to the nerves. A farinaceous diet coupled with rest was the order of the day in cases where the transmission of nutrients became compromised.<sup>83</sup>

Distractions outside the home continued to elicit the same leitmotif. But instead of engines and bees, we are led to the metaphoric ‘economic body’ in which individual elements came to be understood as operating at the behest of the whole body rather “as the modern worker of the organizing capitalist who employs those under him”. This represented a subtle affirmation of woman’s lowly status and at the same time her invaluable worth in advancing men’s enterprises. For the employee works (unconsciously) to further the employer’s schemes, but whilst still living independently of him it should nevertheless be noted that this arrangement “probably often accounts for his value to his master”.<sup>84</sup>

A woman’s destiny was as much a religious as a societal calling. Mothers were reminded that “the higher influence which women are intended to infuse into sex, makes the subject a *holy* one”. The wise mother “can approach it in moments of *sacred* confidence with her children [exciting] a grateful *reverence* in the youth’s

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<sup>82</sup> *ibid.* p46

<sup>83</sup> See Oppenheim “*Shattered Nerves*” pp116-7

<sup>84</sup> Blair Bell, *The Sex Complex* pp103-4

mind”.<sup>85</sup> Three decades earlier Edward Tilt, chiming the virtues of motherhood, made that same appeal. He said that a woman entrusted with domestic felicity should not be deterred “from the steady, unobtrusive cultivation of her noblest faculties”, nor indeed should she be swayed by “the extravagancies of the transcendentalist supporters of self-culture” by allowing “the eccentricities of bigots [to] lead her from religion”.<sup>86</sup>

Tilt was able to give a medical justification for a mother’s providential duty to protect her daughter from acquiring a warped mind. An education in domesticity was to begin early, with girls being kept in a state of childhood for as long as possible. Tilt believed in the benefit of plain nursery food, and felt that “hair- uplifting novels” should be avoided given the likelihood of arousing morbid emotions. “Si votre fille lit des romans à dix ans, elle aura des vapeurs à vingt” he warned, suggesting that “the brilliancy of fiction” had the capacity, at least in France, to advance puberty with unseemly haste.<sup>87</sup> But once puberty was established, it was even more important to rein in excessive development of the nervous system. Trips to the opera, could certainly “be a potent engine of mischief” as was waltzing with its gyratory motion so prejudicial to the health of the lungs and brain. “No constitution can withstand constant excitement”, he reminded mothers, for at the end of such a season, animated by the daily succession of evening amusements, “blooming girls become semi-animous wrecks”.<sup>88</sup>

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<sup>85</sup> Blackwell, *Counsel to Parents* p81 [My emphasis]

<sup>86</sup> Tilt, *Elements of Health* p209

<sup>87</sup> Tilt, *On the Preservation of the Health of Women* p40

<sup>88</sup> Tilt, *Elements of Health* pp213-17

The idea that puberty could be advanced or retarded according to a particular regimen draws attention to the centrality of self-balance and self-regulation in the medical writing of the period. *Mens sana in corpore sano* was the guiding principle if not the battle cry<sup>89</sup> since any excess of vitality or mental lassitude excited genuine concern. Intemperance and restraint were policed in medical terms that would allow for authoritative and unimpeachable screening from social anxieties. “Nature is never superfluous”, noted one physician in his attempt to show that the whole organic system was kept in equilibrium by a set of counterweights operated by the nervous system.<sup>90</sup>

Dr Blackwell agreed, understanding menstruation and sperm emission as two parallel forces whose actions of self-balance were set in preparation for “the beneficial ordinance of marriage”.<sup>91</sup> But how easily this natural state of affairs could become unbalanced and diseased “through impure thoughts and bad habits acting on the nervous system”. In men it resulted in spermatorrhoea, in women it produced menorrhoea or leucorrhoea.<sup>92</sup> This all pointed to evidence of a woman’s triple-bind: her duty to develop and maintain an inherently defective reproductive system; her obligation to be mindful of the prudent deployment of scarce resources; and her inescapable allegiance to the notion that she thrived best when under the dominion and superintendence of man. The ‘theory of plethora’, understood as a prescriptive device, pulled together all these strands in what must have seemed a perfectly rational and peremptory course of action.

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<sup>89</sup> For a fine analysis of Victorian psychophysiology see Haley, B. *The Healthy Body and Victorian Culture* Harvard University Press (1978) esp. Ch.2

<sup>90</sup> Oliver, ‘Facts Relative to Menstruation’ p1004

<sup>91</sup> Blackwell, E. *The Human Element in Sex: Being a Medical Inquiry into the Relation of Sexual Physiology to Christian Morality* J.& A. Churchill: London (1894) pp23-4

<sup>92</sup> *ibid.*



## PLETHORA AND ITS RELIEF

Whilst suppression of the menses could, on one register at least, be understood as a means of keeping mental development in a state of perpetual adolescence, menstruation itself signalled one undeniable reality: that adolescence heralded adulthood and imbalance marked the passage from one state to the next. The ‘theory of plethora’ was an ancient idea, evident in the writings of Hippocrates, Aristotle and Galen. Since the body, and most notably the uterus were recognised as subject to congestion and general excess, menstruation became a means by which this plethora was removed through regular evacuations.<sup>93</sup> Although each of these authorities understood menstruation rather differently, nonetheless it was generally understood as the means whereby the female body was able to readjust itself to a state of balance by either purging, eliminating or transforming excess.<sup>94</sup> What we find in nineteenth-century medical texts was a contemporary reassessment of these past ideas and the recognition that they could well be applied to vicarious menstruation, a form of blood-letting through escape routes other than the vagina.

The ‘theory of plethora’ was a touchstone for many medical men because it dovetailed so perfectly with conceptions of the workings of the economy. “Plethora of the system” it seemed, was “indicated by a heavy, sanguine, and congested aspect”.<sup>95</sup> It appeared rather like a poorly regulated circulatory system which not only illustrated the “free market ‘convulsions’ in which circulation has been hampered by ‘constriction’ or ‘obstruction’”, but was configured in such a way that suggested

<sup>93</sup> Stolberg, ‘The Monthly Malady’ pp304-7

<sup>94</sup> See Templeman Speer, S ‘The Life of the Blood, as Viewed in the Light of Popular Belief’ *Provincial Medical and Surgical Jnl.* (1852) pp262-265, pp309-312; also Crawford, P ‘Attitudes to Menstruation in Seventeenth-Century England’ *Past & Present* 91 (1981) pp47-73

<sup>95</sup> Oke, W ‘Abnormal Menstruation: Deficient Menstruation, Nosologically Termed Chlorosis’ *Association Medical Jnl.* (1853) p393

“vital currents blocked in one direction will either find egress somewhere else or burst their vessels”.<sup>96</sup> This somatic and economic homology did not go unnoticed. “Functional activity proceeds hand in hand with waste in every animal structure and the structural integrity is maintained by the tissue appropriating from the blood circulating in it the ingredients necessary for its well-being”,<sup>97</sup> noted one physician, whose succinct comments were encoded further by another who reasoned that “the idea of the evolution of diseased states from retention in the body of its excretions and of the products of their decomposition is one of wide application and of extreme importance in medicine”.<sup>98</sup>

Even though menstrual blood denoted a woman’s special aptitude, its secretion and elimination demanded close scrutiny and invigilation. Regular evacuations of excessively high blood volumes could not rely on a solitary vent. They needed to be expressed through channels not designed for the purpose in order to spare the internal organs undue strain. According to Robert Barnes “that tension is best relieved by purgatives, leeches, and cupping”.<sup>99</sup> Purgatives provided habitual relief to a system unable to discharge properly. In cases of amenorrhoea, mammary irritation was considered a good stimulant for a torpid uterus and emmenagogues containing iron, manganese and arsenic were found to bring on the flow.<sup>100</sup> Vaginal injections comprising between twenty and thirty drops of liquid ammonia dissolved in a little warm milk were also found to be helpful. In cases of menorrhagia, the flow could be

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<sup>96</sup> Walsh, S ‘Bodies of Capital: *Great Expectations* and the Climacteric Economy’ *Victorian Studies* Vol.37 No.1 (1993) p78

<sup>97</sup> Oliver, ‘Facts Relative to Menstruation’ p1007

<sup>98</sup> Clark, A ‘Observations on the Anaemia and Chlorosis of Girls, Occurring More Commonly Between the Advent of Menstruation and the Consummation of Womanhood’ *Proc. Med. Soc. London* Vol. 11 Harrison and Sons: London (1888) p64

<sup>99</sup> Barnes, R ‘On Vicarious Menstruation’ *The British Gynaecological Jnl.* Vol.2 (1887) p158

<sup>100</sup> Cormack, J ‘Galactagogue and Emmenagogue Effects of Warm and Stimulating Applications to the Mammæ’ *Association Med. Jnl.* (1853) pp255-6

checked by giving “nauseating doses of antimony”, and if that did not do the trick, “the vagina should be plugged”.<sup>101</sup>

**Fig.6** Portrait of R. S. F. Barnes, after J. Horsburgh’s painting in the RSM, 1889. Robert Barnes was consulting obstetric physician at St. George’s Hospital, and from 1877 physician at the Chelsea Hospital for Women.

In certain cases, nature had appeared to make attempts at modifying the effects of a plethoric system. It was discovered that some women, usually those displaying hysterical or neurotic signs, were subject to excess discharge of mucous, or frequent bouts of diarrhoea. This condition had certainly been observed by Tilt who considered menstruation not as a passive discharge, but “as a critical termination, often preceded by mucous discharges from the generative and intestinal canals, as well as by [the]

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<sup>101</sup> Tilt, ‘On Uterine and Ovarian Inflammation’ p163

complicated nervous phenomena".<sup>102</sup> Gestation or lactation could also provide the necessary draught, but more often than not, the disordered reproductive system expressed itself in its hysteric, apoplectic or epileptic *alter ego*.<sup>103</sup>

The same view was arrived at by Dr. Sutherland of the Wakefield Asylum who was quoted as having examined and tabulated the menstrual history of some five hundred inmates. His findings were set down in a paper in the *West Riding Asylum Reports* (1872-3?). According to Lawson Tait, who found the paper "singularly comprehensive", Sutherland came to the general conclusion that "menstruation was delayed in half the idiots, and in extreme degrees of cretinism the reproductive powers never seem to be established", and in any event, "idiots, imbeciles and cretins suffer severely at these periods, having fainting fits and attacks of mania".<sup>104</sup> Insanity of lactation, a condition arising from the anæmic state of the system, was particularly difficult to quantify thanks to imperfect and often false information given by all classes of the insane. But although the condition was remediable in many instances, it was found that in the "congenitally weak-minded", permanent damage did result, leaving "wretched, half-idiotic girls" with an even greater degree of imbecility than before.<sup>105</sup>

The so-called 'normal woman', at least in medical terms, seemed almost an oxymoron. She was expected to find pleasure in the sexual act, to have maternal instincts, to menstruate freely, have well-formed breasts and an inclination of mind

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<sup>102</sup> Tilt, E 'On Catamenial Diarrhoea' *London Jnl. of Medicine* Vol.3 (1851) p699

<sup>103</sup> See Barnes, 'On Vicarious Menstruation' p163

<sup>104</sup> Tait, 'Menstrual Irregularities' pp175-6

<sup>105</sup> Tuke, J 'Cases Illustrative of the Insanity of Pregnancy, Puerperal Mania, and Insanity of Lactation' *Ed. Med. Jnl.* Vol.12 (July 1866- June 1867) p1084, p1098, p1100

which displayed both a feminine outlook and feminine aspirations.<sup>106</sup> However, this monument, this “boast of Englishwoman”, was at the constant mercy of a sickly constitution despite Tilt’s pleas that “its strength never be impaired by our intercourse with foreign nations”.<sup>107</sup> The dangers associated with too much colour were often taken as signs of indolence and enervation. Having a creamy complexion was considered a sign of beauty and together with delicacy and refinement made up the hallmarks of a highly developed and civilized race. Nevertheless in medical circles it was more or less a commonplace to associate a pallid appearance with mental deficiency and a lacklustre reproductive performance.

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<sup>106</sup> Blair Bell, *The Sex Complex* pp118-19

<sup>107</sup> Tilt, *Elements of Health* p175

## PALE OR NOT TOO PALE?

Chlorosis was a disease that seemed designed to attack young girls between fourteen and twenty-four years, yet rarely was noted in married women. It became one of the commonest indicators of impaired menstruation as “the blood from an anæmic woman is wholly unsuited for nourishing nerve tissue and thus the whole train of events associated with menstruation are enfeebled”.<sup>108</sup> Her “absence of natural colour and the tenderness of tissue, which is so satisfactory to meet with in celery and lettuce, is a deplorable condition in a young girl”,<sup>109</sup> lamented Tilt, although another physician thought her paleness, as a rule, was due to faecal poisoning, and not infrequently the sufferer’s breath had “a faecal odour” and there was much highly offensive intestinal flatulence.<sup>110</sup>

Helen King has described chlorosis as a disease label that “reinforced the gender and age categories that were the basis of the Victorian social order [since] similar symptoms would receive very different diagnoses depending on the age and gender of the patient”.<sup>111</sup> The disease just happened to appear in the right sex at the right age. Its clinical symptoms give an almost precise trace of the social construction of the Victorian woman by making its appearance seem natural, expected and pathological all at the same time. As Karl Figlio has noted, “disease was the evidence that a predisposition existed [and] chlorosis characterized adolescence as a new stage in life,

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<sup>108</sup> Oliver, ‘Facts Relative to Menstruation’ p1007; Oke, ‘Abnormal Menstruation’ p392

<sup>109</sup> Tilt, *Elements of Health* p229

<sup>110</sup> Clark, ‘Observations on the Anaemia and Chlorosis of Girls’ pp55-7

<sup>111</sup> King, H *The Disease of Virgins: Green Sickness, Chlorosis and the Problems of Puberty* Routledge: London (2004) p16

one associated with innocence [yet] the reality was not innocence, but adulthood”.<sup>112</sup>

That said, the disease’s puzzling origins allowed many non-medical factors to be foregrounded.

The retention of noxious substances within the organic body had a clear resonance with the imperfect ordering of the social body in which impurities were expressed as products of decomposition and dissipation. Attempts to bring about stability to what was frequently thought of as an inherently disordered and unbalanced constitution testifies once again to the profound contradictions medical men had to contend with when speaking of the (alleged) infringement of nature’s inexorable laws and the heavy duty they exacted.

For medicine it was an extremely important issue, since it permitted, indeed called for intervention when nature was found wanting in bringing about relief or in providing systemic unity. As we have noted, the most popular method for procuring a good flow, when the cost/benefit compilation of nose-bleeds, diarrhoea, and the rest were insufficient, was with the aid of leeches, purgatives, and to a lesser extent, cupping. Tilt’s injunction, that “the menstrual critical flow should be pure blood, like that of a victim”<sup>113</sup> adds to evidence of what we have already heard called ‘an alibi for aggression’, that device which Gay understood as legitimating militancy on [usually] scientific grounds.

The solutions offered in support of human mediation were generally more unpleasant than the conditions they purported to improve. When nature appeared in need of

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<sup>112</sup> Figlio, ‘Chlorosis and Chronic Disease in Nineteenth-Century Britain’ p191, p196

<sup>113</sup> Tilt, *On Uterine and Ovarian Inflammation* p167

assistance, because the force she was up against was more than opposite and equal to her own, the medical man could fill the breach by designing a regimen entirely under his control. If it was judged that the monthly flux was insufficient, or if it was discovered that it could not be performed in the usual way, substitutes had to be found to lessen or avert mischief.<sup>114</sup> Sailing under the false colours of scientific prescriptions, medical men often promoted themselves as protectors of the reproductive system's integrity, with any deviation from regular and recurring vaginal bleeding to be viewed with suspicion. If the use of leeches was indicated, he alone was to decide "how many, and where they should be applied".<sup>115</sup>

According to Tilt, a deficient flow might be amenable to the application of mustard poultices to the inner thighs or breasts although he did suggest care be taken in case blisters form. But if that remedy failed, no such consideration was extended to the use of leeches placed "on the cutaneous part of the labia... [followed by] an aloetic injection given by the rectum".<sup>116</sup> It was noted that diseased menstruation was often accompanied by sickness and whilst Tilt believed in the benefits of applying leeches to the neck of the womb in such cases, he was also partial to another means of checking nausea. For this he favoured cauterizing the pit of the stomach with a *marteau de Major*, a small steel hammer heated in boiling water and left for a few seconds until a scar formed which was then kept open for some weeks.<sup>117</sup>

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<sup>114</sup> Barnes, 'On Vicarious Menstruation' p177

<sup>115</sup> Tilt, *Elements of Health* pp235-7

<sup>116</sup> *ibid.* pp165-6

<sup>117</sup> Tilt, E 'On the Treatment of Sickness in Uterine Inflammation and Diseases of Menstruation' *Trans. Obstet. Soc. of London* Vol. 3 (1862) pp24-5



## THE AUTUMN OF DISCONTENT

If irregularity or insufficiency mirrored the instability and inadequacy of the woman's mind organ, the months and years preceding the complete cessation of the flow - the 'dodging time' - seemed to provoke even greater alarm. There was something unnatural about a woman whose grace had fallen away only to be replaced by periodic attacks of hysteria, epilepsy, paralysis, apoplexy, and even mania, all subsumed under the nomenclature, paroxysms.<sup>118</sup> Indeed as Strange has remarked, "the menopause seems to have provided an almost ready-made explanation for outbursts of hysteria and insanity in middle-aged women".<sup>119</sup> Again we see the economic symbolism of a circulatory system, seized by periodic paroxysms, being mimicked by a bankrupt reproductive faculty.<sup>120</sup> As with insufficient menstruation, medical men were on hand, for whilst nature may have had no means of disposing this redundancy of blood, they could take pride "on imitating her proceedings".<sup>121</sup>

Sadism was never far away. In managing the female climacteric, depletion or the drawing of blood could be accomplished by "incisions into the os uteri, just as in scarification of the gums". Moreover, if additional depletion was called for, leeches were fed up to the os uteri via a speculum and then, "for some hours after their removal, there is an oozing of blood from the leech bites", appearing to offer few surprises "given the suddenness with which [they] fill themselves". The remedial

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<sup>118</sup> Tyler Smith, 'The Climacteric Disease in Women' p604

<sup>119</sup> Strange, 'Menstrual Fictions' p621

<sup>120</sup> Walsh, 'Bodies of Capital' esp. pp78-83

<sup>121</sup> Tilt, E. *The Change of Life in Health and Disease. A Practical Treatise on the Nervous and Other Affections Incidental to Women at the Decline of Life* 2<sup>nd</sup> ed. (1857) p86

effects of leeching could further be enhanced when used in conjunction with cold-water injections into the rectum and the introduction of vaginal ice packs.<sup>122</sup>

The production of heat or ‘flushes’ at the climacteric was understood as one of nature’s inbuilt safety features, but rather than augmenting the powers of reproduction, it worked to compensate for the collapse of the system. However it could not be taken for granted that the eternal rest of the reproductive faculty would see a comparable calm setting in elsewhere, for “as a flickering flame gives a final blaze, so in some women sexual desire is strongest when the reproductive power is about to be extinguished”.<sup>123</sup> Even those women who hitherto had been considered morally irreproachable “are subject to attacks of ovario-uterine excitement approaching to nymphomania”.<sup>124</sup>

Ovarian insanity, often referred to as ‘old maid’s insanity’ was the somewhat odd idea that those who hitherto had led virtuous lives both in thought and deed got their comeuppance just before the menopause. It was now the time for reparations to compensate for the debt incurred by nature. The cost of repressing what was deemed natural amounted to a catalogue of disturbances, such as “arousing a grotesque and baseless passion for some casual acquaintance of the opposite sex”, believing the feeling to be mutual.<sup>125</sup> Given that many of the ‘old maids’ had led deeply religious

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<sup>122</sup> Tyler Smith, ‘The Climacteric Disease in Women’ pp607-8

<sup>123</sup> Tilt, E *The Change of Life in Health and Disease. A Clinical Treatise on the Diseases of the Ganglionic Nervous System Incidental to Women at the Decline of Life* 4th.ed. J. & A. Churchill: London (1882) p107

<sup>124</sup> Tyler Smith, ‘The Climacteric Disease in Women’ p606

<sup>125</sup> Clouston, T.S. *Clinical Lectures on Mental Diseases* J. & A. Churchill: London (1887) esp. Lecture XIV ‘Uterine or Amenorrhoeal, Ovarian and Hysterical Insanities’. This sounds very much like Clérambault’s syndrome, first described in 1942 as ‘*les psychoses passionelles*’. It is central to Ian McEwan’s novel *Enduring Love* Jonathan Cape: London (1997). The subject, “usually a woman, has

lives, clergymen often became the object of their desires. The majority of Clouston's patients were aged 35-43, a group he considered old and superfluous. Most he pitied, being prey to forces of a base nature when most of their lives had been conducted with such rectitude. None ever recovered, and some continued to live on into a period of senility.

As with puberty, the change of life could disclose vital energy indicated by cerebral irritability brought on by ovarian disturbance. Edward Tilt was very enthusiastic about the sedative effects of liquid ammonia mixed with camphorated spirits of wine and water, then applied to the head to "redde[n] the scalp, causing burning sensations". In exceptional cases he found the results were more favourable if the head was shaven and sedatives rubbed directly onto the scalp.<sup>126</sup>

Very few women seemed in a position to escape the nervous trouble accompanying the climacteric, described as "the epoch of severest trial".<sup>127</sup> It was the time she entered a vale of sorrow, knowing "she is about to lose the particular character of her sex" as her outward charm and attractiveness abated in equal measure.<sup>128</sup> With her sexual function now in abeyance, feminine grace ceded to decrepitude accompanied by masculine features, often requiring tweezers "to remove stray hairs from the face". Nevertheless, for medical men this rite of passage did contain the certainty and relief

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the intense delusional belief that a man, often of higher social standing, is in love with her. The subject may have had little or no contact with the object of her delusion". p234

<sup>126</sup> Tilt, *The Change of Life* pp87-91

<sup>127</sup> Hack Tuke, D (ed.) *A Dictionary of Psychological Medicine* Vol.1 J.& A. Churchill (1892) pp234-6

<sup>128</sup> Leith Napier, *The Menopause and its Disorders* p186

that when complete, the change would see her “safely anchored in [this] sure haven”.<sup>129</sup>

#### SYMMETRY BETWEEN WOMEN AND ANIMALS

Whilst there was agreement on the need for the organism to be kept in counterpoise if the mind was to be prevented from going awry, control of the female life-cycle required more than purgatives and suppressing agents. The Victorian woman had to be reminded constantly that whatever she aspired to, in many respects she remained closer to non-human mammals than to man, and it was her proximity to aspects of her mammalian sisters that was telling.

As with animals, it was thought that ovulation was the immediate cause of the flux, and the purpose of the flow was to discharge the blood and energy that was prepared for the missed pregnancy. Signs of impending bleeding were “*increased nervous tension and mobility* manifested in exalted psychological, emotional, and reflex action”.<sup>130</sup>

Now according to several medical men, “all periodical haemorrhages in the human species are under the dominion of the primal law of periodicity, which it inherits in common with all animals”.<sup>131</sup> Whilst it seemed apparent that there was a parallel relationship between menstruation in women and oestruation in the lower animals, women’s ability to conceive at times “somewhat remote from their period” was explained by them being analogous to, but more highly endowed than animals.<sup>132</sup>

<sup>129</sup> Tilt, *The Change of Life in Health and Disease* p65, p68

<sup>130</sup> Barnes, ‘On Vicarious Menstruation’ pp153-6 [orig. itals.]

<sup>131</sup> Wiltshire, A ‘Vicarious or Ectopic Menstruation, or Menses Devii’ *Lancet* ii (1885) p516

<sup>132</sup> Wiltshire, ‘Comparative Physiology of Menstruation’ p398

The received wisdom, that a woman was least likely to conceive in the middle of her cycle, left no doubt that she was at her most fertile directly following menstruation. It was a signal from the ovaries that she was now “eager to procreate and desire the male”.<sup>133</sup> Women were therefore marked by nature, not science, to excel in reproductive matters while simultaneously cultivating intellectual anaesthesia. “Are not our intellectual women commonly unmarried or barren?” asked Maudsley. “And is not the mother of genius the self-sacrificing woman, whose best energies have been absorbed in her family?” If multiplication of the race required women to forego the “philanthropic enlightenment of humanity”, then *ipso facto* they should remain in their domestic setting.<sup>134</sup>

It was in this setting, when under the restraining influence of domesticity, that a woman’s reproductive system appeared to function best. This notion was endorsed by Mr. Abraham Bartlett, the Zoological Gardens’s superintendent for almost fifty years, as well as others in veterinary practice whose observations offered great support to medical men anxious over the calls for female emancipation. Abraham Dee Bartlett (1812-1897) was an authority on the captive care of wild animals, publishing nearly sixty papers on the subject in *The Proceedings of the Zoological Society* as well as other journals. As superintendent of the Zoological Gardens, he worked together with and was consulted by many leading naturalists, most notably Charles Darwin.<sup>135</sup>

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<sup>133</sup> Moscucci, O *The Science of Woman: Gynaecology and Gender in England, 1800-1929* Cambridge University Press (1990) p34

<sup>134</sup> Maudsley, ‘Hereditary Influence’ p497

<sup>135</sup> See *DNB* (2004). Mr. Bartlett’s views on the incubation of the cassowary, the fighting of male warthogs, the display in male birds and on the naked surfaces of monkeys &c. were of great assistance to Darwin and duly acknowledged in his *Descent of Man* Bks.1 and 2

According to Bartlett, in his experience “domestic animals exhibited superior social skills and self-control” than wild animals.<sup>136</sup> He noted that even in the aplacental mammal, “prolonged copulation in a young female kangaroo which had never bred, caused haemorrhage, necessitating separation from the male”. Moreover, Bartlett discovered that the seasonal aptitude for procreation, evident in wild and feral states could be evened out to a great extent by domestication. But however well-cared for and highly bred, the propensity of “the human female to conceive at certain annual epochs” was seen as an atavistic encounter with her primitive and primordial condition that civilizing restraints could not erase completely.<sup>137</sup> This was well understood: for in the competitive world men found they were engaged in “an evolutionary form of the hunter’s craft”, and women who felt driven to pursue that same end would only injure “the finer psychical functions connected with the biological life”.<sup>138</sup>

The influence of Darwinian thought on medical ideas was readily apparent, offering “the full weight of scientific confirmation to narrow Victorian ideals of femininity”.<sup>139</sup> Female specialization could now be defended unquestionably in evolutionary terms. According to Darwin, the human female “ultimately assumes certain distinctive characters, and in the formation of the skull, is said to be intermediate between the child and the man”, and these characteristics, Darwin concluded, were “curiously the same as in the *Quadrumana*”. We learn also that the males of most species are larger and stronger than the females, bolder and fiercer too,

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<sup>136</sup> See Ritvo, *The Animal Estate* p16

<sup>137</sup> Wiltshire, ‘Comparative Physiology of Menstruation’ p397-8

<sup>138</sup> Blair Bell, *The Sex Complex* p114

<sup>139</sup> Showalter, E *The Female Malady: Women, Madness, and English Culture, 1830-1980* Virago Press: London (1995) pp121-2

and that “man is more courageous, pugnacious, and energetic than woman, and has a more inventive genius”. In addition, a woman’s mental disposition differs from that of the males, “and this holds good even with savages”.<sup>140</sup> The link between women and savages should not be underestimated since it contained the twin elements of barbarity and disqualification. Civilization meant restrained sexual habits, bequeathed to her by “the long train of civilized ancestresses, whose desires have been kept in subjection” unlike lower class women whose sexual instincts resembled those of animals.<sup>141</sup>

As sexual respectability was an expression of sexual restraint, so domestication appeared greatly to enhance fertility by doing away with a limited sexual season. The numerous forms of social excitement, “of allowing riches, talents, agreeable manners, to atone for any amount of moral corruption”,<sup>142</sup> presupposed the idea that disease was a deviation from or an aberration of a healthy state. Darwin had shown that the generative system was highly sensitive to an individual’s connection to the environment. He found that civilized populations who had access to subsistence and were able to live in comfort were more prolific than savages who existed in a wild state and thus “were victorious over other and less well-endowed communities”.<sup>143</sup>

That the reproductive system could be so exquisitely sensitive to changed conditions of life was suggested by the analogy with lower animals. It was observed that “the regular periodical horsing of mares” took place when they were “fairly well fed and not overworked”, the same concession being extended to cows and bitches. When the

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<sup>140</sup> Darwin, *Descent of Man* Bk.2 pp316-8, p326

<sup>141</sup> Blair Bell, *The Sex Complex* pp116-17

<sup>142</sup> Blackwell, *Counsel to Parents* p101

<sup>143</sup> Darwin, *Descent of Man* Bk.1 pp131-3, p155

analogy was further stretched, albeit a short distance, to include women, it was found that those who were domesticated, and especially those in captivity who lived an easy, luxurious, but not excessive life, had augmented the frequency and the character of the flow. Indeed seclusion from the male, either through economic necessity or through captivity was found to “permit the repeated exhibition in the female of the phenomena of the rut or heat”. It was only at the climacteric, when there were long, seasonal intervals between bleeding, that “reversion to an ancestral condition was often imitated again”.<sup>144</sup>

Women, found wanting in their cerebral equipment, were lumped together with other less perfect forms, notably criminals, the insane, animals and the savage. “The life of the savage”, intoned Barnes, with its “nomadic habits, the dangers of the chase and warfare, and the frequent scarcity of food”, combine to repress the increase of children.<sup>145</sup> The arrival of puberty was determined by warmth, comfort and a nutritious diet. By contrast, cold was understood as a deterrent to the onset of puberty, confirmed by girls with a lymphatic temperament attaining pubescence later than those with a sanguine disposition. In the same way as many animals acquired a white coat in winter, women were expected to incur losses in reaction to changed circumstances in uterine activity.

The majority of medical men were of the opinion that any woman with pretensions to frustrate or defy her biological destiny could expect an overloaded system, functional disturbance, toxic influences, uterine and ovarian disorders, not to mention severe

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<sup>144</sup> Wiltshire, ‘Comparative Physiology of Menstruation’ pp 398-99, pp446-8, p502

<sup>145</sup> Barnes, R ‘An Inquiry into Some of the Relations Between Menstruation, Conception, Lactation; and the Influence of Lactation in Causing Abortion’ *Lancet* ii (1852) p512



mental derangement. Thomas Clouston was most anxious about any education that had as its object “any overstraining of weak points”. As far as he was concerned, it fought against the laws of nature, turning girls into “pundits and doctors” - “psychically hermaphrodite specimens of humanity”.<sup>146</sup> In many cases normal activity was halted in its tracks by lowering measures, sedatives and purgatives often accompanied by vaginal and anal assaults. These treatments were not in response to any particular presenting symptoms, rather they were constituted as part of an ongoing object lesson in obedience and subjection.

If women were in possession of self-mastery, it would have meant being in possession of will, and that right could only be usurped from men. This is what really did concern men in general and medical men in particular as steady inroads were being made onto their territory and undermining it. Thus the egregious contradiction, that a woman’s strength lay in her meekness, that her noblest faculty defined her low estate, and that submission offered the most sublime rewards, seems not to have disturbed medical men. The decades of a woman’s fertile life were particularly suited to these enthusiasms for they could so readily be grafted on to putatively non-medical interests.<sup>147</sup> The power inherent in the body of medical discourse drew on the prevailing male intellectual attitude, and contributed to its creation. Indeed it was part and parcel of how men were trying to retain effective control by virtue of their authority.

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<sup>146</sup> Clouston, *Clinical Lectures on Mental Diseases* (1883) Lecture XVI

<sup>147</sup> For a good discussion on the implicit as well as the explicit communication in scientific discourse, see Figlio, K ‘The Metaphor of Organization: An Historiographical Perspective on the Bio-Medical Sciences of the Early Nineteenth Century’ *History of Science* Vol. 14 (1976) pp17-53

Here, an interesting comparison can be made with the Chicago-based obstetrician Joseph Bolivar DeLee (1869-1942) who was “a formidable force in American obstetrics” yet has been blamed by some historians for “medicalizing a previously unmedicalized event”.<sup>148</sup> The event in question concerned the management of labour and delivery, or to be more precise, the prevention of maternal morbidity and mortality through medical intervention. It was not intervention *per se* that was of concern, rather intervention to prevent problems occurring even if none were anticipated or indicated.

As a proponent of prophylaxis, DeLee considered himself an expert in whose hands the routine use of forceps “would improve on faulty nature” by preserving “the integrity of the pelvic floor, and save babies’ brains from injury”. In this he made it clear that only a specialist was in a position to take action, leaving “watchful expectancy” to what he considered the unprofessional and poorly trained birth attendant.<sup>149</sup>

What is of interest here are the similarities between DeLee’s strategies articulated in the 1920s, and those of the medical men of the later Victorian period who were attempting to establish the new discipline of gynaecology and enhance the role of the expert. Most telling was DeLee’s complete trust in the value, promise and authority of science that appears to have blinded him “to the possible dangers of increasing the medicalization of childbirth”. His eminence in his chosen field of expertise has never been questioned. Yet as Leavitt has pointed out, to an extent his dedication was self-

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<sup>148</sup> Leavitt, J ‘Joseph B. DeLee and the Practice of Preventative Obstetrics’ *American Jnl. of Public Health* Vol.78 No.10 (1988) pp1353-1360

<sup>149</sup> *ibid.* p1354

serving, for “as a member of a medical specialty striving to prove itself”,<sup>150</sup> DeLee viewed his and his patients’ interests as best served by turning the natural event of childbirth into a potentially catastrophic event requiring routine intercession.

The DeLee case reflects the position taken by many medical men in the later nineteenth century. They too formulated pathological conditions from healthy states. This chapter will have helped us to understand the reasoning behind those formulations and why they were judged to be desirable. With medicine still lacking the status it considered warranted, and with women making slow but steady advances in matrimonial, property and employment laws, it is not a surprise to hear that the Victorian woman ought not to be deterred “from the steady, unobtrusive cultivation of her noblest faculties” neither should she “despise herself because of her fetters, but wear them with proud humility”.<sup>151</sup>

The following chapter will focus on the months of pregnancy. We shall see that even when fulfilling her role as a prospective mother, an undercurrent of danger was usually lurking. Away from the direct jurisdiction and expertise of the doctor, pregnant women were said to be prey to the production of imperfect infants. Given the delicate state of emotions during those months, mothers who did give birth to a disfigured baby were frequently charged with creating the deformity through the operation of their wayward imagination.

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<sup>150</sup> *ibid.* p1357

<sup>151</sup> Tilt, *Elements of Health* p209, p222

## CHAPTER THREE

### OUR GENETIC CONNECTION WITH BRUTELAND

“A Gentleman, accompanied by his wife, who was three months advanced in the family way, was driving in a chaise-cart along the road a few miles from town. Having arrived at a house where he wished to call on business, he left his wife sitting in the chaise alone. He had not long entered the house before he heard a scream, and looking out of the window, beheld his wife in a state of violent excitement, and a man in a complete state of nudity directly getting into the vehicle. By the time he got out of the house, other parties, neighbours, had gone to the lady's help, and the man was being forced into a house close by. The man who had thus acted was insane, and had, unobserved, escaped from his attendants. The lady was very much shocked, and ill, after the occurrence; and fears were entertained by the lady and her friends, that her progeny would be in some way affected in consequence of the fright. The period of accouchement at length arrived, and my informant assures me that all his anticipations were realized, for the child was born *absolutely naked*”.<sup>1</sup>

On the face of things, this tale of a pregnant woman terrified at the sight of a naked man may raise a wry smile, be looked on in utter disbelief, or even ridiculed with a condescension usually reserved for such seeming nonsense. This chapter seeks to surmount the cynicism and understand how and why many Victorian medical men

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<sup>1</sup> J. Poland, F.R.C.S. (ed.) *On the Nature, Causes, Variety and Treatment of Bodily Deformities: In a Series of Lectures Delivered at the City Orthopædic Hospital in the Year 1852 and Subsequently by the late E.J. Chance, F.R.C.S* Smith, Elder & Co.: London Vol. 1 (1905) pp124-25 [orig. itals.]

accounted for monstrous births by continuing to rely heavily on the ‘maternal imagination thesis’.

‘Maternal impressions’, the ‘maternal imagination’ and ‘mother’s marks’ were terms commonly used to describe the idea that the emotional circumstances peculiar to a pregnant woman lent her a facility to influence materially the normal development of her foetus. This theory had ancient roots stretching back beyond the written record. Many authorities including Hippocrates, Galen, Plato, Pliny, Cicero and Empedocles believed in the power of maternal prenatal influence because the imagination formed the necessary link between the mind and the body. It was “conceived to be the image-making faculty, and many monsters were fancied to be the very images of things that had been pictured previously in the mothers’ minds”.<sup>2</sup>

Although the history of monsters stretched back to antiquity, the debate over the origin of foetal abnormalities remained *sub judice* at the close of the nineteenth century, unable to be resolved in the face of medical advances. Indeed accounting for monstrous births and their supposed aetiology remained equivocal until the laws governing the hormonal control of reproduction were established in the 1920s. This was despite the earlier discoveries of distinct maternal and foetal circulatory systems and the absence of any nervous connection between the mother and her developing child.<sup>3</sup> When much of the nineteenth-century gynaecological literature depicted the female system as subject to an endless cycle of disease, distress, and decay, it is

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<sup>2</sup> See Todd, D *Imagining Monsters: Miscreations of the Self in Eighteenth-Century England* University of Chicago Press (1995) esp.pp52-63. Also Huet, M-H *Monstrous Imagination* Harvard University Press (1993) who attributes the theory to a lost text attributed to Empedocles of Agrigenta (died 440 B.C.). Huet suggests that Empedocles’ idea was probably disseminated in Western Europe during the Renaissance.

<sup>3</sup> See Glenister, T ‘Fantasies, Facts and Foetuses: The Interplay of Fancy and Reason in Teratology’ *Medical History* Vol. VIII (1964) pp15-30

perhaps not surprising that any scientific advances that questioned the strength of the maternal imagination remained in direct conflict with the generally held view that the female's reproductive apparatus was, if not innately flawed, then at best teetering on the brink of collapse.

Most early accounts of defective births had confined their scope to the moments either before or at the time of conception, but many nineteenth century physicians did not subscribe to such a limited time frame. Instead they believed that given the necessary conditions, a woman's whimsical yet powerful imagination could operate malevolently at any time throughout her pregnancy. With a birth rate declining from the 1870s and the women's movement gaining momentum, one of countless vindications for females' disordered senses and unregulated minds was the spawning of monsters, suggesting an alarming affinity to lower life-forms.

Although Dr. Chance was clearly mocking the idea that a baby should be born other than naked, the seemingly fanciful belief in a woman's ability to exert malign influences over her unborn child was by no means a marginal one. Nineteenth-century medical literature is peppered with reports of perverted development in the newborn caused by fright or by a craving that subsequently produced either superficial blemishes or structural deformities closely resembling the original object that had so startled the mother. Even today we hold on to the remnants of some of these old wives' tales when speaking of strawberry marks, port-wine stains and hare-lips, the tell-tale signs of gluttony, inebriation or sudden fright. But in an age when the science of genetics lay undiscovered, Victorian medical men experienced real difficulties

when trying to explain how birthmarks and anatomical malformations arose and why such deviations from normal type would be likely to occur.

The conundrum over the effects of the maternal imagination split medical opinion roughly into three estates: those who deplored the credulity of some medical pundits; those who were prepared to consider the possibility since the question was an open one; and those who felt there could be no plausible explanation for the occurrence of a monstrous birth other than the mother's emotional state during pregnancy. Indeed this state of uncertainty was well recognised. The respected gynaecologist Alfred Meadows (1833-1913) physician to the General Lying-In Hospital, summed up this ambiguity: "Until, therefore, some other explanation is offered of the many cases of monstrosity which crowd obstetric literature than that they are mere freaks of nature, I for one am prepared to accept the doctrine that among the many causes of bodily deformity the influence of the mind of the mother deserves a by no means unimportant place".<sup>4</sup>

Although all views will be considered, I shall argue that those medical men who were ambivalent and those who expressed an uncritical acceptance of the maternal imagination thesis argued not merely from a position of resistance to long-lived myths, but from an intrinsic conviction that women, whose energies were specifically reserved to acquit themselves reproductively, had to be held to account for the presence of defective and aberrant progeny. By taking that view, the imagination thesis could prevail by leaving the burden of explanation and any responsibility squarely on the woman's shoulders. What we have then in the later nineteenth century

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<sup>4</sup> Meadows, A 'Case of Monstrosity, with Remarks on the Influence of Maternal Impressions on the Fœtus in Utero' *Trans Obstet. Soc.* Vol.VII (1865) p92

is a doctrine that amongst the dissenters could not be resolved within the current medical discourse, and amongst the believers was in complete opposition to the science of antenatal pathology.

Of pressing concern to the Victorian medical man involved in this discourse was the need to disengage the idea of *lusus naturae*<sup>5</sup> from its place in the spectrum of normality and lodge it in the realm of error, horror, anomaly and ambiguity. Alfred Meadows did not care much for the phrase because as far as he was concerned it assumed some sort of independence of nature's work. Rather he believed "that there is as much 'law' and 'order' in monstrous growth as in the development of the most perfect beauty".<sup>6</sup> So by placing the defective and disfigured outside the proscribed boundaries of the normative process, anomalous configurations could then conform to pathology and thereafter be described freely in terms that neither impinged on nor threatened healthy human development. Thus shifting the aberrant into a pathological habitat would effectively enhance the status of 'the normal'. As Vlahogiannis has argued, "able-bodiedness is the primary point of reference for disability, based on the notion of an ideal body without blemish or fault, which fulfils the functional needs of the state".<sup>7</sup>

The nineteenth-century recast of nature as in some sense purposeful, aiming towards morally significant ends, granted a much-needed licence to interpretations of scientific discoveries that could favourably be extended to and located in society.<sup>8</sup> For example, if it could be shown that women could not be depended on to discharge their

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<sup>5</sup> Literally 'freak of nature' – denoting an anatomical curiosity deserving of wonder.

<sup>6</sup> Meadows, A 'Case of Monstrosity' p91

<sup>7</sup> Vlahogiannis, N 'Disabling Bodies' in Montserrat, D (ed.), *Changing Bodies, Changing Meanings: Studies on the Human Body in Antiquity* Routledge: London (1998) p16

<sup>8</sup> See Rabinbach, A *The Human Motor: Energy, Fatigue, and the Origins of Modernity* University of California Press (1992) p69



private reproductive duties, then they could hardly be expected, let alone encouraged to flourish in the public domain. By binding the origin and cause of monstrous growths to the maternal imagination, doctors would be in a better position to expropriate from science connections and analyses, however dubious, which would correlate with current social values.

Human identity, that is what marks us out from other primates and lower animals, has frequently harboured a fascination if not disgust towards anything that has come close to challenging its ideal of physical, moral and social perfection.<sup>9</sup> The dangers associated with monstrosity had to be made credible because “the monster is a concept that we need in order to tell ourselves what we are *not*”.<sup>10</sup> In other words, monsters make us feel more human and therefore more normal. At the same time however, their very existence creates confusion because they frequently combine human elements with animal ones, reminding us of our brute ancestry. A good example is offered by the comments in 1872 of one physician who not only revealed an intemperate revulsion at the sight of “a bright red mass” he had extruded from his patient, but also disclosed his horror at a depravity of unimaginable proportions when he discovered that the monster “was like a large cone of raw beef, and may not inaptly be compared in shape and colour to a gigantic glans penis”.<sup>11</sup>

Clearly excessive language of this sort fell far short of the standards demanded by scientific discourse and it would hardly have furthered the claims of believers.

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<sup>9</sup> Richards, E ‘A Political Anatomy of Monsters, Hopeful and Otherwise: Teratogeny, Transcendentalism, and Evolutionary Theorizing’ *Isis* 85 (1994) pp377-411

<sup>10</sup> Hanafi, Z *The Monster in the Machine: Magic, Medicine, and the Marvelous[sic.] in the Time of the Scientific Revolution* Duke University Press (2000) p218 [orig.ital.]

<sup>11</sup> Holmes Joy, T *Lancet* i (1872) p465

Therefore the task of displacing that disgust or horror into the more rational domain of causal explanation was important in achieving an immediate cooling effect thereby allowing a measured, analytic and dispassionate discourse to emerge. Initially, this realignment appeared perfectly well grounded, but as we shall see, things that appeared too frightening or dangerous to contemplate at a conscious level were frequently contained or re-routed in order to create a necessary barrier between the observer and that which he was observing.<sup>12</sup>

The desire to trace a morbid foetal condition to the excitable and unstable female intellect was the *modus operandi* of nineteenth century science in relation to monstrous births. Overwhelmingly male in its constituency, it sought to account for such abnormalities by dovetailing a woman's untrustworthy capricious mind with an innate propensity to disorder. Moreover, scientific inquiry with its reliance on biological laws for the fixing of gender roles continually emphasised the discord between obedience and disobedience to those laws. No wonder then that such lack of control was anathema to the virtue of manly self-discipline and continence, the unmistakable high-watermarks of English civilization.

The study of monsters became truly secular in the 1820s when the agnostic French anatomist and zoologist Étienne Geoffroy Saint-Hilaire (1772-1844) made the first attempt at classifying all monstrosities by turning the fascination with supernatural phenomena into the scientific discipline of teratology (the study of developmental

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<sup>12</sup> See for example Davidson, A 'The Horror of Monsters' in Sheehan, J & Sosna, M (eds.), *The Boundaries of Humanity: Humans, Animals, Machines* University of California Press (1991). He highlights the well-known case of John Merrick 'the Elephant Man' who was described in medical texts in terms of deformity/abnormity/remarkable/extraordinary/grossly &c. – none of which suggests disgust, rather the extreme nature of his symptoms.

anomalies), the name coined by his son Isidore in 1830. He is credited as being “the first person to note how off-beat embryology made monsters such as two-headed sheep, [believing] that a new species could be produced if the conditions under which it developed were changed”.<sup>13</sup>

**Fig.7** Etienne Geoffroy Saint-Hilaire. Lithograph by J. Boilly, 1821.

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<sup>13</sup> See Adrian Barnett’s review of Le Guyader, H *Geoffroy Saint-Hilaire: A Visionary Naturalist* in the *TLS* (30 April 2004) p28

As a scientific discipline, this new taxonomy disassociated itself from religion and the supernatural and could offer standards of comparison by setting abnormal processes within the context of natural phenomena. In other words, by changing the terms of reference from abomination and bafflement, teratology was able to make concrete what hitherto had been only abstractly understood – the relationship between a pregnant woman's emotional condition and the production of imperfection and defectiveness.

Lack of proportion was the guiding principle of teratogenic theory. This principle centred on the notion of arrested or excessive development. For instance, if a child was born with two heads but only one body or if a baby was delivered resembling a cyclops, this would have indicated that the product of conception had at some point failed to finish. By contrast, the birth of Siamese twins or babies born with extra digits always denoted excess. It was argued that during its embryonic life every human supposedly passed through various stages, each resembling the final and appropriate form of a lesser creature. The earlier the gestational period, the more remote was the milestone from the perfect state of the human. A body part became diseased because it had failed to develop properly when it became fixed at a particular time in its prenatal existence and could advance no further. It was a theory burdened by exaggeration and retrogression, and woven into these underlying principles was the implication that the pregnant woman's mind was duplicitous, at the behest of evil forces that could encourage, or even display a zest for variation of normal development.

The columns of the medical press offered a safe medium in which to delineate female delinquency and inner monstrosity. By turning what had formerly been assigned to the sphere of devils or the ire of gods into a scientific discourse, the medical profession could site anomalies and variations in normal development within the context of morbidity. Therefore once brought into the natural realm, the monster could be domesticated, categorized and prevented.<sup>14</sup> This was an all-important moment, for it untied the monstrous child from its connection to supernatural agencies and placed it firmly in the terrestrial no-man's land, somewhere between the human and other [non] primates. Abnormality in this sense became synonymous with a species apart, most notably the savage and the primitive. The aberrant, expressed as a deviant of the norm, was exiled to inhabit a separate area peopled by the less civilized, the grossly deformed or the most bestial.

Throughout the eighteenth and nineteenth centuries, these separate zones frequently referred to freak shows, sites where monsters were exposed to the public gaze. For instance, at Dr. Joseph Kahn's Anatomical and Pathological Museum in Coventry Street just off Leicester Square, the fascinated and repelled could gawp with impunity at a double-bodied boy, "somewhat after the manner of a parasite". Even though the proprietor himself thought "this [maternal imagination] doctrine, with the uneducated, is carried to a most absurd and ludicrous extent" and belonged "to the days of darkness – the days of fairies, ghosts, and vampires – of necromancy and

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<sup>14</sup> See Garland Thomson, R (ed.) *Freakery: Cultural Spectacles of the Extraordinary Body* New York University Press (1996) esp. Ch.4. Also Domurat Dreger, *A Hermaphrodites and the Medical Invention of Sex* Harvard University Press (2000) pp33-5

witchcraft”,<sup>15</sup> he had few qualms when it came to exploiting the gullible public or the unfortunate exhibit for amusement and economic gain.

Attached to this separate zone was an additional component that connected the pathology of monsters to the identification of overwork and overexertion. This was understood as a cause of so many “modern disorders and breakdowns of mental and physical systems” that characterised late nineteenth century science.<sup>16</sup> A whole industry surrounding excess and depletion had grown up following the discovery by Helmholtz in 1847 of the Theory of the Conservation of Energy, more correctly the First Law of Thermodynamics, and the discovery of the Second Law first published in 1850 by the German physicist and mathematician Rudolf Clausius (1822-1888). The First Law states that the actual amount of energy in the universe is constant and can be converted into one form or other but neither destroyed nor augmented – a very stable if not restricting idea when transcribed onto the human body. This had huge implications for a woman since her fixed stock of force necessarily was drawn to her reproductive system, to ensure maximum child-bearing efficiency and only redirected elsewhere at that system’s peril. However the Second Law, known as entropy, had more menacing overtones since it established an inevitable decline of force, in that over time it became less and less useful, and that tended to dissipation and exhaustion. Put simply, as energy turned to waste it became impossible to get unlimited amounts of heat or work out of a mechanical or physical body.

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<sup>15</sup> *The Heteradelph; or Double-Bodied Boy, Introduced to the Public at Dr. Kahn’s Museum* J. Gilbert: London (after 1857) The child in question belonged to a class of twins with the genera *Heteradelphia* (a term owed to Geoffroy St Hilaire) where one infant was perfectly developed but had part of another adhering to it. Joseph Kahn arrived in London from Alsace in 1851. He styled himself an MD of Vienna although there is nothing to suggest he ever took a degree. See Bates, A W ‘Dr. Kahn’s Museum: Obscene Anatomy in Victorian London’ *JRSM* Vol.99 (December 2006) pp618-24

<sup>16</sup> Rabinbach, *The Human Motor* pp21-39

This opened up the possibility of exploring and establishing certain scientific concepts that could demonstrate quite comfortably the equivalence of heat and work. Now it becomes more evident why a woman would be fitted to account for any defective birth. For if the female system could be shown to demonstrate a propinquity to derangement, it followed that its unforgiving frailty put it closely in touch with the lack of order and disturbance associated with a corrupt and disfigured infant. Clearly when disturbance to the embryo or foetus did take place, it was doomed and unfit for life.

With the passing of the idea that the birth of a monster represented an omen or portent, a sign of a calamity to come, interpreting malformations moved from an emphasis on final causes “to proximate ones (physical explanations and the natural order)”.<sup>17</sup> In place of theological speculation came the much more modern and secular idea that the monster was a hybrid, neither wholly human nor wholly animal. It was to inhabit a threshold marked by confusion and ambiguity similar to the contradiction between the woman’s flawed inner body and the outer world.<sup>18</sup> To the defining community monstrosity spoke of imperfection, disproportion, and limitation. In the context of nineteenth century concerns about gender relations, the discussion of monstrous births concealed deep anxiety because “a monster is always an indication of transgression, of breakdown in hierarchy; it is quintessentially a symbol of crisis and undifferentiation”.<sup>19</sup> According to Barbara Duden, it was from the end of the eighteenth century that nature was not merely set apart from culture but was set in

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<sup>17</sup> Park, K & Daston, L ‘Unnatural Conceptions: The Study of Monsters in Sixteenth and Seventeenth-Century France and England’ *Past & Present* 92 (1981) p.35

<sup>18</sup> Rublack, U ‘Pregnancy, Childbirth and the Female Body in Early Modern Germany’ *Past & Present* 150 (1996) p.94

<sup>19</sup> Hanafi, *The Monster in the Machine* p55

opposition to it. The split allowed the essence of woman to become “equated with nature – to be discovered, deciphered and illuminated by light of reason”.<sup>20</sup>

This nature/culture division was expressed in a rather unexpected area, again culled from an allied science, through the discovery in the nineteenth century of asexual reproduction in some lower animals and a number of plants. Hitherto the prevailing view held that in the egg alone lay the material of the future generation, rather like a piece of marble waiting to be transformed into something beautiful or hideous by another agent.<sup>21</sup> But the discovery of asexual reproduction in lower animals led to the assumption that eggs were more or less identical to asexual cells and sexual reproduction, rather than being the template for all reproduction, “was merely a minor variant of the more fundamental asexual process”.<sup>22</sup> So by removing sex from the reproductive equation, one aspect of Victorian views on biology was able to mirror accurately the social division of labour that came to characterise much contemporary thinking. As Duden noted further, in addition it “supplied the very stereotypes through which the relationship between the sexes could be conceptualised and removed from “culture””.<sup>23</sup>

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<sup>20</sup> Duden, B *The Woman Beneath the Skin: A Doctor's Patients in Eighteenth-Century Germany* Harvard University Press (1991) pp.20-21

<sup>21</sup> In the sixteenth century Ambroise Paré, chief surgeon to Charles IX and Henri III was concerned to discover why the normal form had failed to occur. In Ch.9 of his famous book *Des Monstres et Prodiges* (1573) he stated that at the moment of conception, when the child is as yet unformed – which according to Hippocrates was 30-35 days for males, and 40-42 days for females – the woman should not look on or imagine monstrous things. He gives the example of a child born in 1517 having the face of a frog because he was conceived while his mother was holding a live frog to alleviate her fever. See Paré, A *On Monsters and Marvels* [trans. Pallister, J] University of Chicago Press (1996)

<sup>22</sup> Farley, J *Gametes and Spores: Ideas About Sexual Reproduction 1750-1914* Johns Hopkins University Press: Baltimore & London (1982) esp. ch.4 ‘The Sexless Age’

<sup>23</sup> Duden, *The Woman Beneath the Skin* p24



For women this was potentially disastrous. If the male could be drawn naturally to areas that required his political and economic production, it followed that a woman's biological destiny lay entirely in the private sphere of reproduction that required no cerebral expenditure. She was "newly seen and 'upgraded' as being physiologically predestined for motherhood".<sup>24</sup> This gives a clear echo to John Farley's vivid description of the period: "From the perspective of the division of labour, sexual reproduction was very simply *the means of reproduction employed by those species in which a distinctive reproductive individual, the female, has been formed*. In social terms, this division of labour into males and females allowed the male to expend his energies in more noble and civilized pursuits while placing the entire burden of procreation and childbearing on the female".<sup>25</sup>

While these values may have been designed to channel women's cerebral initiatives and direct them towards the domestic hearth, the work of the anthropologist and primatologist Sarah Blaffer Hrdy tells a different story. In her studies of female primates Hrdy set out to question Darwin's views on sexual selection, notably the 'myth' that the female is coy and passive, merely waiting for a sexually competitive male to see off his rivals and father her offspring. Her researches have demonstrated the extraordinary cunning employed by female primates in selecting males. Common among chimps is polyandry (one female, several males) that is not understood as animal promiscuity, rather as a maternal strategy designed to reduce the risk of infanticide by an incoming male to the troop. The female chimp manipulates paternity by "lining up several fathers [to] improve survival prospects for her offspring".<sup>26</sup>

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<sup>24</sup> *ibid.* p40

<sup>25</sup> Farley, *Gametes and Spores* p112 [orig. ital.]

<sup>26</sup> Hrdy, S. Blaffer *The Woman that Never Evolved* Harvard University Press (1999)

According to this evidence, one could argue that the effect of ‘upgrading’ woman to the immutably fixed post of ‘biology is destiny’ created an ambivalence that could not be resolved readily. For on the one hand she was removed from the political economy and placed in nature’s enclave, yet at the same time her enforced absence yoked to her exclusive capacity to engender life locked out any opportunity for male supervision.

The private body, regulated or not, had no place in the public sphere. Thus the anxieties and disquiet felt by many physicians about a woman’s effective control of a capricious imagination over a private body had to be made explicit. This was expressed through the idea that a woman’s less noble and flawed nervous system was frequently in thrall to excess and incoherence, and that such levels of uncontrollability manifestly set her apart from male temperance. As has been noted, “‘defects of nature’ are frequently feminized or imagined as something categorically distinct from manliness and masculinity” which, if taken to the logical next step, would suggest the primal fear of effeminacy, impotence and emasculation.<sup>27</sup> This bears out the Foucauldian notion of the hysterization of women’s bodies, particularly the process “whereby it was integrated into the sphere of medical practices, by reason of a pathology intrinsic to it [and] placed in organic communication with the social body (whose regulated fecundity it was supposed to ensure)”.<sup>28</sup>

For the maternal imagination thesis, the asymmetry of the sexes proved highly expedient in pathologizing the female condition. In the case of a monstrous birth, the old idea that ‘like produced like’ and the infant was a blend or an amalgam of his

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<sup>27</sup> Deutsch, H & Nussbaum, F (eds.), *“Defects”: Engendering the Modern Body* University of Michigan Press (2000) p12

<sup>28</sup> Foucault, M *The Will to Knowledge: The History of Sexuality*, Vol.1 [1976] Penguin (1998) p104

parents was a natural law too far. After all, who would elect to be implicated in the production of a defective, especially when it had clearly sidestepped the rigorous laws of order? Separating the male from an active involvement in the creation of a monstrous infant by assigning the defect to the mother's imagination had the desired and immediate effect of erasing "all traces of the progeny's legitimate father" and exposing its shameful origins.<sup>29</sup> With the burden of guilt lifted from the father and liability for deficiency attributable to only one parent, that peculiarly human partiality to apportion blame, pass the buck, and shift responsibility could prosper. But as Vlahogiannis explained, "disability must be extended beyond its physical condition; that physical disability was a metaphor for punishment".<sup>30</sup> She was demonised for parenting a monster.

A woman's direct descent from Eve, whose appetites and desires led to eternal shame, does not need emphasis. What is telling though is the frequency with which many types of fruit were held up as evidence of women's mental transgressions and were symbolic of her eternal implication in mankind's disorder. It might have been worth considering if fruits which appeared to attract females were connected in the mind to seasonal ripening periods, although the British sexologist Havelock Ellis preferred to think that "women respond to stimuli, psychic or physical, more readily than men", denoting their "greater affectability".<sup>31</sup> By this token, self-discipline and restraint, the two guiding principles of moral virtue, were evidently absent from the female psyche. No wonder then at the alarm accompanying each monstrous birth. How was

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<sup>29</sup> Huet, M-H *Monstrous Imagination*

<sup>30</sup> Vlahogiannis, 'Disabling Bodies' p14

<sup>31</sup> Ellis, H *Man and Woman: A Study of Human Secondary Sexual Characters* Walter Scott: London (1894) p297. Ellis was a doctor by training and his book was widely read, going through numerous editions. The views he expressed fairly represented the consensus of medical and scientific opinion.

civilization to proceed if it was permeated by women's cravings and caprices? The warning shot had already been fired in the non-canonical *Ezra-Apocalypse* through its pronouncement that monstrous and untimely births would be followed by the disappearance of the means by which human life is sustained – “and suddenly shall the sown place appear unsown, and the full storehouses shall suddenly be found empty”.<sup>32</sup>

As woman's destiny became understood increasingly in biological terms, added stress was laid on differentiation, on the role of human agency in life experiences, and on the distinguishing features associated with the most highly evolved organisms. The profound unease expressed by Victorian medical men on the possible consequences of the gestating female's facility to alter life came right up against their prerogative in preserving it. Parallels with the social order should not be underplayed. For the physician's enforced absence during the gestational period when he could not be on hand to direct the development of the unborn meant an effective halt, however temporary, to his sway in dictating the path of a woman's life-cycle.

During the periodical epochs marking her life, from the onset of the catamenia through to the climacteric which hailed the closing down of her reproductive capacity, the Victorian woman played host to a cornucopia of perilous diseases each with the potential to extinguish life. ‘Crisis’ was a favourite word to describe menstruation and the comments of one physician, that as a rule all healthy women experienced

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<sup>32</sup> *The Ezra-Apocalypse* [commonly known as *4 Ezra*] Ch.5, pt.1(vision 1) v6. See also Niccoli, O “‘Menstuum Quasi Monstruum’: Monstrous Births and Menstrual Taboo in the Sixteenth Century’ in Muir, E & Ruggiero, G (eds.), *Sex and Gender in Historical Perspective* The Johns Hopkins University Press (1990)

“periodically recurring functional disturbance” can be taken as typical.<sup>33</sup> Labouring under this tendency to morbid constitutional derangement, women’s bodies became the playground on which all manner of wild speculations and fanciful theories could be played out. But the issues here concern the period from conception to parturition, and it was those nine months, a time not covered by medical men’s claims to sole custody of the human body, that saw the products of conception wrested from his direct control.

As we have noted, attributing the alteration to the normal development of the embryo to the maternal imagination had a long history that stretched back to the beginning of time.<sup>34</sup> Most early accounts pinpointed the moment of conception as the defining event that proclaimed and made manifest the effect of the mind on the body. One often repeated story attributed to St. Jerome is of a highborn Greek woman accused of adultery after giving birth to a black infant. Hippocrates came to her defence, stating that she kept a painting of a Moor in her chamber, and constantly gazed on it.<sup>35</sup> Even as late as the eighteenth century this moment in time was captured well by Laurence Sterne in the opening lines of his classic *The Life and Opinions of Tristram Shandy* when we are told of the hero’s wish that his mother or his father “or indeed both of

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<sup>33</sup> Oliver, J ‘Facts Relative to Menstruation’ *Ed. Med. Jnl.* Vol.34 ii (1880) pp998-1009

<sup>34</sup> For a teratological history see Ballantyne, J.W. ‘Teratogenesis: An Inquiry into the Causes of Monstrosities’, *Ed. Med. Jnl.* Vol. XLI (1896) pp593-603, and *ibid.* Vol. XLII pp1-12, pp240-254, pp307-315. Also Glenister, ‘Fantasies, Facts and Foetuses’. The primacy of the menses as an essential factor in creation and, by association, with the creation of deformed offspring owes much to Hebrew law and non-canonical works. On the uncleanness of menstruating women, see *Leviticus* XV, 19-33. When prodigious events were about to occur, for instance the downfall of Babylon and the end of Israel’s misfortunes, *The Ezra-Apocalypse* Bk.IV, Ch. V, v8 warns that “[menstruous] women shall bear monsters”. One of the earliest recorded stories of ‘genetic manipulation’ appears in *Genesis* 30: 37-39 when the patriarch Jacob wished to trick his deceitful father-in-law Laban. He placed some rods of partially stripped poplar, almond and plane trees at the drinking troughs of his cattle in order for them to conceive when they came to drink, and indeed “the flocks conceived before the rods, and brought forth cattle ringstraked, speckled, and spotted”.

<sup>35</sup> See Ballantyne, ‘Teratogenesis’ Vol.XLII p242; Bondeson, J *A Cabinet of Medical Curiosities* Cornell University Press (1997) p144

them ... had minded what they were about when they begot me".<sup>36</sup> The idea that either supernatural, satanic or astrological forces or indeed 'animal spirits' as in the case of *Tristram Shandy*, were responsible for all natural phenomena obviated the need to apportion blame.

What appeared to mark off nineteenth-century thinking, and what has not been examined to date was the notion that maternal impressions could affect the unborn child at any stage in its development. It was thought by some medical men that the vigour and assertiveness of the female's imagination could effectively extend the time scale available for damage. In turn a woman became more deeply implicated in the corruption of the contents of her womb, exposing her own proximity to brute creation.<sup>37</sup> If a monster represented a human's primitive past, and if the maternal imagination could act as an agent for deformities, then responsibility would necessarily be removed altogether from the father and left with the woman who would then bear the consequences of a violated constitution and to be held to account for having "poisoned the very fountain of life".<sup>38</sup> A biological rationale increasingly accounted for the different propensities of men and women in the nineteenth century, and it was this "biology of incommensurability [which] became the means by which such differences could be authoritatively represented".<sup>39</sup> Sexual divergence needed to be understood as a fundamental law of nature, not in the God-given sense, but rather

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<sup>36</sup> Sterne, L *The Life and Opinions of Tristram Shandy, Gentleman* [1759-67] Penguin Classics (1985)

<sup>37</sup> See Beer, G *Open Fields: Science in Cultural Encounter* Clarendon Press: Oxford (1996) esp. Ch.6 on the subject of the missing link as the connection between two life-types

<sup>38</sup> Matus, J *Unstable Bodies: Victorian Representations of Sexuality and Maternity* Manchester University Press (1995) p69

<sup>39</sup> Laqueur, T 'Orgasm, Generation, and the Politics of Reproductive Biology' in Gallagher, C and Laqueur, T (eds.), *The Making of the Modern Body: Sexuality and Society in the Nineteenth Century* University of California Press (1987) p35

as underwriting the way women had been specially adapted and finalised for their biological and social roles.<sup>40</sup>

However the reasons for constructing a biologically determined identity, one where a woman's reproductive system came to signify her critical role in ensuring the prosperity and perpetuation of the race, rested on shifting sands. Termed "the heaven and hell of women", her exalted status in the domestic realm and her enhanced value as wife and child bearer would certainly appear to have suggested that she flourished best when under the dominion and superintendence of her husband. Despite Ellis's note of caution, that "worthy persons who are anxious to cut off the devil's tail might find, if they succeeded, that they have shorn the angel of her wings",<sup>41</sup> holding women in the highest esteem could not resist easily the compelling need to emphasise a culture of patriarchy.

As many middle-class women were campaigning for equal status with men, reining in capricious behaviour and limiting the female's activities to an isolated reproductive life, was for medical men a perfectly rational means of stemming the tide of frustration. The debate around it was indicative more of masculine anxiety about female desire and generative power than concern for an impartial explanation. For if the woman, like a child, could not be trusted to remain obedient throughout the period of confinement, then it fell to the physician to explain evolutionary failures in terms of the natural frailty, volatility, and deceit of women. As Peter Gay has noted, medical

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<sup>40</sup> The transformation from a 'one sex/flesh model to a two sex/flesh model' has been further developed and explored by Laqueur, T in *Making Sex: Body and Gender from the Greeks to Freud* Harvard University Press (1992). He notes that the ancients took the efficient cause as inferior to the material cause as an *a priori* truth and thus had no need to defend the superiority of the male. See also Darwin, C *The Descent of Man, and Selection in Relation to Sex* [1871] Princeton University Press (1981) Pt. 2, Ch. XIX 'Secondary Sexual Characters of Man'.

<sup>41</sup> Ellis, *Man and Woman* p315

men saw that the way of mastering nature by inscribing submission in the female body was concerned more with “control of turf than control of disease”.<sup>42</sup>

What strikes the modern reader is the paradox of a thesis remaining current whilst still retaining its obsolescence. After all, the long held belief was dealt an almost fatal blow in the early eighteenth century by James Augustus Blondel (1665/6-1734), a Member of the College of Physicians. In a bitter pamphlet dispute with Daniel Turner (1667-1741), another College member, Blondel was driven to denounce the whole notion of the pernicious effects of the maternal imagination following the celebrated case of Mary Toft in 1726.

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<sup>42</sup> Gay, P *The Bourgeois Experience: Victoria to Freud*. Vol.3 *The Cultivation of Hatred* Harper Collins: London (1994) pp484-491



**Fig.8** Etching of twelve scenes depicting Mary Toft duping several eminent doctors. William Hogarth offered a satiric response to the affair in his 1726 etching 'Cunicularii, or the Wise Men of Godliman in Consultation'.

Known as ‘the cheat of Godalming’ by claiming she had given birth to seventeen rabbits in as many months, Toft had managed to hoodwink many eminent men including physicians and surgeons until she was exposed as an imposter.<sup>43</sup>

Leaving the Creator to one side, Blondel began to systematically question the force of a woman’s imagination by invoking reason and anatomy to argue that it was impossible that children “be marked by virtue of the mother’s fancy”. Was it not preposterous to believe that the mother’s imagination could have a greater influence over her child than over her own body? Importantly, Blondel argued, the thoughts of the child were limited by their state and the narrow frontiers of sensation and could not be disturbed by things it had not yet experienced: “the Child is in a State of Neutrality, because it has not yet the necessary Idea’s [sic] of things, and how should it have them *in Utero*, when several Months must pass, after the Birth, before it comes to some little Knowledge and Understanding?” Furthermore Blondel reminds us that abnormalities in nature are in themselves normal: “Why should we be surprised at some Irregularities on the Skin and other Parts of the Human Body? Don’t we see the like every Day upon Vegetables, though they are not capable of Imagination? They have their Moles, their hairy Parts, their Discolourations, their Excrescences, and now and then such odd shapes, as to make strange Representations, sometimes of Animals, sometimes of other things, and all this without the Help of Fancy”.<sup>44</sup> But the blow did not deliver the desired knockout. It merely exposed the deep divisions within the

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<sup>43</sup> Blondel, J *The Strength of Imagination in Pregnant Women Examin’d: And the Opinion that Marks and Deformities in Children arise from thence, Demonstrated to be a Vulgar Error* London (1727). See also Wilson, P ‘Out of Sight, Out of Mind?’: The Daniel Turner-James Blondel Dispute Over the Power of the Maternal Imagination’ *Annals of Science* Vol.49 (1992) pp63-85. For an excellent analysis of Mary Toft’s notoriety, see Todd, D *Imagining Monsters* esp. Ch. 1

<sup>44</sup> Blondel, *The Strength of Imagination*

medical fraternity that were to characterise the discord into the nineteenth century and beyond.

The case raised many questions that were not resolved. Did for instance the maternal impression theory act as a safety net for both doctors and laity who had a huge charge in maintaining women in a precarious and volatile body? Did adherents of the doctrine really believe in its power, or did they endow it with mysterious properties that might vitiate reproduction and thereby help explain wider social ills? For example, it was reported that at a fairly heated meeting of the Westminster Medical Society held on 9 February 1839, Dr. Winslow stated that the idea of mothers being able to mark their unborn babies was backed by the “high authority” of the French physician Philippe Pinel (1745-1826) who was responsible for the insane at the Bicêtre. Pinel had noted that during the French Revolution, an extraordinary number of idiots and monsters were born which he suggested was due to the perturbed state of the parents’ minds. Another, a Dr. Rush concurred, confirming that this state of mind could have devastating effects as “during the insurrection of our North American Colonies the same phenomenon occurred”.<sup>45</sup>

We also need to question the role of the mother. How suggestible was she likely to be in her approbation concerning the aetiology of congenital defects? In other words, how robustly was she able to defend herself when, as Blondel put it, “[her] memory is put to the rack to make her confess”.<sup>46</sup> Did a mother's concerns sometimes act as an alibi for previous indiscretions as for example in the case of a black child born to white

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<sup>45</sup> *Lancet* i (1838-39) pp771-3

<sup>46</sup> Blondel, *The Strength of Imagination*

parents? Or perhaps as one doctor remarked, many mothers concocted absurd stories “for the edification of their female friends”.<sup>47</sup>

That the idea was so deeply entrenched meant it could resist a tirade delivered as forcefully as Blondel’s despite the argument that there were obvious imperfections in nature. But as medical men tried to tussle with the inexplicable, and faced with a dearth of alternative evidence, the truth often became distorted as the maternal imagination was “heavily drawn upon to furnish the satisfactory explanation”.<sup>48</sup> Furthermore, in a climate of uncertainty surrounding the status of the medical profession and with women getting their feet into legal doorways, a physician may have felt compelled to inform his patient that while she may have been unaware of any sinister effects of her imagination, he knew otherwise.

In 1863 Dr. Joseph Hinton told his colleagues at a branch meeting of the British Medical Association in Bath of just such a case he had recently attended. He recalled delivering a hydrocephalic monster, its features “most revolting”, with two holes representing the nose, a very wide harelip, a severely distorted spinal column and digits resembling stumps. It was a complicated delivery during which Hinton had passed a hook vaginally to draw out an elongated head “with cranial bones hanging loosely in the interior”. As he placed the monster’s remains in position for taking a sketch, he was struck by the uncanny resemblance to an old man with a harelip he had often noticed hobbling around the city on the balls of his toes and with the help of two sticks.

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<sup>47</sup> Smith, T ‘Harelip’ *Lancet* ii (1867) p761

<sup>48</sup> Gould, G and Pyle, W *Anomalies and Curiosities of Medicine* The Julian Press: New York (1896) p81

Although the patient denied having experienced a fright during her pregnancy, or indeed ever having come across the man, only on cross-examination was “the fact of her having seen this individual elicited”. Dr. Hinton had brought the case to the meeting to ask if anyone present knew of this man “which in these days of disputation, might prove a valuable connecting link to those who contend that men are only monkeys of a wiser growth”.<sup>49</sup>

**Fig.9** A caricature of Charles Darwin, from *Vanity Fair* (?) perhaps alluding to Darwin as a ‘monkey of a wiser growth’ following the publication of *The Descent of Man* in 1871

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<sup>49</sup> Hinton, J ‘Case of Monstrous Birth’ *BMJ*, i (1863) pp191-2

Amongst adherents of the doctrine and those pledging agnosticism, the disruptive processes inherent in the production of monstrosities was variously understood as emanating from either nervous or hæmatic influences, or from more concrete causes which produced a mark or deformity closely resembling the original object. Far from being a private matter, reproduction “from the mid-nineteenth century at least ... became matters of public policy and concern”.<sup>50</sup> In 1883 an article in the *Lancet* bemoaned the fact that there existed no Act of Parliament prohibiting “the parade of monstrosities and deformities in the public streets ... [and that] the exhibition of revolting spectacles to the general community” was not merely a nuisance, but these “hideous and sickening” objects carried within them the potential for “the production of an impression on the nervous system which is likely enough to be mischievous”.<sup>51</sup>

Two important issues emerge. Firstly, if as was once suggested “babies so altered ... always seem conscious of the impropriety of survival in their case, and atone for their shortcomings and indiscretions by early demise”,<sup>52</sup> did the public or its agents have a moral duty to ‘do the decent thing’ when nature had manifestly failed, and eradicate them, at least from public view? And secondly, if so many deformed humans were running loose in public places, why did their appearance not affect the emotional state of each and every pregnant woman?

Whilst the second point seemed unanswerable given that it would have suggested an ever-increasing number of maimed babies, the first point directly tapped into the

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<sup>50</sup> Smart, C (ed.), *Regulating Womanhood: Historical Essays on Marriage, Motherhood and Sexuality* Routledge: London (1992) p3

<sup>51</sup> ‘Monstrosities in Public Streets’ *Lancet* ii (1883) p282. Whilst in some countries the public exhibition of monstrosities was forbidden because of the supposed danger of maternal impressions, it was not the case here. See Gould and Pyle, *Anomalies and Curiosities of Medicine*

<sup>52</sup> *BMJ* i (1875) pp169-70

connection made between a mother's body and the stamp of immanent ill health. On that assumption it could be asked whether anyone should be morally empowered to intervene in cases of a woman's evolutionary shortfall. As we know, the economy of the female body was configured like a balance sheet, with its limited assets to be conserved or used prudently. To avoid bankruptcy every part of her body competed for that finite amount of available energy and since the bulk was destined for the maintenance and use of the reproductive system, any undue strain might well impede the health and progress of future generations.<sup>53</sup> Daniel Pick has stressed how reproduction straddled life and death, and was therefore an "infinitely delicate and precarious matter ... [that] needs to be set within the context of the long-standing intellectual investment in the body as key to national progress".<sup>54</sup> The proclivity of some women to cripple or violate their sexual function made the debate over deformed offspring particularly weighty.

Cases of monstrous births punctuated the pages of the medical press, exposing high levels of credulity. It has to be said that many bore rather ill-considered titles such as 'Acephalous Monster', or ' "The Turtle Woman" of Demerera', or 'A Case of Two-Headed Monstrosity', or simply 'Maternal Impressions'. Yet in spite of the occasional lone voice which reminded his peers that "our prepossessions are not the criterion of truth",<sup>55</sup> many popular opinions such as the anti-scrofulous power of the Royal Touch paid little regard to facts.

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<sup>53</sup> See the introductory chapter by Rowold, K (ed.), *Gender and Science: Late Nineteenth-Century Debates on the Female Mind and Body* Thoemmes Press (1996) and Russett, C *Sexual Science: The Victorian Construction of Womanhood* Harvard University Press (1991) Ch.4

<sup>54</sup> Pick, D *Faces of Degeneration: A European Disorder, c.1848-c.1918* Cambridge University Press (1989) p212

<sup>55</sup> *Lancet* i (1845) p425

Some accounts of anatomical deformities and skin blemishes, such as harelips and strawberry marks were clearly far fetched even by the standards of the day. Dr. Fisher, one of the medical officers of the New York State Lunatic Asylum, suggested that those who put out such stories were “in no inconsiderable degree responsible for the existence and continuance of this popular error”.<sup>56</sup> Dr. Fisher’s long article went against the prevailing tide, certainly in the United States where the idea held strong sway. He called it “this fearful doctrine”, asserting that “if Providence had left the development of the human foetus to the influence of maternal whims and caprices ... what would have been the present state of mankind after thousands of years of accumulated abnormalities!”<sup>57</sup> Others however were not convinced that refuting the claims constituted any meaningful solution and sought more cogent answers by calling on the supposed authority of science as the disinterested arbiter.

The gynaecologist Alfred Meadows was credited with offering “the most ingenious and plausible attempt to surmount the difficulties connected with the doctrine” by his American colleague Dr. Fisher.<sup>58</sup> Meadows was reporting on a case he had attended to a meeting of the Obstetrical Society of London. Fortunately the monster expired shortly after it was delivered, otherwise, said Meadows, in such cases “we probably show the most mercy and the purest sympathy, and thereby perform our highest duty by allowing death to hold its prize”.<sup>59</sup> Whilst initially these stirring views may appear compassionate and charitable, one must bear in mind that Meadows was also a great supporter of the removal of healthy ovaries as a means of sterilization in cases where

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<sup>56</sup> Fisher, G.J. ‘Does Maternal Mental Influence have any Constructive or Destructive Power in the Production of Malformations or Monstrosities at any Stage of Embryonic Development?’ *American Jnl. of Insanity* Vol. XXVI (1870) pp241-295

<sup>57</sup> *ibid.*

<sup>58</sup> *ibid.* p285

<sup>59</sup> Meadows, A ‘Case of Monstrosity, with Remarks on the Influence of Maternal Impressions on the Foetus in Utero’ *Trans. Obstet. Soc.* Vol.VII (1865) pp84-94



childbirth constituted a danger to a mother's life, preferring this measure above mechanical methods which he considered revolting in themselves and tending “to destroy that proper modesty which should exist between married people”.<sup>60</sup>

**Fig. 10** Alfred Meadows, 1873. Photographed by Barraud & Jerrard.

The particular case Meadows considered was of a child born with the contents of its abdomen placed externally to the abdominal cavity, and exhibiting no sexual organs,

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<sup>60</sup> Quoted in Moscucci, O *The Science of Woman: Gynaecology and Gender in England, 1800-1929* Cambridge University Press (1993) pp149-50. Laqueur makes the point that the ovary, by this time having been distinguished from the testis rather than understood as its homologue, “became the driving force for the whole female economy”. *Making Sex* p213

anal orifice or urinary tract. The area above the diaphragm appeared perfectly normal. Meadows thought that the blighted infant owed its condition “to some morbid action, probably inflammatory ... occurring early in foetal life, perhaps at about the third month”.<sup>61</sup>

Although the mother volunteered an explanation for the mutilation, stating that during the early part of her pregnancy she had been startled by deformities shown in some of Aristotle’s plates, Meadows felt it imprudent to accept the story at face value. He was praised by his colleague Dr. Adolph Rasch, physician to the German Hospital in Dalston, for boldly tackling a problem that “was generally left to women” who invariably cooked up some event from their pregnancy after the child was found to be in some way abnormal.<sup>62</sup>

Meadows accounted for the phenomenon by cautiously offering the idea that “the mind of the mother can and does sometimes so interfere with the ordinary processes of nutrition and growth in the foetus, as variously to check or modify its development in whole or in part, and thus to produce deformities or monstrosities”, and went on to say that there was no essential difference between physiological influences and those which influenced pathological processes. According to some dissenters, the primary objection to that hypothesis was the absence of any anatomical nervous connection between foetus and mother, but Meadows felt that such a materialist interpretation, which limited the mind’s operation “to the exact boundaries of the nervous system” was not very convincing. He was much more inclined to borrow from another branch

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<sup>61</sup> Meadows ‘Case of Monstrosity’ p87

<sup>62</sup> These remarks followed Dr. Meadows’ paper ‘Case of Monstrosity’ when the matter was discussed amongst fellows of the Society.

of the physical sciences by considering a metaphysical link between mind and matter, understanding the effect of one on the other “in the same way as the electric fluid will pass across a certain space between two conductors”.<sup>63</sup>

This idea of Meadows had echoes of the somewhat doubtful claims of the Austrian physician, Franz Anton Mesmer (1733-1815). He found that his early experiments with magnetism in medical treatment could also yield favourable results without the magnet in cases of nervous disorder. He called this faculty ‘animal magnetism’ and suggested that a force, similar to the effects produced by a magnet, moved freely throughout the body, but when it met some kind of obstacle the ‘magnetic fluid’ dammed up, causing illness. The mesmerist then set about restoring the fluid to its proper condition by either touching or rubbing the afflicted part of the body, or simply making wave-like motions above the patient. But it seems the cure worked only by “the impression ... made upon the patient’s imagination”.<sup>64</sup> Although no evidence could be found for the elusive fluid, “mesmerism was pervasive in Victorian society” and ... “was not only ubiquitous but challenging within Victorian intellectual culture, as experiments became catalysts for competing assertions about the nature and seat of intellectual authority”.<sup>65</sup> Mesmerists in London continued holding *séances* until the late 1860s after which physiology and physics, the two disciplines most closely connected to mesmeric practice, were identified as sciences that belonged to the laboratory.

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<sup>63</sup> *ibid.* p89

<sup>64</sup> Quoted in Porter, R *Mind-Forg’d Manacles: A History of Madness in England from the Restoration to the Regency* Penguin: London (1990) p195 After the medical authorities in Vienna began to question his methods, Mesmer moved to Paris where he found a ready audience for his *séances*. A Royal Commission set up by Louis XVI finally branded him a quack and he was drummed out of the city.

<sup>65</sup> Winter, A *Mesmerized: Powers of Mind in Victorian Britain* University of Chicago Press (1998) p5

Nevertheless, the idea of an invisible agency that did not rely on nerves may well have offered an alternative route on the way to explaining imponderable questions. But whatever reason Meadows may have had for thinking in terms of an indiscernible and undefined power, this mysterious process must have unsettled him for he then proceeded to undo the notion of a causal link across a space by introducing the concept of contiguity. If, as he conceded, the mind of the mother was capable of exerting some influence over the developing foetus, then whatever form that influence took it needed to travel along a conduit to “the scene of its future working, either along the umbilical cord, or even across from the inner surface of the womb at any point to the nearest surface of the child”.<sup>66</sup> If however, as Meadows rightly pointed out, there existed no nervous connection between mother and child, why would he have assigned those properties to the umbilical cord or uterine walls?

Part of the answer lies with the received medical view of a female sexual system dependent on a given and finite quantity of available energy. For upwards of two hundred years, following the publication in 1628 of William Harvey’s *De Motu Cordis et Sanguinis*, the idea of a circulation of nerve force had exercised the minds of many physicians. In 1865, Dr. Strachan addressed the Edinburgh Harveian Society on the nature of nerve force and took the opportunity to suggest that although there was little to add to the facts of the mechanics of blood circulation, the functions of circulation and the manner in which they were affected were still poorly understood.<sup>67</sup>

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<sup>66</sup> Meadows, ‘Case of monstrosity’

<sup>67</sup> Strachan, J ‘On the Origin and Circulation of Nerve Force’ *Ed. Med. Jnl.* Vol. XI (July 1865-June 1866) pp114-120

Strachan told his audience that nerve force had been understood variously as a nervous fluid, “a spiritous vapour, which can be neither aqueous nor glutinous, nor elastic, nor ethereal, nor electrical”, or that “nerve force was identical with electricity or galvanism”. In any event the overwhelming view of most interested physiologists suggested that “nerve force is generated either in the nervous centres or the nerves themselves”. Strachan proposed a different hypothesis: that nerve force originated in the chemical actions going on in the capillaries where the changes between arterial and venous blood took place, creating in the process large quantities of galvanism, and the resulting generation of that nerve force “is received by the minute nerve filaments which everywhere accompany the capillary vessels”. Thus the connection between the circulation of the blood and the circulation of nerve force became inextricably linked in maintaining organic life. Moreover, as with the circulation of blood, nerve force could be understood as moving in an uninterrupted and continuous circuit. If then there was a complete circulation of nerve force, it allowed all actions and reactions to be understood as interruptions to the circuit rather than productions of it. From this hypothesis, Strachan was able to put forward the idea that an impression which found its way to a sensitive tissue “will modify the current in the nerve tubules” thereby producing a voluntary action, a reflex action, or a mental action.<sup>68</sup>

The fine balance struck between mind and body illustrates well how medical men came to understand the connection between the vulnerability of the contents of the womb and aberrations in the mind of the mother. The idea of a pregnant uterus being bound to claim a major share of available energy would, by definition, hinder brain

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<sup>68</sup> *ibid.*

activity and set up illusory and perverse thoughts in the mind of the mother. For Meadows, mental impressions assumed their corporeal form in the same way as what he termed ‘character’ was evidenced by an outward expression mediated through a “spiritual agency”.<sup>69</sup>

Yet Dr. Meadows’s ideas did not satisfy the criteria when it came to consider multiple births when one infant was healthy and the other deformed. Others too failed to account for the selective action of maternal influence. For example one couple who already had six healthy children were deemed below average size “and of highly nervous temperament – the mother hysterical” after their seventh child, a monster, died four hours after birth.<sup>70</sup> In a much earlier case where the birth of one healthy twin was swiftly followed by a “fragment of a child”, the mother had experienced no fright that could have explained the deformity; and even if she had suffered some kind of mental disturbance, “why should one of the children alone be affected? And if one instance of monstrosity was produced without the operation of the mother's fancy, why not a thousand?”<sup>71</sup>

More than three decades later that vexed question remained unanswered even though the mother in question was convinced that “an abominable-looking dog, with prolapsed bowels” was responsible for the impression which resulted in the birth of the monstrous twin.<sup>72</sup> Although the doctor involved in that particular case distanced himself from what he termed the “*post hoc, propter hoc*” argument that was not

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<sup>69</sup> Meadows, ‘Case of Monstrosity’ p91

<sup>70</sup> Scott, J ‘A Monoculous Male Infant’ *Lancet* i (1862) p633

<sup>71</sup> *London Medical Gazette* xxiii (1838-9) pp764-68

<sup>72</sup> ‘Case of Twin Pregnancy; Birth of an Anencephalous Monster without Arms, Shoulders, or Thorax’, *Lancet* i (1872) pp465-66

uncommon in such cases, other medical men felt safer if they hedged their bets and shrouded their ignorance by trafficking in the explanation of the mother. As Fisher was aware, the suggestibility of every mother who produced a malformed child would lead her to trawl “the recording ganglia of her mind” to account for the defect.<sup>73</sup>

Occasionally, a member of the profession moved from the position of dissenter to that of believer, a telling sign of the persistence of the confusion. In 1880 at a conjoint meeting of the Border Counties and North of England branches of the British Medical Association, Dr. Thomas Wilson read a paper relating a number of cases where the alleged impression received replicated itself on the body of the child.<sup>74</sup> Wilson conceded that he had cast aside “the testimony of our best anatomists” and become convinced that there were circumstances when a shock affecting the mother could similarly affect her child, and that the likelihood of this happening was greatly enhanced during the earlier period of gestation.

Some fifteen years earlier, another medical man who held similar views, distinguished between ‘transient’ and ‘habitual’ mental conditions, the latter “powerful enough to induce a settled conviction of what the result to the child would be”.<sup>75</sup> One woman, pregnant with her first child, had happened to shake hands with a man who had a number of fingers missing, giving his hand the appearance of a lobster’s claw. She was so startled and distressed that the memory of the incident became etched in her mind. In due course her child was born with the middle digits missing from both

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<sup>73</sup> Fisher, ‘Does Maternal Mental Influence’ p261

<sup>74</sup> Wilson, T ‘On the Influence of Maternal Shock in the Production of Fœtal Monstrosities’ *The Obstetrical Journal of Great Britain and Ireland* Vol. VIII (1880) pp331-35

<sup>75</sup> ‘Monstrosity in a Child Following a Fright to the Mother in the Third Month of Pregnancy’ *Medical Times and Gazette* Vol.II (1865) p333

hands and both feet. Although she subsequently bore four well-formed babies over the following five years, she happened to meet the man with the deformed hand whilst pregnant with the next child. The impression received during her first confinement and which had inflicted the imperfection on her child, was then reawakened and set to work on the foetus, damaging the child in exactly the same way as the first.<sup>76</sup>

**Fig.11** A wood engraving of Robert Lee by Frederick James Smyth, 1851, after Mayall.

However, as Robert Lee (1793-1877) professor of midwifery at St. George's Hospital told a meeting of the Medical Society of London, there were occasions when a mother could avoid a dormant influence and "efface the recollection of alarm" by taking a

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<sup>76</sup> *ibid.*



long tour.<sup>77</sup> Addressing a number of Fellows he told of a pregnant woman who was suddenly confronted by “an ugly, decrepid, [sic] deformed little old man [who] seemed eyeless and blind, with the nose meeting the chin, and toothless”. At full term she gave birth to a child with deformities closely resembling the “old dwarf”. Her womb, it seemed, had been marked indelibly for her next three babies all bore “the hideous, dreaded stamp of age, decrepitude, and deformity”. Following advice, she avoided any further conceptions by taking a long tour alone. Having taken every precaution to erase the vision, she returned home to her husband and again fell pregnant, but this time gave birth to a healthy child, “free from blemish or deformity”.<sup>78</sup>

This kind of evasive action was the subject of a paper delivered at the Annual Meeting of the Medical British Association at Norwich in August 1874 when Dr. James Clapperton spoke on behalf of those engaged in midwifery practice who, he felt, were perhaps better placed to speak on the matter than their metropolitan colleagues.<sup>79</sup> Addressing the subject “of those peculiar modifications of development in the foetus”, Clapperton drew a distinction between the superficial impression that might result in a mark which took on the appearance suggested by the original source, and a far deeper impression which might materially alter or modify the structure of the developing foetus. He agreed that country people were often inclined to believe that if a mother was frightened during her pregnancy, yet had the presence of mind to place her hand on a part of her body not normally on view, the mark on the child would correspond to where the mother had placed it.

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<sup>77</sup> Lee, R ‘Maternal Impressions’ *Proc. Med. Soc. London* Vol.IV (1877-79) pp22-27

<sup>78</sup> *ibid.*

<sup>79</sup> Clapperton, J ‘Maternal Impressions’ *BMJ* i (1875) pp169-70

One case cited by Clapperton shows the persistence of these superstitions. A woman pregnant for the third time had put her hand across her throat when she was startled by a rat that had jumped out of the straw. “The child was born with a mark across the throat, which now resembles a rat in shape and colour”. But she had learned her lesson; for when in her next pregnancy she was frightened by a dog, she had the foresight to place her hand over her sacrum. The child was born with the mark of a dog over the back of the pelvis.<sup>80</sup>

This is an interesting observation, if not a new one. For as well as noting that the mother’s mental state was responsible for birthmarks, it also alerted any credulous medical man that she was able to direct the course of the blemish at will. It was not a dissimilar state of affairs from the sixteenth century notion of chirapsy, whereby a pregnant woman could mark her unborn child with an object she herself desired by touching her body and allowing the desired object to mark the infant’s body in the corresponding place.<sup>81</sup>

But if we leave aside the case histories that are stranger than fiction, of children born resembling toads or with marks simulating mice or pigs, Clapperton did make some interesting remarks. One he termed ‘speculative’, and concerned the causal connexion between the fright sustained by the mother and the consequent alteration to the development of the child. Clapperton suggested that change in the foetus was dependent on a “state of expectant attention” on the part of the mother who either consciously or unconsciously allowed the impression to “print on the growing plastic tissues of her child”. The impression was then translated into its organic form through

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<sup>80</sup> *ibid.* Case 11

<sup>81</sup> Ballantyne, ‘Teratogenesis’ Vol.XLII pp244-5

the medium of the placental circulation. Although detailed examination of the umbilical cord had never revealed any trace of nerve fibres, Clapperton then went off on his own, defying the anatomists by floating the interesting prospect that indeed “there may possibly be such a nerve-communication existing in an altogether unexplored direction”.<sup>82</sup>

Although we cannot know with any certainty whether Clapperton was aware of the notion of a circulating nerve force, he must have been looking in roughly that direction as he tried to sidestep the anatomical obstacles that stood in the way of his ‘nerve-communication’ theory. He suggested that the ‘foetal tufts’ which were understood to “dip into the placental sinuses and ... float freely in the tiny wells of maternal blood”, were in fact held down in the sinuses by a nerve-communication that existed in the structure of the tufts themselves. This practical speculation for the transmission of impressions led on to his second train of thought: the uncanny resemblance displayed by some affected children to a natural object. Clapperton noted that most shocks that had a devastating effect on the developing foetus were sustained during the first trimester and that “long before the hypothesis of Mr. Darwin had stirred the still waters of our ideas as to progressive development”, it was known that the human embryo closely resembled other animals on the evolutionary ladder, the earlier the period of gestation, the closer the resemblance to a lower form of life.<sup>83</sup>

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<sup>82</sup> Clapperton drew on the findings of two other physicians’ works, probably in order to give greater weight to his ideas: In all likelihood they were Carpenter, Wm *Principles of Human Physiology* J. Churchill: London (1864) 6<sup>th</sup>. ed. and Dalton, J *A Treatise on Human Physiology Designed for the use of Students and the Practitioners of Medicine* Henry C. Lea: Philadelphia (1871) 5<sup>th</sup> ed.

<sup>83</sup> Clapperton, ‘Maternal Impressions’

Not able to set aside his sense of horror completely, Clapperton suggested “there is something weirdly interesting in the fact that, when the object of the fright is... one of the lower animals, its own configuration should be impressed upon the plastic form of the hapless being undergoing its evolution within the body of the startled or terrified mother”. A shock sustained during the most important period of embryonic development would therefore produce “such a perversion of tissue-growth as induces a retrograde movement in foetal lineaments, already assuming the characteristics of humanity, and a reversion to a lower type”.<sup>84</sup> The mother then had the alarming capacity to arrest development, and the terrifying ability to put development into reverse mode, allowing the human embryo to recover its earlier evolutionary form. How similar all this sounds to the furore surrounding many of the legal challenges women were engaged in at the time.

Whilst the majority of physicians felt that the developing embryo was most vulnerable during the first trimester, this was by no means the universal view. As we have noted earlier, many believed that the imagination of the mother could produce distinct marks or malformations at any stage during her pregnancy. In one case, a labourer’s wife who was five months pregnant with her eighth child was feeding some rabbits when one of them, with eyes glaring, suddenly jumped at her. She was so terrified that she could not rid her mind of the fright and when she was delivered, the child displayed many of the rabbit’s features.<sup>85</sup> Another medical man tells of a child born with one half of the cranium entirely absent. The mother explained that at about the

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<sup>84</sup> *ibid.*

<sup>85</sup> Graham, T ‘Effects of Mental Shock upon the Fœtus in the Fifth Month of Pregnancy’ *BMJ* i (1868) p51

eighth month she was suffering from great anxiety, and the doctor saw no reason to doubt her account.<sup>86</sup>

There was even a possibility of a mother having experienced two periods of alarm during her pregnancy resulting in two distinct deformities corresponding pretty closely with the earlier impressions. Dr Ashburton Thompson described one child with supernumerary breasts and the appearance of a scar on the crown of her head. The mother when seventeen weeks pregnant, had accompanied her friend to hospital and seen the surgeon examine and manipulate the patient's breasts with perhaps more enthusiasm than was strictly necessary. She ascribed her child's supernumerary breasts to her friend's obvious distress some months earlier. But the foetus was to receive a second shock only four weeks later when its mother saw a horse slaughtered with a pole-axe. The mother traced back the scar on the crown to that very incident.<sup>87</sup>

A quarter of a century before the rediscovery of the Mendelian theory and the new science of heredity,<sup>88</sup> the neurologist Joseph Mortimer Granville (1833-1900) attempted to throw light on the hitherto unexplained phenomena of maternal thought transmission.<sup>89</sup> He drew the analogy of *déjà vu* to explain his understanding of 'ideation' as "the possession of all conceptions of mental images, however formed, either passive or active, either received by impression or constructed by thought". If,

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<sup>86</sup> Hight, J 'Curious Monstrosity, Accompanied by Spontaneous Expulsion of the Placenta, Without Hæmorrhage' *Lancet* i (1878) pp456-7

<sup>87</sup> Thompson, A 'Two Children Congenitally Deformed, exhibited by Dr. Ashburton Thompson, who described the maternal impressions to which the deformities were attributed by the mothers' *Trans. Obstet. Soc.* Vol. XIX (1878) pp94-6

<sup>88</sup> See Vitezslav, O. *Gregor Mendel: The First Geneticist* Oxford (1996) Since 1906 the new science has been known as 'genetics'.

<sup>89</sup> Mortimer Granville, J 'Ideation in Utero' *Lancet* ii (1876) pp851-53. Interestingly, later on Granville was to write on the subject of the laws determining sex, and the physical and psychical inheritance of children, maintaining that "sex is determined by the relative ardency of the two parents". See chapter four of this thesis.

as Granville asserted, principles of evolution could be shown to falter at the critical moment when the female brain was most susceptible to impression, then the mother could be shown “to exert the controlling influence of foetal development”.<sup>90</sup>

As we have already noted, the human body was conceived as having only a finite amount of available energy that was drawn to different areas depending on local requirements. A woman’s energy quota would always tend to her reproductive organs for these were what defined her womanhood. This is not to suggest that a monstrous birth inevitably would result from the ineffective and improper deployment of the required levels of nerve force, but it did reinforce the idea that a woman’s innate frailty and inclination to disturbance could upset the prospects for humankind’s future improvement. However this was a double-edged sword: for if the notion that women alone were responsible for the health and vitality of the products of conception was to remain a compelling truth, it had to be formulated in such a way that the claims of scientific scrutiny could be neither falsified nor confuted.

In his interesting paper, Mortimer Granville reveals just how inventive one medical man could be in order to preserve his and society’s dearly held beliefs. He attempted to explain how ‘passive ideation’, by which he meant the reception of mental impressions, could proceed to the foetus, reflect itself on the foetal brain, and become fixed. ‘Passive reception’, which Granville distinguished from ‘active reception’, “is projected on to the mind as the rays of light pass from an object through a lens to the sensitive surface of a collodion plate”. He believed that the original idea could only affect the foetus during the “evolution of the cerebrum”, at a time when the brain was

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<sup>90</sup> *ibid.*

insufficiently developed to admit the faculty of ideation. In the same way as the mental images experienced in dreams exist in spite of closed eyelids, so it was with a mental image reflected from without. Indeed Mortimer Granville appeared to confirm these ideas three years later when he wrote “ideas, or a organic tendency to form particular conceptions, are certainly transmitted from parent to child ... the transmission of germs of mental character which slumber through one generation and awaken with all their ancestral energy in the next is a recognised fact”.<sup>91</sup>

The viviparous embryo like its oviparous relative was a separate organism yet depended on the mother for its food supply. The channel for that communication was the blood; and it was the blood that not only nourished the developing embryo, but also enjoyed the distinction of carrying the maternal impression to the ‘foetal mind-organ’. The link between a nutritive and destructive feed, rather like the nurturing woman and her ambitious sister, was a close call. For if nutrition was defective, “insanity of the ideational type supervenes”; and as Granville noted, “the various forms of ideational insanity are more commonly transmitted from parent to child through the mother”.<sup>92</sup>

Although Granville maintained that “a healthy brain may be worked at any pressure from the zero of imbecile inertia to the verge of exhaustion” without any apparent ill effects,<sup>93</sup> the idea that a woman could nonetheless be both manufacturer and distributor of noxious influences speaks volumes about concerns over responsibilities for the declining value of the human stock. Of course the ‘mother's marks’ theory

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<sup>91</sup> Mortimer Granville, J ‘Re-Education of the Adult Brain’ *Brain* No.2 (1879) pp317-22

<sup>92</sup> Mortimer Granville ‘Ideation in Utero’

<sup>93</sup> *ibid.*

occupied only a tiny corner of the social debates of the time, but it did fit well with the wider issues of birth control, declining fertility rates and the omnipresent ‘woman question’. Additionally this chapter has shown the subtext of many medical utterances, the speaker seemingly unaware of the other registers their words addressed. Granville’s comment that ideational insanity can usually be traced to the mother is just the last example of many dotted throughout this chapter.

Reproductive biology was in a sense ‘set up’ to deal with the ideological difficulties surrounding the different propensities of men and women.<sup>94</sup> While medicine may well have offered a good return on the intellectual investment of maintaining the polarization of the sexes, Victorian medical men themselves were no different from their lay colleagues in their underlying, ingrained and resistant prejudices. The social importance of a female’s capacity to beget life locked horns with any aspirations that extended beyond guarding the hearth and as the *Lancet* caustically noted, “the advanced guard of the Amazonian army” threatened not only the medical ranks but also the delicate sense of propriety associated with her natural endowments.<sup>95</sup> The persistence of the maternal impression doctrine throughout the nineteenth century and beyond is testament to that.

Following on from the idea that mothers could mark their unborn children through the medium of their imagination, in the next chapter we shall examine how medical men accounted for the physical and mental characteristics that seemed to replicate themselves both through and across the generations. Without any knowledge of the

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<sup>94</sup> See Digby, A ‘Women’s Biological Straightjacket’ in Mendus, S and Rendall, J *Sexuality and Subordination: Interdisciplinary Studies of Gender in the Nineteenth Century* Routledge: London (1989)

<sup>95</sup> *Lancet* i (1861) p16



genetic transmission of disease or the nature and function of chromosomes, many abnormalities were attributed to a woman's bias towards disorder and derangement. It would appear that transgressing boundaries was increasingly thought of as part and parcel of the female condition.

## CHAPTER FOUR

### THE LAWS OF INHERITANCE, OR WHY THE APPLE NEVER FALLS FAR FROM THE TREE

“A man transmits to his children an inheritance of organic qualities by a law over which he has no control; but he consciously imitates nature in that over which he has control, and leaves by testament his acquired property to his children. And should he fail to make such provision, the law ordains that his children shall inherit. The social fact is the expression in human consciousness of the natural fact”.<sup>1</sup>

“The fathers have eaten sour grapes, and the children’s teeth are set on edge”.  
Ezekiel 18:2

Unlike mother’s marks, the matter of the inheritance of human characteristics was an intrinsic and indwelling state of affairs that rarely if ever could be effaced from an individual’s mould. One’s hereditary endowment was considered elemental to the inner man and therefore intrinsic to one’s genealogy. This chapter, like the previous one on the workings of the maternal imagination, considers how and why women of the period incurred a disproportionate weight of responsibility for an infant born other than healthy. However, whereas mother’s marks were interpreted as malicious and distorted copies of unique encounters or thoughts, the presence or reappearance of

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<sup>1</sup> Maudsley, H ‘Considerations with Regard to Hereditary Influence’ *Jnl. Of Mental Science* Vol.8 (1863) p491

unfortunate familial features in subsequent generations was not looked on as an isolated travesty. Rather it indicated consistency and continuity, symmetry and regularity, all helpful terms when describing the alleged uniformity of women. Moreover, the question of heredity presented a far greater intellectual challenge than any isolated event supposedly influencing the pregnant woman's imagination.

At a time when fears of degeneracy and moral degradation were troubling so many in the medical field, it was vital to become acquainted with the laws that governed the transmission of human traits. Yet this was not possible in the absence of Mendelian genetics. As a result, Victorian medical men could have formulated no general theory regarding the inheritance of characteristics whether mental, moral or physical. This obstacle to knowledge would affect profoundly medical understandings of the condition of women. For since the majority of scientific pronouncements could be made only through guesswork or at best a smattering of comprehension, invariably women found themselves to be collectively stereotyped as purveyors of intellectual weakness and moral transgression. Undeniably, the very phrase 'laws of inheritance' further bedevilled the subject since it resonated so clearly with a legal system designed to protect the inalienable rights of succession and settlement.

According to Dr. Strahan, who was writing in his capacity both as a medical man and as a barrister-at-law, the child takes from his parents his moral and mental and physical characters which constitute his estate, and "this estate *must* be entered upon however encumbered; he is the *heres necessarius* of his parents; he cannot renounce his claim upon this estate and let it pass on to some other heir, neither can he alienate

his life-interest therein”.<sup>2</sup> Much the same thing had been written many years earlier when another medical man had stated rather more pithily: “we may infer that disease engendered by vicious courses in our progenitors, may be entailed on their descendents”.<sup>3</sup> So while property rights and marriage contracts may have been able to trace their origins to dynastic expediency, the so-called science of inheritance allowed no such concessions, as testified yearly by the thousands of children “begotten with pedigrees which would condemn puppies to the horsepond”.<sup>4</sup> Nevertheless, even though the insalubrious effects of hereditary descent may have been well documented, their workings remained obscure. It was not until 1900, the year when the Dutch plant geneticist Hugo De Vries, then working on mutation theory proclaimed himself the rediscoverer of Gregor Mendel’s lost work, that the science we now know as genetics was able to define important concepts, describe general laws and thereby (in theory at least) separate itself from the undue influence of contemporary social and political concerns.<sup>5</sup>

When considering medical understanding of the female condition, we need to focus on the decades leading up to the rediscovery of Mendel’s work on inheritance and hybridism by looking at the now discredited formulations and what we might judge to be often quaint and bizarre arguments that medical men and scientists were engaged

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<sup>2</sup> Strahan, S *Marriage and Disease: A Study of Heredity and the More Important Family Degenerations* Kegan Paul, Trench, Trübner, & Co.: London (1892) p11

<sup>3</sup> Winn, J *On the Nature and Treatment of Hereditary Disease with Reference to a Correlation of Morbific Forces* Robert Hardwicke: London (1869) pp19-20

<sup>4</sup> Strahan, *Marriage and Disease* p13

<sup>5</sup> There was some controversy over the rediscovery since two other scientists, Carl Correns and Erich von Tschermak-Seysenegg claimed to have made a simultaneous rediscovery. See Posner, E and Skutil, J ‘The Great Neglect: The Fate of Mendel’s Classic Paper Between 1865 and 1900’ *Medical History* Vol.XII (1968) pp122-136. Mendelian genetics sounded the death knell for recapitulation theory. This theory stated that evolution was an accretive process and new characteristics were added at successive stages of development. See Russett, C *Sexual Science: The Victorian Construction of Womanhood* Harvard University Press (1991) Ch.6 and esp. pp157-60

in. For while the dustbin of history has long been considered a suitable and appropriate resting place for redundant ideas, as in most cases, and this is no exception, rich pickings are on offer for those interested in the processes by which meanings were made. I shall argue that most of the debates and the discourses, converging as they did on the manufactured fears of degeneracy, offered a framework for the displacement of social and political anxieties that were currently occupying the minds of many male intellectuals. As we shall see, the congruence that existed between badness and illness, between degeneracy and deficiency fitted quite effortlessly and naturally with what the great Victorian alienist Henry Maudsley saw as the powerful forces that sought to undermine efforts to procure “the production and preservation of a sound mind in a sound body”.<sup>6</sup>

**Fig.12** Photograph of Henry Maudsley, 1881. This rather ferocious image of Maudsley is in keeping with his writings that invariably were invested with a sense of disapproval and censoriousness.

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<sup>6</sup> Maudsley, H ‘Gulstonian Lectures on the Relations Between Body and Mind, and Between Mental and Other Disorders of the Nervous System’ *Lancet* i (1870) pp437-40; 473-76; 609-12; 645-47; 759-63; 829-32

By discovering the mechanism whereby hereditary taint descended through and across generations, it was hoped that evolutionary mishaps could be averted, if not expunged altogether. The reason why the matter of race and familial degeneracy took on such an alarming aspect in the later nineteenth century can best be understood if we consider deviants of whatever stripe, as a kind of plastic material from which dangerous outsiders could be constructed. Labelling and stereotyping certain members of society as threatening and disreputable or merely as 'types' contained the problem of entail in a recognisable form that could then admit rational responses. In other words, not knowing how or why humans resembled their ancestors either physically, morally or in their mental life required a sufficiently flexible and intelligible system of ideas to be in place in order that inferences could be drawn that would match up with the social realities of the period in which they operated.

The medical profession was certainly at issue on many points, and these differences and uncertainties elicited all manner of speculations and deductions. Even so, the alleged neutrality and disinterest of scientific inquiry could not mask the partiality of many Victorian observers, alarmed as they were at the prospect of the collapse of progress and improvement. Thus the non-scientific socially based factors influencing thinking placed an overweening stress on differentiation and hierarchy, on high and low varieties, and on the vexed question of the respective influence and primacy of nature or nurture.

The doctrine of degenerate heredity had itself an ancient origin but the nineteenth-century concept differed from earlier thinking in one crucial aspect. Hitherto,

perfection was always thought of as a state that was bestowed providentially and arrived at after a progressive ascent along a great chain of creation, with any deviation understood as ‘damaged goods’. God’s good work could never be improved on, but it could certainly be spoiled. Now the situation was somewhat different. Since the publication of Darwin’s *Origin of Species* in 1859, the Creator had been moved to a back seat, leaving the survival of the fittest to natural selection. Nevertheless natural selection needed a supply of variations to work even though, as has been noted, “the causes of variation were wholly unknown”.<sup>7</sup> Thus as far as medicine was concerned, natural selection still required the good offices of a mediator to ensure that its path was kept clear of sin and disease for the betterment of the species.

Perfection was not to be assumed; it had to be fought for, to be guarded and respected. This was especially important given the disruptions of industrialization and the noxious by-products springing from it, notably the problems associated with inbreeding. It followed that those who had chosen to challenge the steady march of human progress through shamelessness and wantonness were likely to imperil not only their genealogical tree, but the evolution of the whole human race. As Mark Lubinsky has asserted, the doctrine of degenerate heredity managed to lump together all phenomena - from organs to races to criminal activity to insanity - into a single pathological system making it nigh impossible to separate things out.<sup>8</sup>

As an added complication, any disease considered liable to hereditary descent found itself caught in this snare. A bewildering array of seemingly unconnected conditions

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<sup>7</sup> Geison, G ‘Darwin and Heredity: the Evolution of His Hypothesis of Pangenesis’ *Jnl. Hist. Medicine and Allied Sciences* Vol. XXIV (1969) pp 375-411

<sup>8</sup> Lubinsky, M ‘Degenerate Heredity: The History of a Doctrine in Medicine and Biology’ *Perspectives in Biology and Medicine* Vol.37 No.1 (1993) pp74-90

became pathologically intimate: scrofula, phthisis, cancer, mania, epilepsy, convulsions, apoplexy, paralysis, diseases of dentition, gout, rheumatism, cataracts, deafness, syphilis, quinsy - the inventory was spectacular. And they all displayed one common inimitable feature, a capacity for vertical transmission. Thus the lack of a universally consistent and conclusive theory invited widespread difficulties in distinguishing the various aetiologies of evolutionary failures, and in turn attracted countless immoderate and far-flung assumptions that frequently did little more than confuse the barnacles for the boat.

Broadly speaking hereditary transmission was understood to come in two varieties, each with its own sub-sets. Firstly there was the hereditary or family peculiarity that was generally termed connate or congenital. The distinction here was mainly confined to the question of whether the disease was restricted to a single generation or whether it was of long duration and could be traced in its survival through several generations.<sup>9</sup> Importantly, this form of transmission anticipated correctly the laws of genetics for it was understood to be communicated to the offspring at the moment of conception and to have already existed in either or both parents.<sup>10</sup>

That said, the second variety or form of hereditary disease was a much more complicated affair and far less concretely defined. Here the distinction between nature and nurture remained blurred, even more so given that so little was known about the natural history of infectious diseases. For example there were those who thought that

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<sup>9</sup> Adams, J *A Treatise on the Supposed Hereditary Properties of Diseases, Containing Remarks on the Unfounded Terrors and Ill-Judged Cautions Consequent on Such Erroneous Opinions; With Notes, Illustrative of the Subject, Particularly in Madness and Scrofula* J. Callow: London (1814)

<sup>10</sup> Steinau, J *A Pathological and Philosophical Essay on Hereditary Diseases with an Appendix on Inter-marriage, and the Inheritance Of the Tendency to Moral Depravities and Crimes* Simkin, Marshall & Co.: London (1843) p4



environmental influences or external causes could induce an otherwise dormant disease to act, as in cases where frugal habits had ceded to overindulgence and dissipation. In the nineteenth century, many medical men and scientists took seriously the Lamarckian view of inheritance that explained any acquired characteristics as a mechanism for adapting to ever-changing conditions of life. This standpoint maintained that evolution came about through the inheritance of purposefully acquired characteristics.

Lamarckism centred on the idea of the effects of use and disuse, on environmental factors or on the conscious or unconscious will of organisms. As a theory it was not nearly as brutal as natural selection and its inevitable struggle, rather it allowed for creativity, vitality and effort.<sup>11</sup> Indeed it always left open the door to an element of self-regulation and self-control, most notably abandoned in cases where alcoholism and sexual excess had resulted in hereditary insanity. One medical man used the term 'morbific force' to represent a latent energy or some mysterious vital element that had the ability to lie low for one or more generations and then trigger itself in the form of disease "brought into existence by external accident".<sup>12</sup> And then there were some who subscribed to the rather alarming idea that certain races were of themselves degenerate and therefore by definition would breed degenerate types. This latter view saw degeneracy as a process which of its nature invited decay. By implication it suggested that certain racial types, most notably the Negro, belonged to designated

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<sup>11</sup> See Bowler, P *The Eclipse of Darwinism: Anti-Darwinian Evolution Theories in the Decades around 1900* The Johns Hopkins University Press (1992) pp4-5

<sup>12</sup> Winn, *On the Nature and Treatment of Hereditary Disease* p13

localities, which if transgressed, would readily incline to vitiate the ideal of social progress and perfection.<sup>13</sup>

The Negro came in for particular attention because of the then current preoccupation with physical anthropology. Skull measurements, brain weight, skeletal structure, in fact any criterion used for measurement was deemed appropriate if it aided the classification of racial types.<sup>14</sup> There was even a belief that hereditary instinct, which belonged inherently to racial type, overrode educational achievement. One medical man spoke of the English public occasionally having “been amused” on hearing that young Negro barristers, “mostly half-bloods”, having been educated in London or Oxford and subsequently deciding to return to their native land, would quickly relapse into a state of savagery, or as the saying went, “gone fanti”.<sup>15</sup>

Here was a doctrine shot through with order and place, allying itself closely with the paradoxical principles of degradation and development, barbarism and civilization. This was certainly the view expressed by Alexander Harvey (1811-1889), physician to the Aberdeen Royal Infirmary who asserted “that certain races of men should hold given portions of the earth’s surface till certain other races, and in particular our own Anglo-Saxon race, are ready to step in and occupy them, - these primitive races then disappearing”.<sup>16</sup> Thus the laws of inheritance, however unformulated provided a

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<sup>13</sup> Stepan, N ‘Biological Degeneration: Races and Proper Places’ in Gilman, S & Chamberlin, J (eds.), *Degeneration: The Dark Side of Progress* Columbia University Press (1985)

<sup>14</sup> Much has been written on the subject. Helpful overviews can be found in Russett, C *Sexual Science*; Stepan, N *The Idea of Race in Science: Great Britain 1800-1960* Macmillan Press: London (1982); Pick, D *Faces of Degeneration: A European Disorder, c1848-c.1918* Cambridge University Press (1989); Schiebinger, L *Nature’s Body: Gender in the Making of Modern Science* Beacon Press: Boston (1993)

<sup>15</sup> Nisbet, J *Marriage and Heredity: A View of Psychological Evolution* Ward & Downey: London (1889) p123

<sup>16</sup> Harvey, A *On the Foetus in Utero, as Inoculating the Maternal with the Peculiarities of the Paternal Organism; and on Mental States in Either Parent, as Influencing the Nutrition and Development of the Offspring* Sutherland & Knox: Edinburgh (1850) p8

wide-angled lens through which difference and variation could be viewed and understood. Thereafter, establishing how the laws governing hereditary taint operated could be processed vicariously through a system steeped in cultural expectations and laden with social consequences.

Henry Maudsley saw little point in speaking of human degeneracy as abnormal or even unnatural, - although he unquestionably did - rather he sought a scientific interpretation.<sup>17</sup> The problem however was that scientific interpretation had little to do with science and much to do with interpretation. Revulsion and fear were the two driving forces that defined and elaborated the concept of degeneracy. As a result, all efforts to understand the agents that were responsible for transmission were calculated to take account of the potential weakening of the higher centres of the brain which would allow lower functions to emerge.<sup>18</sup> By and large, degeneracy in the so-called higher races was an expression of deviation from an ideal standard or 'type' through bad breeding. Those who subscribed to this idea had their views confirmed by the proliferation of what they saw as inferior types spilling out of urban slums. While most who had a vested interest in these matters agreed that the ideal standard benchmark was constituted in the white European male, bad or inauspicious breeding required an expansion in its range of meanings to ensure a compelling basis for argument.

The prime exercise for the minds of medical men was how to fill in the vast gap that existed between the white European male and the lower forms of animal life from

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<sup>17</sup> Maudsley, 'Gulsonian Lectures' p611

<sup>18</sup> Martindale, C 'Degeneration, Disinhibition and Genius' *Jnl. of the History of the Behavioural Sciences* Vol.7 (1971) pp177-82

which he had emerged through a long process of evolution, whilst at the same time maintaining a distance from primitive reminders. Medical men agreed that a common ancestry could be glimpsed in the course of man's embryonic development as he passed through the various stages that resembled the permanent form of other vertebrates such as fish, birds and quadrupeds. Maudsley rarely missed a chance to inform his peers that their pole position on the evolutionary grid was not to be taken for granted, reminding them of the nearness of their primal brute brains as "in the womb, we have a brief chronicle of what has gone on for countless ages".<sup>19</sup>

But however vivid the record, it was not merely a matter of recruiting social groups such as criminals, idiots, savages and women to plug the gaps. Following the publication of *Origin of Species* man had suffered the humiliating blow of being toppled from his dominant position on the tree of life and additionally being subject to "the mechanism of 'natural' (that is, non-human and unwilled) 'selection' in creating change".<sup>20</sup> It was an affront of monumental proportions and had to be addressed, not least because it undermined further the role of a benevolent Creator, both wise and purposeful. Thus over the following decades it became increasingly important to construct something deeply distasteful that could have as its object a bias for rejection. Keeping 'others' at a physical and psychical distance would thereby limit any damage visited on the Caucasian male by preventing him sliding from his evolutionary high water mark and reverting to the wretchedness and simplicity characteristic of the primitive type.<sup>21</sup>

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<sup>19</sup> Maudsley, 'Gulstonian Lectures' p611

<sup>20</sup> See Beer, G *Darwin's Plots: Evolutionary Narrative in Darwin, George Eliot and Nineteenth-Century Fiction* Cambridge University Press, 2<sup>nd</sup> edition (2000) esp. introduction

<sup>21</sup> Beer, G *Open Fields: Science in Cultural Encounter* Oxford (1996) esp.pp126-31

The historian Peter Bowler has indicated there was a natural assumption “that the poorest class in society contains the greatest number of inferior characteristics, because poverty was considered a direct consequence of lesser ability”.<sup>22</sup> This unfortunate state of affairs, when believed, sat in opposition to the competitive ethos of Victorian capitalism where prosperity for the commercial classes was a “reward for individual initiative - a reward that was deservedly withheld from those less active or able”.<sup>23</sup> After all, if only the fittest were expected to survive, how did the unfit manage to keep up their numbers when faced with the Darwinian image of struggle and the pressures of selection?

One suggested cause of “the idiocy of our country” and indeed one that influenced unfavourably the levels of idiocy, came from Sir Arthur Mitchell (1826-1909) the Deputy Commissioner in Lunacy for Scotland who thought it the result of a blood alliance between parents.<sup>24</sup> Although sexual intercourse between near relations was forbidden by law, there was a morbid fascination with the results of such unions. It was well recognised by medical men of repute “that near intermarriage produces degeneration, and more especially failure of sight and hearing, scrofulous affections, and derangement or deficiency of the intellect”.<sup>25</sup> Maudsley, in typically cheerless tones went a step further stating that consanguineous marriages bred degenerate offspring and interbreeding intensified the damage. He argued that the lack of variety produced by these alliances was self-terminating for if one were to conduct an experiment by intermarrying insane persons for two or three generations, it would

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<sup>22</sup> Bowler, P *Evolution: The History of an Idea* University of California Press (1989)

<sup>23</sup> *ibid.* p174

<sup>24</sup> Mitchell, A ‘On the Influence which Consanguinity in the Parentage Exercises on the Offspring’ *Ed. Med. Jnl.* Vol. X (July 1864-June 1865) pp 781-94; 894-913; 1074-85

<sup>25</sup> Steinau, *A Pathological and Philosophical Essay* p43

result inevitably in “sterile idiocy and extinction of the family”.<sup>26</sup> In other words the principle of nature, where only the fittest survived into maturity to breed, would take the matter out of the couple’s hands and check the decline.

This was very much in line with the ideas current in French psychiatric thought, especially those expressed by Bénédict Augustus Morel (1809-1873), a pivotal figure in the popularisation of the nineteenth-century concept of degeneration. Morel spoke of degeneration having “a hidden narrative development – a genesis, a law of progress, and a denouement. Complete idiocy, sterility and death were the end points in a slow accumulation of morbidity across generations”.<sup>27</sup> He was advancing the Lamarckian position “in which the influence of diet, toxins, climate, disease, and moral depravities of one generation induced a high proportion of neurotics, criminals, and paupers in the next generation”.<sup>28</sup> Moreover, succeeding generations could expect an aggravated degree of defects, “producing sterility and the eventual dying out of the tainted family”.<sup>29</sup>

Superiority of bloodlines was of course a favourite topic for breeders of stock. As Harriet Ritvo has remarked, “the primary goal of all breeders was to produce superior young animals [therefore] the crucial focus of their attention was the selection of healthy and appropriately endowed parents for the new generation”.<sup>30</sup> Often, medical

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<sup>26</sup> Maudsley, ‘Gulstonian Lectures’ p609. See also Maudsley, H *The Pathology of Mind* Macmillan & Co.: London (1879) p122

<sup>27</sup> Pick, *Faces of Degeneration*. Morel’s ideas are to be found in his *Traité des Dégénérescences Physiques, Intellectuelles et Morales de l’Espèce Humaine* Paris (1857)

<sup>28</sup> Walter, R ‘What Became of the Degenerate? A Brief History of a Concept’ *Jnl. of the History of Medicine and Allied Sciences* Vol.XI(1956) pp422-29. See also Martindale, ‘Degeneration, Disinhibition and Genius’ p177

<sup>29</sup> Walter, ‘What Becomes of the Degenerate?’ p423

<sup>30</sup> Ritvo, H ‘The Animal Connection’ in Sheehan, J & Sosna, M (eds.), *The Boundaries of Humanity: Humans, Animals, Machines* University of California Press (1991) p72

men looked to stud farms in search of evidence indicating analogous patterns of descent between the animal and the human. But drawing comparisons between the inbreeding of prize stock and the practice of consanguineous marriages did not provide much in the way of helpful information. Moreover it seemed that the high levels of perfection attained by the judicious mating of animals, where the object was to exaggerate or refine a particular feature, merely translated into the intensification of defects that humans were heir to.

This was well attested by dynastic marriage contracts where the products of close blood unions exhibited a disproportionate degree of structural, physiological or mental pathology. Although the hereditary tendency to insanity was considered general among the population, it was noted that the disposition was more marked in rich and titled families who entertained prejudices “in favour of matrimonial alliances among their own members”.<sup>31</sup> Dr. Strahan recognised the importance of occasionally mingling plebian blood with that of a noble family: “Let royalty renew and oxidise its blue blood to arterial crimson at the fountain of health, even if it have to stoop to the life giving stream”.<sup>32</sup> And any proposal that would ensure the survival of the noble family could, at least in theory, be applied to the advantage of the race. The proper renewal of blood had long been practiced by the Arabs who prided themselves on their pure-bred horses and actively embarked on selective cross-breeding to revitalise the herd.<sup>33</sup> But as we shall see, animal breeders did not have complete control over the mating patterns of their stock even when they put their best specimens together.

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<sup>31</sup> Whitehead, J *On the Transmission from Parent to Child of Some Forms of Disease and of Morbid Taints and Tendencies* John Churchill: London (1851) p34

<sup>32</sup> Strahan, *Marriage and Disease* p279

<sup>33</sup> Sedgewick, W ‘On the Influence of Sex in Hereditary Disease’ *British and Foreign Medico-Chirurgical Review* Vol.32 (July-Oct. 1863) pp159-97

In his introductory lecture to a course of clinical medicine delivered in the Newcastle-upon-Tyne Royal Infirmary in 1900, Thomas Oliver, the resident physician, spent much breath discussing the modern racehorse. Not yet familiar with Mendelian genetics, as far as he was aware the Derby had only ever been won by a thoroughbred, which was explained by the very careful mating of sire and dam in order to maintain “superiority of blood and the transmission of racing qualities”.<sup>34</sup> The idea that the blood acted as the conduit through which ran disease and other physical peculiarities was a commonly articulated view, although by no means universally established.<sup>35</sup>

Blood was understood to give origin to the brain, muscles and nerves. Thereafter its function changed as it took on responsibility for the nourishment and repair of the body.<sup>36</sup> Consanguineous unions tended not merely to the frequency of inherited defects, but also as we have noted, to their aggravation. Insanity, a disease particularly prevalent in civilized societies, was invariably intensified by consanguineous coupling. Furthermore, the excessive wear and tear of commercial life was marked by the frequency with which one encountered constitutional defects in the “swarms of puny lads and [the] flat-chested girls that came out of the overcrowded and unsanitary dwellings”. For Nisbet, the very reason for the interbreeding of animals was to ensure that a particular variation was exaggerated to its most profitable degree, but in the

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<sup>34</sup> Oliver, T ‘The Physiology and Pathology of Inheritance, or What do we Inherit from our Parents?’ *Lancet* ii (1900) pp1335-41. The modern thoroughbred racehorse appeared early in the eighteenth century as a result of crossing Arabian equine stock with the corresponding native English stock. See Ritvo, ‘The Animal Connection’ p73

<sup>35</sup> See for instance Nisbet, *Marriage and Heredity* p90 who remarked “in point of fact web-footedness shows a marked tendency to run in the blood”. Others however took a different view, claiming that the mind is made manifest by the action of the nervous system.

<sup>36</sup> Prater, H ‘Suggestions for the Prevention of Hereditary Diseases’ *Lancet* ii (1843) pp500-52



human animal there existed no third party. This led him to the ironic conclusion that “a man ought to be very careful in the selection of his parents”.<sup>37</sup>

The improvement of the race, like the production of Derby winners, chased the same end but required different means. Although stock breeders would never contemplate putting together any but the most perfect members of their flocks or herds, there existed no legal restraints “excepting only the idiot and the raving maniac, who in the eye of the law are unable to make a contract binding on themselves” that could operate to ensure that only the most favoured human was entitled to propagate the species. In words that would not have been out of place in a eugenics handbook, Strahan announced that the unfit were permitted to breed wretched offspring while he and his colleagues had to fight inexorable laws which would condemn the unfit to extinction. As a sequel, nature was held at bay and could offer only “sorry rewards”.<sup>38</sup>

Yet there was an anomaly in the argument. It would appear that a correlation did exist between the competition of horses and mares and that between men and women. In the case of the former, not only were horses fleet of foot - only three mares ever having won the Derby in the one hundred and twenty years of its existence - but mares were also disadvantaged because they came into season during the Derby and St. Leger.<sup>39</sup> As for women, they seemed to suffer similar disadvantages and lack of opportunities because of regular and frequent bouts of poor physical health and low spirits. In itself, this might not tell us much, but if we look at how medical men accounted for the transmission of disease, whether acquired or inherited, then the

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<sup>37</sup> Nisbet, *Marriage and Heredity*. He attributes the quote to the German poet Heinrich Heine.

<sup>38</sup> Strahan, *Marriage and Disease* pp21-23

<sup>39</sup> Oliver, ‘The Physiology and Pathology of Inheritance’ p1337

respective roles of men and women in the exercise of that mechanism becomes more significant.

Notwithstanding the customs of the aristocracy, the lengths nature had gone to in ensuring high rates of cross-fertilization should have warned of the perils of inbreeding. Although there were disagreements over which of the several organic routes available for the transmission of disease and defects were responsible for their expression, consanguineous marriages were discussed with implicit reference to the distinction between the civilized and the great unwashed.

Jews and Gypsies were often held up as typical examples of degraded humanity. Inter-marriage in the case of Gypsies had preserved their nomadic characteristics that gave no sense to the sacredness of property. Their refusal to “settle down to a civilized existence” meant thieving became instinctive. The wandering Jews, it was argued, displayed similar traits under the influence of their physical surroundings. Having no fatherland they had little concept of patriotism or self-government, and “in place of courage, they have become shrewd”. Furthermore, the migrating Jew brought with him “moral peculiarities” which it was thought would take several generations to erase. The alleged evil reputation of those “hybrid Jews” could be traced to “the dregs of their respective races”.<sup>40</sup>

So whereas animals could in theory be bred to high levels of specialization, and this was especially true of racehorses, human beings were susceptible to degradation, particularly of the moral sense. Since this was the last and arguably the most noble

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<sup>40</sup> Nisbet, *Marriage and Heredity* pp78-9, p122

sense to develop during man's evolution from a less complex organism, it was at greatest risk from destabilization and decay. Over the long term, an individual's moral endowment was determined "by his ancestral conditions", that is by the influence of social conditions present at his birth; and "in moral science, as in physical science, he is the inheritor of the acquisitions of the past".<sup>41</sup>

Given that the prevailing intellectual climate encouraged this form of discursive reasoning, we should not be taken aback to find that women trailed in the evolutionary slipstream behind men. The ever-present anxieties over her misplaced and impertinent ambitions put an unremitting stress on the distinguishing features associated with the most highly evolved organisms. According to Maudsley, those who had not been able to be equal in the struggle for existence "are the waste thrown up by the silent but strong current of progress".<sup>42</sup> Although generous enough to concede that woman had not been crushed out of existence altogether, he argued that she owed her survival to her dependence on man and her consequential enfeeblement. If she missed out on marriage, and the opportunity to "silently minister to the comfort and greatness of her man", there would be no vicarious outlet for her sexual instinct which, quite properly, had developed to a sophisticated degree at the expense of her intellectual faculties. Indeed her inferior intellect was a marked feature of high civilization for it exempted her from the public world of labour and this set her apart from her more barbarous sisters.

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<sup>41</sup> Maudsley, H 'Considerations with Regard to Hereditary Influence' *Jnl. Of Mental Science* Vol.9 (1864) pp526-8. See also his *Pathology of Mind* p102. Maudsley considered morality as a science that needed to be built up on the inductive method in the same way as the physical sciences were practiced.

<sup>42</sup> Maudsley, H *Physiology and Pathology of Mind* Macmillan & Co.: London (1868) p231

That said, for many middle-class women there was a price to pay rather than a reward to be collected. For the more civilized the race, the more liable was the proneness to insanity. It was a penalty imposed on a fine and delicate organization, and this refinement was always at the mercy of crude influences. The incommensurability of the sexes whether considered from the Darwinian angle, that man was an evolved woman, or from Henry Spencer's view of woman as an arrested man, presupposed as fact that woman was a developmental anomaly.

However, there were glaring inconsistencies between Spencer's private attitude to intellectual women and his public repudiation of feminism in all its guises from the early 1860s. For example he was an intellectual associate of Lawrencina Potter, mother of Beatrice (Webb) and a lifelong friend of the latter "which endured, undimmed by growing divergence in opinion, to the day of his death in 1903".<sup>43</sup> Spencer also enjoyed a long friendship with George Eliot which began in 1851 despite a complete *volte face* in his views on sexual roles and sexual identity a decade or so later.<sup>44</sup>

That aside, since it was thought that a woman's embryonic development had not advanced to the finishing line, she was undeveloped and therefore not equipped to display fully the characteristics of the race. In this way, heredity then could be understood as emphatically a physiological phenomenon based on merit: that man produced and woman reproduced. To compound the problem for women, heredity

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<sup>43</sup> See Webb, B *My Apprenticeship* Longmans, Green and Co.: London (1926) p28

<sup>44</sup> Paxton, N *George Eliot and Herbert Spencer: Feminism, Evolutionism, and the Reconstruction of Gender* Princeton University Press: New Jersey (1991)

was also understood to be governed by immutable laws that allowed the regulation both of (limited) progress and decay.

However, this argument brought its own problems; for if the laws were indeed immutable – and there was general agreement on this – then supporting them with social arguments not only called into question their immutability, but also closed down any capacity to think clearly about what might be the true course of action of hereditary influence. Undeniably this was the case. Boxed in by prejudice and an overvaluation of their evolutionary worth, medical men and evolutionary biologists in particular set about gathering evidence and statistics that would endorse and sustain their *amour propre*.

In March 1881 *The Lancet* published an editorial claiming that “in the ordinance of nature the female is endowed with a force tending to the reproduction from her arrested or suppressed organism of the perfect organism of the male”.<sup>45</sup> This ‘naturally devolved’ view was by no means unusual. In *The Descent of Man* published some ten years earlier, Darwin had employed a social argument to explain woman’s lack of achievement. He recognised that although there was no longer a need for men to fight each other for possession of the female, at manhood they had to undergo “a severe struggle in order to maintain themselves and their families; and this will tend to keep up or even increase their mental powers, and, as a consequence, the present inequality between the sexes”. To further embitter the position of women, Darwin also believed that if a character developed at maturity rather than at an early period of development, for example qualities of energy and perseverance, it would be

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<sup>45</sup> ‘Influence on Women of Special Brain-Work’ *Lancet* i (1881) p379

transmitted to the same sex at the same age. On that account successful men tended to beget sons already destined to display highly developed powers when they themselves became exposed to the trials and tribulations of business life: “thus man has ultimately become superior to woman”.<sup>46</sup> This theme of subordination echoed down the century when in 1900 Sir Thomas Oliver (1853–1942), physician and authority on industrial hygiene, remarked that in an age of keen international competition, “new conditions, fresh surroundings and unexpected difficulties stimulate men to rise” in the same way as evolution in the individual allowed for the continuing upward movement from the lower ranks of life.<sup>47</sup>

However, trouble seemed to be storing up for those men engaged in a cerebral struggle for existence. The modern world had witnessed physical prowess give way to emotional and intellectual competitiveness. As a consequence, “the enlarged, more convoluted brain of civilized man evolved at the expense of early sexual maturity, and the energy required to support it had to be drawn from nutritive reserves once used for reproduction”.<sup>48</sup> The resulting increase in cranium size due to the development of superior mental qualities at the expense of carnal desires was not met with the necessary correspondingly accommodating female pelvis. What ensued was a rise in figures for male neonatal deaths directly attributable to a woman’s general unwillingness to alter or adapt to changed circumstances. Such a situation appeared

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<sup>46</sup> Darwin, C. *The Descent of Man, and Selection in Relation to Sex* [1871] Princeton University Press (1981) Pt.2, Ch.XIX, pp328-9

<sup>47</sup> Oliver, T ‘The Physiology and Pathology of Inheritance’ pp1335-41

<sup>48</sup> Soloway, R *Birth Control and the Population Question in England, 1877-1930* University of North Carolina Press (1982) p15. The birth-rate began to fall after 1877.

impossible to underestimate, given “the great loss which the race sustains in superior physical and mental qualities by this unceasing destruction of its finest products”.<sup>49</sup>

Assembling social argument to support physiological and psychological failure may have had the edge over rival interpretations for explaining natural phenomena, but it did little to unravel the ball of confusion over how laws operated in order to maintain the female mind in a pre-mature condition. One fairly consistent response came from those who understood the body as a closed energy system, each of us born equipped with a finite amount of available nerve force that could be drawn off in one direction, but only at the expense of another area. Indeed Herbert Spencer based a complete philosophical system on these hydraulic principles and it was merely the luck of the hereditary draw if one was a “millionaire of nerve force” or a pauper.<sup>50</sup>

Herbert Spencer liked to draw analogies between mechanical objects and the workings of the human body, and one typical example of these comparisons was illustrated by a locomotive steam engine. He likened the fuel burned in an engine’s furnace to the food that a human consumed. He explained that in both cases a certain proportion of that fuel was set aside for the purpose of function and activity whilst the remaining portion was given over to the propagation of the race, or in the case of the engine, to the steam given off at the safety valve. But in order for the fuel to be burned efficiently and there to be less condensation, certain economies needed to be made. For instance, the boiler could be better insulated, or in the case of women by ensuring long-term domestication. In that way the ideal proportion “corresponds to

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<sup>49</sup> Roberts, C ‘Nature’s Plan in the Determination of the Sexes and the Hereditary Transmission of Physical and Mental Qualities and the Acquisition of New Ones’ *Lancet* ii (1880) pp926-28

<sup>50</sup> Russett, *Sexual Science* p126

that simultaneous addition to bodily vigour and propagative power". In other words, Spencer was attempting to demonstrate that "more abundant food simultaneously aggrandizes the individual and adds to the production of new individuals" if proportionately the amount of steam given off at the safety valve remains the larger. In human terms that then would translate as the most favourable proportion to ensure the female's reproductive potential.<sup>51</sup>

**Fig.13** Photograph of Herbert Spencer, 1889. This wonderful image of Spencer accords with Beatrice Webb's memory of him: "...a finely sculptured head, prematurely bald, long stiff upper lip and powerful chin, obstinately compressed mouth, small sparkling grey eyes, set close together, with a prominent Roman nose – altogether a remarkable headpiece..."<sup>52</sup>

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<sup>51</sup> Spencer, H *Principles of Biology* Vol.II, Williams & Norgate: London (1884) pp490-91

<sup>52</sup> Webb, *My Apprenticeship* p24



As a confirmed Lamarckian, Herbert Spencer was concerned that flat-chestedness in upper class girls “may be reasonably attributed to the overtaxing of their brains – an overtaxing which produces a serious reaction on the physique”. He thought it highly likely that any girl who sacrificed voluptuous breasts for high-pressure education would forfeit the capacity to suckle her infant and at worst, “prove relatively very infertile”.<sup>53</sup> A limited system rather than one capable of potential was certainly favoured by Henry Maudsley: “As an individual only embodies so much force, and by no means has an unlimited supply thereof, it seems an unavoidable conclusion, that what he spends in one way, he is so much the loser by in another”. The choice was clear; either one could direct this finite energy endowment towards the reproductive apparatus, or to the benefit of the intellect, for nature is “exceedingly jealous of allowing to any individual an immortality both in his work and in his progeny”.<sup>54</sup>

The impoverishment of parts of the body in response to intense activity elsewhere was a view still current a generation later when it was said that “the poet Shelley may be taken as a type of this organisation, in which the active brain makes too heavy a draft upon the vital forces of the body”.<sup>55</sup> Others’ medical opinions saw its operation in terms of the most and least opportune ages at marriage. The question of early marriages had been brought before the London Diocean Conference in 1889 because of concerns over marriage laws and the young age that children could enter such contracts.

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<sup>53</sup> *ibid.* pp485-6

<sup>54</sup> Maudsley, ‘Considerations with Regard to Hereditary Influence’ Vol.8 p496

<sup>55</sup> Starkweather, G *The Law of Sex: Being an Exposition of the Natural Law by which the Sex of the Offspring is Controlled in Man and in Lower Animals. And Giving the Solution of Various Social Problems* J. & A. Churchill: London (1883) p136

For Strahan, children born to immature parents, that is to men under twenty five and mothers less than twenty years old “are liable to premature death from wasting, scrofulous, and convulsive affections ... idiocy and imbecility of a low type”. If they did not perish during infancy they invariably displayed ill-developed and often deformed genitals, resulting in high levels of sterility. The remaining numbers merely added to the ranks in the workhouses, infirmaries, asylums and prisons. At the other end of the reproductive chain, that is children born to couples where “the tide of vitality” had ebbed away, they were “ugly, small of stature and stooping ... nervous, irritable, passionate, and horribly cruel”.<sup>56</sup>

Other physicians invoked the notion of finite levels of constitutional matter in their understanding of the determination of the sexes. The neurologist Joseph Mortimer Granville claimed support from stock breeders, when he proposed that sex was determined by the relative ardency of the two parents. He suggested that “a preponderance of impulse on the part of the male parent produces female offspring, while excessive ardency on the part of the female produces male progeny”. This could be demonstrated if one looked at a “quickly married” couple where the desire for an heir was as strong as the affection. Invariably this combination of need and lust resulted in female offspring.<sup>57</sup>

Mortimer Granville’s reasoning anticipated the very similar position adopted by Starkweather who defined the law of sexual equilibrium as a visible principle “by which the one having the preponderance of vital endowment turns the scale in casting

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<sup>56</sup> Strahan, *Marriage and Disease* pp243-60

<sup>57</sup> Mortimer Granville, J. ‘A Note on Intention in the Determination of Sex, and the Mental and Physical Inheritance, of Children’ *Lancet* ii (1880) pp650-52

the sex and bestows upon the embryo the gender of the other weaker parent”.<sup>58</sup> Mortimer Granville had also noted that “large families of boys indicate the existence of a constitutional excess of the procreative force on the part of a female parent, or a relative deficiency on the part of the male”. Yet even though the oblique line also held true for the “less permanent characteristics” when it came to “deeper constitutional elements of the ‘nature,’ elaborated by family influences”, transmission shifted to the superior direct power operating from father to son and mother to daughter.<sup>59</sup>

On the basis of these extrapolations, the social consequences were not altogether unexpected. After all, a woman by definition would have inherited an inalienable incapacity for development from her mother “because of her sex”, whilst any peculiarities inherited from her father would “lie dormant in her organism, like vitalised but ungerminated seeds” ready to be reintroduced when she herself became a parent of a son.<sup>60</sup>

Dr Roberts challenged the notion of relative fervour and instead suggested that sex was determined not by degrees of ardency, but by the “greater vigour and maturity of either parent”. This determinant did not rely on enthusiasm or condition, but rather on the pressure to survive in the struggle for existence. In other words, nature would invariably favour the strong and eliminate the weak. Over time, evolution had granted energy and dynamism to sperm cells and this acquired vitality could be called to action particularly in times of economic exigence. The female germ cell by contrast, showed little inclination to alter or adapt to changed circumstances since “it possesses

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<sup>58</sup> Starkweather, *The Law of Sex* esp. Ch. 6 “‘Superiority’ the Controlling Principle of Sex’

<sup>59</sup> Mortimer Granville, ‘A Note on Intention’

<sup>60</sup> *ibid.*

a strong inherent disposition to resist change, and that it will be destroyed rather than accommodate itself to very marked changes in the conditions of life".<sup>61</sup>

The respective vigour of the parent featured in Maudsley's writings too. He had noted that the offspring of an old male and a young female resembled more the mother in proportion to her level of vigour and her husband's degree of decrepitude. A similar state of affairs was mirrored in the farmyard. It had been observed that when very young rams were put with vigorous females, the results would show a preponderance of female lambs, and vice versa. Yet for reasons that remained unclear, in the case of humans, neither race nor vigour could expect to triumph. This was testified by male Danes who had married females from the east; the result always produced children of the European type, the reverse never being the case. The enormous varieties existing in the human species should have offered sufficient vindication that "extremes do not combine well together".<sup>62</sup>

But it was not only Maudsley who appeared to harbour a repugnance for inter-racial and inter-cultural intercourse, warning of the consequences. In assuming the determining powers of race, Nisbet believed that as a rule crossed races were more or less inferior to their best original stock. He cited the example of the offspring of a white man and a Negress who might well be morally and physically equal to the white man, but overall he found that the father's qualities suffered deterioration in the child.<sup>63</sup> It seemed therefore that the female's contribution to her progeny was either so insignificant that it barely left its mark, or so flawed that it compromised levels of

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<sup>61</sup> Roberts, 'Nature's Plan'

<sup>62</sup> Maudsley, 'Considerations with Regard to Hereditary Influence' Vol.8 p495; Maudsley, *Pathology of Mind* p94

<sup>63</sup> Nisbet, *Marriage and Heredity* p122

development. As for the distinction between sperm and ovum, Maudsley spoke of the “highest chemical dignity” invested in the constitution of semen with “a function which appears almost miraculous” that one should not be surprised to learn that “a single spermatozoon may contain the potentiality of a Socrates or of an idiot”.<sup>64</sup> This idea of mismatching and imbalance, even at the cellular level with the male exercising influence whilst the female remained the passive recipient, extended into even more resourceful and fertile territory.

That a woman was in a permanent state of subjection could not have found better expression than through the bizarre spectre of her once and for all unalterable ova. The superiority of the sperm together with the dominance of the direct line of inheritance made possible the belief that at the time of her first fertile intercourse a woman’s full quota of eggs was permanently stamped. In much the same way as a virus sets to work after a live vaccine has been given, so it was thought that a first husband ‘laid claim’ as it were to all his wife’s ova, and this operation isolated and protected each one of her eggs against future corruption. The influence of a previous mate on the progeny produced by a subsequent one from the same mother was referred to as *telegony*.<sup>65</sup> Resonances with property and matrimonial law rang clear, for however hard a woman tried to break free from the influence of her husband, she would always remain in his thrall.

Dr. Alexander Harvey explained the action of the ‘vaccine virus’ in terms of an antidote to the pernicious effects of a union between an Aboriginal female and a

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<sup>64</sup> Maudsley, ‘Considerations with Regard to Hereditary Influence’ Vol.8 pp500-1

<sup>65</sup> Gould, G and Pyle, W *Anomalies and Curiosities of Medicine* The Julian Press: New York (1896) pp86-7

European male, as it “render[ed] the system incapable of being again affected by the poison”<sup>66</sup> (an excessive description of any subsequent male Aborigine). Perhaps predictably this event did not appear to operate in reverse. Several writers remarked on this curious influence. Somehow or other the nature of the first male seemed permanently and obstinately to modify the female system so that her own power of influence could never be able to assert itself in however many ensuing unions she might enjoy.<sup>67</sup>

Harvey was able to explain further the permanent impression made by the semen of the first male by introducing the idea of a co-mingling of parental blood. Through a process he termed ‘inoculation’, he suggested that as some maternal blood passes to her foetus a portion of foetal blood returns to her system. This returning blood carries with it certain qualities that have derived from the male parent and these peculiarities “are thereby so engrafted on the system of the female, as to be communicable by her to any offspring she may subsequently have by other males”.<sup>68</sup>

However Charles Darwin’s younger cousin the Victorian polymath Francis Galton (1822-1911), emphatically not a Lamarckian, found great difficulty in explaining any operation that involved the transmission of acquired characteristics, remarking with an unmeasured turn of phrase that “it must be recollected that the connection between the unborn child and the mother is hardly more intimate than that between some parasites and the animals on which they live”. Furthermore, given that a woman’s complete quota of ova “were actually or potentially present before she was born”,

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<sup>66</sup> Harvey, *On the Foetus in Utero* p8

<sup>67</sup> Sedgwick, ‘On the Influence of Sex in Hereditary Disease’ Vol.32 pp183-4

<sup>68</sup> Harvey, *On the Foetus in Utero* p3

how could influence be exerted after the event?<sup>69</sup> But Henry Maudsley saw things in much the same light as did Harvey. Perhaps having in mind the current debates on land law, he contended that since the sperm was endowed with such potency and enjoyed such exalted status, the moment it penetrated the ovum its wonder was such “that the female has been more or less strongly impregnated with its character, and may henceforth communicate its influence to all the ova which she produces”. Maudsley’s contention was that “children born to a second husband may have physical and mental traits of a first who is mouldering in his grave”.<sup>70</sup>

Maudsley, in common with many medical men often spoke of animal husbandry in the same breath as the human female’s copulatory influence. For instance the surgeon and pathologist to the St. Marylebone Provident Dispensary William Sedgwick (1821-1906) who had a strong interest in hereditary disease, cited evidence gathered from zoologists and stockbreeders. He was able to show that the female of any animal will have her system permanently modified by a first pregnancy “for it is the first union which chiefly impresses itself on the succeeding offspring”.<sup>71</sup> As corroboration, he repeated the well-rehearsed case communicated to the President of the Royal Society in 1821 by Lord Morton whose mare was covered by a quagga, a spotted African ass, and subsequently by horses of pure breed. All future offspring of his mare continued to show traces of the quagga. Thus “when a mare has had a *mule* by an ass, and afterwards a *foal* by a horse, the foal exhibits traces of the ass”.<sup>72</sup>

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<sup>69</sup> Galton, F *Natural Inheritance* Macmillan & Co.: London (1889) pp15-16

<sup>70</sup> Maudsley, ‘Considerations with Regard to Hereditary Influence’ Vol.8 p503

<sup>71</sup> Sedgwick, ‘On the Influence of Sex’ Vol. 32 p183

<sup>72</sup> *ibid.*

This strange state of affairs carried with it the particularly noxious sting for the human female already noted by Harvey. When there had been fertile copulation involving those of different races, as for instance between an Aboriginal female and a European male, “the native female is found to lose the power of conception on a renewal of intercourse with the male of her own race, retaining only that of procreating with the white man”. This phenomenon, as Sedgwick understood it, was brought about by the permanently affected blood that was “never as it were to be washed out”.<sup>73</sup>

According to Nisbet, (clearly having in mind the state of the nation’s genealogy) “breeders of animals are well aware of the danger caused to the purity of a stock by a single case of promiscuous crossing. No work on breeding is complete without reference to the famous quagga colts”.<sup>74</sup> The case he recounted arose in 1815 when an English chestnut mare was crossed by a spotted African ass known as a quagga and gave birth to a spotted mule. When over the following decade she was crossed by Arab stallions, each pregnancy resulted in a spotted colt. Maudsley was also familiar with this case, remarking that breeders are so alert to these dangers “that an inferior horse is not permitted to cover a good brood mare, lest she be thereby spoiled for breeding”.<sup>75</sup> As Harriet Ritvo has explained, “the central task of breeders was to manage the sexual relations of their animals”. But that was merely the half of it. For Ritvo went on to add that breeders “clung tenaciously to this doctrine, perhaps because, weak though it might be as a predictor of the results of unsanctioned animal

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<sup>73</sup> *ibid.* pp183-4 (orig. italics) The quagga was a relative of the zebra and became extinct late in the nineteenth century.

<sup>74</sup> Nisbet, *Marriage and Heredity* p128

<sup>75</sup> Maudsley, ‘Considerations with Regard to Hereditary Influence’ Vol.8 pp502-3.



unions, it precisely expressed the metaphorical consequences of such lapses by human females".<sup>76</sup>

Women who were clearly at the receiving end of this discourse, sharing a common identity with their errant bitch counterparts, were having the circumstances of their sexual life scrutinized and to an extent orchestrated in order that they complied with the standards expected of them. Along a parallel track, Francis Galton argued that mixed types suggested sterility, illustrating his claim with the somewhat overworked and rather unhelpful analogy of blending a four-wheeler and a hansom; "it would have to run on three wheels and the halfway position of the driver would be on the roof". Galton goes on to cover all these permutations by stating that it would be an equally impossible blend "between an omnibus and a hansom, and it would be difficult between an omnibus and a four-wheeler".<sup>77</sup> So from whichever angle we choose to look at this, the politics of race and gender were now well and truly hooked up to the overarching themes of general degradation and impairment.

What today would be termed sex-linked inherited disorders, were understood as sexually limited diseases or those that displayed sexual preference. It was recognised that certain diseases were limited in appearance to one sex whilst their transmission was restricted to the other. In the case of haemorrhagic diathesis (haemophilia), it was clear that women were responsible for its manifestation in their male descendants. However, since the accepted theory of the role of recessive and dominant genes was yet to be discovered, it is interesting to reflect on how medical men could account for

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<sup>76</sup> Ritvo, H 'The Animal Connection' p74, p78. See also Ritvo, H *The Animal Estate: The English and Other Creatures in the Victorian Age* Harvard University Press (1987) esp. the introduction.

<sup>77</sup> Galton, *Natural Inheritance* pp31-2

the apparent failure of the male to exercise his more potent influence. Perhaps the most compelling escape route was provided by that rather mysterious expedient 'atavism', a term used to explain an inexplicable phenomenon.

Atavism was variously understood as "the principle of latent inheritance", as simply "an instance of memory in reproduction", or "elements of an older ancestry [which] compete with those of the immediate family". The well-recorded case of the madness of George III was used to illustrate the phenomenon. Here, it was stated, was an instance of a 200 year interruption which had its origin in the "blind, old and lost of wits" Duke William of Lünenburgh, the progenitor of the House of Hanover. The 'madness', which later transpired to be a case of porphyria, showed itself in the first and eighth generation, and was nowhere to be seen in the intervening years. In this case, the remote atavism displayed a precise recollection of its origins, and like a memory, the recall of distant events is often stronger than that of more recent ones.<sup>78</sup> But whatever the agency, it was well to remember that in the case of a male child, "the force of the male parent preserves the constitutional type".<sup>79</sup>

For Galton, any environmental arguments were given short shrift. He was of the opinion that the races best fitted to occupy the land should be encouraged to marry early in order "to breed down the others in a very few generations". So he was clearly delighted when it was decided that Fellows of Oxford and Cambridge colleges could marry and thus ensure that "scholastic success, running strongly in families, could

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<sup>78</sup> See Sedgwick, 'On the Influence of Sex' Vol.32 p186, p197; Oliver, 'The Physiology and Pathology of Inheritance' p1338. Virtually every writer on the subject of inherited defects referred to atavism, and invariably understood it in these terms. See also Sedgwick, W 'On the Extended Influence of Atavism in Hereditary Disease' *BMJ* ii (1862) pp992-3

<sup>79</sup> Mortimer Granville, 'A Note on Intention' p651

increase". In his estimation, the ancient custom of entrusting education to celibate priests was as ill-judged as preventing winning horses from becoming sires, or the best fillies being withdrawn from active work for the sole purpose of breeding.<sup>80</sup> Indeed one historian tells us "not only did Galton assign some of his harshest treatment to the divines, he also lamented the destructive influences of the Catholic church in the Middle Ages". Moreover, since much of Galton's hereditary theory was at odds with long-held Christian beliefs, "his writing added to the canon of scientific thinking that threatened the omnipotence of traditional faith".<sup>81</sup>

Degeneration, reversion and atavism each had tied to it notions of a lack of expectation and anti-climax, the polestars of progress and improvement. Consequently nineteenth-century male intellectuals viewed with alarm all developmental quirks or evolutionary hesitations. "Nothing perishes absolutely in the universe, not even a gust of passion" intoned Maudsley, adding that striving after a mental ideal is akin to the body ridding itself of a virus and reverting to a sound type.<sup>82</sup> Even though he stood firm in the belief that there existed a huge evolutionary gap between man and animal, for him there was no escaping the fact that the human had to pass through all the primitive-type stages in his embryonic development. Thus man's proximity to earlier forms of life revealed just how close was the shave between regeneration and degradation. Pathological characters, which may well have lain dormant for some generations, were kept in reserve to be recollected when prompted, like the sharpness of a memory.

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<sup>80</sup> Galton, F *Inquiries into Human Faculty and its Development* Macmillan & Co.: London (1883) pp323-30

<sup>81</sup> Gökyiğit, E. A 'The Reception of Francis Galton's *Hereditary Genius* in the Victorian Periodical Press' *Jnl. of the History of Biology* Vol.27 No.2 (Summer 1994) pp215-40

<sup>82</sup> Maudsley, 'Considerations with Regard to Hereditary Influence' Vol.8 p501 & *ibid.* Vol.9 p512. Not infrequently Maudsley preferred the other side of the coin: *ex nihilo, nihil fit* – from nothing, nothing comes.

Strictly speaking, the enigma of atavism was not thought of as a misrouting or out-of-control response to an ancestral pathology. Rather it was understood as a mechanism which had a propensity to be called into action when nature deemed it necessary to point up developmental anomalies

**Fig.14** Caricature of Charles Darwin with earthworm, Punch, 1881. *Punch's* customary irreverence had not been foresworn in this cartoon of Darwin having reduced himself to the level of a humble earthworm following his findings published in *The Descent of Man*, 1871

A break in evolutionary continuity acted very much as a reminder to women that their intellectual and social inferiority was inherently regulated, and that their pauper status could be relied on to break through at any time. Maudsley noted that every living

creature inherited its plan of being as well as its destiny; “it, in fact, inherits its species”.<sup>83</sup> In other words, all that is contained in our corporeal nature marks us for life, rather like a naturally ordained caste system. Kind produces its kind, - animals generate animals, lunatics beget idiots.

As far as genius was concerned, most thinkers working within medicine and science with the notable exception of Francis Galton, considered it to be seldom inherited. Its rarity was viewed in the same way as any extreme deviation from type, even though it occurred at the preferred end of the evolutionary spectrum. The Italian physician and criminologist Cesare Lombroso (1835-1909) held that genius was a condition marked by an abnormal degree of oversensitivity where there were displays of either excessive energy or excessive fatigue.<sup>84</sup> Henry Maudsley thought it improbable that genius be inherited given its extraordinary deviation from type and the likelihood that such an extreme would be unable to propagate.<sup>85</sup> The repugnance nature displayed towards extremes was invariably resolved with a return to the mediocrity of the population mean, or at least to modification. The ability of nature to right itself, despite all human efforts to upset its course, alerted medical men to the need for great vigilance in their analysis of morbid influences. Even Galton, who devoted a whole book to the statistical evidence in support of hereditary genius, conceded that extraordinary characters in families always reverted to an average standard within a few generations.<sup>86</sup>

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<sup>83</sup> Maudsley, ‘Considerations with Regard to Hereditary Influence’ Vol. 8 p484

<sup>84</sup> See Martindale, ‘Degeneration, Disinhibition, and Genius’ p177. Galton remarked that “the relation between genius ... and insanity has been much insisted upon by Lombroso and others”. See the prefatory chapter to the 1892 edition of *Hereditary Genius*

<sup>85</sup> Maudsley, *Pathology of Mind* p96

<sup>86</sup> Galton, F *Hereditary Genius: An Inquiry into its Laws and Consequences* [1869] Peter Smith: Gloucester, MA. (1972)

Usually the occurrence of atavistic descent in disease was found to be effected through the female line. According to Dr. Charles Roberts, the boy may be father of the man, but it is the girl who is mother of the race: “for to her is entrusted not only the accumulated hereditary characteristics of our ancestors, but the means of transmitting them, and, indirectly, of acclimatising and accommodating the race to new and varying conditions of life”.<sup>87</sup> The sympathy that was understood to exist between the cerebral and reproductive systems gave to biology a spiritual expression in any discussion relating to the influence exerted by mothers over their sons. Although we have already noted that man was favoured in nature, it also appears that if a woman stayed true to her arrested development and acquiesced with grace in her enfeeblement, she could have a hand in maintaining that superiority. Such acts of magnanimity have been emphasised by Jordanova, who wrote “in assigning to women the role of nature ... good women could save and civilize a nation as well as their own families”.<sup>88</sup>

It was a commonplace amongst medical men that intellectual ability was an attribute that required security and assurance against the intrusions of the baser elements of economic life. In the words of one historian, there existed a mid-Victorian certainty that “private exertions were the key to public progress”,<sup>89</sup> and as discussed in the introduction, women were considered essential to the maintenance of their vigorous and successful menfolk. Whilst the exemption from the labour market of women other than those of the lower classes was said to constitute the highest form of

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<sup>87</sup> Roberts, ‘Nature’s Plan’ p928

<sup>88</sup> Jordanova, L *Sexual Visions: Images of Gender in Science and Medicine between the Eighteenth and Twentieth Centuries* University of Wisconsin Press (1989) p83

<sup>89</sup> Oppenheim, J “*Shattered Nerves*”: *Doctors, Patients, and Depression in Victorian England* Oxford University Press (1991) p292

civilization - an endorsement both of her intellectual barrenness and her husband's well-lined pockets, - her role as defender of hearth and home was portrayed in glorious terms.

To some extent, the development of specialized functions over time was seen as mitigation against unduly ambitious females, those whom Maudsley branded "hermaphrodite in mind".<sup>90</sup> We are told that man imitated nature by leaving his acquired property to his children, yet there seemed to be a grudging recognition of the debt owed to selfless mothers who "will be found to have been of that quiet self-contained, self-denying kind ... concerned mainly in promoting the welfare of the family".<sup>91</sup> With only a given level of nerve force at her disposal, the conflict between a woman's selfish hankerings and her son's natural entitlement would be favourably resolved only if sufficient emphasis was placed on the influence of early home training.

A woman had to recognise this need and step aside to allow her son sufficient space in which to flourish. For the natural ability of a good and able mother "finding but limited scope within the confined sphere of her maternal and domestic duties, causes her to stimulate her son to attempt a career and to achieve results which she herself can only aspire to in imagination; hence it is that able men are often the sons of clever women".<sup>92</sup> Here we see that any excess of intellectual talent that was found to exist in the female had to be split off from her normal and rightful allocation, and that surplus then projected onto her son.

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<sup>90</sup> Maudsley, 'Gulstonian Lectures' p475

<sup>91</sup> Maudsley, 'Considerations with Regard to Hereditary Influence' Vol.8 p491, p497

<sup>92</sup> Oliver, 'The Physiology and Pathology of Inheritance' p1336

This 'natural' event was fully in step with women's (still very limited) property rights and her (slowly improving) legal status at marriage. So it is not unexpected that medical men's anxious state of mind would have warned against women putting to use something that was not rightfully theirs. Indeed it suggested to Roberts and other medical men in the early 1880s that the drive to open up intellectual occupations to women was resulting in their sterility, or possibly worse, the over-production of female offspring.<sup>93</sup> These sentiments were echoed the following year when the *Lancet* declared that sons of mothers "who have been distinguished for *special* intellectual attainments" are as a rule, mediocre performers in the world of work; but male children of mothers "notably characterised by *general* intelligence, without special talents are commonly distinguished for intellectual ability". What was referred to as 'special brain work' tended to the exhaustion of cerebral development, which if prudently conserved would find itself expressed in the perfection of her son.

Again we are alerted to how the notion of the incommensurability of the two sexes was able to weave together the scientific with the social. *The Lancet*, never well disposed to women's intellectual aspirations, warned against dangers to the race "for the sake of a little ephemeral distinction". A woman could never hope to be educated to the level of men since "the total amount of cerebral tissue available for the production of a highly educated mind organ is not so great in the case of the average female". Perhaps it would be better understood if it was taken as a symbiotic relationship of power over influence; for its success depended on the mother's

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<sup>93</sup> Roberts, 'Nature's Plan' p928



“integrity in the discharge of the duties nature has devolved upon her”.<sup>94</sup> There should be no question of a woman usurping a man’s place. Proper modesty should be exercised to protect against “the misleading blandishments of her unsisterly sisters”.<sup>95</sup> From the same song sheet Maudsley intoned “are not our intellectual women commonly unmarried or barren?”<sup>96</sup>

The distinction between behavioural and what we would now know as genetic transmission was argued against the nature/nurture standard, or more specifically between the laws regarding the transmission of characters acquired during an individual’s lifetime, and those that were transmitted by hereditary descent. Indeed all branches of the biological sciences had debated this question long and hard. Both the plant kingdom and the animal kingdom were ransacked for evidence of the transmission of acquired characteristics, but none was found. Yet throughout the Victorian period, many if not most scientists and members of the medical community abided by Lamarck’s theory as the mechanism for evolution. At the close of the century one medical man who seemed alarmed by the continuing confidence in the doctrine referred to “evidences of this unedifying state of things [that] abound in medical literature”.<sup>97</sup> The hypothesis that acquired characters were transmissible clearly offered a degree of control to human agency, especially in the realm of moral feeling. Yet however much biologists and zoologists began distancing themselves

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<sup>94</sup> ‘Influence on Women’ *Lancet* p379 [original itals.]

<sup>95</sup> ‘Woman’s Place in Nature’ *Lancet* ii (1881) p599

<sup>96</sup> Maudsley ‘Considerations with Regard to Hereditary Influence’ Vol.8 p497

<sup>97</sup> Reid, A ‘The Evidence For and Against the Transmission of Acquired Characters’ *BMJ* ii (1899) pp833-4

from that view, the greater appeared the determination of medical men to guard their positions by invoking non-scientific factors when regarding evidence of disease.<sup>98</sup>

The numbing inconsistency surrounding the interpretation of the laws of inheritance, and the equivocation that defined them was certainly not helped by the idea that morality was transmissible and not an invariable endowment. One physician thought that a man's psychological condition was directly related to the influence of his surroundings, justifying the belief that as with bodily characteristics, "an elaborate set of social sentiments is more or less transmissible".<sup>99</sup> For Maudsley, those bereft of moral feeling were "most likely sucked in suspicion and egoism with the mother's milk". Anyone destitute of good moral feeling was himself defective and would mark the beginning of race degeneracy, and his children themselves would become actual morbid varieties.<sup>100</sup>

The strong attachment to Lamarckian ideas allowed an almost blind trust in the ability of the family medical adviser to act as horticulturist, planting and grafting, growth-stimulating and training strong branches across weaker ones to foster characters that might repair or repress the young organism's defective traits.<sup>101</sup> Dr. Reid, one of the occasional lone voices from the back of the medical ranks who had called into question the "unedifying state of things", argued that only those not in the swim clung to the wreckage of a washed-up theory. In the same way as a child's head is not derived from his parent's head, nor his arms from a parent's arms, it must be that "the

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<sup>98</sup> Bowler, *The Eclipse of Darwinism* esp.pp66-7

<sup>99</sup> Nisbet, *Marriage and Heredity* pvii

<sup>100</sup> Maudsley, *Pathology of Mind* p102

<sup>101</sup> Mortimer Granville, 'A Note on Intention' p652. See also 'Education Based on the Laws of Heredity' *Lancet* ii (1882) p714

whole of him takes origin in a single cell of the parent - the germ". This denied the possibility of the transmission of acquired characters unless the structure of the spermatozoon was so altered by an acquired defect that it became inborn. It was so preposterous an idea that magic would have had to play its part.<sup>102</sup>

This view was very close to that of August Weismann (1834-1914) the eminent German biologist who taught at the University of Freiburg from 1866 until 1912. In the late 1880s Weismann launched a strong assault on the Lamarckian doctrine. He argued that although any number of influences may have an effect on the body, they "cannot produce any effect in the transformation of the species, simply because they can never reach the germ-cells from which the succeeding generation arises".<sup>103</sup> Weismann clinched Galton's argument, that nurture did not alter nature, and that natural equality was a pretentious claim. Ruth Schwartz Cowan, an historian of science, technology and medicine has said of Galton, "throughout his career the noninheritance of acquired characters – the impotence of nurture – remained the fundamental *a priori* assumption of both his biological and social theories".<sup>104</sup> Heredity enjoyed absolute independence of environment. No amount of training or effort could direct the course of evolution. And as to intellectual enterprise, no amount of conceit will alter the fact that man must "limit his undertakings to matters below the level of his reach," for it is there he will find "true moral repose".<sup>105</sup>

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<sup>102</sup> Reid, 'The Evidence For and Against'

<sup>103</sup> Weismann, A *Essays Upon Heredity and Kindred Biological Problems* Clarendon Press: Oxford (1889) p388

<sup>104</sup> Schwartz Cowan, R 'Francis Galton's Contribution to Genetics' *Jnl.Hist. Biology* Vol.5 No.2 (Fall, 1972) pp389-412

<sup>105</sup> Galton, F *Hereditary Genius* pp57-8 and the introduction.

Yet the urge erroneously to assign diseases of the nervous system to insane progenitors proved irresistible in the face of any valid or even cogent alternative explanation. The embodiment of *mens sana in corpore sano*, so beloved of nineteenth-century medical men, drove them down the road signposted “lowered nervous organisation of the family stock”.<sup>106</sup> Dr. Francis Anstie (1833-1874) the distinguished neurologist to the Westminster Hospital did not consider that man’s physical and moral nature was merely the plaything of inexorable fate. Although he maintained that alcohol possessed an agency equipped with the most depressing power capable of decimating the family stock, other agencies displayed seriously degrading effects too. Sexual excess, chronic hunger and lack of education were in his eyes responsible in varying degrees for the production of “neurotic types”. Only masturbation, it seemed “could act unsupported, and that tends to personal sterility rather than neurotic children”. The young, especially girls, were particularly vulnerable to the acquisition of bad habits, often picked up at school. Frequently, he argued, it was “the result far more of impulse, derived from innate temperament than of accidental companionship with dirty-minded children”. Anstie could not conceive of the spontaneous occurrence of diseases such as epilepsy or the more intractable forms of neuralgia, “even though no traceable result can be recognised in the second generation”. For like an old stain, it could not be wiped out.<sup>107</sup>

Maudsley’s contention that “the complete history of an individual should begin with what has happened, not only before he was born, but even before he was begotten”,

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<sup>106</sup> Anstie, F ‘On the Hereditary Connections between Certain Nervous Diseases’ *The Jnl. of Mental Science* Vol.XVII, No.80 (Jan. 1872) pp471-84

<sup>107</sup> *ibid.* pp475-84

firmly shut the door against any prospect of repair or improvement.<sup>108</sup> William Sedgwick had also noted that “in the most strongly marked forms of hereditary disease, uninterrupted descent for several successive generations is the exception rather than the rule”, and even when the offspring appears free from disease it has probably “been reserved to transmit by atavistic descent”. Furthermore, all Sedgwick’s observations suggested that in cases of interrupted descent, the transmission by females was more common than by males.<sup>109</sup> Endemic influences featured here also, either to develop disease or to modify its course. According to Granville, birth did not mark a notable event as far as laws of inheritance and development were concerned. An individual entity merely embodied the aggregate of either transmitted or revived ancestral energies.<sup>110</sup>

That the sins of the fathers were visited on their sons offered a convenient, yet ultimately illusory escape from a difficulty that lacked adequate resolution and that could only be explained in perverse terms. Whilst some discounted the notion of external agencies influencing the production and transmission of mutilations, whether in the next or in succeeding generations, the *Lancet* spoke for many medical men who remained wedded to the belief that their proper advice would teach against “the union of persons possessing certain hereditary tendencies to one or other class of constitutional disease”. So long as that advice was heeded, there would be a noticeable reduction in both the numbers in asylums as well as other disappointing classes of cases that came under the physician’s care.<sup>111</sup>

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<sup>108</sup> Maudsley, ‘Considerations with Regard to Hereditary Influence’ Vol.8 p495

<sup>109</sup> Sedgwick, W ‘On the Influence of Sex in Hereditary Disease’ *The British and Foreign Medico-Chirurgical Review* Vol.31 (Jan-April 1863) p461, and *ibid.* Vol.32 (July-Oct. 1863) p173

<sup>110</sup> See Mortimer Granville ‘A Note on Intention’ p652

<sup>111</sup> ‘Education Based on the Laws of Heredity’ *Lancet* ii p835

However, between October 1887 and January 1889 August Weismann's experiments conducted on white mice became very important in delivering the *coup de grâce* to Lamarck's hypothesis. Weismann wanted to put to the test the transmission of mutilations and chose mice as his subjects because their tails were uniform in length and there were no known cases of rudimentary tails occurring in mice. He began by removing the tails of seven females and five males and within one month sixteen mice were born, each with a perfect tail. These young went on to breed after they themselves had had their tails cut off. All in all, over nine hundred mice were produced by five generations yet there was not even one instance of a tailless mouse being born to altered parents, neither did any of them have a rudimentary tail, nor even one slighter shorter than mice descended from unamutilated parents.<sup>112</sup>

Weismann recognised that the number of generations he had procured may have been insufficient to reveal gradual alterations and therefore did not prove the argument conclusively. But he did make the point that certain practices, such as circumcision or foot binding that had taken place since time immemorial, had never led to mutilations in the newborn child.<sup>113</sup>

Yet by and large physicians still appeared reluctant to renounce their hand or indeed what they considered their responsibility in influencing the debilitating course of

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<sup>112</sup> Weismann, *Essays Upon Heredity* esp. Ch.8 'The Supposed Transmission of Mutilations'.

<sup>113</sup> It is worth looking at Koestler, *A The Case of the Midwife Toad* Random House: New York (1971). The author tells the story of a most serious scientific controversy that took place between followers of Lamarck and the neo-Darwinists in the early years of the twentieth century. The case concerned the alleged faked results of experiments conducted on the midwife toad by the Viennese biologist Paul Kammerer. He claimed that the nuptial pads of the male midwife toad, used to grip the female during mating, were proof of the inheritance of acquired characters. However the neo-Darwinists denied their existence, and finally after a successful campaign to discredit him, Kammerer shot himself through the head on 23 September 1926.

many diseases. They remained scathing in their condemnation of those who offered “succour to the infirm and unfit”, and “the industrious citizen ... called upon to support the helpless, worthless offspring of the drunkard, the imbecile, the criminal, and every other wastrel who chooses to become a parent”.<sup>114</sup> In spite of advances in the natural sciences, medicine found itself unable to contemplate seriously new ways of thinking. Lamarckian theory, first published in 1802, had stated that characteristics acquired during the lifetime of an individual could become established as permanent features in response to a changing environment. In this way the disappearance of a part through disuse could be plausibly explained. Wide acceptance of that theory lent many medical men an undue confidence in their ability to mediate in the course of an inherited disease or to effect a favourable outcome. Thus until the laws governing inheritance had been properly formulated, women could be viewed as both promoters of disease and at the same time hapless recipients of superior influences.

The primary objective of this chapter has been to demonstrate the range of thinking that was able to flourish precisely because Mendelian genetics remained a matter of ignorance. It has been clear that there were almost as many opinions on the inheritance of characteristics as there were voices. So although there could be no general agreement, medical men did feel able to have the measure of events and thereby be competent to advise and warn. Bearing in mind that man’s emergence from a primordial soup was a stark reminder of his lowly origins, it was not unexpected that medical men wished to establish a significant distance between the civilized and those of mean extraction.

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<sup>114</sup> Nisbet, *Marriage and Heredity* p216; Strahen, *Marriage and Disease* p21

With the support of Lamarckian theory, a number of ideas were made plausible for the management of transmissible traits. Women were especially liable to notions of use and disuse because of regular disturbances to their specialized systems. Herbert Spencer spoke for many in his firm belief that intellectual women would lose their capacity to suckle children, let alone bear them. However, medical know-how and the control attached to it remained very vulnerable to advances in allied disciplines. Rather than remain in the slipstream, many in the medical field attempted to enhance their professional standing by adapting knowledge gleaned from those allied fields and applying it to a medical setting.

In the following chapter we encounter precisely how this risk to medical expertise encouraged some doctors to extend the applications of electricity to the treatment of women's diseases. Bringing electricity into the realm of anatomy and physiology allowed medical men to claim proficiency and knowledge where before none existed. As in the previous chapters, we will see that doctors with a keen interest in the relationship of electricity to the human body firmly believed they were best placed to determine the path to health. For women, again this involved the medicalization of otherwise normal events and the intrusion into areas of the body that hitherto had escaped the physician's reach. Above all though, the application of electricity to medicine can be seen as another stage in medical men's putative understanding of the female condition and their considered duty, if not right, in correcting imperfection and deficiency.



## CHAPTER FIVE

### ELECTRICITY, AN EXCITING FLUID

“There are many whose careless employment of the agent in all kinds of maladies resembles rather the prescriptions of the middle ages, embracing every kind of material, – from man’s skull to sparrow’s dung, and from diamond dust to copper filings – in the hope that some one of them might be of use to the sufferer, and that the others might mutually counteract their several injurious effects”.<sup>1</sup>

From the mid-nineteenth century, science and intellectual authority began its slow move away from being part of a framework for educated discussion towards increased institutionalisation that could foster exclusive knowledge about the human body and its diseases. By the end of the century, medicine had become part of the rise of professional society, where the expert and his claims to knowledge were fenced off from the layman’s alternative, and hence unauthorized ways of knowing. This *cordon sanitaire* was a device created to protect professional control of the market and to ensure that it was “permeated by the professional social ideal ... a model of how society should be organised to suit a certain class or interest”.<sup>2</sup>

But for most of the period in question, indeed until the standing of the medical expert became readily perceived and well established, the borderland between what constituted legitimate and quack medicine remained both fluid and contested. Even

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<sup>1</sup> ‘The Therapeutic Uses of Electricity’ *The British Medico-Chirurgical Review* 23 (1859) p110

<sup>2</sup> Perkin, H *The Rise of Professional Society: England Since 1880* Routledge: London (2001) esp. Ch.1

after the passage of the Medical Act in 1858, which sought to establish a legal framework within which legitimate medicine alone could flourish, medical men remained uncertain regarding their professional status and insecure in their professional skills. For as the science of medicine was trying to establish itself through the acquisition and consolidation of expertise, the efforts of its promoters to secure these ends were everywhere undermined by a plethora of claims made by alternative practitioners “who transgressed what those in the saddle defined as true, orthodox, regular, ‘good’ medicine”.<sup>3</sup>

This chapter takes as its subject one particular form of therapy with which the majority of medical practitioners had little more than a nodding acquaintance. However, those medical men who were experimenting with this novel form of treatment believed their profession best qualified them to administer it. The medical application of electricity, known as electrotherapeutics, had been considered empirical, unsystematic and indiscriminate in the 1830s when great advances were being made in the field of electricity. Nevertheless the use of electricity in a medical setting did begin to assert itself from mid-century. Initially this was in response to its hitherto limited application that allowed quacks and medical galvanists to take advantage of its poorly defined status. Furthermore, in the early days electricity was frequently applied by medical practitioners to hopeless cases and administered indiscriminately without regard to the manner, form, or mode of treatment. But as the alleged therapeutic value of this new treatment became more widely appreciated, fresh ways of applying it began to have broader potential.

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<sup>3</sup> Porter, R *Quacks: Fakers & Charlatans in English Medicine* Tempus Publishing Ltd.: Gloucestershire (2000) p11

This potential was realised by a number of medical men when treating diseases peculiar to women. Many doctors working in the field of gynaecology, itself a fairly recent specialism, were intrigued by this new medical phenomenon and its feasibility as an additional mode of treatment. Hysterical paralysis and irregular menstruation were perhaps the more obvious targets for treatment since control over the medical applications of electricity, especially in these cases, needed to be tempered, circumscribed and brought within orthodox medical practice.

Nevertheless, these were still the palmy days of fringe medicine. Drugs continued to make up the nuts and bolts of the medical man's anodyne portfolio despite various regulatory laws having been passed to control the use of toxic agents such as strychnine, lead, antimony, arsenic - used in most tonics, and mercury - routinely prescribed for skin complaints and syphilis.<sup>4</sup> Yet these legal measures did not put an end to the use of heavy metals and compounds, nor did they restrict or inhibit their availability. In addition to the widespread use of dangerous drugs, many remedies were laundered, given false Latin identities and passed off as official. Shelves groaned under the weight of misnomers such as Daffy's Elixir, self-christened 'Tinctura Sennae' and Matthews Pills masquerading as 'Pilula Saponis Composita'.<sup>5</sup> However it must be remembered that most drugs did have a visible effect and on that account could be considered as 'working'. Medical men placed considerable emphasis on the efficacy of potions and purges precisely because they produced the required or expected response.

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<sup>4</sup> For example, the Arsenic Act of 1851, the Pharmacy Act of 1868 and the Sale of Food and Drugs Act of 1875. See Oppenheim, J *'Shattered Nerves': Doctors, Patients, and Depression in Victorian England* Oxford University Press (1991) p110

<sup>5</sup> Richards, T *The Commodity Culture of Victorian England: Advertising and Spectacle, 1851-1914* Stanford University Press (1990) pp179-80

As Charles Rosenberg put it, “purgues purged, emetics induced vomiting, opium soothed pain and moderated diarrhea”.<sup>6</sup>

The quickening pace of life, and the alarming spectacle of large numbers of human beings confined together in small urban spaces was demanding urgent attention. Nervous debility and enfeebled constitutions were two notable manifestations of the burdens of modernity, both indicating the need for some kind of strengthening regime to restore and replenish lost tone. In a political culture informed by *laissez-faire*, individualism and self-help, the field was wide open for quasi experts to indulge their customers with promises of healthier lives and to provide an antidote to the unwanted consequences of industrialization. The physician by contrast could not claim in advance to know whether the expected response to his therapy would prove of benefit to his patient. So although alternative therapies may have suggested merely a different approach, many of their revealed effects alarmed the medical establishment. A much clearer definition needed to be drawn between genuine prescriptions and what most medical men considered were misleading or bogus claims to knowledge.

In her admirable study of mesmerism for example, Alison Winter explains that far from being a marginal interest or a “cultural excrescence”, particularly in the 1830s and 1840s mesmerism was pervasive, both in Britain and elsewhere in Europe, acting as “a catalyst for competing assertions about the nature and seat of intellectual authority”.<sup>7</sup> Although some doctors did embrace mesmerism, essentially it was a lay practice and thus many of its aspects concerned if not appalled members of the medical fraternity.

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<sup>6</sup> Rosenberg, C *Explaining Epidemics and Other Studies in the History of Medicine* Cambridge University Press (1992) p15

<sup>7</sup> Winter, A *Mesmerized: Powers of Mind in Victorian Britain* University of Chicago Press (1998) p5

Most of those who were induced to submit themselves to mesmeric influence were women, but because of the nature of the unverifiable trance state, the power of the mesmerist inevitably had to yield to the testimony of the subject. Any incoming stimuli needed to be substantiated through the tacit cooperation and collusion of the mesmerized subject, quite unlike orthodox therapies where the effects were both expected and plain to see. It was therefore an undeclared stipulation for a successful *séance* that control shifted from the manager and dispenser of the influence to the untrained client. Whether such a tacit trade-off had unintended outcomes or not, granting this freedom did allow the subject the opportunity to feign all kinds of responses, often for the benefit and approval of the assembled company. In turn this interaction between the mesmerized patient and the audience gave *carte blanche* to a flagrant indifference to deferential probity.

Mesmerism however was not the only contender for gold in the rush for a psychophysical concept of health. There was a free market for quack preparations, but no means were at hand to police advertisements directed at a society obsessed with health and drilled in the fear that immanent disease was the norm. British periodicals relied heavily on this source of revenue and the development of the steam press in the early nineteenth century gave rise to large print runs and big audiences for popular science.<sup>8</sup> As far as electropathy was concerned, the *BMJ* was the only publication that refused to accept these promotions, constantly alerting readers to “electric quackery which is

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<sup>8</sup> See Gooding, D Pinch, T Schaffer, S (eds.), *The Uses of Experiment: Studies in the Natural Sciences* Cambridge University Press (1993) p18

today most rampant” and warning them, “beware of advertisements, and of medical galvanists without a diploma”.<sup>9</sup>

Most quack remedies targeted those labouring under the nomenclature ‘nervous complaints’, the “manufactured maladies of the late nineteenth century”.<sup>10</sup> The Weir Mitchell Therapy, named after its American creator Silas W. Weir Mitchell (1829-1914), aimed at treating neurotic conditions, chiefly hysteria and neurasthenia, which Mitchell attributed to the hectic pace in the ‘railroad age’. His regimen consisted of rest in bed, massage, nutritious diet, electricity and isolation. Following his graduation from Jefferson Medical College in 1851, Weir Mitchell established his rest cure for psychoneurosis that became a standard treatment for many decades both in the United States and England. As a system of therapy it was designed “to restore deranged mental processes through physical manipulations”. Women, especially those of a nervous temperament “who as a rule are thin and lack blood” were considered ideal candidates.<sup>11</sup>

Seclusion and rest underpinned much of the regime; “these hysterical and nervous people must be disentangled from the meshes of their old habits, and removed from contact with those who have been the willing slaves of their caprices”. No longer would they be a source of fascination, nor the focus for clinical curiosity. In addition to being separated from their families, these women, who clearly had eschewed their domestic obligations, were made infantine, confined to bed, fed like a child and forced to practice obedience and self-reliance. It was argued that these patients lacked a moral constitution and it had to be rebuilt by repairing their mental and physical aspects in

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<sup>9</sup> ‘Report on Modern Electric and Galvanic Instruments and Recent Developments in their Application’ *BMJ* i pt.4 (1873) p705

<sup>10</sup> Richards, *The Commodity Culture* p187

<sup>11</sup> Stretch Dowse, T *Lectures on Massage & Electricity in the Treatment of Disease (Masso-Electrotherapeutics)* Simkin, Marshall, Hamilton, Kent & Co.: London (1891) pp128-138

parallel ratios. By removing malevolent influences and combining the laws of the nursery with a course of massage, the patient would understand “that the nurse is the machine by which the doctor’s mandates are to be unhesitatingly and unflinchingly executed”. In this way it was hoped to tame those who had neglected the hearth and to reinstate them in their rightful setting.<sup>12</sup>

**Fig.15** The Holl portrait of Dr S. Weir Mitchell, 1929. Dr. Mitchell looking supremely confident and self-assured in this portrait executed some fifteen years after his death. Interestingly, Mitchell produced poetry as well as fictional work under the pseudonym of Edward Kearsley, after his father John Kearsley Mitchell (1798-1858), in order to keep his literary and medical careers separate.

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<sup>12</sup> *ibid.*

Rest cures, fattening policies and massage were considered important agents in replenishing nerve force and restoring the balance between mental and physical strength. In Weir Mitchell's own words, rest "means absence of all possible use of brain and body".<sup>13</sup> To prevent rest from being in any way harmful, for example by enfeebling circulation, weakening digestion, lessening appetite and constipating the bowels, Weir Mitchell frequently advised the daily use of induction-currents. He found it "a powerful tonic" when used in conjunction with massage, "except where the need to save expense is of the moment", for it enabled him "to fatten and redden the patient by a methodical system of overfeeding".<sup>14</sup>

For some patients, "the diet gradually increased, until it is common to see her take three meals as well as two quarts of milk, six to nine ounces of Hoff's fluid malt, and a variable amount of raw soup between meals and at bed-time".<sup>15</sup> The body economic had to be responsive to the laws of supply and demand, of insolvency and of expenditure. To offset economic outlay, self-maintenance and control were the order of the day.

The Institute of Medical Electricity (IME), operating from offices in Fitzroy Square in London's West End also offered methods to promote muscular development. Established in 1888 by Henry Lawrence, a Member of the Institution of Electrical Engineers, the IME is a fine example of private enterprise attempting to colonize medical territory, and having Viscount Templeton on the Board of Directors would undoubtedly have added lustre. Lawrence's patent electro-gymnastic apparatus was

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<sup>13</sup> Weir Mitchell, *S Lectures on Diseases of the Nervous System. Especially in Women* J. & A. Churchill: London (1885) p275

<sup>14</sup> *ibid.* p279

<sup>15</sup> *ibid.* p280



advertised as giving “almost innumerable forms of exercise, and in this way to aid the performance of many of the natural functions”.<sup>16</sup> It was alleged that the continuous current “facilitates tissue metamorphosis” and contributes “to the repair of exhausted muscle or nerve”. We do not know how this transformation was supposed to occur, but those who took advantage of the apparatus were charged the not inconsiderable sum of 5/= for a half-hour session.<sup>17</sup>

The IME had a portfolio of treatments and even arranged home visits from “qualified operators in massage”. Cases under treatment ranged from abnormal development of hair, to deafness, hysteria, writer’s cramp and through to lumbago and nervous excitement. It seemed that no condition resisted medical rubbing or massage, or indeed was contraindicated by any other treatment on offer.<sup>18</sup> The most exclusive of these correctives was Cataphoric Medication, a means of administering drug solutions through the skin by osmosis. The idea was to avoid involving the whole system by giving the drug locally. Patients were dosed with cocaine, iodine of potassium and solutions of mercury in the hope of curing liver complaints, rheumatic gout and eventually even lung diseases. At 21/= a session it was the most expensive treatment on offer.<sup>19</sup>

The tensions that arose around these alternative health-giving strategies focused on the medical man’s perceived value of gentlemanly conduct and personal rectitude, and what were considered the vulgar pretensions and exploits of the amateur. Especially among the metropolitan medical élite, the intellectual scope of Renaissance man

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<sup>16</sup> Institution of Electrical Engineers (IEE), London: Electrophysiology pamphlet EE SPT 116/7

<sup>17</sup> IEE list of fees SPT 116/5

<sup>18</sup> IEE SPT 116/11

<sup>19</sup> IEE SPT 116/8

continued to carry far greater currency than the technical assertions of self-taught pedants. The mere acquisition of skills, so it was argued, could never be a fitting substitute for a classical education, cultural attainments, and a deep respect for learning. Moreover, non-medical values were vaunted as priceless accoutrements in the cultivation of and acceptance to polite society. In this ambience, physicians were not only courted for their scholarly company, but acted as counsellors, offering advice on how best to lead a wholesome life.<sup>20</sup>

However, tensions on the economic front increasingly were keenly felt. As Anne Digby has noted, purveyors of quack remedies were no different from legitimate medical men when it came to making a living, and the consumer knew this.<sup>21</sup> Doctors were well aware that their claims to knowledge were being challenged on the open market and at the same time their income levels were being squeezed. It was clear that competition, however unsavoury, could not exist without the prospect of driving down earnings and worse still, exhausting the stock of potential patients. So notwithstanding financial cares, if the ideals and standards of the noble art were to be protected, they could not be allowed to cede to “the pedagogical claims of a new generation of basic science teachers”.<sup>22</sup>

It was in this climate that non-legal assertions about who had exclusive rights over health and disease took place. The 1858 Act had failed to enshrine in law what constituted legal medicine, despite the Act’s professed intention to halt the advance of

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<sup>20</sup> Lawrence, C ‘Medical Minds, Surgical Bodies’ in Lawrence, C & Shapin, S (eds.), *Science Incarnate: Historical Embodiments of Natural Knowledge* University of Chicago Press (1998)

<sup>21</sup> Digby, A *Making a Medical Living: Doctors and Patients in the English Market for Medicine, 1720-1911* Cambridge University Press (1994) pp36-7, p68; See also Lawrence, C ‘Incommunicable Knowledge: Science, Technology and the Clinical Art in Britain, 1850-1914’ *Journal of Contemporary History* (1985) Vol.20, p.503,p.505; Peterson, J.M *The Medical Profession in Mid-Victorian London* University of California Press (1978)

<sup>22</sup> Lawrence, ‘Incommunicable Knowledge’ p505

the quack army. Yet as the dissemination of useless, or at best perfunctory knowledge proceeded unabated, its wake churned up much deeper concerns than matters of medical etiquette or pressures on the wallet. It was not enough to deride the practitioners of fringe therapies as impulsive speculators or subversive commercialists. It came to be understood that medicine needed to be institutionalised and its practices removed from public scrutiny and from public discourse thereby protecting those who laid claim to what were defined as the legitimate forms of knowledge. Verbal flourishes and references to the ancients, however much admired in genteel circles, were no longer adequate to defend medical practices or to place limits on the range of understanding.<sup>23</sup> Public access to 'legitimate' medicine was to be severely curtailed, putting paid to future intrusions of ignorant opinions.

In examining the use of electricity as therapy, particularly after mid-century, my focus is not so much on electrotherapeutics *per se*, nor whether it achieved the results its enthusiasts claimed for it. Rather, I shall consider the employment of electricity in mitigating disease, especially female disease, as a device to make medicine more scientific, and as a means by which anxieties about the social and economic conditions facing those living in the later Victorian period were displaced into something more immediately intelligible and manageable.

The difficulty confronting those like celebrated biologist Thomas Henry Huxley (1825-1895), popularly known as 'Darwin's Bulldog' because of his defence of the theories of Charles Darwin, revolved around the still blurred distinction between applied science, and medicine as art. Huxley wished to see an enhanced role for a scientifically

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<sup>23</sup> Beer, G *Open Fields: Science in Cultural Encounter* Oxford (1996) pp204-12

trained expert and intellectual enabling him “to obtain a firm grasp of the great truths respecting animal and vegetable life”.<sup>24</sup>

On one count, admitting that clinical medicine could be made scientific “would be to dismantle a discipline and the patronage system on which it thrived”.<sup>25</sup> By the same token, it would blot out the medical man’s capacity accurately to reflect the human condition by reducing knowledge to a body of facts gleaned from a text-book. But on the other hand, unless medical men were prepared to keep step with the growing reservoir of scientific discoveries and grant their principles and prejudices far greater pliancy, they ran the very real risk of being left in the shadows of the physical and chemical sciences. This had been well recognised by Huxley who maintained that with the aid of modern chemistry and of electrical science, the physiologist had been offered “a more and more complete resolution of the grosser organs of the living body into physico-chemical mechanisms”.<sup>26</sup>

As one historian has explained, “ ‘men of science’ were ‘men’ before and besides their science”.<sup>27</sup> The noble intellect represented much more than moral and ethical righteousness, or bedside deportment, or experience and breadth of wisdom. It signified a sense of *esprit de corps*, a bulwark against the drive for specialization, which through its divisive nature was viewed as an ungentlemanly assault on the collective knowledge of one’s peers.<sup>28</sup> Expertise in one area necessarily denoted ignorance elsewhere, a charge frequently levelled at quacks and at those engaged in

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<sup>24</sup> Huxley, T.H. *Science and Culture and Other Essays* Macmillan & Co.: London (1882) pp348-9

<sup>25</sup> Lawrence, ‘Incommunicable Knowledge’ p505

<sup>26</sup> Huxley, *Science and Culture* p338

<sup>27</sup> Pickstone, J ‘Museological Science? The Place of the Analytical/Comparative in Nineteenth-century Science, Technology and Medicine’ *History of Science* (1994) Vol.32, pt.2, No.96 pp111-138

<sup>28</sup> Bynam, W *Science and the Practice of Medicine in the Nineteenth Century* Cambridge University Press (1994) esp.pp191-2

trade. To some medical men it was nothing short of anathema to be involved in, or somehow become associated with an activity that was designed to narrow the mind and that based itself on refutable hypotheses. New understandings may well have narrowed distances between sets of ideas, sharpened distinctions, and widened the possibilities for scientific primacy, but as Gillian Beer has pointed out, “ideas rarely remain intact when they change context”.<sup>29</sup> Given the unstable nature of scientific method, the question at hand was how to enhance and unify professional status without resorting to guesswork, displaying questionable competence, or succumbing to the dog-eat-dog ways of the marketplace.

In Britain, the growth of medicine as a scientific enterprise was a response to developments in allied sciences rather than a conscious reaction to heterodox pronouncements, although these undoubtedly provided a spur. Initially, the near absence of state funding for scientific research meant that it had a ‘Sunday afternoon’ feel to it, and although it could produce a chest-full of medals, strictly speaking it could not be spoken of as an intellectual activity. Unlike in France or Germany, science in Britain was defined very narrowly. It has been suggested that the English term ‘scientist’ reflected “a peculiarly restricted and hard-boiled conception of scientific knowledge and scientific activity ... [placing] the scientist further from wisdom, learning and insight, and closer to mere technique”.<sup>30</sup> When for example Dr. William Bird Herpath, a Fellow of the Royal Society was invited to speak at the 31<sup>st</sup> Annual Meeting of the British Medical Association held in Bristol in 1863, it was the first time that the subject of chemistry had been touched on by anyone at any similar gathering.<sup>31</sup>

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<sup>29</sup> Beer, *Open Fields* p228

<sup>30</sup> Barnes, B *About Science* Basil Blackwell: Oxford (1985) p9

<sup>31</sup> Bird Herpath, W ‘Address on Chemistry in its Relations to Medicine and its Collateral Sciences’ *The Medical Times and Gazette* ii (1863) pp173-80

Herpath noted at the outset that in spite of chemistry's "extensive bearing on all other sciences and branches of human knowledge", his "medical brethren" who had come to the meeting might show little interest and attention given the "purely technical character of the science".<sup>32</sup> But in defiance of such scientific indifference, advances in anaesthesia, microscopy and antisepsis, not to mention descriptions of conditions bearing the names of medical men who had first described them,<sup>33</sup> meant that in the long run, medicine would not need to rely on the wisdom and experience of the observer nor his stockpile of rhetorical devices. In other words, custody of the human body, both in health and in disease no longer had to enlist the protection of hubris or other indicators as criteria of proof, but on a distance created between the custodian of knowledge and the consumer of that knowledge, based on technical language.<sup>34</sup>

Electricity promised a way to regain control over a sickly constitution by giving the correct stimulus to a disordered body. It was of particular relevance for those suffering from nervous complaints such as tics, hysteria and a host of conditions associated with 'general debility'.<sup>35</sup> Alessandro Volta's invention of the battery in 1800,<sup>36</sup> and more importantly the discovery of the induced current by Michael Faraday (1791-1867) in 1837, offered the possibility of a system of therapy that allowed professional mastery to prosper without necessarily being impaired by the unseemly antics of the grey economy. Furthermore, electricity whether induced or constant, appeared to fit comfortably with the idea that the functioning of the body was guided by mechanical

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<sup>32</sup> *ibid.*

<sup>33</sup> For example, Richard Bright (1789-1858); Thomas Addison (1793-1860); James Parkinson (1755-1824); Thomas Hodgkin (1798-1866); Sir Charles Bell (1774-1842). See Firth, B and Whitworth, J (eds.), *Dictionary of Medical Eponyms* Parthenon Publishing Group: New York (1996)

<sup>34</sup> Beer, *Open Fields* esp. Ch.9

<sup>35</sup> See Morus, I, *Michael Faraday and the Electrical Century* Icon Books: Cambridge (2004) esp. ch.11

<sup>36</sup> The fame of Alessandro Volta (1745-1827) was such that he was made a Count, and in 1818 a senator of the kingdom of Lombardy.

principles, albeit complicated ones, rather like a system of levers and pulleys, acting and reacting. Electricity's power over muscles appeared to extend even beyond the grave.

**Fig.16** Stipple engraving of Michael Faraday, 1833. This engraving was made in the decade that saw Faraday at the height of his intellectual and technological powers. His early years as an errand boy and bookbinder's apprentice gave him the opportunity to read scientific books and ultimately realise his great achievements.

During the 1780's at the University of Bologna, biologist Luigi Galvani (1737-1798) performed experiments on frogs involving electric charges. He discovered that a charge applied to the spinal cord of a frog could generate muscular spasms throughout its body. Charges could make a frog's legs jump even if the legs were no longer attached

to a frog. While cutting a frog's leg, Galvani's steel scalpel touched a brass hook that was holding the leg in place. The leg twitched. Further experiments confirmed this result, and convinced Galvani that he was seeing the effects of what he called animal electricity, the life force within the muscles of the frog. At the University of Pavia, Galvani's colleague Volta was able to reproduce the results, but remained sceptical of Galvani's explanation. In 1818, Andrew Ure took the corpse of a Glaswegian murderer, connected it to a galvanic battery and electrified the body producing hideous grimacing and flailing of limbs.<sup>37</sup> In London many decades later, Harry Lobb, a medical man of dubious repute who swam with every high tide, caused the severed head of a freshly-killed bull to blink during one of his experiments at a lecture he was delivering at the Inns of Court.<sup>38</sup>

As a scientist Thomas Huxley saw the correlation between physical and vital forces as the distinguishing feature of modern physiology when set against the ideas of the ancients. For him it expressed "the fundamental conception of the living body as a physical mechanism".<sup>39</sup> The idea that the body resembled a piece of machinery that obeyed the fundamental laws of mechanics was not new to the nineteenth century. What now marked it off from earlier descriptions was its mathematical annunciation in a seminal work on the conservation of energy in the late 1840s by the German physicist and physiologist Hermann von Helmholtz (1821-1894), and the experimental work establishing those principles undertaken by James Prescott Joule (1818-1889) in England.<sup>40</sup>

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<sup>37</sup> Morus, *Michael Faraday and the Electrical Century* p72

<sup>38</sup> Lobb, H *Medical Batteries and How to Use Them* Simkin, Marshall & Co.: London (1877)

<sup>39</sup> Huxley, *Science and Culture* p339

<sup>40</sup> Von Helmholtz was a protégé of Justus von Liebig (1803-1873) whose work on the energy producing function of food, measuring what went in as a ratio to what was excreted, became widely known as animal chemistry.



The first law of thermodynamics, derived from the earlier principle of the conservation of energy, stated that energy is indestructible and cannot be created or destroyed, but may be converted from one form in to another. This law of convertibility could take on a clerical tone, but the principle remained the same. “In Nature’s laboratory”, said William Herpath, “nothing is wasted, nothing lost; as matter was ere time began, atom for atom still remain; not one has disappeared, disintegrated, or been destroyed. Chemical agency and organic transformation, alteration and substitution account for every atom as originally turned out of the Creator’s mould”.<sup>41</sup> So given that the present was formed from the atoms of the past, energy could not be considered a renewable resource, but one that remained constant and requiring prudent and measured maintenance.

Huxley used the metaphor of an army to explain the nature and workings of the human body: “of this army each cell is a soldier, an organ a brigade, the central nervous system headquarters and field telegraph, the alimentary and circulatory system the commissariat. Losses are made good by recruits born in the camp ...”.<sup>42</sup> Yet although the laws regarding conservation of energy implied that nothing perished and nothing was lost, the idea of the body as a closed energy system conveyed worrying possibilities of exhaustion and of potential collapse. For the medical man, the body’s facility to buckle under if there was a catastrophic drain on its available nerve force was in step with Victorian views on bankruptcy, insolvency, profligate spending and a general failure of the economic system.<sup>43</sup>

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<sup>41</sup> Herpath, ‘Address on Chemistry’ p179

<sup>42</sup> Huxley, *Science and Culture* p345

<sup>43</sup> Russett, *C Sexual Science: The Victorian Construction of Womanhood* Harvard University Press (1991) p116

The propensity to lose force and become insufficient often called on mechanical principles to harden up the argument, a point emphasised by Pickstone who found that “the analysis of machines came to be seen as an analogue of comparative anatomy” although he is unclear when this hybrid of two different sciences first occurred.<sup>44</sup> The electric locomotive for example was used in this analogous way, where “the greater the load it has to draw, or the steeper the incline it has to ascend, the more strongly does it exert its strength, up to the full limits of its power”.<sup>45</sup> What was needed though, considering that “the researches of Helmholtz... lie a little out of the beaten track of medical men”,<sup>46</sup> was to translate these fears into something tangible, a more familiar correlative force, and it found expression in electricity.

Electricity’s action depended on the need to keep a closed system operational at all times. Analogies with the human body can be found in most electro-therapeutic discourses, and the importance attached to its application in medicine depended to a large degree on the tendentious use of language. It could be used to “unmask malingerers”, to effect “the transformation of potential into kinetic energy” or “for awakening the torpid nervous centres of an individual poisoned by opium or alcohol”.<sup>47</sup> But its real attraction for the medical profession lay in its readiness to be understood on a number of levels, thereby offering myriad opportunities for speculative experimentation.

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<sup>44</sup> Pickstone, ‘Museological Science?’ p128

<sup>45</sup> Gore, G *The Scientific Basis of National Progress, Including that of Morality* Williams & Norgate: London (1882) p108

<sup>46</sup> Stone, W ‘Croonian Lectures on Some Applications of Physics to Medicine’ *Lancet* i (1879) pp470-71

<sup>47</sup> M’Gregor-Robertson, J *The Elements of Physiological Physics: An Outline of the Elementary Facts, Principles, and Methods of Physics; and their Applications in Physiology* Cassell & Co.: London (1884); Balfour, G ‘On the Medical Uses of Electricity’ *Ed. Med. Jnl.* 25 (1879-80) pp481-496; ‘The Therapeutic Uses of Electricity’ *The British Medico-Chirurgical Review* 23 (1859) pp91-110

Virtually every part of the body was considered obedient to electricity's ministrations, the only mitigating factor being the choice of current. But more important than the application *per se* was the manner of its' implementation. Understanding the body as an in-put/out-put system, its survival dependent on a judicious allocation of available energy, seemed a tailor-made formulation for the restorative powers of electrical treatment. This was a really new and exciting prospect, quite at odds with so many of the depleting measures such as leeching, venesection and cupping that were the stock in trade of most practitioners' ministries. If it could be demonstrated that the economy of the body needed an additional boost because the number of competing physiological and psychical functions was tending to overall decay, then applying an exciting physical force could be interpreted as having comprehensive relevance to shared social concerns.

One of the earliest pioneers of electro-therapeutic techniques was Golding Bird (1814-1854) who held the positions of Assistant Physician and Joint Lecturer on *Materia Medica* at Guy's Hospital Medical School. In October 1836 on the instructions of Benjamin Harrison the treasurer of Guy's, an electrifying room was set up in the hospital.<sup>48</sup> This room was put aside for the sole purpose of submitting patients to electrical treatment. It was an experimental project, for although electrical departments were already in existence in many London hospitals a century or so earlier,<sup>49</sup> Guy's

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<sup>48</sup> Benjamin Harrison, son of Benjamin Snr. who was treasurer of Guy's from 1785, became a governor of the hospital in 1793 and succeeded to his father's post in 1797. He reigned for 50 years. Nepotism was rife amongst the lay élite. See Peterson, *The Medical Profession* p145

<sup>49</sup> The Middlesex had invested in an electrical apparatus in 1767 and St. Bartholomew's had installed one ten years later. See Colwell, H *An Essay on the History of Electrotherapy and Diagnosis* Heinemann: London (1922) p32

was the first to integrate electricity into hospital routine.<sup>50</sup> The electrical department at Guy's remained under Bird's control for eight years during which time it was said he "rescued medical electricity from quackery".<sup>51</sup> Ultimately other duties meant he had to hand over to his colleague Dr. William Gull, a trusted favourite of Harrison's.<sup>52</sup>

**Fig.17** Sir William Wither Gull (1816-1890). In 1847 Gull was elected Fullerian Professor of Physiology at the Royal Institution of Great Britain, a post he held for two years, during which time he formed a close and intimate friendship with Michael Faraday, at that time Fullerian Professor of Chemistry.

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<sup>50</sup> Lewis Jones, H IEE SPT 114/8 (1900) Morus, I *Frankenstein's Children: Electricity, Exhibition, and Experiment in Early-Nineteenth-Century London* Princeton University Press (1998) p235

<sup>51</sup> Housden, L G (ed.), *Guy's Hospital Gazette: Bicentenary Number* London: Ash & Co. Ltd. (1925)

<sup>52</sup> Gull was to make his name in 1861 when he attended the dying Prince Albert. Peterson, *The Medical Profession* p136

Most of Bird's patients submitted for treatment between October 1836 and December 1840 were confined to cases of chorea or St Vitus's dance, a description of the purposeless writhing movements associated with the clinical features of rheumatic fever.<sup>53</sup> He readily admitted that although electricity could be an important aid in the treatment of disease, it may possess "no specific or magic influence" over any class of disease, nor does it produce "the wondrous results ascribed to it by empirics".<sup>54</sup>

Although electrotherapeutics was used in cases of paralysis and chorea, it was not commonly the first choice for treating patients with those conditions. More often they were treated initially with sulfate of zinc, the leading antispasmodic drug. Bird believed that electricity would succeed in medicine because of those practitioners using it correctly and successfully. On the other hand he discouraged physicians from using electrical treatments if they were inadequately trained in the physical sciences and were unable to apply electrical treatments themselves.

Whether Bird's caution was well placed is arguable. Of the thirty-six cases cited during that four-year period, a striking number of young people were subject to his treatment. Seven were under 10 years old, seventeen were aged 10-15 years, and seven were between 16-21 years. Of these, most were 'cured', three were 'relieved', one had no relief, and poor little Christopher Calthorpe aged 8½ "left from alarm". Again Bird was at pains to stress that electricity was of little use to those patients who were seriously

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<sup>53</sup> As a child Golding Bird suffered from rheumatic fever and was more or less crippled from chronic rheumatism. His delicate constitution probably contributed to his early demise. Wilks, S & Bettany, G *A Biographical History of Guy's Hospital Ward*, Lock, Bowden & Co.: London (1892) pp245-250. See also *Oxford DNB* (2004-5)

<sup>54</sup> Bird, G 'Report on the Value of Electricity, as a Remedial Agent in the Treatment of Disease' *Guy's Hospital Reports* Vol.V1 (1841) p120

out of health, although Elizabeth Raven's "deficient functions" did not seem to preclude "passing a few shocks through her pelvis".<sup>55</sup>

Golding Bird certainly recognised "the importance of the physician frequently making excursions into the domain of the physical sciences, and culling from it whatever blossoms he thinks likely to bear fruit in his own particular department", and inclined to the view that "secretion and nervous agency have always been the favourite phenomena which electricity has been called in to explain". According to Bird, Faraday's findings "furnish[es] us with large quantities of electricity of tolerably high tension, and possesses advantages for medical purposes which no other mode of exciting electricity affords". But he was always careful not to sound too shrill, adding cautiously that however delicate the test, this agent "has never been actually detected traversing the nerves".<sup>56</sup> Yet in spite of these doubts and his reservations over its application in useless cases when the mandate "let the patient be electrified" was given with little reference to its therapeutical efficacy, Bird saw that electricity, "under all its modifications, is a most energetic agent in exciting contractions of muscular fibre".<sup>57</sup>

Bird's enthusiasm for electrotherapy and its close association with nervous energy spawned a generation of converts as well as detractors. The subject prompted a profusion of essays, most of which appeared in the specialised medical periodicals that had begun to proliferate in line with the increasingly scientific nature of debate.<sup>58</sup>

Medical societies also became part of the professionalization of medicine as "science

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<sup>55</sup> *ibid.* pp87-92

<sup>56</sup> Bird, G *Lectures on Electricity and Galvanism in their Physiological and Therapeutical Relations* Longman, Brown, Green, and Longmans: London (1849) p5, p50

<sup>57</sup> *ibid.* p123, p139

<sup>58</sup> Between 1850-1899 the number of specialised medical periodicals founded in the UK grew from 9 to 30 and in the same period, the number of London medical societies had grown from 13 to 17. See Peterson, *The Medical Profession* tables 17 & 16 respectively.

became a code-word for methodology, a designation for specialized expertise, and a vehicle for social mobility”.<sup>59</sup> Indeed method was the defining feature of scientific enterprise, a very masculine quality that denied impulsive speculation and wild generalizations, traits usually ascribed to women.<sup>60</sup> The correlation of nerves and electricity was an attempt to bring together under one umbrella the principles of physics, physiology and psychology. By the last quarter of the nineteenth century, electrotherapeutics had relinquished its equivocation and had become “a promising springboard for the large-scale capitalization of medicine”.<sup>61</sup>

**Fig.18** Oil painting of Golding Bird, 1840? Even as a young man in his twenties, Bird’s delicate physical constitution is quite evident.

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<sup>59</sup> Shortt, S.E.D. ‘Physicians, Science, and Status: Issues in the Professionalization of Anglo-American Medicine in the Nineteenth Century’ *Medical History* 27 (1983) p64

<sup>60</sup> Yeo, R ‘Science and Intellectual Authority in Mid-Nineteenth Century Britain: Robert Chambers and *Vestiges of the Natural History of Creation*’ *Victorian Studies* 28 (1984) pp21-2

<sup>61</sup> Ueyama, T ‘Capital, Profession and Medical Technology: The Electro-Therapeutic Institutes and the Royal College of Physicians, 1888-1922’ *Medical History* 41 (1997) p156

What we need to understand is what lay beneath the prevailing theoretical belief among many in the medical profession in the invigorating and vital properties of electricity and what one physician referred to as “its common adoption as a *weapon* to be not seldom used in our daily *battle* with disease”.<sup>62</sup> The neurologist Armand de Watteville (1846-1925) recalled the difficulties Golding Bird had referred to thirty years earlier, that “it is almost impossible to localize the currents sufficiently in the parts to be experimented upon”.<sup>63</sup> If that remained the case, then sanctioning its widespread use must have involved other considerations, not least the forcible suppression of a patient’s opportunities to object to the treatment.

Although a good proportion of the profession remained deeply sceptical about electrotherapeutics, considering it beneath their dignity “to meddle with such gewgaws as batteries, electrodes, and milliampère-meters”, champions of the cause were still divided between those for whom “the indications have been rationally formulated and precise directions for the kind of current and manner of application have been laid down”, and those who preferred to employ the agent empirically, especially to certain affections peculiar to women.<sup>64</sup> This ambivalence was referred to by de Watteville who felt that given how little was known of the pathology of many diseases, “we must preserve, in therapeutical matters, an empirical attitude, and base our methods upon grounds of convenience and upon clinical results, rather than upon physiological

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<sup>62</sup> Tibbits, H *How to use a Galvanic Battery in Medicine and Surgery: A Discourse upon Electro-Therapeutics* J.& A. Churchill: London (1877) p53 [my emphasis]. This is an interesting choice of words given that Herbert Tibbits was notoriously litigious, having several run-ins with the Royal College of Physicians over his association with private enterprise, especially the Medical Battery Co. In 1895, the GMC saw fit to strike him off the Medical Register on the grounds of unprofessional conduct. See Ueyama, ‘Capital, Profession and Medical Technology’ esp. pp169-178

<sup>63</sup> Watteville, A. de *A Practical Introduction to Medical Electricity with a Compendium of Electrical Treatment* H.K.Lewis: London (1878) p38

<sup>64</sup> Liebig, G and Rohé, G *Practical Electricity in Medicine and Surgery* F.A. Davis: London (1890) p328



experiments and theory”.<sup>65</sup> Its success was thus presented “as being contingent upon a detailed experimental understanding of the action of electricity on the nervous system rather than upon any claim for the precise relationship of electricity and the nervous fluid”.<sup>66</sup>

Although the majority of medical men would have had merely a fleeting familiarity with advances in electrical experimentation, the rational application of electricity in the treatment of disease gave palpability to the equally poorly understood notion of force. Nervous fluid and electricity had been ascribed properties that were almost identical, although whether they themselves were identical was a matter for debate. All that could be said was that the two were “so analogous that in speaking of the one we may use the same terms as are usually applied to the other, and take for granted that it is governed by the same or similar laws”.<sup>67</sup>

In its abstract form, nervous fluid expressed itself inorganically in electricity, magnetism, light and heat as well as through mechanical motion. But when it was realised through organic matter, it “metamorphosed into nervous energy and muscular power”, thereby closing the loop on the cyclical relationship of nerve force to mind force to vital force.<sup>68</sup> As Gillian Beer commented, “to most intelligent Victorian readers physics could become intelligible only in a popular conceptual form”.<sup>69</sup> Thus by reifying something so insubstantial and abstract, it was possible to bypass the necessary leaps of imagination and equate the action of electricity to a flow of currents

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<sup>65</sup> de Watteville *A Practical Introduction to Medical Electricity* pp38-9

<sup>66</sup> Morus, I ‘Marketing the Machine: The Construction of Electrotherapeutics as Viable Medicine in Early Victorian England’ *Medical History* 36 (1992) pp34-52

<sup>67</sup> Strachan, J ‘On the Origin and Circulation of Nerve Force’ *Ed. Med. Jnl.* Vol.XI (July 1865-June 1866) pp114-120. See also Home, R ‘Electricity and the Nervous Fluid’ *Jnl. of the History of Biology* Vol.3 No.2 (1970) pp235-251

<sup>68</sup> Haley, B *The Healthy Body and Victorian Culture* Harvard University Press (1978) pp87-8

<sup>69</sup> Beer, *Open Fields* p228

running through the closed circuit of the human body via a series of pipes. Nerves then were understood as a conduit within which the continuous current of nerve force circulated, in the same way as blood moved through its channels. And given that the body was understood to be possessed of a finite quantity of nerve force which was claimed by different organs at various times, electricity could be called on to regenerate, tone and restore strength to debilitated parts.<sup>70</sup>

The conception of organic life in terms of a continuous circulation, its vigour dependent on the interaction of vital forces, required a great deal of attention to ensure it operated without a break in the flow. If one part showed signs of failure or torpidity, measures were taken to revivify the secretions and bolster imperfect circulation. So electricity was not used to stimulate a dormant force, but to re-establish the circuitry. Disease was understood as an expression of an upset in harmony when “the cycle of vital phenomena is disturbed”,<sup>71</sup> and electricity offered a valuable therapeutic model with which to consolidate expertise.<sup>72</sup> In addition, we shall see that assertions of authority with respect to the physical body chimed in with the less concrete but nevertheless critical span of the social and economic body.

For electricity to be able to lend its weight to serve the ends of medical men, its employment in the treatment of disease and the control of its effects had to be severely restricted. That is not to say there had to be agreement on its application or on any consequences that arose, rather its use had to be driven by the desire for “professional control of the market ... in a particular service”. In this way, medical men could arrive

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<sup>70</sup> Russett, *Sexual Science* esp.pp107-129

<sup>71</sup> Huxley, *Science and Culture* p326; Shortt, ‘Physicians, Science, and Status’ p60

<sup>72</sup> For an analysis of the role of experiment in the production of models, see Gooding, Pinch, Schaffer (eds.), *The Uses of Experiment* esp. the introduction.

at “a position of leverage from which to change society or [one’s] own corner of it”.<sup>73</sup> Although that situation was far from being realised at the time of the debate, limiting electricity’s use to a hospital setting within specially dedicated areas, certainly bestowed a mantle of respectability to an exciting new phenomenon, however unproved its therapeutic claims. As Iwan Rhys Morus has argued, “new practices had to be provided with genealogies and social settings that insulated them from such attacks”.<sup>74</sup>

Apart from Golding Bird’s ward at Guy’s, electrical departments were operating in many major teaching hospitals; at The London, St. Bartholomew’s, University College, and even at the Hospital for Sick Children at Great Ormond Street. However, growing competition in the marketplace and consumers demanding all kinds of different treatments led a number of medical men to seize the initiative and establish institutions primarily devoted to the cure of nervous ailments.

In fact the 1860s was the decade that witnessed the high water mark for the emergence of a number of specialist hospitals displaying all the hallmarks of private enterprise. Considering that the quacks had already done a sterling service in labelling all women as potential neurotics and invalids, this additional scientific estate would further screen the legitimate operator from unwelcome competition and consolidate his expertise in dedicated sites. During the 1860s, 22 specialist hospitals, dispensaries and infirmaries were founded in London alone, a 50% increase on the previous decade.<sup>75</sup> But establishing a monopoly of expertise in a branch of physics where most medical men had but a flimsy grasp was far from an easy task, or indeed a foregone conclusion.

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<sup>73</sup> Perkin, *The Rise of Professional Society* pp7-8

<sup>74</sup> Morus, *Frankenstein’s Children* p233

<sup>75</sup> Peterson, *The Medical Profession* table 15

Throughout the rest of the nineteenth century, electricity as therapy sat uncomfortably on the fence that divided the territories of electrical engineering and medicine. In a paper read before an audience at the Institution of Electrical Engineers (IEE) on 8 March 1900, H. Lewis Jones, a Fellow of the Royal College of Physicians and the then Medical Officer in charge of the electrical department at St. Bartholomew's Hospital, told the gathering that there was, as he called it "a correspondence between the work of an engineer in the repairing shop and that of a medical man in his practice". It was, so it seemed, "substituting only the human being for the machine".<sup>76</sup> Since the electrical department at St. Bartholomew's had connections to the City of London Lighting Company and many of Golding Bird's treatments had come about through his membership of and contacts with the London Electrical Society, this 'correspondence' was not perhaps surprising. But however much, and in whichever form electricity had come to symbolize Victorian progress and enter into consumer culture, for medical men it remained essential that electrotherapeutics be requisitioned and dispensed in such a way that they could be exempted from anything more than a passing familiarity with physics. However, when it came to its deployment, it had to be made difficult to apply in order that the self-styled medical galvanists and medical electricians, technicians of the most sensational kind, be deprived of their pretensions.

Attempts to restrict electricity's use were particularly pressing since popular electricians' interests revolved around technologies of display, shocks and sparks, all designed to bring in the punters and seduce gullible patients.<sup>77</sup> Besides, there was also the insidious problem of resourceful voices attempting to distance themselves from

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<sup>76</sup> Lewis Jones, H 'On the Applications of Electricity in Medical and Surgical Practice'. Paper read before the Institution of Electrical Engineers (1900) IEE SPT114/8 p1

<sup>77</sup> Morus, *Frankenstein's Children* pp249-50 and Morus, I 'Currents from the Underworld: Electricity and the Technology of Display in Early Victorian England' *Isis* Vol.84 No.1 (1993) pp50-69

quacks by pursuing the theme of medical righteousness. One associate of the IEE wrote a tirade against worthless appliances, arguing that electricity be used “in a scientific manner, properly applied by skilled operators, and not by electric or magnetic belts”.<sup>78</sup> One member of the ‘alternative’ lobby boldly joined in the fray. Referring to “nervous, highly susceptible young men who have indulged in malpractices in early youth”, he berated “the pestiferous quacks who live on the morbid and unfounded fears their writings, filthy as they are mendacious, excite in the minds of the timorous”.<sup>79</sup>

**Fig.19** General Faradisation, 1873, from J. Althaus: *A Treatise on Medical Electricity*. Julius Althaus was the principal founder of the London Infirmary for Epilepsy and Paralysis which was opened in 1866 in Marylebone. This particular monograph went through three editions between 1859 and 1873

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<sup>78</sup> Peers, G.R. *Electricity: Its Medical Applications. Being also an Exposé of Electric Quackery Written in Plain English* [privately printed pamphlet] Manchester (1897) p29

<sup>79</sup> Harness, C.B. *Electropathy: A New Method of Treating Disease by Electricity* The Pall Mall Electric Company (1883) pp46-7

For medical purposes, electricity could be administered using either the faradic (induced) or galvanic (constant) current using electrodes (rheophores) that were either dry, or moistened in which case the resistance of the skin was diminished. Occasionally the Leyden jar was used to produce static electricity through friction. The current could be applied both topically and to internal organs, either as a stimulant and counter-irritant, for electrolysis, as a sedative and anti-spasmodic, or as cautery.

For Dr. Edward Morton, the medical officer in charge of the electrical department at The London Hospital, one important issue concerned the need to maintain the apparatus in perfect order to avoid shaking the confidence of the patient and exacting a loss to the operator, “a point always worthy of consideration in private practice”.<sup>80</sup> Henry Tibbits, who thought a familiarity and understanding of the mechanism of batteries was “essential to their pleasant and successful use”, warned patients against buying the machines themselves and operating them according to the manufacturers’ instructions, who themselves were regarded “generally about as well fitted to teach its application in disease as is the maker of an amputating knife to operate with it”.<sup>81</sup>

Electricity was called in either as a diagnostic tool or more commonly, as a form of treatment. Its effects were immediately apparent. One physician noted how remarkable were the effects of powerful shocks produced using the Leyden jar, “and that when passed through the larynx it has been extremely successful in curing nervous aphonia, though it has to be said that, short of being hanged, there is nothing more unpleasant”.<sup>82</sup> Such gross understatement was characteristic of the phlegmatic tone of most writings on the subject. One enterprising individual even suggested that the metal

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<sup>80</sup> Morton, E *Essentials of Medical Electricity* Henry Kimpton: London (1905) p139

<sup>81</sup> Tibbits, *How to use a Galvanic Battery* p4

<sup>82</sup> Balfour, ‘On the Medical Uses of Electricity’ p484

brush, which could be arranged to cause the most acute pain, be substituted for flogging since it hurt more, but did not have the visible disadvantage of injuring the flesh.<sup>83</sup>

But it was amongst the poor, in asylums or in hospital that much of the experimental work was carried out and a particular set of doctor/patient relations established. These settings provided that space and gave a context “in which scientific innovation and professional aspirations of medicine coincided”.<sup>84</sup> Furthermore, an institutional setting sanctioned the dual roles of active electriciser and supine, compliant patient. In due course it was expected that this separation of the medical man from the general public would cement professional authority through an alternative system, one that deferred to scientific wisdom.<sup>85</sup> The poor proffered ample fodder for the electrical physician as “in that class of patient considerations of expense do not interfere to cut short treatment prematurely nor are hospital patients so ready to throw up one kind of treatment in order to try something different”.<sup>86</sup> Working women, with no time to be idle, were thought especially suited to electrical treatment “as a short period of repose alone is necessary after the application instead of hours, perhaps days in bed”.<sup>87</sup>

The authority of the experimenter over the sequestered body showed up most clearly in the male doctor/female patient encounter. Even those medical men who remained sceptical about electricity’s therapeutic value, especially as a panacea for all ills, agreed that many diseases and disorders peculiar to women profited from its use. That is not to

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<sup>83</sup> Lobb, *Medical Batteries* p14

<sup>84</sup> Shortt, ‘Physicians, Science, and Status’ p67

<sup>85</sup> See Peterson, *The Medical Profession* esp.pp281-86

<sup>86</sup> Lewis Jones, H *Medical Electricity: A Practical Handbook for Students and Practitioners*  
H.K. Lewis: London (1906) p403

<sup>87</sup> Liebig & Rohé *Practical Electricity* p338

say that men or children were unsuitable candidates for therapy – indeed limb paralysis, nocturnal emissions and impotence were frequent subjects for treatment – but as a group, women were targeted more often and with greater industry. The claim that Dr. George Apostoli of Paris was regarded “as the creator of the art of scientifically applying electricity in diseases of the female pelvic viscera” as well as being credited with having brought the subject “to its present commanding position”<sup>88</sup> provides an opportunity to look behind the rhetoric and try and unpack the intricacies of these hidden narratives.

That “commanding position”, with its imperious and sexual overtones, can be read on a number of different registers, but it informed all treatment, most notably that of women. For some, whose unimpregnated uterus was found “large, atonic and flaccid”, induced electro-magnetic currents were used in order to procure energetic contractions of the uterus. As one of the conductors was being passed over the abdomen, the other was introduced into the vagina until it made contact with the *os uteri* “this vaginal conductor is made of stout brass wire, covered with a non-conducting material, as caoutchouc, and terminated by a ball of silver, by which the electric current is conveyed to the uterus”.<sup>89</sup>

Iwan Rhys Morus has argued that “electricity and the kinds of instruments, practices and skills that defined it were important resources for managing the body throughout the Victorian period”.<sup>90</sup> Gynaecological investigations and procedures provided a well-equipped playground for the exercise of electrotherapeutics. Although initially

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<sup>88</sup> *ibid.* pp327-8

<sup>89</sup> Bird, G *Lectures on Electricity and Galvanism* p141

<sup>90</sup> Morus, I ‘Bodily Disciplines and Disciplined Bodies: Instruments, Skills and Victorian Electrotherapeutics’ *Soc. Hist. Med.* 19 (2006) pp241-59



experimenting with a new phenomenon frequently invited sneers from those claiming mischievous intent on the part of “needy adventurers”,<sup>91</sup> according to one medical man who spoke for many, “the utility of electricity in the treatment of certain *uterine disorders* is very decided”.<sup>92</sup> Arguments about electricity’s alleged applicability to medical science certainly were vigorous, conducted along the fine line dividing expediency and inventiveness. But medical men, mindful of their reputation and status especially when engaged with new ideas, confined their findings to the medical press, far away from the public gaze. Here, undaunted, opportunism and inventiveness often merged, allowing a free rein for discussion and a greater opportunity for medical ingenuity.

One potentially promising condition lending itself to electric therapy was an ectopic pregnancy. It was taken for granted that a woman’s reproductive parts were always in a precarious state, and the presentation of an extra-uterine pregnancy confirmed that liability. Whilst there can be no disagreement about the gravity of such a condition if left unattended, the conventional means by which an embryo was destroyed, either by applying poultices, drawing off the amniotic fluid, injecting morphia directly into the amniotic sac or puncturing the tumour and removing its contents, were either unsuccessful or caused further grave complications. The use of the electric current in cases of extra-uterine pregnancy seemed the obvious next step if mortality levels were to be reduced.

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<sup>91</sup> ‘Report on Modern Electric and Galvanic Instruments, and Recent Improvements in their Application’ *BMJ* i (1873) p44

<sup>92</sup> Bartholow Roberts, A *Medical Electricity: A Practical Treatise on the Applications of Electricity to Medicine and Surgery* Henry Kimpton: London (1881) p202 [original emphasis]

Dr. James Matthews Duncan (1826-1890), physician accoucheur and lecturer in midwifery to St. Bartholomew's Hospital described the case of a 31-year-old woman admitted on 10 January 1883 with symptoms of an ectopic pregnancy.<sup>93</sup> The foetal heart was heard and on 17 January it was decided "to try and kill the foetus by electricity". The following day the patient was placed on a couch and given ether. An electrode, connected to the negative pole of the battery, was passed into her vagina while another electrode was passed over the tumour causing the abdominal muscles to contract sharply. The foetus remained viable, but the electrode had burnt the patient's vaginal wall. Notwithstanding this 'local difficulty', it was decided to destroy the foetus using galvano-puncture, although in such cases its use was considered doubtful. Nevertheless, the foetus having survived electrolysis, did finally succumb, but not before being pierced above the heart with morphia and water. The mother died the following day.

However grisly these scenes must now appear, Dr. Matthews Duncan did concede that "no satisfaction can be felt in any respect as to the desiderated action of the means used". This was an important and fair judgement, for it gives prominence to the often ignored idea of innovation and experiment, rather than emphasising a total disregard for medical ethics. This view has been much developed in *The Uses of Experiment*. Here we learn that the results of experiments, that is their outcomes, do not take account of "the process by which meaning is made", and displays "a prejudice against practical activity in favour of speech acts".<sup>94</sup> In other words, the hidden increments and accretions that have critical bearing on outcomes, instead of being recognised as integral to the end result, somehow get dismissed as inconsequential by-products.

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<sup>93</sup> Matthews Duncan, J & Mason, J 'Cases of Extra-Uterine Foetation' *St. Bartholomew's Hospital Reports* Vol. XIX Smith, Elder & Co.: London (1883) pp27-44

<sup>94</sup> See Gooding, Pinch, Schaffer (eds.) *The Uses of Experiment* pxiii

Matthews Duncan's colleague at St. Bartholomew's, William Edward Steavenson (1850-1891) had been appointed by the Hospital Governors in 1882 to organise and manage an electrical department. He arranged for the Coroner's Court in the hospital to be converted and he followed the advice of the electrical department at Guy's on how best to arrange and utilise the space.<sup>95</sup> Steavenson was alert to electricity's poor foothold in the medical repertoire and warned that with so many things liable to go wrong with electrical treatment, it should be applied only by skilled hands. Even a nurse who had been properly instructed could make the most absurd mistakes. In any case, never was it to be prescribed for the public for self-application. Unquestionably that would just bring the whole enterprise into disrepute.<sup>96</sup> The department for diseases of women often required Steavenson's services. He frequently assisted Matthews Duncan as well as dealing with referrals from other physicians and surgeons in the hospital. Although St. Bartholomew's had employed him as an electrician, he treated his patients using his other hat of casualty-physician.

Steavenson's treatment of uterine fibroids by electrolysis was enhanced, in his eyes, by the flexible electrode he had designed which allowed entry into the uterine cavity through the cervical canal without it coming into contact with the canal itself. Having ascertained the tumour's dimensions, the patient was placed on a couch with her buttocks to the edge and her feet resting either on a pair of chairs or held aloft by stirrups. With the patient fully conscious, Steavenson would "place himself between the thighs ... introduce the forefinger of the left hand into the vagina and seek for the os uteri". However, as he remarked, it occasionally happened that the uterus became displaced when fibroids were present. In these cases then, "the os can sometimes be

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<sup>95</sup> Steavenson, W 'The Electrical Department *St Bartholomew's Hospital Reports* pp235-247

<sup>96</sup> Steavenson, W 'The Therapeutical Applications of Electricity' *BMJ* ii (1884) pp1008-11

pulled down by a hook”.<sup>97</sup> The internal electrode was then passed into the uterus following the path of the finger, and the tumour was punctured at its most prominent part. The patient was encouraged to bear as strong a current as possible.

It is doubtful whether the physician was conscious of the sexual fantasies being played out in these encounters, because this method of operating on uterine fibroids was repeated by other medical men.<sup>98</sup> Again we learn that the patient, “after proper instructions as to what is about to be done and the part she is to play”, was placed on the couch with her buttocks hanging over the edge, her feet up on chairs, her thighs spread, “and all the dress unloosened”. The procedure was the mirror of Steavenson’s technique, but on this occasion the language more fervidly carnal: “No force must be used, and a gentle insinuating movement will succeed better than a hurried thrust”. Again, the patient was not expected to tolerate “more than an easily supportable degree of pain”. The amount of current was dictated by her facial expression, important in gaining her confidence and ensuring she did not become impatient. The procedure typically lasted between four and ten minutes. When the operation was over the patient was kept in bed, advised to avoid exercise and that “cohabitation with her husband should be forbidden”.<sup>99</sup>

In all probability Dr. Woodham Webb gave this advice in the interest of the patient’s comfort, given the likelihood of a small amount of post-procedural bleeding. Yet Dr. Steavenson’s advice appeared far less restrictive or protective: “generally a patient may, after an hour or two’s rest, walk about, and on the following day pursue her usual

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<sup>97</sup> Steavenson, W *The Treatment of Uterine Fibroids by Electrolysis* J & A Churchill: London (1887) esp. pp12-21

<sup>98</sup> Woodham Webb, W ‘On the Treatment of Fibroids of the Uterus by Electricity’ *BMJ* i (1887) pp1329-31

<sup>99</sup> *ibid.*

occupation”.<sup>100</sup> So clearly there were differences within the profession, not only over suitable forms of electrical treatment, but as in this case, for post-operative management. Nevertheless one could usefully wonder whether the level of pain experienced (which is wholly subjective), became objectified in these doctor’s minds so that they became best placed to decide what any woman could reasonably be expected to tolerate. In other words, even when two medical men were of different opinions, there seemed to be an alternative discourse on women’s threshold levels, their low-levels of endurance and their propensity to be taken by surprise.

Speaking at the 52<sup>nd</sup> Annual Meeting of the BMA in 1884, Dr Steavenson left his audience in no doubt about his enthusiastic commitment to electro-therapeutics. He found few conditions that did not benefit directly. He concluded that “the results obtained by the treatment of the genito-urinary organs by electricity are among the most successful”; “in hysterical affections of all sorts, electricity seems to be the therapeutic agent which less frequently fails”; and “dropped wrist, from lead-palsy, is also most frequently cured by galvanism”.<sup>101</sup>

At the same meeting, Dr Hughes Bennett, physician to the Hospital for Epilepsy and Paralysis, as well as assistant physician to the Westminster Hospital, suggested that the majority in the profession had not given the consideration to electro-therapeutics that it merited. Partly he thought that this was due to ignorance about electricity’s properties and virtues, but also that its claims were exaggerated and “that there is something mysterious in its phenomena”. Bennett himself sounded guarded, perhaps mindful of his audience’s reticence on the subject. While granting “that electricity is a potent

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<sup>100</sup> Steavenson, *The Treatment of Uterine Fibroids* p21

<sup>101</sup> Steavenson, ‘The Therapeutical Applications of Electricity’

force”, he recognised that “its *rationale* remains shrouded in mystery”. He thought it impossible to gauge the exact value of electrical treatment “as the entire science is still in its infancy”.<sup>102</sup>

Electricity’s debut on the medical stage inaugurated a range of vaginal electrodes that must have exercised the creative talents of many doctors. Several were produced with a variety of interchangeable tips, which it was argued could offer superior action in cases of cervical stenosis (narrowing) than “forcible dilation with tents or steel dilators”.<sup>103</sup> Vaginal douche electrodes were routinely employed for disorders of the vulva and vagina, “in vulvitis, puritus vulvæ simple and diabetic, eczema of the vulva, chronic vaginitis, gonorrhœal vaginitis, erosions of the cervix, relaxed and congested conditions of the uterus and vaginal walls”,<sup>104</sup> in fact virtually any imaginable disease of the generative tract. Indeed, in cases of organic displacement or of congestive or neurotic conditions that were not of a periodic nature, it was found that they “often yield in the happiest manner to galvanism ... or to faradization”.<sup>105</sup>

If a woman was unfortunate enough to present with inflammation of the uterine appendages, it would not have been long before the dreadful realisation that “no stage of the inflammation, even the most acute, contra-indicates the employment of current”. And even when the symptoms associated with the inflammation had subsided, and the bipolar vaginal electrode and the intrauterine bipolar electrode had done their job, leaving only the “serum, pus, or plastic material” then was the time to introduce the galvano-puncture. This procedure involved fixing the depth of the spear by means of a

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<sup>102</sup> Hughes Bennett, A ‘The Principles of Electro-Therapeutics’ *BMJ* ii (1884) pp1006-8

<sup>103</sup> Liebig and Rohé *Practical Electricity* p330

<sup>104</sup> Hedley, W *The Hydro-Electric Methods in Medicine* H. K. Lewis: London (1896) p93

<sup>105</sup> Liebig and Rohé *Practical Electricity* pp332

screw set to any length required for penetration and before the puncture was made. It was said to be “more painful ... than many simple intra-uterine applications”, and required numerous *séances* between which it was “well to close the vaginal cavity ... to insure perfect asepsis as well as to prevent sexual congress”. In a paean to the place of electricity at the high altar of well-being, we hear the refrain “what more does a reasonable woman who has suffered much desire or need?”<sup>106</sup>

By the second half of the nineteenth century, many physical phenomena such as the circulatory system and locomotion quite plausibly be could explained by mechanical laws. Indeed von Helmholtz’s conservation theory could be taken as a general illustration of the ubiquity of energy.<sup>107</sup> This meant that articulation of the language of mechanics with that of coitus became somewhat conflated.<sup>108</sup> When discussing diseases of women and the use of the vaginal douche electrode, Dr. Lewis Jones of St. Bartholomew’s took few pains to disguise his message. He spoke of “penetration of the fluid into its folds and interstices”; “the vagina allowed to become well distended before the current is turned on”; “labia folded out”; “is caused to penetrate more or less deeply into its structure according to the strength of the current and the length of the application”; and of administering the douche “without getting a drop upon the patient’s clothing”.<sup>109</sup> Even more alarming was the suggestion from another quarter that doctors who had kept abreast of new developments in gynaecology would have been well aware of the superior advantages offered by the intra-uterine galvanic current, and regardless of how little experience they may have had in the field of female disorders, that should be no reason to deny themselves the opportunity for

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<sup>106</sup> *ibid.* pp 335-47

<sup>107</sup> See Rabinbach, A *The Human Motor: Energy, Fatigue, and the Origins of Modernity* University of California Press (1992) p58, p91

<sup>108</sup> See Pickstone, ‘Museological Science?’

<sup>109</sup> Lewis Jones, H *Medical Electricity* pp479-80

experiment as the ease of application allows it to be used by anyone. But above all, “it is an agent which, instead of being blind, obeys in a precise and mathematical manner the hand applying it”.<sup>110</sup>

Diseases of the female generative tract lent themselves readily to electrical treatment, not only from registered clinicians, but also from the growing number of purveyors of electropathic equipment. For those not caught up in a hospital setting, the luxury of picking and choosing from the modern world was readily at hand. A forerunner in the market was the Medical Battery Company with offices at their Electropathic and Zander Institute at the corner of Rathbone Place and Oxford Street. Under the guidance of its aptly named president Mr.C.B. Harness, who also happened to be the managing director of the Pall Mall Electric Association, the company offered advice upon all matters relating to health such as massage, Swedish mechanical exercise and chemical inhalation, in addition to the application of electricity as a curative agent.

Prospective patients were invited to turn up at the offices where Mr. Harness and his entourage of lady superintendents and certificated masseuses were in daily attendance. In addition, a ladies room was set aside for those requiring the special attention of skilled females for the fitting of corpulence, abdominal and accouchment belts. With a shameless level of bravado, mixed in with a dose of sauciness, the company issued a pamphlet highlighting the “internal weakness” of women and offering a cornucopia of devices aimed at preventing females from “lapsing into chronic decline”.<sup>111</sup>

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<sup>110</sup> Liebig & Rohé *Practical Electricity* p338.

<sup>111</sup> *A Treatise on the Special Diseases of Women and their Electropathic Treatment* The Medical Battery Company Ltd. (1891)



It was alleged that most women suffering from this “general aspect of lassitude” accompanied by an indisposition for exertion, not to mention a dulling in the lustre of the eyes and a decidedly unhealthy bloom, had frequently been treated by the family doctor for ailments which “symptomatically reflected from a uterine malady”. However slight the derangement, its sensitivity was considered such that any disturbance would ripple through the body, establishing “a sequence of symptoms seriously affecting the vitality of the system, lowering the nervous force, and rendering life wearisome”. The diagnosis, it seemed was a simple one that would “yield readily to a rational and appropriate course of electrification carried out concurrently with the observance of common-sense rules as to domestic management and hygiene”.<sup>112</sup> Harness’s Electropathic Appliances, such as belts and spine bands, could be used by anyone who chose to buy the products, although one writer thought them a sham alleging that the zinc and copper discs, which were fastened on to the belt and placed next to the skin, caused painful ulcers to form from the action of the body’s perspiration.<sup>113</sup>

Nevertheless, it was in women’s so-called functional derangements, notably hysteria and neuroses where there existed no evidence of organic mischief, “that the greatest triumphs of electrical treatment are to be found”.<sup>114</sup> Even the most circumspect, such as Sir John Russell Reynolds (1828-1896) professor of the Principles and Practice of Medicine at University College, considered electricity “wonderfully useful” in hysterical afflictions, especially for those women who had become bedridden.<sup>115</sup>

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<sup>112</sup> *ibid.* pp28-29

<sup>113</sup> Peers, *Electricity: Its Medical Applications* pp18-19

<sup>114</sup> Hughes Bennett, ‘The Principles of Electro-Therapeutics’ p1008

<sup>115</sup> Russell Reynolds, J *Lectures on the Clinical Uses of Electricity* J & A Churchill: London (1871) p79

One mechanism by which knowledge could be consolidated was through what Foucault described as “a hysterization of women’s bodies”. He suggested that her body became medicalized “by reason of a pathology intrinsic to it” and this placed it in an “organic communication with the social body”.<sup>116</sup> Such an image of the human body acting as an instrument of the social body could then authorize medical men to interfere with the former at the behest of the latter.<sup>117</sup> As we know, women suffered the double penalty of a reproductive system that was both a store-house for nervous disorder and a declaration of her femininity. In this light, the forecasted cure of hysterical conditions could be viewed as an hypothesis with portentous social overtones and a reforming intent.

A woman’s menstrual cycle, marked by its punctual and measured appearance, was considered a manifestation of her machine-like qualities, a system based on the mechanical principles of action and reaction. The physical evidence of hysteria, yoked to mental aberrancy was thought therefore to be an amplification of an inner waywardness. Nature, whether animate or inanimate, was said to be governed by the same immutable laws. As pain follows pleasure, and exhaustion comes after exertion, so “the principle of self-regulation operates in clocks ... musical boxes ... gas regulators &c.&c”.<sup>118</sup> From this premise, it could be argued that if the mind obeyed the law of action and reaction, any aberration of mental behaviour could be rectified by applying a physical regulator. Since most hysterics tended “to spend their lives through

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<sup>116</sup> Foucault, M *History of Sexuality* Vol.1 Penguin (1998)

<sup>117</sup> See Poovey, M *Making a Social Body: British Cultural Transformation, 1830-1864* University of Chicago Press (1995)

<sup>118</sup> Gore, *The Scientific Basis of National Progress* p107

a complex system of organised machinery”<sup>119</sup>, then devising a treatment that purported to model nature demonstrably would establish medical reliability and assuredness.

The majority of hysterical afflictions were thought to arise from a disturbance in the reproductive apparatus and invariably the finger of blame pointed to the menstrual function. Most women were expected to encounter some degree of turmoil over the fertile years, and in line with the growing regularization of medicine, the female form was deemed far too delicate a machine to be left exclusively in the hands of its mistress. Locating the female body at a time when traditional roles were no longer unassailable helps us to understand the theories explaining the need to redomesticate the hysteric although in these pre-Freudian days, the supposed aetiology of hysteria suggested to doctors conclusions from very superficial readings.

Thomas Addison (1793-1860), one of the early electricisers who was also Golding Bird’s patron at Guy’s, said that he was “at once gratified and surprised” at the efficacy of electricity in treating women with spasmodic and convulsive disorders which in the main appeared to be connected to some menstrual irregularity.<sup>120</sup> Addison, like Bird used electricity only when all other available means had been tried. One poor 17 year old girl suffering from “epileptic paroxysms” had to endure “cupping over the loins, blisters along the spine ... increasing doses of zinc ... [and] dashing of cold water on the head” before Addison ordered electricity to sort out the problem. In another case, one of “hysterical paralysis”, the 16 year old whose sight was failing in her left eye had

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<sup>119</sup> Stretch Dowse, *Lectures on Massage & Electricity* p193

<sup>120</sup> Addison, T ‘On the Influence of Electricity as a Remedy in Certain Convulsive and Spasmodic Diseases’ *Guy’s Hospital Reports* Vol.II (1837) pp493-507

to endure “sparks being drawn from the left eyelid and shocks passed through the uterus”.<sup>121</sup>

Writing some fifteen years later, William Gull of Guy’s had not really attempted to refine or modify Addison’s technique. In cases of amenorrhoea, Gull stated “it is obvious that electricity as an excitant of the catamenial secretion must have a restricted application”, but when its use was indicated, for example when the flow had not been fully established due to “inertia of the pelvic organs”, shocks were “sent through the pelvis from the pubis to the sacrum”.<sup>122</sup> With the passing decades, the boundaries marking the applicability of electro-therapeutics were extended to accommodate social and economic considerations. Whilst electricity’s scientific credentials still suffered from “the unbridled license of the earlier electro-therapists”<sup>123</sup>, its utility in controlling and regulating the hysterical body overrode any discredit that it may have incurred.

What seems common to all the neurotic conditions was the intemperate range given to errant female behaviour, and the resulting instability that made marriage and fecundity an uncertainty. Although some physicians were prepared to consider the presence of organic disease or structural defects, the overwhelming majority considered hysterics to be under psychic influence. Aphonia, or loss of voice, was a common presenting symptom of hysteria. It seemed accurately to mirror the disgruntled child who went off into a corner sucking its thumb and refusing to join in any of the games. Early on, Golding Bird discovered that girls and women who simulated paralysis could “seldom

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<sup>121</sup> Addison, ‘On the Influence of Electricity’ p503

<sup>122</sup> Gull, W ‘A Further Report on the Value of Electricity as a Remedial Agent’ *Guy’s Hospital Reports* Vol.II pt.I (1852) pp.81-144

<sup>123</sup> Allbutt, T Clifford ‘Electrotherapy’ *The British and Foreign Medico-Chirurgical Review* Vol.XLVIII (July-Oct. 1871) p41

resist the pain and surprise of the shock”. Some patients became so alarmed, they screamed out and were declared cured. In cases of hysterical aphonia, Bird’s system of “drawing sparks briskly from the region of the larynx” was developed and refined by the succeeding generation of electricisers.<sup>124</sup>

Using sparks and shocks represented a scientific version of the proverbial ‘slap in the face’. In most cases of hysteria, where there was no evidence of organic lesion, there was an insistence that “any treatments applied should be made as impressive and as formidable as possible” and that a very strong current of an unpleasant nature” should be used to ensure justifiable pain. In these cases, a primary current should be selected “as it is more jerky and unpleasant than the secondary”. In any event, “applications are best applied in a large electrical department in sight of elaborate apparatus”.<sup>125</sup>

Although not manifest in the literature, this suggests that doctors could expect a level of absolution by lending their authority to electricity’s powers, whilst still maintaining overall control. Additional support was given to doctors by the complexity of the electric machinery, invariably studded with buttons, switches and wires. As de Watteville put it: “it should not be forgotten that it is not so much ‘electricity’ that cures, as ‘electrisation’, that is, the rational application of electricity”.<sup>126</sup>

According to the renowned laryngologist Sir Morrell Mackenzie (1837-1892), physician to the Metropolitan Free Dispensary for Diseases of the Throat and Loss of Voice, the disease that went under the name ‘functional aphonia’ frequently expressed itself by “profound anaemia, with great muscular debility”.<sup>127</sup> It affected girls and

<sup>124</sup> Bird, G *Lectures on Electricity and Galvanism* pp164-5

<sup>125</sup> Magill, E *Notes on Galvanism and Faradism* H.K. Lewis: London (1916) pp142-3

<sup>126</sup> de Watteville *A Practical Introduction to Medical Electricity* p104

<sup>127</sup> Mackenzie, M ‘On Functional Aphonia’ *Medical Times and Gazette* Vol.1 (1863) pp184-5

young women, but Mackenzie drew a clear distinction between hysterical aphonia and pure functional aphonia where there was no evidence of hysteria. He describes two cases of the functional disease that had been under treatment at The London Hospital for some time. Neither patient showed signs of hysteria, rather their condition was thought to depend “on an irregular or perverted distribution of the nerve force”. In treating these patients, Mackenzie thought it wiser to “be guided by the principles of positive philosophy ... [than] to assume the operation of causes which cannot be shown to have had any actual existence”. As far as he was concerned, that would have been a far too ambitious objective. Instead, he favoured applying galvanism to the vocal cords, “a remedy at once rational, safe, and certain”.<sup>128</sup>

The first case Mackenzie reported on concerned Sarah, a young woman of 25 years from High Wycombe who originally lost her voice in March 1861 following an inflammation in the throat. Initially she was treated at The London Hospital where an anti-hysterical regime was enforced. Blisters were applied to her throat, galvanism was passed through her neck and daily she had to endure cold showers. Neither this treatment nor any subsequent ones undertaken at The London offered her any relief. However, by the end of September 1862 Sarah came under Mackenzie’s care and on this occasion, he decided to cauterise the larynx using a hydro-pneumatic injecting apparatus, an instrument invented by his friend, a Mr. Thomson. This proved useless, success being realised only when Mackenzie applied galvanism directly to Sarah’s vocal cords.<sup>129</sup>

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<sup>128</sup> *ibid.*

<sup>129</sup> *ibid.*

Mackenzie's second case involved Emily, "a tolerably robust" girl from Shoreditch, who had lost her voice in September 1861. In January 1863, having spent some months in The London Hospital without any signs of improvement, she was successfully treated by Mackenzie after three applications of internal galvanism. Unaware of the sexual undercurrents informing his treatment, perhaps it was not surprising that he found difficulties in reaching the larynx with the long conducting rod without causing the patient to start and withdraw.<sup>130</sup>

A contemporary of Mackenzie's, Dr. John Tanner, physician for diseases of women to the Farringdon General Dispensary, and obstetric physician to the Lying-In Charity, Holborn, thought that hysterical aphonia was a functional disorder.<sup>131</sup> Nevertheless he found that excellent results could be obtained from electro-magnetism applied exclusively to the tongue and when used in conjunction with other agents. Having discounted any organic lesion, Tanner next looked at the state of the uterus. If the patient was seen to be suffering from amenorrhoea, leucorrhoea or menorrhagia, then electro-magnetism alone would procure merely transitory benefit.

In the third of the four cases Tanner considered, his patient was suffering from aphonia as well as paralysis in her right arm. She was given a cocktail of strychnine, camphor, and tincture of valerian – a herb whose root was used as a medical stimulant – which appeared to restore sensation to her arm while leaving her voice untouched. Tanner then applied electro-magnetism to her tongue, just a light dose to begin with, increasing in strength until the voice returned along with her marital prospects, for within a short time she was married.

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<sup>130</sup> *ibid.*

<sup>131</sup> Tanner, J 'The Treatment of Hysterical Aphonia' *Lancet* ii (1869) pp837-8

Such a bonus was not incidental, since Tanner's treatment was designed to demonstrate the causal link between a stubborn voice [woman] and the silent or inactive workings of her sound box [uterus]. For Tanner it was all important to convince the patient "*that she will be cured*". The physician's power of persuasion was critical in averting failure, yet verbal threats were never enough. To be sure of compliance, the patient was seated, her head held rigid by an assistant and with the machine in rapid action, the tongue was touched, although at that moment "probably the patient will scream violently, and she then convinces herself and others who are near or present, that her voice has come back".<sup>132</sup>

Tanner, like Mackenzie or indeed any of his colleagues, would not have recognised their defence of a mind-altering therapy in terms of its unspoken, and modestly veiled implications. So one can but wonder whether, in treating cases of hysteria by electricity, the doctors were quacks, or the quacks doctors. Whatever arguments were advanced, whatever the causes assigned and whatever the treatment proposed, all were matters of distinction without a difference. We see this when looking at the rhetoric put out by the Medical Battery Company. It cast all hysterics as mutinous in mind and body, each suffering from "a deranged condition of the nervous system, in which the influence of emotion unduly predominates". Hysteria's "sinister origin" was sited in the pressurized school system where a young girl was expected to be accomplished in endless tasks rather than concentrating on her sole mission in life, "to wait for a husband". These girls, who in more cases than not were bracketed hysterical even

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<sup>132</sup> *ibid.*



before they became eligible to marry, “often remain single because they are hysteric, and as often become hysteric because they are single”.<sup>133</sup>

The second half of the nineteenth century found many in the medical profession placed “beside the very cauldron of new inventions around which many wizards of discovery are shouting their eureka”.<sup>134</sup> Several doctors, and there were plenty of rascals among their ranks,<sup>135</sup> had taken the discoveries of Galvani and Faraday and woven them into clinical practice in an effort of collective advancement. Most medical men who used electricity as part of their medical arsenal did so, not for its therapeutic pedigree for that had not been ratified, but for its awesome potential in removing disease. Electricity served many masters and we have seen how physical principles were applied to problems of the intellect through the medium of a current. As some branches of medicine were tending to chemistry and other to physics, ‘serious’ medicine, overwhelmingly the province of hospital based physicians, strictly delimited the boundaries for discussion by marginalizing alternatives which did not recognise a world based on chemical and physical laws.

To an extent, electrotherapy owed its advance to a diminution of expertise elsewhere. For example, the practical men of electrical engineering, who saw the relationship of electricity to medicine as unproblematic, lost control of their work to the authority of college-trained scientists, notably after the 1880s. Thereafter, the practical men were left behind as advances in technology put much electricity beyond their scope.<sup>136</sup> This

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<sup>133</sup> *A Treatise on the Special Diseases of Women*

<sup>134</sup> Duncan, J ‘On the Surgical Applications of Electricity’ *Ed. Med. Jnl.* 18 (1872-73) p504

<sup>135</sup> We have met only two, Drs. Harry Lobb and Henry Tibbits, but others were prepared to jump on the bandwagon if the price was right.

<sup>136</sup> Hunt, B ‘“Practice v Theory”’: The British Electrical Debate, 1888-1891’ *Isis* Vol.74 (1983) pp341-355

was the period that saw a decisive shift from science being part of the public culture to one where institutional arrangements closed off public incursions. The growing privatisation of knowledge saw to it that if there were to be collaborative endeavours, especially if they involved disagreements, they would take place behind closed doors.

Electrotherapeutics, with its connections to laws of action and reaction, of inertia and momentum, of acceleration and of conversion, provided a vast arena for the changing context of medical knowledge to test its muscle. Given the historical context in which electro-therapeutics came into being, women were especially vulnerable to its powers. Challenges to domestic perfection were met with a raft of measures, both legal and medical, aimed at correction and regulation. However the locus of authority on medical matters was far more difficult to determine. Prising scientific knowledge away from its former bedrock in the forum for intellectual debate and positioning it in an institutional setting certainly helped in cementing medical authority. Protected to a degree, electricity, a new and potent force was called on to provide the resources whereby attention could be drawn away from very obvious areas of disquiet and disperse them into the more descriptive pathologised woman.

The final chapter concerns a single event in 1867 that was to have serious repercussions for the medical fraternity. The case study of Mr Isaac Baker Brown draws together many of the issues discussed in this thesis. We have already seen certain themes emerging such as rights to medical knowledge and the need to bring medicine within the orbit of science. But above all the sense of threat to the profession both from within its own walls as well as from outside is palpable. At the core can be found the 'woman problem' that managed to embody an equal fear of female resolve

and female infirmity. Mr Baker Brown's experimental surgery and the profound chaos it occasioned acts as a prism through which to explore these themes further.

## CHAPTER SIX

### THE REIGN OF THE KNIFE AND THE UNDOING OF MR. ISAAC BAKER BROWN (1812-1873)

“If ever the perfection of a surgical hand existed, it existed in Isaac Baker Brown: those slender, long fingers, which could be moved in any direction, and worked with marvellous precision and intelligence in canals and cavities which it had been long thought could never be reached by the human hand”.

Clarke, J.F. *Autobiographical Recollections of the Medical Profession* (1874)

On the evening of 3 April 1867, an extraordinary gathering of the Obstetrical Society of London took place. The meeting had been called to consider the conduct of one of its fellows, the London surgeon Mr. Isaac Baker Brown. It promised to be an evening of high drama, and an hour before the President and Council arrived at 8pm, there was not a seat to be had. At 9pm a ballot of members was due to be held, but the hour passed to allow time for more speeches. Eventually the vote was taken and at ten minutes to midnight the scrutineers entered the hushed room. The result of the motion of the Council for Baker Brown’s removal was carried convincingly, the announcement being “received with dead silence”.<sup>1</sup> Although the decision to vote out Baker Brown took place during the course of one evening, the events that culminated in the proposal to oust him from the Society were complex and multifarious. His fall

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<sup>1</sup> *BMJ* i (1867) p409

from grace is a tale of lamentable delusions and immoderate self-promotion and as one contemporary writer summed up, his career “may point a moral and adorn a tale”.<sup>2</sup>

**Fig.20** Mr Isaac Baker Brown. “His face was of the Jewish type, his eyes sagacious, his nose of a size that would have satisfied Napoleon 1, his mouth indicating energy, but not denoting extraordinary mental power.”<sup>3</sup>

The purpose of this chapter is to examine those events that encouraged Baker Brown to venture into the questionable world of psychological surgery. We shall look closely at the reactions of his peers when matters appeared to be ‘getting out of hand’ and in all probability likely to bring discredit to the whole profession through the abuse of the

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<sup>2</sup> Clarke, J.F. *Autobiographical Recollections of the Medical Profession* J & A Churchill: London (1874) p495

<sup>3</sup> *ibid.* p503

rules governing professional probity. Through self-promotion and his defiance of custom, Isaac Baker Brown allows us to examine the changing nature of the profession, its efforts to protect and enhance its newly acquired status, and above all to look at interpersonal relationships both within the professional body and between doctors and their female patients.

Psychological surgery in this instance was a rather flimsy euphemism for female sexual surgery, more specifically the surgical removal of a healthy clitoris in order to procure mental quiescence.<sup>4</sup> This operation, known as clitoridectomy, became Baker Brown's nemesis and he paid with his scalp. The downfall of a one-time eminent surgeon, a leading member of the London medical establishment could never have been anticipated. Indeed in 1852 it was said, "we have thus glanced at what Mr. Brown has done and is still bent on doing for the cause chiefly of obstetrical surgery whereby he has already raised himself to a distinguished position amongst the leading members of our profession".<sup>5</sup> Certainly as late as 1865 when at the height of his professional powers with his election as President of the Medical Society of London, it would have been a rash man to predict his unmaking. Even with the publication of Baker Brown's 'findings' in his book *On the Curability of Certain Forms of Insanity, Epilepsy, Catalepsy, and Hysteria in Females*,<sup>6</sup> it required the benefit of hindsight to note that "the book may bring gold, but the gold will sink the ship".<sup>7</sup>

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<sup>4</sup> Apart from the practice of infibulation, the clitoris had been operated on only when diseased, for example if a tumour was present or if there was gross malformation. But by mid-century the organ had taken on a new significance as the involvement of surgery in the idealization of women could be resorted to without the presence of pathology. See Dally, A *Women Under the Knife: A History of Surgery* London: Hutchinson Radius (1991) esp. Ch.9. See also Moscucci, O 'Clitoridectomy, Circumcision, and the Politics of Sexual Pleasure in Mid-Victorian Britain' in Miller, A and Adams J (eds.), *Sexualities in Victorian Britain* Indiana University Press (1996) p61

<sup>5</sup> *The Medical Circular and General Medical Advertiser* (1852) pp301-2

<sup>6</sup> Baker Brown, I *On the Curability of Certain Forms of Insanity, Epilepsy, Catalepsy, and Hysteria in Females* Robert Hardwicke: London (1866)

<sup>7</sup> See Clarke, *Autobiographical Recollections* p500

Isaac Baker Brown was born on 8 June 1812 at Colne Engaine in Essex, the second son of a gentleman who farmed his own land. His maternal grandfather, the Rev. James Boyer had been the head master of Christ's Hospital School when Samuel Taylor Coleridge, Charles Lamb and Leigh Hunt were pupils. His early medical experience was spent in his home county as an apprentice to Benjamin Gibson, a surgeon practicing at Halstead. In 1830 Baker Brown became a student at Guy's Hospital training under John Hilton, lecturer on Anatomy and Pathology. He gave a good account of himself because at the end of the 1831 session the surgeon to Guy's, Bransby Blake Cooper (1792-1853) awarded him the Astley Cooper Prize for Anatomy, set up in memory of his illustrious uncle Sir Astley (1768-1841).

The following two years were spent studying midwifery under the watchful eye of the Dr. James Blundell (1791-1878), lecturer on Obstetrics at Guy's and St. Thomas's.<sup>8</sup> At the end of his period of study, Baker Brown took the diploma of the Royal College of Surgeons and became a Member and Licentiate of the Apothecaries' Hall. It was around this time that he married for the first time and settled in Connaught Terrace, Hyde Park from where he entered into partnership with Samuel Griffith who had a practice on the Edgware Road. This arrangement continued until 1840. Baker Brown gave up general practice in 1847 and thereafter concentrated entirely on diseases affecting women.<sup>9</sup>

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<sup>8</sup> The word 'watchful' is appropriate here given the widespread abuse of instruments. Blundell was one of a number of leading practitioners who were concerned that many men working in the field of women's diseases suffered from "a sort of instinctive impulse to put the lever and forceps into the vagina". See Donnison, J *Midwives and Medical Men: A History of the Struggle for the Control of Childbirth* Historical Publications: London (1993) p60, p201

<sup>9</sup> These brief biographical notes can be found in *Plarr's Lives of the Fellows of the Royal College of Surgeons of England* Vol.1 (1930) pp152-4

Baker Brown's focus on afflictions peculiar to women was present from his days as a student when he gave a paper on ovarian disease. In 1847 this interest took on extra cohesion with confirmation of his appointment as Consulting Physician to the Paddington Lying-In Charity. On taking up his post, Baker Brown was made aware of the dearth of hospital accommodation to the west and north-west of London. As a direct result, he along with others took effective measures that would see the eventual foundation of St. Mary's which opened its doors on 13 June 1851.<sup>10</sup> At the foundation festival of the hospital Baker Brown was delighted to have his health proposed by the chairman, Prince George of Cambridge. When the Medical School opened in 1854, Baker Brown was appointed co-lecturer in Midwifery and the Diseases of Women. For the following years, as Surgeon-Accoucheur, he worked alongside Dr. William Tyler-Smith, the Physician-Accoucheur and first President of the Obstetrical Society. The 1850s saw the publication of various important books by Baker Brown on the subject of women's diseases as well as his regular contributions to the *Lancet*.<sup>11</sup> He published incessantly and as Elsbeth Heaman remarked, "hardly a month went by without a paper trumpeting the latest results of his latest surgical technique".<sup>12</sup>

The year 1858 can be seen as the defining moment in Baker Brown's career, for it marked his intended retirement from St. Mary's and the setting up of The London Surgical Home at 63 Stanley Terrace, Notting Hill. It was here that virtually all

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<sup>10</sup> From the outset, it was planned that St. Mary's be a teaching hospital. When it opened there were 150 beds, the minimum number necessary for a hospital to be recognised for teaching purposes by the Royal College of Surgeons. The Society of Apothecaries would only give recognition once a medical school had been built. The Paddington Lying-In Charity was absorbed by St. Mary's. Heaman, E.A. *St. Mary's: The History of a London Teaching Hospital* McGill-Queen's University Press (2003) esp. Chs. 1 & 2. See also Brown, K. *St. Mary's: An Illustrated History* London (1991) pp2-4

<sup>11</sup> *On Rupture of the Perineum and its Treatment, Illustrated by Cases* London (1852); *On Some Diseases of Women Admitting of Surgical Treatment* London (1854); *On Surgical Diseases of Women* London (1854) [3<sup>rd</sup> ed. 1866]; *On Vesico-vaginal Fistula and its Successful Treatment* (1858). See also biographical details from Baker Brown's obituaries in the *Lancet* i (1873) pp222-3 and the *BMJ* i (1873) pp158-9

<sup>12</sup> Heaman, *St. Mary's* p47



clitoridectomies were performed. There must have been rumours of Baker Brown's intentions because at a Meeting of the Governors of St. Mary's held on 1 January 1858 one of the Governors, Mr. George Bird, "gave notice that he will ask on Friday next which of the Medical Officers attached to St. Mary's is endeavouring to establish another institution in Paddington for the reception of female patients".<sup>13</sup> The following week Mr. Baker Brown answered, stating that "he had been assisting in the establishment of a home for the treatment of curable surgical diseases of women and pledged himself that it was not to be called a hospital nor was it to be situated within a mile and a half of St. Mary's Hospital (excluding the Harley Street Institution) and that no patient was to be received into it under payment of 10/= per week".<sup>14</sup>

**Fig.21** Isaac Baker Brown as a young surgeon. With his signature white tie he already had the look of a rising star, both prosperous and ambitious.

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<sup>13</sup> St. Mary's Hospital Archives: Minute Book No.6 p628

<sup>14</sup> *ibid.* p633

We do not know how the Board got wind of Baker Brown's plans, nor why he decided to play his cards so close to his chest. It was clear though that his intentions were causing some alarm since the supply of patients needed for teaching purposes at a voluntary hospital could so easily dry up. But as far as he was concerned, the matter of patient poaching had been addressed. He was set to go. On 21 January 1859, more or less a year to the day after Mr. Bird's initial inquiry, Baker Brown wrote to the Chairman of the Weekly Board formally announcing his retirement. No mention was made of his new venture. Instead he said that he had tried to fulfil his obligations "with zeal and punctuality" but now with his "health so seriously affected by these duties, in conjunction with my private practice" he felt compelled to resign his appointment.<sup>15</sup> He offered to continue in office until a successor was appointed.

At first glance it appears that Baker Brown's decision to leave St. Mary's was a matter of regret as far as the Board of Governors was concerned. Their testimonial acknowledged his zealous services "in advancing the interests of this Hospital from its commencement, as well as the great professional ability and kindness to his patients".<sup>16</sup> Yet the reason behind his resignation from the consultant staff of St. Mary's remains a matter for debate. It could be seen as a means of freeing himself to set up his private hospital and further develop his interests, but the more likely explanation revolved around professional enmity.

Just one year before his resignation, the senior physician at St. Mary's, William Orlando Markham (1818-1891) brought charges against Mr. Baker Brown that were

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<sup>15</sup> St. Mary's Hospital Archives: Minute Book No.7 p203

<sup>16</sup> St. Mary's Hospital Archives: (Deposited Collections) DP1/1 dated 21 January 1859

considered by the Medical Committee. At a special meeting of the Committee held on Monday 25 January 1858 a letter from Markham was read.<sup>17</sup> The incident that he felt needed to be placed before the Committee concerned a patient suffering from a ruptured perineum being charged £5 at a voluntary hospital.

**Fig.22** William Orlando Markham. Lithograph by G.B.Black, 1862.

The patient, Annette Macpherson of 40 Silver Street, Golden Square had gone to see Baker Brown after her husband had read in a medical journal of Baker Brown's observations on ruptured perineum. She was now expecting another child, but 14

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<sup>17</sup> St. Mary's Hospital Archives: Medical Committee Meetings pp508-10

months earlier had been delivered at the Queen Charlotte Lying-In Hospital following a difficult labour during which the injury occurred. Mr. Macpherson was concerned that there be no further mischief and so called on Baker Brown to attend his wife during her confinement. According to Markham's letter, when the patient went to see Baker Brown he "told her that he must bring on premature labour at the seventh month and having done so, that he would on her recovery take her into the hospital and operate upon her; and that for doing this, his charge would be £5". Given that Markham was concerned that the facts of the case "touched the credit of the Medical Officers of St Mary's Hospital",<sup>18</sup> the Committee had little option but to take evidence on the matter from the interested parties.

Having heard the testimony of those involved, the Chairman thanked Dr. Markham for his attendance at the meeting, feeling convinced that he "had been activated by a desire to support the dignity and character of the profession". Baker Brown was asked to leave the room and it was then resolved "that Mr. Brown did not receive 5 guineas for the operation performed in this Hospital, but that it was solely paid for his attendance on her [Mrs. Macpherson] at her own residence during her confinement".<sup>19</sup> Baker Brown was then called in to hear that he had been unanimously exonerated.

Whilst he had strongly refuted the allegation, and had been cleared of any wrongdoing, the Committee nevertheless took the decision to abolish the post of Surgeon-Accoucheur. This required an alteration in the laws, and the Medical Committee duly obliged on 7 February 1859. From then on the surgeons of the Hospital performed the operations hitherto undertaken by Baker Brown. What is of particular interest here is

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<sup>18</sup> *ibid.* p509

<sup>19</sup> *ibid.* p519

not so much the abolition of the office of Surgeon-Accoucheur as the role of Markham, described by Heaman as “a fiery young Turk”.<sup>20</sup> His fury at Baker Brown’s exculpation resurfaced some years later, as we shall see, when as editor of the *BMJ* he oversaw the wholesale vilification of his one time colleague.<sup>21</sup>

There can be little doubt that the London Surgical Home provided Baker Brown with the independence and unobstructed scope to perform his experimental surgery. That said, we must remain mindful when discussing what appears to us irrefutably censurable, since our own sense of moral integrity is unlikely to line up with the prevailing value systems in mid-Victorian Britain. Baker Brown, after all, was living and working alongside many other educated Victorians. It was not only an era of great industrial innovation and change, but also a time of important scientific advancement. Quite naturally this involved disturbances to the prevalent paradigms concerned with mental disorders. But most significantly Baker Brown had set up his home just at the moment when the women’s movement had got on its feet.

This was also the time when the notion of ‘oddness’, or what we might term ‘otherness’, was exercising many minds. Ornella Moscucci has noted how medical men in the Victorian period “elaborated a medical-moral discourse that extensively deployed a set of class and gender-related polarities: health/disease, virtue/vice, cleanliness/filth, morality/depravity ...”.<sup>22</sup> In particular the distinction between

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<sup>20</sup> Heaman, *St. Mary’s* p76

<sup>21</sup> Frazer, A ‘Female genital mutilation and Baker Brown’ *JRSM* Vol.90 No.7 (1997) p586-587

In fact during the period of Baker Brown’s fall into disrepute, the editorship of the *BMJ* was occupied by Markham and Ernest Abraham Hart, the Ophthalmic Surgeon to St. Mary’s who took over in November 1866 when Markham resigned following his appointment as a poor-law inspector. See Fleming, J ‘Clitoridectomy – the Disastrous Downfall of Isaac Baker Brown, F.R.C.S. (1867)’ *Jnl. of Obstetrics and Gynaecology of the British Empire* Vol. LXVII (1960) pp1017-34. Also *Trans. Obstet. Soc. of London* Vol IV (1862) pp59-86.

<sup>22</sup> Moscucci, ‘Clitoridectomy, Circumcision, and the Politics of Sexual Pleasure’ p60

civilization (usually taken to mean white European) and savagery (those whose appearance and behaviour were tangibly different and inferior) was being measured, recorded, classified, and tabulated in true Darwinian fashion. Since Baker Brown too was working within this new framework, his career deserves measured consideration rather than comprehensive execration.

This approach becomes even more vital when looking at the emerging paradox between profound industrial and scientific developments and the changing attitude towards sex, sexuality and the sexual organs. This phenomenon, whereby sex needed to be hidden in order that it be exposed, tabooed, and discussed *ad infinitum*, has been investigated extensively by Michel Foucault. Nowhere can it be seen clearer than in the clitoridectomy scandal. Baker Brown's operation fitted into this new and significant trope since it addressed so directly male paranoia about sexual pleasure having an important attachment to the business of reproduction.

Whilst this was particularly the case as far as women were concerned, men also were subject to all manner of restraints, both verbal and mechanical, if their sexual habits or proclivities exceeded the bounds of procreative activity. Henry Maudsley had plenty to say on the matter of male masturbation, that "vicious abuse of the sexual function", although he had "no faith in the employment of physical means to check what has become a serious mental disease".<sup>23</sup> Others thought differently. The panoply of mechanical restraints and devices available to treat nocturnal emissions were macabre in the extreme. The historian John Farley described "leather penis-rings with inward-turned steel points that would waken the sleeper when the penis erected; knotted

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<sup>23</sup> Maudsley, H 'Illustrations of a Variety of Insanity' *Jnl. of Mental Science* Vol.XIV (July 1868) pp149-162

towels that prevented the sleeper from lying on his back; ‘cork cushions’ that kept the thighs apart; and an alarm system that was triggered by an erect penis closing the electric circuit!”<sup>24</sup> Yet however distasteful and unpleasant, the methods used to engender social compliance in men never enlisted the surgeon’s blade. The idea of amputating the penis of an inveterate masturbator was not a consideration. So what was the significance of the clitoris, homologous to the penis, that led Baker Brown to champion its removal, and in extreme circumstances the labia too?

With the setting up of the London Surgical Home in May 1858 Baker Brown took the ultimately fateful decision of developing his surgical technique. He allowed numerous medical men the freedom to observe his cases, and as he put it “many have become firm converts to my views”.<sup>25</sup> According to a contemporary article in *The Times*, it was the first such institution to be established in the United Kingdom, although there were numerous ones in existence on the Continent. The Home’s distinguishing feature was the reception of “persons of respectability, but of contracted means, who were compelled to have recourse to charitable institutions for medical attention and advice, but did not recover as quickly as might have been expected”.<sup>26</sup> The article continued in a rather obeisant fashion, referring to many original opponents of the Home now “among its most ardent supporters” and placing stress on the “approbation of its objects and working” given by its many illustrious visitors from distant continents, including Dr. Nélaton “premier surgeon to the Emperor of the French”. The article noted further that at the Home, “the great experiment is being made for the first time of endeavouring to cure mental diseases by surgical operations”, yet gave no clue as to the

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<sup>24</sup> Farley, J *Gametes & Spores: Ideas About Sexual Reproduction 1750-1914* Johns Hopkins University Press (1982) pp124-5. Some of these devises are illustrated in Porter, R & Hall, L *The Facts of Life: The Creation of Sexual Knowledge in Britain, 1650-1950* Yale University Press (1995) Ch.6

<sup>25</sup> Baker Brown *On the Curability* pvii

<sup>26</sup> *The Times* ‘The London Surgical Home’ (15 Dec. 1866)

nature of the operation other than it was performed on suffering women of respectability.<sup>27</sup>

Strange as it seems, the writer appeared to treat his subject with blithe indifference, leaving himself and his readers in the dark. This astonishing lack of curiosity was already evident in the previous year with the publication of the *Proceedings of the Seventh Annual Meeting of the London Surgical Home* when the opportunity to describe in detail the purpose and objectives of the Home would have been wholly appropriate.<sup>28</sup> But considering the nature of the surgery, that opportunity did not avail itself. Instead, a hallowed almost transcendental tone floated over the entire proceedings. In part this was due to the aura surrounding the Home's roll-call of patrons that stretched as far as the eye could see, from the president His Grace, Henry Charles Duke of Beaufort "unavoidably absent" from the meeting, down the landed hierarchy through Marquesses, Earls, Lords, Ambassadors Plenipotentiary, to the very humble High Sheriff. In all there were 102 vice-presidents and 98 lady patronesses, a huge rise in what could be termed 'moral investors' from the previous year which could merely count the Archbishop of Canterbury and the Bishop of London as patrons. Moves were underfoot to augment further the standing of the Home by obtaining the patronage of the Prince and Princess of Wales. Indeed letters to that effect were received by Baker Brown from Marlborough House early the following year signifying that both the Wales's had consented "with great pleasure" and "satisfaction" to becoming patrons, each donating £25 for the Institution's benefit.<sup>29</sup>

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<sup>27</sup> *ibid.*

<sup>28</sup> *Proceedings of the Seventh Annual Meeting of the London Surgical Home for the Reception of Gentlewomen and Females of Respectability Suffering from Curable Surgical Diseases* Savill & Edwards: London (1865)

<sup>29</sup> St. Mary's Archives: DP1/2; DP1/3 Letters dated 28 February 1866 and 1 March 1866 respectively.



The meeting, orchestrated by Baker Brown, was held in an atmosphere of almost stifling sycophancy as tribute was paid to the efforts made on behalf of “the many sufferings to which the gentler part of humanity are the victims”.<sup>30</sup> When Baker Brown rose to give his considered assessment of the work of his hospital, the weight of the praise perfectly balanced his vainglory. He addressed the gathering as if he was in the pulpit, describing cases admitted to the Home over the previous seven years to June 1865. But he was not alone in fantasizing about his god-like qualities, a position more or less guaranteed to deflect awkward questions and to numb curiosity.

Just two years later, that is after the publication in 1866 of his notorious book *On the Curability* and his subsequent ousting from the Obstetrical Society, a privately printed book found its way into the public domain. Entitled *The London Surgical Home; or, Modern Surgical Psychology* anybody eager enough could obtain a copy from the author alone by sending thirteen stamps.<sup>31</sup> Wading through the sixteen pages, barely a line escapes Biblical precepts. John Scoffern (1814-1882) a one-time professor of forensic medicine and chemistry at the Aldersgate College of Medicine clearly thought of Baker Brown as the new Christ. He stated, “The great Founder of our religion – He who spake as man never spake – gave effect to the knowledge by Him, of this alliance [of crime and disease], in some memorable words: - ‘if thy right hand offend thee’, said Christ, ‘cut it off; for it is better for thee to enter into life maimed, than having two hands to go into hell, into the fire that never shall be quenched’”. “Nevertheless”, continued Scoffern, “for eighteen hundred centuries and a half, and more, the divine

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<sup>30</sup> *Proceedings of the Seventh Annual Meeting* p15

<sup>31</sup> Scoffern, J *The London Surgical Home; or, Modern Surgical Psychology, Being a Popular Statement of the Operations Therein Performed by Mr. Isaac Baker Brown* London (1867) The following quotes come from this pamphlet.

truth was unregarded. It remained for Mr. Baker Brown to give the precept effect”.<sup>32</sup>

Although this privately printed booklet is marked by toadyism and prostration, the author does let us have a peek at some of Baker Brown’s surgical activities that dared to be mentioned. According to Scoffern, Baker Brown was not merely “a metropolitan surgeon of celebrity”, but a philosopher of real genius. For example we learn that this celebrity did not confine his blade to the female genitalia alone. The London Surgical Home received female patients for all manner of “eliminative surgical methods”. Ladies of “voluble speech and evil tongue” were subjected to a “glossodectomy” whereby loquacity was tempered and the power of speech reduced by “partially dividing some of the lingual muscles”. Apparently this gave the patient a certain charm, “the very slightest *soupeçon* of a lisp”, an affectation considered most “agreeable to refined ears” since it “does away with a certain metallic sharpness”.<sup>33</sup>

Other young girls were admitted to the Home because they had “a disordered rage for waltzing”. This disease, termed ‘gyromania’, was characterized by “a morbid desire to spin round and round, her waist encircled by a male arm”. Treatment was designed to put an end to such abnormal behaviour, which in one case had adversely affected more than a dozen waltzing partners. In order for the patient to be restored as an ornament of her sex rather than remain a pest, “a few fibres of the calf muscle and a few fibres of the buttock muscles were divided.” Another condition, dubbed theft when it afflicted “the vulgar and ill-bred” lower orders, transmuted into kleptomania when applied to ladies of refinement and education.

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<sup>32</sup> *ibid.*

<sup>33</sup> *ibid.*

Here again the surgeon's blade made good these failings and lapses in moral sense. Baker Brown considered that "the extreme development of the palmar and digital muscles so necessary to conjurors, is not necessary to any lady". It might, he argued "end in their sliding a cashmere or a piece of lace dexterously away from a tradesman's counter". His method for dealing with "the cashmere-abstracting disease crime" was to perform a kleptodectomy. This procedure, "almost bloodless" consisted of a partial division of the palmar and digital muscles by means of a small knife. The effect, apart from compromising the necessary dexterity for shoplifting, was to render the hand listless. "What on earth does any refined man expect of a lady's hand more than it should wave gracefully, glove well, and in extreme cases play the piano moderately well", chanted Scoffern.<sup>34</sup>

All these conditions were part of a gamut of compulsive disorders that were distinguishable not merely as falling short of perfection, but as being insensible to morally significant goals. Indelicate fibres were cut in order to restore a sense of moral purpose that would not brook privacy, imagination or fantasy. What we learn about these treatments was their manifest commonality with the operation to remove the clitoris. Since the women's movement was getting into its stride, failure to conform was always an important element in the diagnoses of this period. In addition, as there was a lack of distinction between the physical and mental aspects to women's health, "any malaise or symptom which could not be accounted for by a clearly physical cause was attributed to an emotional one, brought about by a tendency towards promiscuity, nymphomania, or masturbation".<sup>35</sup>

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<sup>34</sup> *ibid.*

<sup>35</sup> Sheehan, E 'Victorian Clitoridectomy: Isaac Baker Brown and his Harmless Operative Procedure' *Medical Anthropology Newsletter* Vol.12, No.4 pp9-15 (Aug. 1981)

All Baker Brown's subjects entered the Home "serene and tranquil" as Scoffern would have it. Each would be placed under chloroform in order to afford docility, pliancy and acquiescence. What we need to note is the furore that attached itself to the operation of clitoridectomy at the expense of the other 'eliminative methods'. After all, the object of the procedures was to alter perverse predilections, at any rate in the opinion of the surgeon. And although parents and guardians willingly may have brought young girls to Baker Brown, that is not the same as suggesting that there was collusion between them and the operator. It would be more accurate to put forward the view that the patient's suggestibility combined with the promise of a cure was itself sufficient grounds for confidence. It was, as one writer put it, a belief that creates a fact. In other words, patients suffering from a depressive illness would readily attribute their troubles to the habit because in an underdeveloped branch of medicine an hypothesis is more likely to be accepted on authority rather than on evidence.<sup>36</sup>

This view lines up with that of another writer who reflects on the yawning gap between knowledge and ability on one side and prestige and status expectation on the other. He argues that since medical authority greatly outstripped capability during the nineteenth century, "to blame diseases on masturbation helped resolve the tension between the expectation of patients and the level of medical knowledge".<sup>37</sup> Furthermore, projecting a moral issue onto medical territory relieved it "of the associated moral opprobrium".<sup>38</sup> This was what Baker Brown traded in, and was the hallmark of his alleged masterly treatment.

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<sup>36</sup> Hare, E 'Masturbatory Insanity: The History of an Idea' *Jnl. Of Mental Science* Vol.108 No.452 (Jan.1962) pp1-25

<sup>37</sup> Gilbert, A 'Doctor, Patient, and Onanist Diseases in the Nineteenth Century' *Jnl. of the History of Medicine and Allied Sciences* Vol.XXX (1975) pp217-34

<sup>38</sup> Engelhardt, H 'The Disease of Masturbation: Values and the Concept of Disease' *Bull. Hist. Medicine* Vol 48 (1974) pp234-48

The London Surgical Home may have been a fairly unpretentious building situated in the less affluent area surrounding Kensington Park, but it is important to bear in mind that it was not some sleazy back-street outfit, nor could it ever afford to be. When Baker Brown set it up in 1858, he had already cemented his reputation as one of the leading authorities on women's diseases. His *On Surgical Diseases of Women* (1854) went to three editions, the last in 1866 and he had done important work on prolapse of the uterus and on vesico-vaginal fistula. His success with ovariectomy was however less than commendable. As Ornella Moscucci has pointed out, of the nine ovariectomy operations performed by Baker Brown between 1854 and 1856, just two patients survived.<sup>39</sup>

Initially Baker Brown had attempted to destroy the disease by tapping, tapping and pressure, injection of iodine, excision of a portion of the cyst, and by forming an opening to constantly keep up a drain. When these methods failed, he resorted to the total surgical removal of the ovary.<sup>40</sup> Indeed whilst still at St. Mary's, a number of his colleagues threatened to call in the coroner if another patient died.<sup>41</sup> At the London Surgical Home the death rate was running at an unacceptable 30%, a matter taken up by some of his associates at the Obstetrical Society.<sup>42</sup> Clearly Baker Brown was ruffling more than a few feathers.

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<sup>39</sup> Moscucci, O *The Science of Woman: Gynaecology and Gender in England, 1800-1929* Cambridge University Press (1990) p152

<sup>40</sup> See *Plarr's Lives* p153

<sup>41</sup> Heaman, *St. Mary's* p47

<sup>42</sup> Baker Brown, I 'On Ovariectomy, the Mode of its Performance, and the Results Obtained at the London Surgical Home' *Trans. Obstet. Soc. of London* Vol IV (1862) pp59-86. See also Spencer Wells, T 'A Case of Ovariectomy, and a Reply to a Statement Respecting It made by Mr. Baker Brown at the Last Meeting of the Society' *ibid.* pp89-90

Even so, Baker Brown's hubris was not blunted. Thinking in terms of women no longer needing the attention of men to advance their interests, he became obsessed with what he considered the harmful effects of female masturbation. Of course he was not alone. Many if not most in the profession both here and abroad considered themselves guardians of civilization and given their views on female sexuality, or what they might term functional nervous maladies, they were constantly alert to the spectre of insanity and racial degradation. This point has been made most succinctly: "masturbation was condemned because it was the supreme narcissistic act ... it was performed alone and so it was clearly an antisocial act and as an antisocial act it violated the preeminent taboo for an age concerned with social problems, especially the breakdown of traditional society".<sup>43</sup>

Needless to say, that idea could not itself explain away physical or mental misfortune. So Baker Brown needed to cultivate the notion that the class of symptoms expressed by the masturbator provided the necessary framework in which the disease mechanism could be understood. This would clear a path to explain a departure from stability. Thus he contended that given a woman's greater nervous susceptibility, masturbation put an excessive strain on her nervous system. He was singularly coy about using the word masturbation, preferring the more temperate 'voluntary irritation of the clitoris' or 'this baneful habit', or 'peripheral excitement of the pudic nerve'. Yet he was less restrained when he concluded that the removal of the organ would signal an end to its unnatural irritation. The operation would in fact be the panacea for many of the mental ills befalling women and thus a logical antidote to the anxiety surrounding female sexuality and auto-eroticism. Here we see the paradox. On the one hand the clitoris

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<sup>43</sup> Gilbert, 'Doctor, Patient, and Onanist Diseases' p224

was so small and insignificant that its removal was immaterial, yet by the same token it was such a dangerous and threatening organ that to leave it in place would create further disquiet. Parallels with ‘the woman question’ barely need emphasis.

As said, the London Surgical Home was set up specifically to target women of refinement who from their “social position ... are precluded from resorting to an ordinary hospital”.<sup>44</sup> Up to thirty-four patients were accommodated in apartments of varying size and were required to pay a weekly sum towards their expenses. These were set on a sliding scale ranging from a single private room at £2.10s per week to a four-bed occupancy room at 10/6d per person. However, if one was fortunate enough to be recommended by a Life Governor, these fees were waived.<sup>45</sup> Of the 670 or so different cases admitted over the seven year period to 1865, there was none that even hinted at the removal of a clitoris, healthy or otherwise. For all intents and purposes this operation did not exist. From the rhetoric, no lay person present at the meeting or reading this report could have guessed what “things” could be obtained at the Home “which cannot be obtained elsewhere”.<sup>46</sup> It would be another year before there would be any allusion, however cryptic, to what ‘his’ operation entailed.

Baker Brown’s address to the great and the good who were attending the meeting lets us see how his indubitable conviction and uncritical self-belief became the driving force towards self-ruin. As he rose to speak, weighed down by the laudatory remarks that went before, any modesty he may have possessed went into remission. Speaking of the Institution as “my child”, he told of the gratifying encounter, just before the

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<sup>44</sup> *Proceedings of the Seventh Annual Meeting* p9

<sup>45</sup> Life Governors could recommend either one free in-patient or six out-patients per annum. Annual Governors were restricted to six out-patients only. Only those donating more than £10 were eligible to become Life Governors. Annual Governors were those who subscribed upwards of 1 guinea annually.

<sup>46</sup> *Proceedings of the Seventh Annual Meeting* p21

meeting started, with an ex-patient of his who had travelled all the way from Newmarket to be present at the proceedings. She had sought help for her suffering for thirteen years, “but God had not sought fit to give her relief”. Obviously at that point she had not met up with Baker Brown. But when she did finally arrive at the Home, she heard the words “I think I can cure you, but the operation is new; it is almost experimental”. She replied with words to the effect, “cut me to pieces, if you can cure me”. In Baker Brown’s telling words, that patient “was one of the first trophies of this Institution” for she not only regained her health, but also had been blessed with a child. This and other similar cases were considered “bright spots in the Heaven”, confirmation, if any were needed, of his divine ambitions.<sup>47</sup>

What yoked these women together, aside from their myriad indispositions, was the supposed beneficial effect of their cures on their families. Hilary Marland’s work on puerperal insanity confirms the disruption to bourgeois domestic harmony of mental disturbance following childbirth. She has explored the role of the physician in not merely curing the patient, “but to seal, or at least conceal, the cracks that opened in the Victorian household”.<sup>48</sup> Ornella Moscucci too has remarked on this aspect of medical practice, noting that “as the new professional experts, medical practitioners in the Victorian period claimed medicine as the cornerstone of public morals”.<sup>49</sup> This was particularly pertinent for middle and upper-class families whose domestic serenity depended on order, duty and moderation. When this failed, notably when the mistress of the house forsook her responsibilities for whatever reason, the integrity of the household would be seriously compromised.

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<sup>47</sup> *ibid.* pp34-5

<sup>48</sup> Marland, H *Dangerous Motherhood: Insanity and Childbirth in Victorian Britain* Palgrave Macmillan: (2004) p66

<sup>49</sup> Moscucci, ‘Clitoridectomy, Circumcision, and the Politics of Sexual Pleasure’ p 60



For Baker Brown this seemed self-evident, especially in cases of epileptics who were fitting up to six times a day. After being operated upon, albeit at some distance south of the lesion, they were able to leave the Home in robust health that “extended around their own hearths”.<sup>50</sup> The odour of sanctity and moral probity was the theme for the first half of his speech. But that left plenty of time for the rather tawdry matter of fund raising to pay off the building debt incurred by his ‘child’. Yet no amount of pleading could secure those ends, for within the year the whole enterprise would collapse.

With hindsight, it was probably on the cards for some time that Baker Brown’s enemies would inflict most serious wounds given the delicate nature of gynaecology and the fairly recent struggles of male medical practitioners in wresting control from midwives and gaining exclusive control over women’s bodies.<sup>51</sup> Coupled to that was Baker Brown’s undeniable swagger and ostentatious appearance which probably reflected his considerable income from private practice. Always immaculate in a black suit and white tie, he never failed to sport a flower in his buttonhole.<sup>52</sup> This would have done little to endear him to his peers. Many medical men thought it rather unseemly and few took him at his own valuation.

Their first serious opportunity to call him to account came in 1866, the year that the C.D. Act of 1864 was extended. The issue centred on a small book rather ostentatiously bound in red calf and illuminated by gold lettering. The publication of *On the Curability* opened up a can of worms, and heralded the beginning of a

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<sup>50</sup> *Proceedings of the Seventh Annual Meeting*

<sup>51</sup> Sheehan, ‘Victorian Clitoridectomy’. See also Donnison, *Midwives and Medical Men* esp.Ch.3 ‘The Ascendancy of Men’; Moscucci, *The Science of Woman* esp. pp57-65

<sup>52</sup> Clarke, *Autobiographical Reflections* p503

concerted campaign to discredit Baker Brown and denounce his operative adventures. Indeed the *BMJ* in its review of the book wondered why the author had not called it “*The Curability of Masturbation and its Sequelæ*” given that it was long known that onanism, when indulged in frequently, resulted in nervous disorders and at worst, insanity. That said, the reviewer quite rightly noted that hysteria and masturbation were not synonymous terms and that “the operation is not a cure either for hysteria, or epilepsy, or catalepsy, etc., but a cure for masturbation, which is their provocative”. Furthermore it was suggested that a book of this nature “should bear on its outward *facies* none of those characters which belong to the class of works which lie upon drawing-room tables”.<sup>53</sup>

All this was a far cry from the more measured assessment of Baker Brown’s surgical procedures following the publication of the second edition of his *On Surgical Diseases of Women* (1861). Here, the *BMJ* whilst not agreeing with all of Baker Brown’s contentions over the removal of certain female sexual organs, did concede that “facts are always valuable, and as a contributor of such Mr. Brown always deserves our best thanks”.<sup>54</sup> This gratitude was short-lived. The *Lancet* too did not consider it appropriate to give credit to an operation when it was the mental aspect that was the true subject under scrutiny: “Remove the irritation, or, as Mr. Baker Brown advises, excise the clitoris, and *sublatâ causâ, tollitur effectus*”. Yet despite the *Lancet*’s misgivings about the precise subject of the operation, it must have recognized the source of evil by suggesting that the “baneful habit” could be treated by a “milder

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<sup>53</sup> *BMJ* i (1866) pp438-40 As far as many nineteenth-century doctors were concerned, onanism was deadly. See Gilbert, ‘Doctor, Patient, and Onanist Diseases’ p219

<sup>54</sup> *BMJ* ii (1861) p467

procedure, such as blistering the part, thus making it too painful for the patient to handle”.<sup>55</sup>

Baker Brown had considered this alternative and dismissed it on the grounds that the irritation was too deep-seated to be destroyed by a superficial sore. As we read these scathing reviews, it becomes evermore apparent that they addressed themselves to the operator rather than the operation. As it transpired, this would be the *sine qua non* of the case against Isaac Baker Brown. In fact when he brought the manuscript form of his book to Dr. Clarke, who at the time was on the editorial staff of the *Lancet*, he was advised not to publish. The author however sought other advice that accorded with his own.<sup>56</sup> That decision would cost him dear.

The outward make-up of the book belied its contents. For a start, the word masturbation was notably and conspicuously absent. This in itself marked the book with the stain of dissemblance, a charge often levied against quacks. Baker Brown’s sophistry remained constant throughout. Indeed we find evidence on the first page where he dedicates his book to the renowned neuro-physiologist Charles Edouard Brown-Séquard (1817-1894) who had written extensively on diseases of the central nervous system. Brown-Séquard subsequently took exception to his inclusion on the grounds that he had not been made aware of its contents before he allowed his name to be cited. Nevertheless Baker Brown had clearly bargained on “its introduction to the Profession under the auspices of the greatest physiologist of the day”, paying court to Brown-Séquard by being “deeply indebted for your kind permission to dedicate this

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<sup>55</sup> *Lancet* i (1866) pp485-6

<sup>56</sup> Clarke, *Autobiographical Reflections* p500

work to you”.<sup>57</sup> Unsurprisingly his professed deferment to Brown-Séquard was only fleeting.

Although the chapter ‘Irritation and Hypertrophy of the Clitoris’ in *On Surgical Diseases of Women* had contained details of the procedure in its third edition,<sup>58</sup> *On the Curability* brought together under one banner all his arguments in favour of the operation and supporting evidence of successful case histories. Baker Brown began by telling his “professional brethren” – perhaps thinking they were all members of a male religious order – that he did not claim any credit for the originality of the treatment he was about to describe, preferring instead to leave that distinction with Dr. Brown-Séquard. Yet in customary full flood he explained how “daily experience convinces me that all unprejudiced men must adopt, more or less, the practice which I have thus carried out; and I have no doubt that, in properly selected cases, it will prove as successful in their hands as in mine”.<sup>59</sup>

Baker Brown’s lust for self-promotion told against his magnanimity towards Dr. Brown-Séquard. As the *Lancet* later mocked, “Mr. Brown snips away not only the *præputium clitoridis*, but also the greater part if not the whole of the clitoris itself ... this is what Mr. Brown, with the pardonable pride of an inventor, means when he speaks of ‘my operation’ – his latest if not his greatest discovery”.<sup>60</sup> He regarded it as ‘his’ operation since he would be responsible for readily curing his suffering patients before they descended down the slope of increasingly alarming ills. In this the *BMJ* had no argument, suggesting that Baker Brown was the sole owner of that dubious

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<sup>57</sup> Baker Brown, *On the Curability*

<sup>58</sup> Baker Brown, *On Surgical Diseases of Women* (1866) pp303-15

<sup>59</sup> Baker Brown, *On the Curability* pvi

<sup>60</sup> *Lancet* ii (1866) pp697-8

distinction. In its review of *On the Curability*, the journal stated “surely the credit of this operation belongs wholly and solely to Mr. Brown ... that the treatment is original, moreover, is shown by the fact that Mr. Brown, throughout his book, speaks of ‘my operation’”.<sup>61</sup>

His purpose in publishing the cases taken from records at his Home was to demonstrate that hysterical and other nervous affections which produced lesions of the female genitals “depended on peripheral excitement of the pudic nerve” and that he had devised a surgical test that consisted of “removing the cause of the excitement”. How Baker Brown was led to this causal connection remained a mystery even unto himself, for he freely admitted being “often foiled in dealing successfully with hysterical and other nervous affections” arising from diseases of the female genitals,<sup>62</sup> while *pari passu* convinced of the surgery’s efficacy. This paradox revealed itself in numerous ways throughout his book and was picked over diligently by the medical press. For example the *Lancet* pointed out that his work “may create a tendency to regard nearly every case of epilepsy or hysteria occurring in a female – a young unmarried girl especially – as due to ‘abnormal irritation of the pudic nerve’”.<sup>63</sup> Henry Maudsley too did not think that self-abuse was a frequent cause of insanity in women, “but that it was rather one of the symptoms of the malady”.<sup>64</sup>

Bearing in mind the growing numbers of women agitating for equal parity and status, Baker Brown was chiefly concerned with the restoration of the moral tone and of the nerve tone, both of which he suggested were lowered or disappeared when a nerve

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<sup>61</sup> *BMJ* i (1866) p438

<sup>62</sup> *ibid.*

<sup>63</sup> *Lancet* i (1866) p485

<sup>64</sup> Maudsley, H ‘On Some of the Causes of Insanity’ read at the meeting of the Harveian Society of London (Oct 18<sup>th</sup> 1866)

centre was abnormally and continually excited. His treatment, “dictated by the loftiest and most moral considerations”<sup>65</sup> consisted of excision of the clitoris and this would eradicate the problem. Moreover, the amount of nerve power lost was directly proportional to the amount and length of the irritation. Invoking the theory of conservation whereby excessive activity in one area of the body resulted in a corresponding weakness elsewhere, may have provided the necessary causal mechanism but it was a very obscure and prevaricating way of mentioning the unmentionable. Overexertion, in whatever form, meant a translocation of resources to another area, and therefore neither the mind nor the body could cope readily with activity that might inhibit or interfere with what nature expressly had intended.

The hydraulic model of finite levels of energy leaving one area of the body when required to support another, enjoyed widespread currency amongst the medical profession. Maudsley thought that a woman was at greatest risk when her sexual system was developing and the available energy needed proper channelling if vital resources were not to be squandered.<sup>66</sup> So on the vexed question of the female’s social, political and economic objectives, a significant proportion of the profession had shared concerns.

There was nothing new in this. To take one instance, in 1859 a Dr. Camps presented a paper to the Medical Society of London in which he attempted to bring hysteria under the nomenclature of mental and bodily disease.<sup>67</sup> The author stated that hitherto, it had been customary to consider the various forms of insanity “as apart from, or almost if

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<sup>65</sup> Baker Brown, *On the Curability* p12

<sup>66</sup> Maudsley, H ‘Sex in Mind and in Education’ *The Fortnightly Review* Vol. XV (1874)

<sup>67</sup> Camps, W ‘Hysteria Considered as a Connecting Link between Mental and Bodily Disease’ *Lancet* i (1859) p390

not quite independent of, bodily disorder, and conversely to consider bodily diseases as unconnected with, or independent of, mental disorder". Camps then suggested that whilst the latter view was still valid, he was of the opinion that insanity was in fact organic disease, and in many cases there existed impairment to the cerebral structure.<sup>68</sup> These functional 'truths' came to inform many of the scientific accounts of the female intellect as inferior. A significant number of medical men, unable to countenance the clamour for women's entry to their profession, seized on the idea that the female constitution was inherently flawed and this was evidently traceable to the demands her reproductive organs placed on an already limited mind.

This notion of a vulnerable if not defective constitution continued to be promoted over the succeeding years. It was very much a transatlantic debate, and there was general accord on the subject. In 1873 Dr. Edward Clarke, a prominent member of Boston's medical elite and professor at Harvard Medical School published his book *Sex in Education; or, A Fair Chance for Girls*. In it he argued that the higher education of American women was making them unfit to bear children and that years of menstrual function represented such a drain on the system "that [it] would make the stroke oar of the University crew falter".<sup>69</sup> In support, Maudsley wrote that he considered it "evident that many of those who are foremost in their zeal for raising the education and social status of woman, have not given proper consideration to the nature of her organization, and to the demands which its special functions make upon its strength." He added that subjecting women to "mental training which has been framed and

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<sup>68</sup> Although this view has been endorsed by Roy Porter, who states that in the second half of the nineteenth century there were indications that much insanity was actually organic disease, he added that it was hereditary taint, rather than structural deviations, that informed opinion. See his 'Madness and its Institutions' in Wear, A (ed.), *Medicine in Society* Cambridge University Press (1992)

<sup>69</sup> Quoted in the *Lancet* i (1874) p663

adapted for men” could not be undertaken without running the risk of “serious injury to her health and strength.”<sup>70</sup>

For Maudsley the argument was tautological: “women are marked out by nature for very different offices in life from those of men, and that the healthy performance of her special functions renders it improbable she will succeed, and unwise for her to persevere, in running over the same course at the same pace with him ... it is the plain statement of a physiological fact”.<sup>71</sup> Yet even though many different views were expressed, chiefly within the energy conservation paradigm, few could bring themselves to condone Baker Brown’s reasoning let alone endorse his methods.<sup>72</sup> These serious disagreements and discordance within the profession became more manifest as Baker Brown continued in his surgical objectives.

The ‘disease’ as Baker Brown termed it, was progressive and terminal, advancing ineluctably through eight distinct yet separate stages:<sup>73</sup> hysteria (including dyspepsia and menstrual irregularities), spinal irritation with reflex action on uterus, ovaries, &c., and giving rise to uterine displacements, amaurosis, hemiplegia, paraplegia, &c.,<sup>74</sup> epileptoid fits or hysterical epilepsy, cataleptic fits, epileptic fits, idiotcy, mania and finally death. Baker Brown’s reasoning seems less than incisive here. If, as he stated

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<sup>70</sup> Maudsley, ‘Sex in Mind and in Education’

<sup>71</sup> *ibid.*

<sup>72</sup> See *The Times* The London Surgical Home; Heaman, *St. Mary’s* p48; Baker Brown, *On the Curability* pvii

<sup>73</sup> Baker Brown, *On the Curability* p7

<sup>74</sup> The diagnosis of spinal irritation was short lived. First introduced in 1828 it had fallen out of favour by the last quarter of the nineteenth century. It was supposed to explain a plethora of local pains and disabilities. Inevitably, ‘irregular distribution of the nervous energy’ figured in this explanatory theory, but it could not stand the physiological test of primary inflammation of the spinal cord. See Oppenheim, J “*Shattered Nerves*”: *Doctors, Patients, and Depression in Victorian England* Oxford University Press (1991) p94. Baker Brown himself felt unsure of *how* this ‘debility’ was produced, but agreed with one of his colleagues who suggested it was “the intimate commissural connections between the lumbar enlargement of the cord, where the pudic nerves are implanted ... and the superior and nobler nervous centres”. *On the Curability* p33



stage eight was arrived at directly from stage one in analogue fashion, then it could not be said that progress was divided distinctly. To complicate matters further, Baker Brown described one of his cases when death was the direct climax of the disease. The nineteen year old had been suffering from headaches and was totally blind for the last two years of her life. When she was found, she showed “every evidence of having expired during a paroxysm of abnormal excitement”.<sup>75</sup> The intervening stages leading to certain death somehow appeared to have been skipped over.

This inconsistency did not seem to interfere too much with Baker Brown’s analysis of the disease and its dreadful train of events. He hoped to “arrest the disease *ab initio*”. While Dr. Brown-Séguard to whom Baker Brown had dedicated his book with such fulsome praise, was not able to determine the best method of destroying the nerve responsible for irritation, relying for the meantime on the application of actual cautery to the irritant nerve, Baker Brown would have none of it. For as he had said elsewhere, “the application of caustics, necessarily renewed at intervals, was a source of positive harm [since] the interference of the surgeon pandered to the morbid appetite of the patient”.<sup>76</sup>

As Baker Brown argued, loss of nerve force resulting from excessive venery was a symptom of a disease that required treatment marked by moral considerations. That a loss of nerve tone - in this case a metonym for a loss of moral tone - could be restored surgically was in keeping with the notion that the well-being and especially the stability of the civilized world was dependent on the proper and well-measured management of young girls and women who, from the age of puberty, were likely

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<sup>75</sup> Baker Brown, *On the Curability* p8

<sup>76</sup> Baker Brown, *On Surgical Diseases of Women* (1866) p304

subjects of ill-health. Although fully aware of the existence of childhood masturbation, considerately Baker Brown never operated before puberty, preferring to subject the child to “milder treatment with careful watching”.<sup>77</sup> But in the post-pubertal period and at any time in her future, there would be no extension to that consideration.

Symptoms of the disease reflected accurately the anxieties many medical men had about assertive and ambitious women. Indeed these symptoms provided a platform from which a cacophony of male concerns about social crises could be voiced: she becomes “restless and excited ... indifferent to the social influences of domestic life ... always ailing ... there will be wasting of the face and muscles ... irregularity in the uterine functions ... the patient desiring to escape from home ... distaste for marital intercourse”. To this terrible inventory were added anatomical deformities: “... depression in the centre of the perinæum ... peculiar follicular secretion ... alteration of structure of parts ... fibrous or cartilaginous degeneration”. At what stage of the disease these terrifying symptoms became manifest is unclear, yet having decided that his patient was “a fit subject for surgical treatment”, Baker Brown proceeded to operate “*at once*”. He placed the unsuspecting woman completely under the influence of chloroform and without much ado cut off the clitoris with either a knife or as his preferred method, with a pair of scissors. Following amputation, the patient was given opium rectally and carefully observed by a nurse in case the dressing was disturbed in which case “alarming hæmorrhage” would result.<sup>78</sup>

Frequently Baker Brown administered bromide of potassium post-operatively. Yet according to the experience of physicians attached to the National Hospital for the

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<sup>77</sup> Baker Brown, *On the Curability* p17

<sup>78</sup> *ibid.* pp14-16

Paralysed and Epileptic, the drug possessed “considerable power in diminishing the severity and frequency of epileptic attacks, and to check the sexual appetite”. This being the case, the *Lancet* wondered whether “Mr. Brown trusts entirely to his operation”.<sup>79</sup> The post-operative diet for Baker Brown’s patients “must be unstimulating”, yet it appears that permanent improvement to a patient’s condition was dependent for several months on “careful watching and moral training, on the part of both patient and friends”. If all went well, after one month no trace of the operation was visible to the “uninformed or non-medical”<sup>80</sup> which was hardly surprising considering the location of the wound.

What transpired then, apart from the obvious charge that careful watching alone might well tell against the need to operate, was the implicit suggestion that the clitoris itself was not responsible for producing a catalogue of morbid conditions. Rather the organ had come to represent women as the source of irritation, the harbingers of unhealthy, degenerate and unruly lusts. Moscucci has concluded “that Baker Brown was not interested in suppressing female pleasure, but in redirecting it toward an acceptable social end: heterosexual, vaginal intercourse. Within ‘normal’ female sexuality, there could be no place for the clitoris, with its propensity for sexual unorthodoxy and forbidden pleasures”.<sup>81</sup>

Conflating the defective body with degenerate moral and spiritual health was a very subtle, yet effective method of cross-referencing. Any deviation from lady-like behaviour in middle-class women was to be deprecated, and if the very essence of female sexuality could be destroyed, so too could her pathological desire to pervert all

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<sup>79</sup> *Lancet* i (1866) p486

<sup>80</sup> Baker Brown, *On the Curability* pp17-18

<sup>81</sup> Moscucci, ‘Clitoridectomy, Circumcision, and Sexual Pleasure’ pp71-2

natural instincts. “Long may the day be distant”, thundered the *Lancet*, “when the perverse ambition of the few shall be permitted to divert from its proper sphere that genial and happy nature whose chief strength lies in its gentleness, and whose true power is in its dependence”.<sup>82</sup>

Of course others held equally strong views. Although not a medical man, John Stuart Mill for instance believed that the occupational difficulties faced by women were “only clung to in order to maintain their subordination in domestic life; because the generality of the male sex cannot yet tolerate the idea of living with an equal”. He added that “whenever anything is forbidden to women it is thought necessary to say, and desirable to believe, that they are incapable of doing it, and that they depart from their real path of success and happiness when they aspire to it”.<sup>83</sup> But it was not a matter of subjection as proposed by Mill or indeed anyone else with feminist leanings. Rather, as Moscucci has argued, the point at issue was that of sexual deviation. This, she has suggested, was the central problem of the clitoris in the nineteenth century: “Sexual pleasure in women was pathological and socially problematic if it was the result of solitary ... sexual activity”.<sup>84</sup> Understood in these terms, a system stating that sexual distinctions had been in existence since prehistoric times was unlikely to win the day on the words of a philosopher, and certainly not those penned by “one of the most impulsive of men, swayed by sentiment almost to a feminine degree”.<sup>85</sup>

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<sup>82</sup> ‘Admission of Women to Academical Degrees’ *Lancet* ii (1863) pp486-7

<sup>83</sup> Mill, J.S. ‘The Subjection of Women’ Pt.3 pp524-5 in *On Liberty and Other Essays* Oxford University Press (1991)

<sup>84</sup> Moscucci ‘Clitoridectomy, Circumcision, and Sexual Pleasure’ p71

<sup>85</sup> *Lancet* i (1873) p710, p740. These comments probably refer to Mill’s serious bouts of mental crises that began to plague him in 1826.

Baker Brown's chronicle of case histories, distinguished both by ample brevity and scant detail, nevertheless exposed many of these wider issues. All displayed a common theme: each patient, having defied a cure at the hands of different doctors and irrespective of any other presenting conditions, had her clitoris removed within days of entering the Home. Indeed the presence of an organic lesion was frequently dealt with for good measure, either to offer tacit justification for the procedure, or what seems more probable, as an excuse to conduct experimental sexual surgery in circumstances that would grant greater freedom of action.

This was a point made by Dr. Wynn Williams who told fellow members of the Obstetrical Society of London that he had witnessed on two or three occasions at the Surgical Home, Mr. Baker Brown excise the clitoris, and was much struck with the fact, as pointed out by Mr. Brown, that in all these cases there existed small polypi in the rectum. Dr. Williams suggested the removal of the polypi in the first instance, remarking that he believed these were the cause of the irritation, as worms were known to be when located in the rectum. But no: polypi and clitoris must be, and were, removed at the same time.<sup>86</sup> Nothing offers better illustration than examination of Brown's own accounts of case histories, however brittle the detail and frugal the content, to see how the operation was used to demonstrate that sexual differences were not merely defined by the genitals but by the propensity of the female to succumb to the slightest impact to her nerves.

In August 1865, Baker Brown was called to the house of a 46 year old woman who had been attended by various eminent medical men for a variety of complaints ranging

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<sup>86</sup> This was part of a debate that took place following a paper entitled 'On Excision of the Clitoris as a Cure for Hysteria &c.' delivered by Dr. Thomas Hawkes Tanner to the Fellows of the Obstetrical Society. See *Trans. Obstet. Soc.* Vol VIII (1866) pp360-84

from uterine disease to attacks of pain in the back and loss of power to her legs. From the beginning of the year, her medical attendant had tried every conceivable remedy in his repertoire to effect a cure, but to no avail. Baker Brown was approached “as a last resource”. The woman was emaciated and haggard and “complained of severe spasmodic attacks of agonizing pain shooting up the spine”. On examination, he discovered “a deep and acutely painful fissure, with large piles and loose skin around the anus, and all the well-marked signs of peripheral irritation of the clitoris”. These symptoms clearly signalled her suitability for his procedure, and no time was lost. Within the month, Brown had “divided the fissure, tied the piles with three ligatures, cut off the loose skin around the anus, and removed the clitoris and elongated labia”. Her post-operative condition did reveal an improvement in spasmodic attacks, no doubt due to copious doses of opium. Furthermore, she was no longer “a martyr to flatulence and dyspepsia”... and could “sit in an upright chair for hours together, whereas formerly she was constantly in the recumbent position”.<sup>87</sup>

Clearly, anyone with just the most rudimentary knowledge of the human body could imagine that the removal of haemorrhoids and repair to a rectal fissure would make sitting down considerably more comfortable. That however was not how Baker Brown chose to read his patient’s condition. He noted that polypi and fissures were frequently coexistent with masturbation and although he had often cured patients of hysteria by treatment of the bowels alone, experience had led him to know “when to consider masturbation as the primary cause of disease, and when to treat both at the same time”.<sup>88</sup> Another case also highlights the spurious connection made between the act of defæcation and masturbation. Since each involved the production of waste, both in the

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<sup>87</sup> Baker Brown, *On the Curability* CaseXX1: Spinal Irritation – Loss of Power in Lower Extremities – Operation – Rapid Improvement.

<sup>88</sup> *BMJ* ii (1866) p674

physiological, and the biblical sense, voiding the body of these morbid and rank elements appears to have encouraged Baker Brown in his ‘properly selected cases’ to consider them virtually indistinguishable, and resistant to separate consideration.

Following twelve years of suffering pain in the womb and on her right side, as well as constipation and pain on defæcation, a 35 year-old woman was admitted to the Surgical Home on 15 April 1861. Brown’s examination revealed “evidence of peripheral excitement of the pudic nerve, and ... a fissure of the rectum”. Just three days later, the woman had the fissure incised and the clitoris removed. After her operation, she was able to defæcate without pain.<sup>89</sup> It would be wearisome to detail countless cases displaying similar symptoms and subjected to the same operative procedure.<sup>90</sup> The point made was clear: regardless of the period of time a patient had been unwell, irrespective of the symptoms exhibited, and indifferent to the practical results, Baker Brown had no compunction in destroying the organ and mutilating his patients in his misguided quest to ensure female compliance with the notion of ‘normal’ sexual behaviour.

On a number of occasions Brown lied to his patients, both to the cause of the condition and the nature of the operation. One young 20 year-old woman, who had been confined to a spinal couch since the age of 14 and was imprisoned in a spinal apparatus with an assortment of springs attached to support a retroverted uterus, had her clitoris removed. Brown’s diagnosis of peripheral irritation of the pudic nerve was met with disbelief. He was informed that the patient was a deeply religious woman and that there could be

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<sup>89</sup> Baker Brown, *On the Curability* CaseXV111: Hysteria and Spinal Irritation Twelve Years – Fissure of Rectum, Recent Duration – Operation - Cure

<sup>90</sup> Of the 48 cases cited by Brown, 17 presented with bowel disorders of varying severity, ranging from costiveness, to piles, to rectal fissures.

no suggestion that she indulged in acts of self-induced irritation. Baker Brown in fact brought this inconvenient detail to the attention of the *Lancet's* editor, answering the objection that “the frequency of self-abuse might lead to the suggesting of it to the pure-minded. Such a notion would only be entertained by those who could applaud the idea of ‘an experimental surgery which delights to *crawl* about the female pudendum’...”<sup>91</sup> So with this in mind, he found an explanation more in keeping with her demeanour.

Baker Brown suggested “her illness was to be attributed solely to a physical condition, and was not at all necessarily immoral”. The patient then expressed concern about the effect the operation may have on marital happiness and the chances of conception. Baker Brown was wrong-footed for a moment, explaining that although these objections had no foundation in physiology and were therefore untenable, he was not able to offer cases that would confirm his hypothesis.<sup>92</sup> This was an uncharacteristic response for it was a matter that had been brought up before. Commenting on criticism that the operation “unsexes a woman”, and was “a mutilation of the person”, Brown reminded his opponents that not only had several of his patients become pregnant after the operation, but since the clitoris was not essential to the generative process, removing it was no more a mutilation than any other surgical procedure, and therefore “may be passed over”.<sup>93</sup>

It is true that unlike its male homologue, the female organ is not essential to procreation, yet its destruction alters the essential nature of the woman from a sexual

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<sup>91</sup> Baker Brown, I ‘Clitoridectomy’ *Lancet* ii (1866) p495 [itals. in original]

<sup>92</sup> Baker Brown, *On the Curability* Case XV: Spinal Irritation, and Supposed Uterine Displacement – Six Years’ Illness – Operation - Cure

<sup>93</sup> Baker Brown, *On Surgical Diseases Of Women* (1866) p305. Indeed Baker Brown proudly drew attention to five of his cases where the woman became pregnant after he had removed her clitoris.



creature to a reproductive one. Impairing a woman's libido by refashioning her pudendum was an act of extreme brutality, especially so since the majority of patients were unaware of Baker Brown's *modus operandi*. But he would not have chosen to understand clitoridectomy in those terms. He would have placed his operation in the context of restoring moral hygiene and promoting 'orthodox' sexual pleasure. Of crucial importance was the kind of social relations men were entitled to experience in their encounters with women. Ensuring that any sexually errant female could be brought back to the domestic fold through surgery was the most rehearsed argument in Baker Brown's writings.

Having the pivotal figure of the domestic scene succumb to mental disease would place a great strain on the rest of the family. There were two obvious reasons why the family needed to address the problem. Firstly it could have been out of genuine sympathy and deep concern for the sufferer. But equally the illness could have brought shame and embarrassment to close relatives and members of the household by directly challenging the ideology of domestic harmony.<sup>94</sup> Baker Brown's purpose in cutting out the clitoris, apart from his assertion of restoring nerve power, was to reverse the decline in moral tone. Before any treatment was undertaken he "always made a point of having [his] diagnosis confirmed by the patient or her friends".<sup>95</sup> One would be right in wondering how many women would have 'owned up' to masturbating. However according to Baker Brown, his operation was not designed as a cure for masturbation, so arriving at a diagnosis of 'long-standing peripheral excitement' would have sounded relatively benign and not necessarily have elicited a denial.

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<sup>94</sup> Marland, *Dangerous Motherhood* pp 65-94

<sup>95</sup> Baker Brown, *On the Curability* p12

Time and again he spoke of “these ladies ... mothers of children, wives, mistresses of families [who] have been able to return home and to live in health and usefulness”.<sup>96</sup>

One patient who had been married for several years but as yet produced no children had “always had distaste for marital intercourse”. The surgeon’s ‘cure’ had resulted in three successful pregnancies and as far as he was concerned offered clear proof that a once sterile woman could become pregnant after the cause of her illness had been removed.<sup>97</sup> Another woman, “having distaste for the society of her husband” found herself the mother of two within three years of the operation.<sup>98</sup>

Numerous other cases cited by Baker Brown as cured hysterical symptoms followed by marriage and progeny, supported the argument that to ensure becoming in every respect a good wife was a man’s responsibility. But using scissors or a red-hot iron to restore the female mind to its natural balance and ensuring that no husband be placed in constant fear of a deranged wife was bound to encourage much debate and serious disquiet.

Medical men were not homogeneous in their attitudes and certainly not paid-up members of a monolithic block, moving at the same rate, in the same direction and with the same views in end. Indeed they were locked in various struggles within disciplines. Differences of opinion, challenges to accepted thinking and close examination of new treatments were healthy signs of a dynamic profession, one that was expected to be taken most seriously within the wider scientific community. Candour, both to one’s patients and within professional relationships was imperative

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<sup>96</sup> *Proceedings of the Seventh Annual Meeting* p35

<sup>97</sup> Baker Brown, *On the Curability* Case III: Hysteria – Thirteen Years’ Illness – Sterility – Operation – Cure, and Subsequently Three Pregnancies.

<sup>98</sup> *ibid.* Case IX: Hysteria – Five Years’ Illness – Sterility – Operation – Cure – Pregnancy – Two Children

for the integrity and overall well-being of the medical fraternity. Snipping away the supposed frightful powers of the clitoris to correct moral failure could not fall within these conventions. For the one-time illustrious surgeon matters finally came to a head on 6 March 1867 at the General Meeting of the Council of the Obstetrical Society of London when the Council notified the Society of its resolution that Baker Brown be removed from the Fellowship of the Society.

The special meeting convened the following month generated enormous interest amongst the 237 fellows who packed the rooms of the Medico-Chiurgical Society.<sup>99</sup> Although most fellows were based in and around London, more than fifty had travelled from the provinces. The early arrival of so many members hinted at the excitement of a chase. Before voting took place, the president Dr. Hall Davis set out the arrangements for the vote and the rules governing the removal of a fellow.<sup>100</sup> He then called on the vice-president of the Obstetrical Society Mr. Francis Seymour Haden, who had proposed the motion, to address the gathering.

Seymour Haden (1818-1910) became a fellow of The Royal College of Surgeons in 1857. He was the consulting surgeon to the Chapel Royal and was instrumental in the foundation of the Royal Hospital for Incurables in 1850. In 1847 he took rooms at 62 Sloane St. S.W., conducting his private practice from there for over thirty years. He had written various articles on cholera that appeared in the *Lancet* and *Medical Gazette*. Haden made it clear that he took full responsibility for having drawn up the indictment and moved the motion, having done so on “broad professional grounds”. He

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<sup>99</sup> This was the established forum where all the important medical controversies of the time were discussed.

<sup>100</sup> The rules required a two-thirds majority of those present to ensure removal. All those present were considered as having voted. Any abstentions were considered as a vote in favour of Baker Brown.

stated that he had no prejudice or animosity towards Baker Brown since he had no knowledge of him whatsoever.

**Fig.23** Etching of Sir Francis Seymour Haden, by W. Strang, 1883. Seymour Haden's activities stretched way beyond his medical interests. Apart from his surgical skills, Haden was a most accomplished etcher and a founder member of the Royal Society of Etchers and Engravers. He owned a considerable collection of Rembrandt etchings and was a connoisseur of Old Master prints. His brother-in-law James Whistler influenced him in pursuing his art professionally. His own work as well as drawings, lithographs and etchings of him can be seen at the Tate Collection and the National Portrait Gallery in London and in various collections worldwide.

Haden stated that as members of the Obstetrical Society concerned themselves with treating women, it was incumbent on them to be “the guardians of their interests and

... the custodians of their honour” (*hear, hear*). To this he added, “we are, in fact, the stronger and they the weaker. They are obliged to believe all that we tell them. They are not in a position to dispute anything we say to them, and we, therefore, may be said to have them at our mercy”. He went on, “if we depart from the strictest principles of honour, if we should cheat and victimize them in any shape or way, we should be unworthy of the profession of which we are members”. (*“hear, hear”, and applause.*)

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From these opening comments and the reaction to them, Haden lets us see that far from considering its female patients as objects of oppression, the medical profession was deeply paternalistic, bound to protect them and ensure they were treated with the utmost benevolence. We can also detect the true nature of the charges. It was not the operation *per se* that was being objected to; rather it was a collective defence of the honour of a professional body that had been fought for so vigorously over the recent past. In this there can be little doubt.

The charges levelled at Baker Brown by the Council concerned not the success or failure of the operation of clitoridectomy, but were “confined chiefly to the consideration of the ethical conditions under which it has been performed [and whether] it has been performed without the knowledge and consent of husbands, and upon married and unmarried women, without their knowledge of the nature of the operation”.<sup>101</sup> As far as the proposer and many other fellows were concerned, Baker Brown’s operation was an expedient, little more than a red herring. He had tarnished

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<sup>101</sup> *BMJ* i (1867) pp395-410. These pages contain the full text of the Obstetrical Society’s proposal to remove Baker Brown. Any words, group of words or comments in parentheses and/or italics appear in the original.

<sup>102</sup> ‘The Obstetrical Society’s charges and Mr. Baker Brown’s replies’ *Lancet* i (1867) pp427-41

the honour of the profession by performing psychological surgery under false pretences and failing to inform his patients and their families as to the purpose of the surgery.

Protesting “against the increasing tendency of the profession to sanction silently the growing quackery of the day” and subjecting Baker Brown’s acts to “withering scorn and most uncompromising severity”, Seymour Haden set the tone for the evening’s bloodletting.<sup>103</sup> He gave quackery a wide berth, allowing Baker Brown’s operation plenty of docking space. The particular form of quackery Haden suggested be under consideration was “the pretended cure of real disease by means which have no foundation in philosophy or in fact”. In addition he questioned the appeals made to middle-class women for donations of money, to titled people for patronage –“so little do these patronesses know what they are about”, and thirdly to the clergy –“for their co-operation in the good work”.<sup>104</sup> All this mockery brought laughter and cheering reminiscent of bread and circuses and Haden knew he had his audience in his grip. Baker Brown was further pilloried for a violation of the Lunacy Law by receiving women of unsound mind into his Home, and “endeavouring to cure mental diseases by surgical operations”.<sup>105</sup>

Haden could have rested his case there and then, having made the point that it was “a mutilation, ... unpublishable, and therefore secret” since he was sure that many women would not dare to talk of their experiences for the sake of their honour, “and Mr. Brown knows it well when he cuts out their clitorides”. (*Cheers.*) In case any doubt remained, he added that as far as he was concerned, “clitoridectomy is quackery”. But

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<sup>103</sup> *Lancet* i (1867) pp425-6

<sup>104</sup> *BMJ* i (1867) p397

<sup>105</sup> This charge relates to the article ‘The London Surgical Home’ that appeared in *The Times* on 15 Dec. 1866 and the subsequent correspondence between the Lunacy Commissioners and Isaac Baker Brown which was reported in the *BMJ* i (1867) p94

as we know, the sum and substance of the allegations against Baker Brown related directly to professional probity. Haden summed this up by telling his fellows that if the vote went against the Council, he “would not dream of bringing up sons to the profession”. (*Hear, hear.*)<sup>106</sup> That, he suggested, was what members needed to consider.

The tirade continued. Dr. Robert Barnes one of the founders of the Obstetrical Society of London and its president from 1865-1866 spoke next. He had seconded the motion and continued in the same vein as Haden. Case after case was picked over in an attempt to discredit Baker Brown. Time and again he was vilified for having operated with neither the consent nor the knowledge of the patient or her friends. Again and again he was accused of “gross infringement of professional honour” and “a most shameless and abandoned course of profligacy and falsehood”.<sup>107</sup>

It was now 9 o'clock, the time the ballot was due to take place. Baker Brown insisted he defend himself, and after much ado was given the chance to speak. He stated that many medical men including Barnes and Haden had visited the Home and to impute that things there were done secretly was a serious slander. Why, he asked, were those men who performed craniotomy and destroyed the child not brought to account? What about the use of the speculum? Now it may be in common use, but initially it was a daring act. Unable to pass up the opportunity of staying silent, Baker Brown carried on, asserting that “clitoridectomy is nothing more nor less than circumcision” (*cries of Oh! oh!*) repeating himself through loud laughter, hisses and groans.<sup>108</sup>

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<sup>106</sup> *BMJ* i (1867) p398

<sup>107</sup> *ibid.* Barnes was the Obstetric Physician and Lecturer on Midwifery and Diseases of Women and Children at St. Thomas's.

<sup>108</sup> *ibid.* p402

The President intervened after some moments: “It is the manner in which the operation is performed, not the operation itself”. Amid uproar and confusion the meeting continued with some members concerned that Baker Brown was not being given a fair hearing. Dr Charles Routh, as one of his supporters, came to his aid. Routh was the Consulting Physician at the Samaritan Free Hospital, and had stated elsewhere that clitoridectomy as a cure for hysteria was rarely performed at his hospital as staff were divided with regard to the results derived from it. Some held very strong views “and for the sake of peace, it was very rarely practiced”. Yet when there was evidence of organic disease, staff readily agreed to the procedure being adopted.<sup>109</sup> Nevertheless, Routh felt that clitoridecomy should only be performed when there was agreement between two doctors.<sup>110</sup>

During the debate, Routh reminded the audience that Baker Brown had never suggested or advertised that his Home was open as a Lunatic Asylum. Moreover was it not the situation that cases of delirium tremens were routinely admitted to metropolitan hospitals? He continued, “I have seen many cases in the University College Hospital of insanity, according to the Act – unsound mind”. Bearing in mind that the accused had probably “acted more from ignorance... than from wilful malice... is the punishment not greater than the offence?” For Routh, the proper course of the Council would have been to pass a vote of censure after the question had been thoroughly investigated.

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<sup>109</sup> See the comments of Drs. Rogers and Routh during the discussion that followed Dr. Tanner’s paper ‘On the Excision of the Clitoris as a Cure for Hysteria, &c.’ p376, p383

<sup>110</sup> See the introduction to King, H *Hippocrates’ Women: Reading the Female Body in Ancient Greece* Routledge: London (1998)



Dr. Tyler Smith who had worked alongside Baker Brown at St. Mary's would have none of it. He told Routh that his pity was misplaced and he would be better advised to address himself to the countless wretched women Baker Brown had wounded, and to their families and friends. Baker Brown was now a condemned man. At the close of the speeches, fellows streamed towards the voting tables, few doubting the scrutineers' returns. In the event, 194 fellows voted for Baker Brown's removal, 38 voted against and there were 5 abstentions. His fate was sealed.

The humiliating ejection of a once notable surgeon had been on the cards for some time, although few could have anticipated the manner of his downfall. The concerns of one fellow of the Obstetrical Society can usefully be applied to the whole debate: that "it is not good to let any man be the chief judge in a cause in which he must obviously feel greatly interested".<sup>111</sup> Commenting on the meeting, the *Lancet* felt that Brown's operation required more convincing evidence "than general assertions of success after indefinite intervals ... [and] if it be useless is a lamentable mistake, and if it be unnecessary is a cruel outrage".<sup>112</sup> This unease and sense of shame was becoming pervasive in the months leading to Baker Brown's dismissal. Departing from the rules of professional honour cast the whole medical profession in a notorious light; and as we have seen, professional unity never could cede to individual aberration.

Brown's *de facto* possession of his operation, his prognostic skills, and his Institution, allowed for the strictest secrecy. Although he was more than willing to demonstrate his surgical flair to his peers, inviting any interested medical man to wonder at his technique, his patients were left in ignorance. The amount of anguish suffered by

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<sup>111</sup> Tanner, 'On the Excision of the Clitoris as a Cure for Hysteria, &c.' in which Tanner argued that the operation did not prove of permanent value. See also the *Lancet* ii (1866) pp667-9

<sup>112</sup> *ibid.* p639

women who entered the Surgical Home and had a healthy part of their body removed, can barely be imagined. Dr. Greenhalgh, a bitter opponent of Brown's operation, told of a patient who came under his care in St. Bartholomew's, having previously been admitted to the Surgical Home "for slight periodic discharge of blood from the vagina, with pains in the lower abdomen and hips; for this her clitoris and nymphae were cut out without her knowledge, by Mr. Isaac B. Brown". She subsequently developed an abscess in the bowel, experienced difficulty in micturition and was plagued by irritation.<sup>113</sup>

The obstetric physician William Tyler Smith, who two decades earlier had recommended a course of injections of ice water into the rectum, introduction of ice into the vagina, and leeching of the labia and cervix as a cure for the symptoms of the menopause,<sup>114</sup> nevertheless could not bring himself to endorse Brown's procedure. He likened clitoridectomy to the removal of the penis in cases of male masturbation, and saw no justification for the application of surgery in cases of hysteria and self-abuse. One of his patients had had her clitoris removed having agreed to the operation only when told she would otherwise become insane.<sup>115</sup> Others had come to him following surgery at the Home, each one strongly denying any inclination to masturbate.

By its very nature, insanity suggested diminished competence experienced by those afflicted by hysterical symptoms. As we have seen, a woman's clearly proscribed duty as guardian of domestic felicity could not be discharged as long as her condition

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<sup>113</sup> See Dr. Greenhalgh's contribution to the debate following Dr. Tanner's paper 'On the Excision of the Clitoris as a Cure for Hysteria, &c.' p379

<sup>114</sup> From Smith, W. Tyler, 'The Climacteric Disease in Women' *London Journal of Medicine*, i (1848), quoted in Showalter, E *The Female Malady: Women, Madness and English Culture, 1830-1980* Virago Press: London (1995) p75

<sup>115</sup> See Tyler Smith's comments following Dr. Tanner's paper 'On the Excision of the Clitoris as a Cure for Hysteria, &c.' p378

remained untreated. However, it is worth noting that Baker Brown's vain attempts to sequester the mind and the body of his patients involved him in a degree of suggestion, as well as resignation on the part of the patient when faced with accusations of 'abnormal' drives or interests. Baker Brown's *modus operandi* relied on this element of suggestibility, a charge made most robustly by William Smoult Playfair (1835-1903), professor of Obstetrics and Medicine at King's College.

Playfair maintained that "if you say to an hysterical patient, 'You are suffering from peripheral irritation, and if you submit to a somewhat formidable operation, which consists in the removal of a portion of the body ... you are quite certain to get well', is it a matter of surprise that a successful result ... should follow? I think I may safely venture to say that it would baffle the ingenuity of man to invent a treatment more likely to produce a strong mental impression on the unfortunate class of patients for whom it is recommended than this operation of clitoridectomy".<sup>116</sup>

This point had been raised in the *Lancet's* crafted response following publication of *On the Curability*. The Journal argued against affording credit to the operation (for clitoridectomy) since if "an hysterical patient be once persuaded or coaxed into the belief that if she will try ... and exert her will, she will by degrees improve, and finally get cured, and the prophesy will bring about its own realization".<sup>117</sup> Both Playfair and the *Lancet* claimed that the mind of an hysteric was vulnerable to psychological manipulation which could over-rule the morbid conditions which gave rise to the disease in the first place. Moreover, if as the *Lancet* suggested, the patient could be persuaded that her symptoms were real and not imaginary, she could well come to

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<sup>116</sup> *Lancet* i (1867) p29

<sup>117</sup> *Lancet* i (1866) p485

believe that an operation on the very area that appeared to spawn her disordered condition, would cure her. If this was the case, then Baker Brown employment of insinuation and speculation worked to good effect.

The fact that Brown had brought insanity within the orbit of surgically treatable diseases did not mean that his methods were adopted by others involved in the moral management of women. Physicians attached to the Lunatic Asylums preferred enhancing the feminine side of a patient's nature through deference, humility, obedience and submission. Although by no means always successful, Asylum doctors never resorted to physical mutilation to secure their ends. There simply was no evidence to support the contention that the clitoris was the seat of myriad ills. Baker Brown's devotion to clitoridectomy, it could be argued, was connected to the need to find a suitably drastic and extreme method to ensure that those not requiring institutionalization were not thereby going to profit by remaining unscathed.

As we have seen, Baker Brown's interest was to ensure that a woman could derive pleasure from the sexual act only if it occurred within what he would have termed 'a normal and natural setting'. Clitoridectomy was designed to prevent any orientation towards unorthodox or forbidden ends or indeed any deviation from activity other than that which occurred during heterosexual penetrative vaginal intercourse. It was a surgical enterprise whose primary objective was to ensure managed reproduction.

What should be borne in mind were the numerous paradoxes associated with Baker Brown's theory. The exaltation and glorification of maternity appeared the *sine qua non* of Victorian womanhood. Yet a woman's fecundity, held to be nature's greatest

gift, seemed constantly at the mercy of aberrant and unnatural processes. Time and again he drew attention to irregular or profuse catamenia, constant menorrhagia, menstruation accompanied by fits, all seemingly responsible for reproductive dysfunction. It was hoped that control of the function at a personal level would somehow preserve and maintain health at a national level. At the same time, marital harmony and the sanctity of home was held to mediate against social breakdown. Coming at a time when middle-class women were aspiring to enter the professions, these were the very people Baker Brown saw fit to interfere with.

Hysteria was very much a middle-class condition, either absent or irrelevant in working women's lives.<sup>118</sup> A highly tuned nervous system was considered one of the defining features of a civilized culture, and thus more at home with the delicate and refined members of the female sex. Yet Baker Brown seemed intent on curing the very malady he supposedly wished to maintain. In treating hysterical and other nervous afflictions, thereby alleviating much of the strain on the nervous system, why would he then expect his newly enlivened patients to slip diligently into the passive role of wife, mother and defender of the home? None of his arguments appeared to fulfil these criteria.

Baker Brown was a broken man following the hounding he suffered at the hands of his peers and his ejection from the Obstetrical Society. Thereafter, with his reputation in tatters, his once thriving practice collapsed and despite numerous efforts, he failed to revive it. There can be little doubt that some took pleasure in witnessing an over-

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<sup>118</sup> Apart from the idea that working class women were too rough and uncivilised to be afflicted with hysteria or any nervous disease associated with invalidism, inertia and delicacy of constitution, their sexual excesses were tolerated because their services and labour were required to keep the middle classes solvent.

arrogant colleague become redundant. The sounds of baying on the evening of his expulsion leaves us in little doubt that many fellows attending the meeting experienced a degree of *schadenfreude* at his undoing. But that would be a misleading analysis of the affair.

As we have seen, the objection to the operation of clitoridectomy or even the reasoning behind it was not the point at issue. Rather, through his bravado, Baker Brown became the whipping boy for the many grievances and fears of medical men, especially the question of informed consent. This key point was the lynchpin for putting the collective medical house in order and ensuring that rogue elements could not gain a foothold. The debunking of Baker Brown served these purposes to perfection.

Nevertheless a number of medical men including senior members of the profession must have had some concern about the straitened circumstances of Baker Brown and his family. Early in 1872, an appeal was made to the medical profession on behalf of the disgraced surgeon. That a once eminent figure should find himself in “great pecuniary difficulties” elicited a healthy response to the tune of £404 10s 6d.<sup>119</sup> Dr. Lyttleton Stewart Forbes Winslow (1844-1913), Lecturer on Insanity at the Charing Cross Hospital was in charge of the fund and expended it as he saw fit. Initially £50 was given to “release Mr. Brown from some pressing liabilities”. Thereafter he was allowed two guineas a week to maintain himself. Yet after only a few weeks, illness began to take its toll and he moved to a hydropathic establishment at Beulah Spa. On his return to London, Forbes Winslow recognised the severity of his condition and under the circumstances began “liberally supplying him with all the substantial

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<sup>119</sup> See letter from Dr. Forbes Winslow to the editor of the *Lancet* i (1873) pp151-2

necessities of life” according to the wishes of the subscribers. Both Baker Brown and his wife were “full of gratitude to those friends who so kindly came forward to their relief in the hour of their bitter distress”. As for Forbes Winslow, he let it be known that he acted out of a sense of “Christian Charity”.<sup>120</sup>

It is an irony that Baker Brown ended his days being financially supported by the profession that had overseen his downfall. But this was not the only twist in the tale. Three weeks after his expulsion from the Society, Baker Brown was presented with a testimonial at a meeting held at Hanover Square Rooms.<sup>121</sup> The testimonial itself, elaborately decorated and illuminated on parchment, was presented “by several of the Nobility, Gentry and Members of the Medical Profession ... in token of their appreciation of his marked surgical skill and singular success in the treatment of Female Diseases”.<sup>122</sup>

The testimonial fund that had been initiated a year earlier, before the publication of *On the Curability...* raised 300 guineas and had been subscribed for “by nearly as many persons, either professional admirers or grateful patients of Mr. Brown”.<sup>123</sup> It consisted of a six piece silver dessert service, with the centre-piece bearing the crest of Baker Brown at its base. It was presented for his labours “in the face of many obstacles...[and] as a mark of personal esteem and the general appreciation of his practical services as a surgeon”.<sup>124</sup> However, whilst the glowing resolution adopted at

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<sup>120</sup> *ibid.*

<sup>121</sup> St. Mary's Archives: Deposited Collections DP1/5

<sup>122</sup> *ibid.*

<sup>123</sup> *BMJ* i (1867)

<sup>124</sup> St Mary's Archives: DP1/5 Given the circumstances of his downfall it is somewhat surprising that the event went ahead.

the meeting may have lifted his spirits, it could not reverse his situation. It would be his last time in the spotlight.

Baker Brown's death on 3 February 1873 prompted obituaries from the usual suspects. The *Lancet* was to call him "one of the ablest and most inventive of English surgeons",<sup>125</sup> whilst the *BMJ* considered his work on the cure of ruptured perinæum, of prolapse of the uterus, and of vesico-vaginal fistula "would alone have sufficed to rank him as a great operative surgeon".<sup>126</sup> Why a surgeon as gifted as Baker Brown should have risked his whole career for adventures in experimental surgery is an unanswerable question. According to *Plarr's Lives* "he was a skilful operator, but was rash and impetuous, being deficient in reflection and jumping too hastily to conclusions".<sup>127</sup> To that should have been added that Baker Brown's wished to be forever remembered as a surgeon who could correct a specific psychological disorder notwithstanding the repercussions for the brotherhood of medical practitioners.

This concluding chapter has been crucially important to the integrity of the whole thesis. Baker Brown's ostracism from the medical ranks rested on him unwittingly offering himself as a candidate for sacrifice. Conveniently for the medical profession and unfortunately for Baker Brown, clitoridectomy was eminently suited to carry the can for many of the real issues concerning professional rectitude as well as broader questions surrounding female perfidiousness. In an ultimately vain effort to construct an ideal of womanhood, Baker Brown continually emphasised the dangers of extra-domestic aspirations.

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<sup>125</sup> *Lancet* i (1873) pp222-3

<sup>126</sup> *BMJ* i (1873) pp158-9

<sup>127</sup> *Plarr's Lives* p158



Yet there was no such thing as a fixed notion of what a woman's body should represent. Irrespective of whether their motives and objectives were hedonistic or intellectual, the middle-class women he operated upon suffered the same fate. We have seen from the reaction to the speeches at the meeting that medical men's behaviour towards their female patients was expected to be unimpeachable. No allowances could be made for maverick operators whose behaviour would be in direct conflict with the stringent rules of honour expected of physicians and surgeons both from their patients and from within their own ranks.

## CONCLUSION

“A man is seldom ashamed of feeling that he cannot love a woman so well when he sees a certain greatness in her: nature having intended greatness for men”.

George Eliot *Middlemarch* Chapter 39

George Eliot set *Middlemarch* some forty years before it appeared in 1871-2, yet these heartfelt sentiments expressed through the narrator by Dorothea resonated throughout the century. Short of motherhood, it called to attention in stark fashion the unchallenging role many middle-class Victorian women were expected to take on in society. Although the medical construction of womanhood in the nineteenth century cannot comfortably be extended to all facets of Victorian culture, it did reflect fairly accurately the scientific proposition that human nature was securely rooted in biology. In other words, medical men were actively playing their part in contemporary debates about gender specific roles and responsibilities, debates that were wide-scale, far-ranging and which met formidable resistance from feminists and fellow sympathisers.

The originality of this thesis has depended on its subject matter not having been researched from the vantage point of the professional male working in the second half of the nineteenth century. Considering things through male eyes, particularly those of medical men, has provided significant illumination through which to consider issues of male power and female subordination. Obviously much work remains to be done on the subjects I have looked at, and in particular the positioning of women on the

evolutionary scale. I refer specifically to the maternal imagination thesis and the laws governing inherited characteristics. Surprisingly neither of these subjects has been examined from the nineteenth-century standpoint, nor have they been studied from a situation where the then current views were on the brink of being overturned.

The developing and expanding industrial society of the nineteenth century complicated the position of the majority of middle-class women. Those who had played an economically visible part in the family unit were removed from the public arena and placed in a domestic circle. Having shown perfect competence in a working environment, they found themselves equipped to deal with domestic duties alone. As I said in the introduction, there were plenty of women only too pleased to enjoy the benefits afforded by growing prosperity. Relinquishing their responsibilities in furthering the family business and occupying themselves with domestic matters had its attractions. Apart from raising the family and dealing with staff, many took on unpaid charitable work. But we also know that there was a significant number who had no wish to retreat to the domestic fold despite the huge investment that the majority of men had in these new arrangements.

In this setting the implications for 'manliness' were serious. For whilst these social adjustments were expressed in part by the patriarch of the family having access to a site of quietude and repose within the domestic space, the tensions aroused by the separate spheres ideology left the status of manliness equivocal. This thesis has charted the effects on women of an imposed biologically determined model of existence and examined the purposes and strategies employed by medical men in their attempts to ensure that a cult of femininity met general assent. In doing so I remained

faithful to the task I had set myself at the outset, namely to look closely at the scientific theories and discourses that went into the making of a particular female identity intrinsic to a particular period in time.

This study has shown that from mid-century Victorian medical men were vulnerable on both domestic and professional fronts. Therefore it was very much in their interest to retain a sense of patriarchy and mastery to militate against any erosion of their power base or blurring of gender divisions. The new biology of the sexes required reordered gender roles and the maintenance of incommensurability. For only then could differences be expressed in kind rather than by degree. But what we have also seen is the importance and centrality of Victorian women to this study. Far from acquiescing in a dependant role, a significant number of middle-class women were openly challenging the double standards, many of which were enshrined in law. Josephine Butler, who spearheaded the campaign to have the Contagious Diseases Acts repealed, was just one of countless examples of feminists pushing for legal, educational and civil reform.

A number of medical men of the period were deeply implicated in the production of what Roy Porter referred to as the “golden age of depression, nervous disorder and breakdown”.<sup>1</sup> I have demonstrated that male vulnerability played a vital part in these formulations. Professionally their status remained far from clear-cut even though the 1858 Medical Act was meant to provide clarity. As a result, any claims they may have staked to exclusive knowledge and power over the human body were not met with any corresponding conviction or certainty by their female patients. Women of the middle

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<sup>1</sup> Porter, R *Mind-Forg'd Manacles: A History of Madness in England from the Restoration to the Regency* Penguin Books: London (1990) p283

classes were notoriously capricious in their choices of treatment and the doctors they consulted. It remained a buyer's market for medicine after 1858 since alternative medicine was still able to prosper despite efforts to outlaw its practices.

However many new syndromes, conditions and pathologies declared themselves after mid-century, I have argued that each was created as a defence against the advancing tide of female discontent. To maintain the bias that had always favoured the male, many physicians and surgeons leant heavily on putative claims to medical authority to argue on behalf of the enfeeblement of women. As Jeanne Peterson remarked, "the [medical] professions created a special place for themselves in which 'modern' science justified a 'traditional' structure of authority and social relations".<sup>2</sup>

Attempting to define women as essentially reproductive and nurturing depended heavily on this traditional structure based on the supposed superiority and natural dominance of man. Although the polarization of the sexes was always going to be contested, medical men were not dissuaded from endorsing this expedient. Most disorders specifically trained on the female body set out to yoke women to degenerates, women to hysterics, women to sterility, or indeed to any useful pejorative noun. Once that had been established, however tentatively, verbal resourcefulness attempted to undermine the aspirations of many Victorian women, epitomizing them as the weaker sex inherently inferior to men.

Following the publication of Darwin's *Origin of Species* in 1859, support for the notion of the specificity of women took hold and gained momentum. In evolutionary

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<sup>2</sup> Peterson, Jeanne M *The Medical Profession in Mid-Victorian London* University of California Press: Berkeley & London (1978) p287

terms, the female of the species had never been, was not and never would become equal to the male. It was inscribed in the laws of nature and therefore could not be inverted. However, sexual distinctness needed struts and stays other than 'natural' ones to secure a woman to the hearth. As this thesis has demonstrated, there were a number of advantages medical men could count on to gain women's compliance and belief in their reproductive duties. One of the great bonuses was provided by von Helmholtz's theory of the conservation of energy.

During my research I did not come across one instance where medical men failed to embrace conservation theory and endorse its transcription onto the human body. This was hardly surprising given that it answered a repetitive continuum of objections as to why women could not enjoy the same standing as men. Henry Maudsley and Herbert Spencer were just two of the great champions of the idea of finite energy levels and argued tirelessly in a way that would have been difficult for the non-scientist to refute. In the context of women's domestic responsibilities, it was perhaps the most lucrative scientific theory of its time. Medical men were quick to profit by its anthropomorphic attributions and exploit the ease with which it replicated itself so faithfully on the female constitution.

As Foucault argued, a woman's reproductive duties were intrinsic to a capitalist society and indeed were a condition of it. While I have agreed with this general principle, I have also argued that her reproductive system in fact served two masters. Firstly it had to be robust, be attended to constantly and be able to desist calls for its required energy levels to be siphoned off elsewhere. Secondly, and paradoxically, that same system needed to be kept unsound and fallible to ensure a state of weakness if

not infirmity. The tension between the two saw to it that women remained in a double bind, never able to satisfy either condition. Yet even more importantly, the inconsistency of these twin impositions left medical men constantly vulnerable to their anxieties regarding the cult of womanliness which Peter Gay so rightly argued gave rise to 'alibis for manly aggression' vented through threatening language and obsessive behaviour.

This study has demonstrated that doctors went to inordinate lengths to argue that the female condition caused disease rather than being effected by it. The implications were pernicious, particularly for young girls about to embark on womanhood. Menstruation provided a nigh perfect occasion for tying up physical and mental ill health. Not only was infirmity more or less guaranteed to appear regularly and over a long time, but also it expressed so neatly the delicacy of a cycle always at the mercy of the ebbing away of vital energy. More often than not, domestication and seclusion were offered as the optimum relief under such circumstances, an idea consistent with Thomas Laqueur's thesis that the incommensurability of the sexes and the natural characteristics peculiar to women became the orthodoxy from the late eighteenth century. Being finalised for reproduction had enormous relevance for the Victorian woman. Her specialization indicated she was either an arrested man or had failed fully to evolve. Either way her cerebral capability fell far short of that of the human male, being more on a par with children and savages.

The language used by medical men, be it to describe symptoms or explain causes of diseased states, nearly always existed on more than one register. This duality did not indicate any awareness on their part. Indeed I have suggested that alternative

interpretations of their words were hidden from them, and necessarily so. Had they been alert to their anxieties in a conscious way, their understanding of the female condition would have taken on a much more inhibited tone. The chapter concerning inherited characteristics bears out the existence of these subterranean voices in its title 'The Laws of Inheritance'. Sounding exactly like the laws relating to property, we can begin to understand why medical men like Henry Maudsley felt threatened by the encroachment of women on to their turf and why they were so determined to challenge women's (property) rights and to deny them what was not rightfully theirs.

Any assault on their bastions of power was met with rousing opposition. Medical journals, with doctors as editors, lost little time in joining the fray. This can be seen as a predictable response to raised anxiety levels, although at face value it was expected to stabilise a labile situation. The discourse recruited so-called scientific theories to augment knowledge and authority. So by relying on others' ignorance, medical men expected to meet little meaningful resistance. As we have seen, specious arguments mimicking scientific theories would eventually be exposed as fraudulent. The implications for medical men were indeed serious, both for individuals and for the group.

As well as having their personal position endorsed by family members, medical men needed to be commended professionally. Unfortunately the problem of quackery continued to be a festering sore. It had not been dealt with conclusively by the 1858 Medical Act so many were left in a position to be tarred with the same brush as charlatans. It was imperative that these medical men separate themselves from those with questionable credentials. As said, one solution was to create a distance from the



unqualified by appearing more knowledgeable medically and more authoritative intellectually.

But we have also seen that adhering to professional probity was perhaps their most important quest. The chapter on Mr. Baker Brown's efforts at psychological surgery revealed the extent to which medical men were prepared to go in upholding their collective position. Indeed the charges were brought by the surgeon Seymour Haden who made it clear he had no previous knowledge whatsoever of Mr. Baker Brown. It was understood therefore that the motion to oust him was not contrived from any question of personal grudges. Whether or not Baker Brown's operative adventures had favourable outcomes was neither here nor there. Of utmost concern and in fact the only consideration was the repeated matter of professional rectitude.

The ramifications of this thesis are important because it has exposed how as well as why so many myths about women's biological destiny were able to abound. After all, it has been demonstrated quite clearly that the medical profession did not constitute a monolithic bloc with a collective aim of keeping women in a dependent and disadvantaged state. We have seen plenty of instances where medical men encouraged women to further their non-domestic interests. In addition it has been argued that there was much lively debate over the origins of certain diseases and their most appropriate treatments. However, most doctors were thinking within the contours of a woman's fragile if not volatile constitution. This allowed them to adduce various indwelling characteristics when making diagnoses or prescribing treatment. Needless to say this was never likely to be a sound basis for therapy, but it does let us appreciate the sideways pressure felt by so many in the profession.

Medical men in the second half of the nineteenth century understood the female condition in a host of different ways, although invariably within a framework of disorder and danger. Although the majority did not appear to harbour any misogynist intent, their considered notions of patriarchy cemented their prerogative in protecting the sacred condition of women as well as protecting their own backs from the incitements of their ambitious sisters. However, how that benevolent mastery expressed itself was not consistent with the advances being made on behalf of women through feminist exhortations. Changes to divorce and property laws, the suspension of the CD Acts, the admission of Elizabeth Garrett Anderson to the Medical Register in 1865, not to mention growing agitation for female suffrage, all served to further undermine receding notions of influence and authority.

This thesis has shown that although medical views could differ wildly, they were arrived at within a well-articulated paradigm. Indeed if that 'free fire zone' had not been in place, there would not have been the confidence to arrive at many of the conclusions. However, as I have argued, it was the activity of certain members of the women's middle class that forced the hand of medical men, rather than the other way around. In other words women were the driving force for change and the medical establishment responded with all the accoutrements of intractability and resistance.

**APPENDIX 1****STATUTES OF ENGLAND HAVING A DIRECT BEARING  
ON WOMEN IN THE VICTORIAN PERIOD****REFORM ACT 1832**

Broadened the franchise to include middle-class men. Although only 4% of adult males could now vote, no women were given these rights.

**MATRIMONIAL CAUSES ACT 1857**

Allowed divorce through the law courts, instead of the slow and expensive business of a Private Act of Parliament. Under the terms of the act, the husband had only to prove his wife's adultery, but the wife had to prove her husband had committed not just adultery but also incest, bigamy, cruelty or desertion.

**THE CONTAGIOUS DISEASES ACTS (1864, 1866, 1869)**

Allowed for the compulsory medical examination of 'common prostitutes' in garrison towns and ten miles around. The laws were introduced in order to protect members of the home forces from sexually transmitted diseases. In their final form they provided that where a woman was believed to be acting as a 'common prostitute' (a term not defined in the Act) within ten miles of one of eighteen specified naval and garrison towns, she could be reported to a magistrate and obliged to attend for inspection at hospitals ('Lock ups') created for the purpose. If found to be diseased, she could be detained for up to nine months for treatment. Refusal to attend could be met with forcible examination (labelled 'instrumental rape' by opponents of the Acts) or by imprisonment. The Acts were repealed in 1886, following a lengthy campaign led by Josephine Butler.

**REPRESENTATION ACT 1867**

Gave votes to better-off working class men in towns. Women were still excluded.

**REFORM ACT 1867**

Gave the vote to every male adult householder living in a borough constituency. Male lodgers paying £10 for unfurnished rooms were also granted the vote. This gave the vote to about 1,500,000 men. Women continued to be denied the right to vote.

**MUNICIPAL FRANCHISE ACT 1869**

Amongst other things, gave some unmarried and widowed women the right to vote for municipal councillors in some towns

**EDUCATION ACT 1870**

Allowed women to vote for the School Boards. Women were also granted the right to be candidates to serve on the School Boards. Several feminists saw this as an opportunity to show they were capable of public administration. In 1870, four women, Flora Stevenson, Lydia Becker, Emily Davies and Elizabeth Garrett were elected to local School Boards. Elizabeth Garrett obtained more votes in Marylebone than any other candidate in the country.

**MARRIED WOMAN'S PROPERTY ACT 1870**

Allowed women to keep £200 of their earnings, or property acquired after marriage.

**MARRIED WOMAN'S PROPERTY ACT 1882**

Allowed women to own and administer their own property.

**MARRIED WOMEN'S PROPERTY ACT 1884**

Allowed married women to keep all personal property that they brought to the marriage or acquired during it. Before the Act, this automatically became the property of the husband.

**REFORM ACT 1884**

This measure gave the counties the same franchise as the boroughs (adult male householders and £10 lodgers) and added about six million to the total number who could vote in parliamentary elections. Women were still debarred from voting.

**GUARDIANSHIP OF INFANTS ACT 1886**

Gave women more chance of achieving custody of their children after being divorced. The Act stipulated that the welfare of the child should be taken into consideration, therefore undermining the father's rights to custody of his children. A woman could be made sole guardian of her children if her husband died.

**LOCAL GOVERNMENT ACT 1894**

Allowed married women to vote in local elections just as single women did (provided they owned sufficient property).

**APPENDIX 2****RULINGS OF THE UNIVERSITY OF LONDON HAVING A  
DIRECT BEARING ON WOMEN IN THE VICTORIAN PERIOD****1862**

The Senate of London University decided by a single majority vote that its powers to confer degrees on “all classes and denominations ... without any distinction whatsoever” did not extend to females. Consequently Elizabeth Garrett (1836-1917) was debarred from entering the University’s examinations.

**1869**

The first series of ‘lectures for ladies’ was given, under the auspices of the London Ladies’ Educational Association. The courses were given outside the College premises. Later that year, women were allowed to attend classes within the College in the Physics and Chemistry laboratories.

**1871**

The first mixed classes for men and women were held. Until then, women were always taught separately from men, and used separate entrances to the College.

**1878**

London University accepted women for graduation in all faculties, shortly to be followed by the Scottish and then the English provincial universities. Oxford opened its degrees to women in 1920 and Cambridge in 1948. The first four women to graduate in London were awarded their degrees in 1880. At University College London, co-educational teaching was available in all faculties except medicine. Women were first admitted as full students to the Faculty of Medicine in 1917.

**1878**

Women were admitted for the first time as full degree students to the Faculties of Science and of Arts and Laws.

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