"The Fashionable Custom of Despising the Lancet": Medical Discourse and the Decline of Therapeutic Bloodletting in Nineteenth-Century Britain

by

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Table of Contents

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Introduction

One nineteenth-century physician suggested that the history of phlebotomy "would constitute almost by itself the history of all medical doctrines."[1] Another physician toward the end of the century echoes this sentiment, and goes one step further in underscoring the perception of this therapy's importance: "from a period almost beyond the beginning of the history of medicine...in a vast number of cases the chief point considered was whether the patient should be bled or not."[2] The critical question - to bleed or not to bleed - was asked throughout medical practice well into the nineteenth century. This basic therapeutic premise would in fact become one of the central medical challenges of that century, and one which has been both overlooked and misunderstood in much of the present historical literature.

Despite a dearth of scholarship examining it in detail, therapeutic bloodletting's importance in the history of western medicine is well-recognized. Its ubiquity has certainly been noted, and so has its usefulness as a case study to access the points of conflict within the medical milieus in which it was practiced. Throughout history, the practice of phlebotomy has typically withstood new anatomical, nosological, and physiological discoveries. These moments of progress in medical understanding were grafted onto an historical body of anecdotal evidence in support of therapeutic

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1 M. Malgaigne, "Esquisse historique sur la saignée considérée au point du vue opératoire; extrait des leçons du Professeur Malgaigne," *Revue Medico Chirurgicale de Paris* 9 (1851): 123, cited in Audrey Davis and Toby Appel, *Bloodletting Instruments in the National Museum of History and Technology* (Smithsonian Institution Press: City of Washington, 1979), 15.

2 Michell Clarke, "On the History of Bleeding, and Its Disuse in Modern Practice," *The British Medical Journal* 759 (1875): 67.

bloodletting, resulting in a re-envisioning of phlebotomy that has perpetuated it in slightly different forms over several centuries. Bloodletting is not unique in this; it has been recognized that there is more historical continuity amongst therapeutics than there is to be found in the history of theories of disease.[3]

It is noteworthy that the basic premise of therapeutic phlebotomy – the removal of some quantity of blood to improve health – remained in practice while its epistemic justification and the methods and tools of its practice have endured repeated deconstruction through debate since the very introduction of its use. Galen already had much to say on the subject,[4] and the debates he and his contemporaries instigated were revived in sixteenth-century Italy when the internal anatomy of the body came under rigorous scrutiny for the first time. Vesalius' *Venesection letter* and the ripples of medical dissent which both presaged and followed its publication is a well-known example, and one which illustrates the limited nature of the therapeutic arguments which resulted from the intersection of therapeutic bloodletting and new medical understanding. This bloodletting debate, which ultimately extended beyond Italy to the rest of Europe, was fixated on using new anatomical discoveries to justify one of two preexisting and Hippocratic theoretical approaches to bloodletting. To simplify matters exceedingly, the practitioners aligned with the derivation theory of venesection held that it was better to bleed on the side of the body affected by disease, while another school supported revulsive bloodletting, which demanded the incision be made on the opposite side of the

3 W.F. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994), 18.

4 For more on early bloodletting and humoral theory as it came to be wed to bloodletting, see Peter Brain, *Galen on Bloodletting: A Study of the Origins, Development and Validity of His Opinions, with a Translation of the Three Works* (Cambridge: Cambridge University Press, 1986).

body to the ailment. In effect, this was the ground-level battle representative of a bigger dispute between classical and medieval medicine, and one which Vesalius contributed to with his knowledge of the veins.[5] It was also, as many bloodletting battles have proven to be, an argument with sides split strongly on generational lines in support of either old, 'proven' medicine, or a new theoretical model.[6]

English soil was host to an "intense but short-lived"[7] debate about bloodletting during the middle of the seventeenth century. Once again, bloodletting was merely the axis of a larger contest between orthodox, Galenic medicine and a new type of 'chemical physician,' notably men who were denied legal practice in London and surrounding areas during that time. They must have found the seventeenth-century medical man's fancy for frequent bloodletting, a service which incidentally provided their generally unpredictable income with some reliable boost,[8] an easy target. These anti-phlebotomy attacks came from men like George Acton,[9] and more notoriously, Samuel Hahnemann, designer of the homeopathic principle.[10] Unlike previous arguments about bloodletting, the seventeenth-century debate called into question the actual efficacy of phlebotomy itself.[11] However, it was a debate which failed to alter the status quo. Phlebotomy recovered its connection to authoritative medicine and continued to be employed into the nineteenth century, where our examination of it shall begin.

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5 For a far more in-depth look at this dispute and Vesalius' influential role in it, see Charles Donald O'Malley, *Andreas Vesalius of Brussels 1514-1564*.

6 Mary K.K.H. Yearl, "The Time of Bloodletting," PhD. Diss. (Yale University, 2005): 25.

7 Eve Keller, ""That Sublimest Juyce in our Body": Bloodletting and Ideas of the Individual in Early Modern England," *Philological Quarterly* 86 (2007): 97.

8 Knut Haeger, *The Illustrated History of Surgery* (Sweden: AB Nordbok, 1988), 127-8.

9 See George Acton, *A letter in answer to certain quaeries...*(London: William Godbid/Bishop's Head, 1670).

10 See Thomas Bradford, *The Life and Letters of Samuel Hahnemann* (1895), chapter 48.

11 Eve Keller, "That Sublimest Juyce in our Body": Bloodletting and Ideas of the Individual in Early Modern England," *Philological Quarterly* 86 (2007): 97.

One of the biggest questions about the history of bloodletting has not yet received a proportional output of historical attention in relation to its importance. This question, asked simply, is this: Why did therapeutic phlebotomy cease to be practiced in the nineteenth century? This is an immense question, and one I cannot pretend to answer fully here. The following examination should serve as a stepping-stone to future research by reexamining the relationship between the decline of nineteenth century bloodletting and our textual evidence of that century's bloodletting conflicts. It is only a first step in the reinvestigation of the decline of bloodletting, but it is a necessary one.

In order to test the hypothesis that the reasons for the decline of bloodletting are not explicitly tied to the information nor the motivational rhetoric contained within the published bloodletting discourse of the early nineteenth century, I have examined the character of this early discourse, and the content of several key contributions to the discussion of bloodletting in early nineteenth century Britain. Marshall Hall's *Observations on Bloodletting* can be said to have initiated this discussion in a meaningful way, as one of the first attempts to scientificially understand the effects of loss of blood by experimentation. However, we shall see that his conclusion was one which, by its nature, promised to impact the method of phlebotomy and not its rate of practice. It was left to his peers to continue to construct an understanding of this therapy, but they did not do so critically before a recognizable decline in practice had already occurred, seemingly beneath their very noses.

The desire to better define and understand bloodletting in every way possible presented its investigators with a multiplicity of concomitant factors which their medical

and scientific training had equipped them to recognize, but not yet to grapple with. Men like Marshall Hall and Pierre Louis, the Parisian pioneer of numeric analysis, investigated bloodletting in new, systematic ways in an attempt to determine what diseases it should and should not treat, in what ways it should be performed (meaning the variable merits of leech vs. lancet), how it should be combined with other therapies like opium or arsenic, the quantities of blood to be drawn, from where, and at what intervals in relation to the progression of the disease and the age and gender of the patient, to name only the primary criteria for which they sought to account. Because the experiments conducted and the results of case-studies that were tabulated could not eliminate each of these factors to isolate the effect of bloodletting, their results remained inconclusive and subject to debate and, moreover, individual interpretation curbed by the bias of one's own therapeutic experiences.

Joseph Agassi has neatly summarized the character of this stalemate: "The claim that bloodletting is beneficial could not undergo critical examination, because the medical practices with which it was combined were so complicated that any medical claim was then immune to criticism."[12] There is a gulf between this type of early bloodletting research and discussion and the cause of the "fashionable custom of despising the lancet"[13] which occurred roughly between 1830 and 1850. We shall see, furthermore, that in the wake of a recognized decline in the early part of the century, medical practitioners interrogated their earlier decision to abandon the lancet, and re-investigated the therapy's potential in a way that suggests the initial decline itself was premature, and not founded

12 Joseph Agassi, *Science and Culture* (Boston: Kulwer Academic Publishers, 2003), 196.
13 J.T. Mitchell, "Judicious General Bloodletting," *The Lancet* 62 (1853): 401.

on sustainable medical principles. This was even despite the occurrence of a well-publicized refutation of bloodletting's use in fevers, an event which has come to be known as the Edinburgh Bloodletting Controversy, about which I shall explain more in due course.

Before going any further, I must make two semantic notes. Firstly, I will use the terms medical man and medical practitioner as umbrella terms for a more complicated reality of which much has been made elsewhere, and which Irvine Loudun has summarized in a spirit I have adopted:

> Historians sometimes search for the appropriate description of a medical man, uncertain whether to describe him as a physician, surgeon, a surgeon-apothecary, or even as 'an early general practitioner'. The search is seldom productive because it is based on the fallacy of clear divisions of practice within a medical profession such as those which exist today. The broadly descriptive term 'medical practitioner' is often preferable to a fruitless attempt to find the 'right' designation for a medical man.[14]

This discussion of bloodletting is, admittedly, focused primarily on the medical man, physician or surgeon, who was trained through a recognized medical institution. By the nineteenth century these two branches of the profession, notoriously autonomous and often full of animosity towards one another for much of British history, had overcome past wounds and worked in conjunction on their external or internal specialties. Both physicians and surgeons now studied the principles of medicine together; gone were the days of the barber-surgeon or leech-doctor. But there was not yet a full spirit of harmonious cooperation between the ascended surgeons and physicians, leading one practitioner to remind his audience that this "border territory" between physic and surgery

14 Irvine Loudon, *Medical Care and the General Practitioner* (Oxford: Clarendon Press, 1986), 28.

in the case of external and internal diseases was territory which had been "the scene of some bitter feuds, which even now are hardly completely tranquilized."[15] Only midwifery and pharmaceutical pursuits remained off-limits.[16] It is important to keep in mind that because phlebotomy was prescribed (if not necessarily performed) by physicians as well as surgeons, the debates surrounding its principles in the nineteenth century incorporated the entirety of the medical establishment's ranks.

Secondly, I will use some medical terms which refer to therapeutic bloodletting interchangeably: venesection, bleeding, bloodletting, and phlebotomy. These are relatively non-specific terms that imply the act of bloodletting itself, but nothing more. Two specific verbs used in relation to bleeding are leeching and cupping, which imply what specialized equipment was used to perform the phlebotomization. In the first case, of course, that equipment is a live leech, while cupping made use of a cupping kit. Venesection, bleeding, bloodletting, or phlebotomy typically indicated the use of the lancet, the fleam, or the scarificator. The use of these instruments and their oscillating moments of popularity in the history of bloodletting is a fascinating topic, albeit one for elsewhere.

Bloodletting's history of successfully surviving deep medical conflicts seems to imply, in light of its decline, that there is something fundamentally different about the nineteenth-century medical context. In the following section, I will discuss what has been the typical response to this implication. Namely, it has been argued that the nineteenth-century difference was one of scientific modernization, or rather, of progressive

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15 Lawrence, "Extract from Mr. Lawrence's Introductory Lecture to the Spring Course of Surgery," *The Lancet* 7 (1827): 629.

16 Irvine Loudon, *Medical Care and the General Practitioner* (Oxford: Clarendon Press, 1986), 93.

improvement. By first addressing some difficulties with the study of bloodletting both because of its status as a therapy and due to some recurring contextual oversights extant in the present literature, I will expose some errors of approach which indicate why we must look again at the nineteenth century's discourse on bloodletting in order to move beyond it.

Approaches & Context

It may seem unusual to combine a discussion of historiography with a contextualization of the nineteenth century medical sciences, but the former has so often drawn from the latter in order to explain bloodletting that I feel it necessary to engage briefly with both in relative textual proximity.

One of the benefits of the problematic scholarship on bloodletting (and indeed, other premodern therapies) is that it has contributed to an awareness amongst historians of the methodological hurdles posed in studying a therapy one 'knows' to be wrong. In an attempt to sidestep the earlier literature's tone of condemnation towards premodern therapies, recent historians have used the placebo effect as a convenient explanation for a potential therapeutic benefit which does not confound our modern understanding of science and the limitations it places on the estimated efficacy of premodern therapeutics.

So it bears mentioning that attribution of the power of the placebo effect to phlebotomy involves several problems. Ascribing the placebo effect to bloodletting is a misunderstanding of the scientific conception of this effect, and thus a distortion both of modern meaning and of the healing effect in the past it seeks to define. A placebo is by its nature a non-active therapy. In modern trials, this is the sugar pill that holds no power to affect the body significantly. New drugs in clinical trials must demonstrate a biological effect more powerful than the psychological impact of a patient's expectation of cure in order to be deemed effective. It has also been shown that the size, color, and shape of the sugar pill has an impact on the strength of a placebo effect, as does the number of times

per day a pill is ordered to be taken, and how well the experimental subject follows the doctor's prescribed regime. Thus, there is not one placebo effect, but a spectrum of potential wherein even a completely neutral sugar pill can produce varied results through manipulation of culturally engineered psychological expectations.

But bloodletting is not physiologically neutral. Removing any quantity of blood from the body triggers elaborate physiological processes on top of any attendant psychological effect, and these physiological responses have generally been assumed to be destructive. But some scientific research in the last several decades has suggested that bloodletting may produce some beneficial effects in certain measures and intervals. These potential benefits include improved arterial oxygenation, and more promisingly, the stimulation of phagocytosis and antibody formation.[17] These types of findings are more pertinent to the history of prophylactic bloodletting than therapeutic bloodletting, to be sure, but therapeutic bloodletting nevertheless has a modern legacy of its own in the treatments for haemochromatosis and polycythemia.[18] Recently, D.B. Stewart and J.G. Williams attempted to employ modern statistical analysis to examine the efficacy of Alexander Gordon's bleeding and purging regimen during the eighteenth-century Aberdeen puerperal fever outbreak, with the tentative conclusion that the transmittable infection may have been reduced with the use of the lancet.[19]

While I do not wish to make too much of the potential medical good of bleeding, prophylactic or therapeutic, I think it is important to mention these insights so that the

17 Guenter B. Risse, "The Renaissance of Bloodletting: A Chapter in Modern Therapeutics," *Journal of the History of Medicine and Allied Sciences* 34 (1979): 19.

18 Salena M. Wright, "Beyond Leeches: Therapeutic Phlebotomy Today," *The American Journal of Nursing* (2000): 56.

19 See D.B. Stewart and J.G. Williams, "Bleeding and Purging: A Cure for Puerperal Fever?," *Journal of Hospital Infection* 34 (1996): 81-86.

topic of bloodletting can be approached without the stigma of an irredeemable historical error, and without recourse to placebo effects as explanatory devices. Calling on the placebo effect oversimplifies and dismisses the effects of phlebotomy without real explanation, separating us further from a nineteenth century practitioner's understanding of the therapy.[20]

Considering the limited benefits of therapeutic bloodletting in our own scientific understanding, it is easy to see why historical consensus has described the decline of bloodletting as a positive product of new scientific knowledge. The standard historical interpretation holds that this knowledge proved bloodletting to be worse than useless, leading practitioners to subsequently abandon it. The rate, distribution, and endurance of this decline has not yet been exposed, and remains a difficult quantitative task to consider because of the irregularity of medical records throughout the first half of the century.

The sources of the scientific knowledge implicated in the decline of bloodletting generally consist of a few treatises on the subject itself, chiefly those of Hall and Louis, and often adjacent but applicable discoveries such as germ theory and the role of hemoglobin in the body. But a close study of the discussions of bloodletting demonstrate that considerable doubts about its use were in circulation at least thirty years before the general acceptance of germ theory in the 1860s.

Germ theory is generally considered relevant to the study of bloodletting because it changed the way medical practitioners understood the causes of inflammation, one of the most common conditions (which we would now call a symptom) that bloodletting

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20 For more on this, see A.K. Shapiro, "The Placebo Effect in the History of Medical Treatment; Implications of Psychiatry," *American Journal of Psychiatry* 116 (1959): 298-304.

was associated with and employed to treat. But the knowledge of germ theory is seldom invoked in published discourse to dissuade practitioners from employing the lancet, and it was not until the 1890s that Koch would verify this theory and transform it into the solid principles we recognize today. We find that, as late as the 1880s, the action of inflammation had not yet been defined, and that the "morbific influences of septic organisms" - or in other words, the presence of micro-organisms as cause of infection - was still just one possibility gaining attention in medical circles.[21]

Moreover, bloodletting was not exclusively used for inflammatory diseases, so a novel understanding of that particular physiological action could by no means entirely account for the decline of bloodletting in common practice. The *Cyclopaedia of Practical Medicine*, first serialized in England between 1832 and 1835, advised recourse to an "antiphlogistic regimen," of which bleeding was a principle part, for roughly two-thirds of its indexed diseases, from acne to whooping cough.[22]

The gradual shift from miasma to germ theory was external to the decline in bloodletting in the nineteenth century. This decline had already occurred well before scientific justifications were provided for it. The medical man's struggle to explain this decline predated any scientific proofs conclusive enough to lay bloodletting to rest. Medical men retrospectively generated their own explanations for bloodletting's decline from a historical-social perspective, proposing a 'change of type theory,' which suggested either that some time in the 1830s, the types of fevers experienced by their patient-public

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21 Frederick Thomas Roberts, *A Handbook of the Theory and Practice of Medicine* (London: H.K. Lewis, 1883), 52.

22 John Forbes, Alexander Tweedie, and John Conolly, eds., *The Cyclopaedia of Practical* Medicine (Philadelphia: Lea and Blanchard, 1849), cited in K. Codell Carter, "On the Decline of Bloodletting in Nineteenth Century Medicine," *Journal of Psychoanalytic Anthropology* 5 (1982): 223.

changed, or the physical character of their patient-public (and thus, the way the inflammatory fevers manifested) changed, rendering the use of the lancet not only inadvisable but also dangerous. The most visible manifestation of the 'change of type' argument was the Edinburgh Bloodletting Controversy, a period of a few years in the middle of the eighteenth century during which bloodletting's use in fever was under debate. Both nineteenth-century medical practitioners and recent historians have, in their turn, pointed to this controversy as the cause of the decline of bloodletting, but it was in actuality a discussion that occurred well after bloodletting's decline. John Harley Warner has usefully described the stakes of this debate, which hinged on "competing canons for judging the past, guiding action in the present, and squaring a course for the future."[23] The Edinburgh Bloodletting Controversy was not a debate about whether or not to bleed, but an argument about how to define a decline in practice that had already occurred.

Very recently, K. Codell Carter thoroughly described this controversy and clearly separated it from any causal relationship to the decline of bloodletting. Carter divides this important controversy into *acute* and *chronic* phases; the *acute* phase, triggered by the initial disagreement between John Hughes Bennet and William Pultney Alison, lasted from 1855 to 1856 and involved "heated verbal exchanges and politely worded insults."[24] The *chronic* phase, which extended the argument outside of the University of Edinburgh, began in 1857 and continued until an inconclusive end in 1860, although the argument continued to be mentioned for decades afterward. To summarize, Bennet and Alison were

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23 John Harley Warner, "Therapeutic Explanation and the Edinburgh Bloodletting Controversy: Two Perspectives on the Medical Meaning of Science in the Mid-Nineteenth Century," *Medical History* 24 (1980): 23.

24 K Codell Carter, "Change of Type as an Explanation for the Decline of Therapeutic Bloodletting," *Studies in History and Philosophy of Biological and Biomedical Sciences* 41 (2010): 2.

at loggerheads over whether or not bleeding was an appropriate cure for pneumonia. Alison believed that the febrile pneumonia which so often solicited the use of the lancet had become a milder, typhoid form of the disease which depleted the body's energies rather than produced an abundance of blood. To bleed in such a case would be dangerous, he proposed. In contrast, the younger Bennet saw the decrease in fever mortality as a product of a preexisting hesitancy to utilize the lancet, not because of a change in the disease itself.[25]

I am by no means the first to find our present understanding of nineteenth-century bloodletting to be unsatisfactory and limited in scope. Work has been done to begin accounting for the social factors involved in the decline of bloodletting. Peter H. Niebyl has proposed that the rise in class consciousness, specifically an increased awareness of and preoccupation with urban poverty and its associated diseases inspired a "doctrine of debility" which went along with a "concomitant decline in the use of bloodletting."[26] K. Codell Carter similarly proposed that the medical theory of plethora resulted in diagnostic decisions on class lines: "It can be no surprise that physicians occasionally let plethora (as well as the specific disease in question) fall from sight and simply concluded that wealth called for bleeding and poverty for supportive and tonic treatment."[27]

While Carter's thesis seems a sensible interpretation at first, he pushes it to extreme lengths by suggesting that the treatment "indicates that the patient is in

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25 K Codell Carter, "Change of Type as an Explanation for the Decline of Therapeutic Bloodletting," *Studies in History and Philosophy of Biological and Biomedical Sciences* 41 (2010): 1.

26 Peter H. Niebyl, "The English Bloodletting Revolution, or Modern Medicine Before 1850," *Bulletin of the History of Medicine* 51 (1977): 470.

27 K. Codell Carter, "On the Decline of Bloodletting in Nineteenth Century Medicine," *Journal of Psychoanalytic Anthropology* 5 (1982): 224-5.

disequilibrium with respect to society,"[28] and that the bloodletting physician "mediated a kind of blood atonement for the excesses of his people."[29] This thesis does not sustain itself when reconciled with the fact that bleeding was frequently employed in regimens designed to cure the impoverished and, in fact, those who might be said to be most in 'disequilibrium' with society – criminals. Bloodletting features throughout the Newgate logbook in which visiting surgeons inscribed the details of their visits during the first thirty years of the century. The ways in which they describe this treatment are typically matter-of-fact, and show no evidence of an alteration of therapeutic regime to reflect the social standing of their patients.[30]

The historical myth of bloodletting-as-panacea has already been denounced elsewhere and is no longer common intellectual currency,[31] so I will not address it at length here save to emphasize that never did a credible nineteenth-century medical man believe that bloodletting was an infallible or universal treatment. By the period we are concerned with, the understanding of bloodletting had changed from its Hippocratic roots to reflect William Harvey's discovery of the circulatory system,[32] but it retained a similar philosophic underpinning which hedged on the balance of the body. The balance of the sanguineous humor reigned supreme; a plethora of blood was seen as the cause of inflammation. At this time, the body's maintenance of a limited total volume of blood was not understood, nor was that total volume known. Gross overestimation of the body's

28 K. Codell Carter, "On the Decline of Bloodletting in Nineteenth Century Medicine," *Journal of Psychoanalytic Anthropology* 5 (1982): 225.
29 K. Codell Carter, "On the Decline of Bloodletting in Nineteenth Century Medicine," *Journal of Psychoanalytic Anthropology* 5 (1982): 227.
30 See The National Archives, Prison Commission Papers 2/161.
31 Mary K.K.H. Yearl, "The Time of Bloodletting" (PhD diss., Yale University, 2005), 25.
32 See Audrey Davis, "Some Implications of the Circulation Theory for Disease Theory and Treatment in the Seventeenth Century," *Journal of the History of Medicine and Allied Sciences* 24 (1971): 28-39.

total blood volume accounts for a large number of phlebotomy fatalities. Blood itself was only understood to contain water, albumen, fibrin, and "red particles."[33] Understanding of phlebotomy's effect on the physiology was accordingly vague; empirical evidence, or evidence through observation of patients, continued to serve as the justification for utilizing the lancet in the numerous diseases indicated by the *Cyclopaedia of Practical Medicine.*

Fevers were, by one reckoning, the most commonly reported disease type of the nineteenth century.[34] This made phlebotomy one of the more visible therapies of the nineteenth century, not only because of its bloody nature but its apparent ubiquity in so many orthodox curative regimes. But far from painting the nemesis of 'fever' with a single brush and applying a single remedy to it, the nineteenth century sought to define the different types of fevers.[35] This, in turn, generated problems about which of these newly named and defined categories of fever phlebotomy was able to treat – especially because these new definitions were usually broader headings that classified fevers as one or two types, instead of a proliferation of increasingly specific categories.

The nineteenth century medical man was, in effect, continuing the project of redefining bloodletting which had been initiated in the previous century. Sir John Pringle had used bloodletting as a diagnostic technique to determine the type of fever a patient labored under. If it was a "debilitating" type, then bloodletting was dangerous; if it were a "congestive" or inflammatory type, bloodletting was critical to recovery. Or, as John Armstrong, an American physician widely read in Britain in the first few decades of the

33 Venables, "Lectures on the Chemical History, Pathology, and Medical Treatment of Calculus, and the Various Disorders of the Urinary System," *London Medical Gazette* 1 (1839): 469.
34 Irvine Loudon, *Medical Care and the General Practitioner* (Oxford: Clarendon Press, 1986), 57.
35 Irvine Loudon, *Medical Care and the General Practitioner* (Oxford: Clarendon Press, 1986), 62.

nineteenth century suggested, immediate and copious bloodletting was in fact the only hope of cure.[36] It is this type of heroic medicine which most often colors our historical consideration of phlebotomy.[37] The rigorous "antiphlogistic regimen," usually attended with the application of skin-blistering poultices, emetics, purges, and of course bloodletting, has held the lion's share of historical attention. Benjamin Rush's strident bloodletting during Philadelphia's epidemic of yellow fever and George Washington's conspicuous loss of several pints of blood before his death still overshadow bloodletting developments in the early nineteenth century.

It is time to move beyond the spectacle of the historical mistake in order to deconstruct the relationship between medical discourse and the decline of bloodletting in nineteenth-century Britain. Leon S. Bryan Jr.'s proposal that a therapeutic shift occurred without garnering much attention, and without furnishing those who did recognize its occurrence with any ready answers,[38] may seem unsatisfactory, but by entertaining this theory and thus rendering the decline in bloodletting an enigma once again, we can begin to approach it from new angles.

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36 John Armstrong, *Practical Illustrations of Typhus and other Febrile Diseases* (London, 1816), 57, cited in Peter H. Niebyl, "The English Bloodletting Revolution, or Modern Medicine Before 1850," *Bulletin of the History of Medicine* 51 (1977): 465.

37 Mary K.K.H. Yearl, "The Time of Bloodletting," PhD. Diss. (Yale University, 2005): 12.

38 Leon S. Bryan, Jr., "Bloodletting in American Medicine, 1830-1892," *Bulletin of the History of Medicine* 38 (1964): 516-517.

The Fashionable Custom of Despising the Lancet

There was a vogue for bloodletting in the very early nineteenth century, both therapeutic and prophylactic. It was done with regularity in the spring in madhouses as a matter of therapeutic tradition,[39] and it was done with similar clockwork regularity to almost all in-bound patients within the Bristol Infirmary, regardless of ailment. "On days when the bleedings were numerous," Henry Alford tells us

> the pupil for the week would often arrange five or six of these patients in a row, side by side; first fix a bandage round the arm of each, and give them a pewter bleeding-dish to hold in the other hand; then, beginning at one end, open the vein of each in succession, and, when finished with the last, go back to the first, ready to remove the bandage and tie up the arm. It sometimes happened that one of the patients fainted and fell off the bench, and the blood was spilt over the room and the dress of the patient.

Alford's fellow pupils bled so frequently that they came to resent the cost and nuisance of constantly having their blades re-ground, and so would save time and money by stropping their lancets on their boots. Alford blithely adds to this account, "I do not remember that any other evil often followed this rough mode of venesection."[40]

The excesses of Bristol's infirmary were a product mostly of one Dr. Andrew Carrick, a "tall, sedate Scotchman" who was recognized by his peers to have a certain fondness for bleeding.[41] Bristol itself became characterized by "bleeding, bleeding, and more bleeding,"[42] which reminds us that therapeutic preferences were still very much

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39 George Rose, *Report from the Committee on Madhouses in England* (1815), 26.

40 Henry Alford, "The Bristol Infirmary In My Student Days 1822-28," *The Bristol Medico-Chirurgical Journal* 8 (1890): 189.

41 Henry Alford, "The Bristol Infirmary In My Student Days 1822-28," *The Bristol Medico-Chirurgical Journal* 8 (1890): 171.

42 Mary E. Fissell, "The disappearance of the patient's narrative and the invention of hospital medicine," in *British Medicine in an Age of Reform*, eds. R. French and A. Wear (London and New York, Routledge,

subject to the preferences of individual doctors and the established traditions of particular medical institutes. It also suggests that Bristol should be regarded as the extreme of a therapeutic scale, but a real possibility nonetheless.

Phlebotomy was positioned in a place of tension between the commonality of its practice and the relative lack of understanding of its mechanisms. In light of experiences such as Alford's, it is not surprising that the early decades of the nineteenth century saw a proliferation of works investigating this therapy. The works most commonly cited by historians (rightly so) as a new type of investigation into phlebotomy are Pierre Louis' *Researches on the Effects of Bloodletting in Some Inflammatory Diseases* (which I shall not treat here, except in passing) and Marshall Hall's *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood.* These were both published in the mid-1830s, and saw translated editions which reached audiences beyond their native France and England, respectively.

These monographs were by no means the only ones of their type, but I must leave it to future work (and perhaps other historians) to expand the investigation of this therapy's fate to include these which I am about to list. I mention them here to make it apparent that there are yet sources waiting for inclusion and consideration, and that the efforts of Hall and Louis are by no means the final nor the exclusive word. A selection of other works runs chronologically thus: Benjamin Welsh's 1819 *A Practical Treatise on the Efficacy of Bloodletting in the Epidemic Fever of Edinburgh,* Rees Price's 1822 *A Treatise on the Utility of Sangui-Suction or Leech Bleeding in the Treatment of a Variety of Diseases,* George Warren's 1829 *A Commentary, With Practical Observations on*

1991), 103.

Disorders of the Head, in which is Particularly Considered the Propriety of Bleeding, Henry Congreve's anti-phlebotomical 1833 *The Scrutator: A Familiar Treatise on Venesection, or Bleeding,* James Wardrop's 1837 *On the Curative Effects of the Abstraction of Blood,* and Henry Clutterbuck's 1840 *On the Proper Administration of Blood-Letting, for the Prevention and Cure of Disease.*

This shortlist of titles demonstrates Hall and Louis' works were not written in isolation, but were part of a larger inquiry into bloodletting occurring well before the middle of the century. Their uniqueness comes from their attempt to quantify empirical evidence with data, but they represent an early and an uneasy marriage of the developing scientific genre which was beholden both to ideals of experimental evidence and the anecdotal structure of the traditional medical treatises of the preceding centuries. The medical reception of these new works is, we shall see, more divisive than unifying, and more of a catalyst for debate and defense of individual practice than anything which can, on its own, account for a decrease in instances of therapeutic bloodletting that would cumulatively produce an anti-phlebotomy trend.

In the minutes of medical societies, addresses to young medical men-to-be, serialized and printed medical lectures, and correspondence to medical journals, phlebotomy's challenges were typically attributed to a lack of requisite insight into the specific therapeutic circumstances in which it was employed. These were troublesome variables such as disease manifestation, patient age, constitution, etc., and not an inherent difficulty with the therapy itself. The chief concern embedded in the published discourse throughout the century, and in the case example we shall see below, was to ensure that

bloodletting was practiced safely and in a beneficial manner. This seems intuitive, but the complex intersections of physiology and understanding of disease provided a continually shifting criteria for what that should be. Avoiding error was critical, for a medical man could just as easily find himself faced with a malpractice suit for failing to bleed as he could for bleeding with unsatisfactory results.[43]

The most outstanding example of England's attempt to address the gaps in medical understanding attendant to phlebotomy is Marshall Hall's *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood,* published in 1830. It was not a bolt from the blue, but very likely a product of his association with and admiration for P.C.A. Louis[44] (whose *Researches on the Effects of Loss of Blood* was to be published in English six years later), and a mutual interest in the place of bleeding in therapeutic practice. His purpose in writing *Observations* was to address one of the major gaps between understanding and therapy, that being the actual physiological effects of loss of blood. He marveled at the fact that no one had yet attempted to explain precisely these effects, especially given the frequency of bloodletting and the commonality of haemorrhage.[45]

This was not his only aim; Hall also sought to establish general rules for therapeutic bloodletting. The exciting potential for phlebotomy to serve as a self-limiting diagnostic tool stemmed from "one of the most remarkable facts in physic," which said that "if several patients of similar strength and constitution, but affected by dissimilar

43 Sir William Hale-White, *Great Doctors of the Nineteenth Century* (New York: Edward Arnold & Co., 1935), 98.

44 Sir William Hale-White, *Great Doctors of the Nineteenth Century* (New York: Edward Arnold & Co., 1935): 89.

45 Marshall Hall, *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood* (London: Sherwood Gilbert and Piper, 1836), 5.

diseases, be respectively placed in the erect position and bled to deliquium, they will be found to have lost very various quantities of blood."[46] Hall does not share from where he has ascertained this "fact" of physic; he takes it as a principle and seeks to elaborate upon it. It is a principle still in use almost fifty years later, elaborated upon by Mr. Wharton Jones in order to specify the types of inflammation which allow the body to endure greater bloodletting without syncope. He repeats Marshall Hall's axiom that "the quantity of blood lost before fainting comes on, whilst the patient is in the erect posture, is never more than is requisite for the cure of the inflammation, and never so great as to prove hurtful to the patient."[47] This is the lasting legacy of a work designed to begin uncovering much more, and it bears no indication that the application of bloodletting as a therapy was yet in decline, or even a matter yet in question.

Hall brought his experience to bear in his *Observations,* expanding on some investigations he had made ten years earlier into bloodletting's effect on the constitution of the individual. This therapeutic pluralism is in evidence in *Observations* as well, and indeed one entire chapter is devoted to the problem of adapting the therapeutic technique to the patient. The *Observations* itself is broken into two parts, the first concerning the morbid effects of loss of blood, the second the curative. The first eight chapters, or roughly one hundred and fifteen pages, address the external manifestations of the effects of blood-loss.

This concern with the physiological manifestations of loss of blood relates to a prevailing worry about the use of phlebotomy that centred around the proper 'diagnosis'

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46 Marshall Hall, *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood* (London: Sherwood Gilbert and Piper, 1836): 176.

47 T. Wharton Jones, "Clinical Lecture on Bloodletting," *The Lancet* 112 (1878): 619.

of a patient's phases of reaction to the loss of blood, in order that neither too much nor too little would be drawn. There was equal anxiety directed toward either of these two extremes, which complicates any attempt to define the scientification of phlebotomy by modern criteria; we must remember that the total blood volume of the body was assumed to be far greater than it actually is, so the perceived risk of over-bleeding was on par with the risk of under-bleeding, not greater. One doctor would have us believe that "nothing is more common than to hear of patients suffering from want of losing a sufficient quantity of blood, affirming that it was impossible to bleed them to the desired extent."[48]

By describing a patient's symptomatic reaction to the loss of blood, Hall hoped to provide practitioners with a means by which they could determine whether it was necessary to let more blood, or to stay the lancet and adopt a more restorative therapeutic regime. He goes to great pains in the first part of *Observations* to describe the symptoms of syncope, reaction, and sinking, providing the rules by which a practitioner can address these. "The constitutional treatment must be stimulant in syncope," he writes, "sedative and soothing in the state of reaction, and restorative in that of sinking."[49]

We know that Hall's concerns about the patient's position during bloodletting translated into practical wisdom that endured outside of the medical sphere which provided Mr. Wharton Jones access to it. In *Miss Beeton's Book of Household Management*, published in serialized form between 1859 and 1861, we are told that "when a person is bled, he should always be in the standing, or at any rate in the sitting, position; for if, as is often the case, he should happen to faint, he can, in most cases at

48 Wardrop, "Lectures on Surgery, by Mr. Wardrop: of the Sanguineous System, Abstraction of Blood."
49 Marshall Hall, *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood* (London: Sherwood Gilbert and Piper, 1836), 108.

least, easily be brought to again by the operator placing him flat on his back, and stopping the bleeding."[50] More interesting still, Miss Beeton suggests that while Hall's practical suggestion had gained purchase for its sensibility, there were still echoes of dissent years after its publication.

> It has been recommended, for what supposed advantages we don't know, to bleed people when they are lying down. Should a person, under these circumstances, faint, what could be done to bring him to again? The great treatment of lowering the body of the patient to the flat position cannot be followed here. It is in that position already, and cannot be placed lower than it at present is - except, as is most likely to be the case, under the ground.[51]

Not content with describing his general experiences with the different diagnostic outcomes of bloodletting, nor with allowing his numerous case examples to speak for themselves, Hall went a step further and attempted to reconcile his suspicions with experimentation. However, unlike the hundreds of tabled human cases that would be accumulated by Louis and brought to bear on the problem of the effects of bloodletting, Hall's research fell short in a variety of ways.

Hall conducted and rigorously recorded a series of phlebotomical experiments with dogs. By undertaking these experiments, he desired to ascertain the effects of loss of blood "in circumstances entirely free from the complication of disease or other unusual condition of the system."[52] His sample size was small, totaling seven small breeds: four terriers, two 'mongrel dogs,' and a spaniel. From the initiation of his experimental sequence, Hall expressed some misgivings about the use of dogs for establishing the rules

50 Isabella Mary Mayson, *Mrs Beeton's Book of Household Management* (London: S.O. Beeton, 1859-1861), chapter 43.

51 Isabella Mary Mayson, *Mrs Beeton's Book of Household Management* (London: S.O. Beeton, 1859-1861), chapter 43.

52 Marshall Hall, *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood* (London: Sherwood Gilbert and Piper, 1836), 115.

of bloodletting that he sought. He writes,

> In the prosecution of these experiments I had continually to regret the want of a criterion for the extent to which I might allow the blood to flow, - a criterion which is afforded to the veterinarian by the position of the horse, and of which the physician may avail himself by directing this patient to be placed upright. The dog is apt to pass from the sitting to the prone position, and then more blood may be withdrawn than he can bear to lose, before any distinct criterion of the sufficient quantity was apparent.

Nineteenth-century bloodletting was supposed to be both diagnostic tool and therapy, reflective of the physiological needs of the patient - if only the medical man knew what to look for. If more blood was required to be let, or if the flow must be stopped immediately, the body would tell the physician this in accordance with Hall's rules. But the problems posed by a therapy which identified the disease it was meant to treat at the same moment as it treated it do not seem to have factored into Hall's analysis, and there is nothing in *Observations* to imply doubt in the therapeutic powers of bloodletting despite the acknowledged challenges of experimenting on dogs. Hall's conclusion, after his seven canine experiments and several human case examples, is only this: "from observations made on the human subject, and in the course of these experiments, I am alike persuaded that bloodletting ought never to be employed in the horizontal position."[53]

Recognizing the great deal of work left to be done in establishing his preliminary rules, Hall invited his colleagues to use his *Observations* as a platform for discussion. Having established an injunction against bleeding in the recumbent position at the least, he welcomed assistance in accumulating further data to reinforce his principles. This

53 Marshall Hall, *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood* (London: Sherwood Gilbert and Piper, 1836), 136.

echoed the sentiment across the Channel, where Pierre Louis had written in the rigorous manner typical of his style, "true experience in medicine can result only from the exact analysis of numerous facts, well ascertained, classed according to their resemblance, compared with care and counted."[54] This approach, one of participatory truth-building, characterized the phlebotomy discourse, but also resulted in recurring, non-progressive argumentation.

In the early spring of 1838, Hall published a two-part piece in the *Lancet* which reiterated much of his earlier writings. These solicited more dialogue, but most of it took issue with particular details of Hall's findings rather than the larger therapeutic principles at stake.

The response of Charles Edwards, a Cheltenham surgeon, exemplifies the type of response Hall's findings provoked. This type of commentary proliferated in the wake of Hall's treatise, and generated the cyclical navigation of phlebotomy's minutiae without tackling its basic principles, and certainly without escalating the practice of bloodletting to an issue of widespread concern. In a letter published in *The Lancet* in response to Hall, Edwards identifies one assertion with which he takes issue - in this case, that the first bloodletting usually requires plentiful blood to be drawn before syncope, while subsequent phlebotomies will require less to produce the desired effect - and furnishes the page with an account of the puzzling case example which has given him occasion to disagree; in this instance, a young woman who had the temerity to give the most blood in the last venesection in her curative sequence. After supplying this example and the

54 P.C.A. Louis, *Researches on the Effects of Bloodletting...*trans C.G. Putnam (Boston: Hillard, Gray, & Company, 1836), 79.

implication of having other experiences in private practice similar to it, he advances an adjustment of the general theory for the consideration of his medical peers.[55] However, little further discussion often came from this type of reply. Published conversational exchanges are rare in the discussion of phlebotomy; most sources address at least one other, but seldom feed one another collaboratively and draw conclusions from these discussions.

While medical practitioners had much invested in the outcome of the bloodletting debate, there is no indication that the risk of losing one of their chief therapeutic tools caused anxiety enough to result in any dogmatic protection of its principles. To say nothing of the unorthodox practitioners which villianized bloodletting and so irritated the medical profession that was in the midst of a struggle for regularization,[56] the spirit of contrary debate was alive and well amongst those who discussed bloodletting. Yet an ongoing undercurrent of anxiety about medical truth-claims fed the discourse on bloodletting alongside a scepticism in regard to medical 'fact' itself which the medical press "tirelessly preached."[57]

One of the more visible names attached to the bloodletting debate throughout the early nineteenth century is that of W.O. Markham, M.D., Fellow of the Royal College of Physicians, later physician to St. Mary's Hospital. Throughout the early part of the century his addresses and writings appear in response to the scientific efforts of his peers,

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55 Charles Edwards, "On Bloodletting, with Remarks on the Views of Dr. Marshall Hall," *The Lancet* 767 (1838): 231.

56 Roy Porter, "Reforming the Patient in the Age of Reform: Thomas Beddoes and Medical Practice," in *British Medicine in an Age of Reform*, eds. R. French and A. Wear (London and New York, Routledge, 1991), 10.

57 Catherine Crawford, "A Scientific Profession: Medical Reform and Forensic Medicine in British Periodicals of the Early Nineteenth Century," in *British Medicine in an Age of Reform*, eds. R. French and A. Wear (London and New York, Routledge, 1991), 205.

and he vigorously engages with the debate with an increasing claim to objectivity attained through hindsight and historical perspective. Between 1857 and 1858, he held a column in *The Lancet* entitled "Remarks on the Inflammation and Bloodletting Controversy." It was inspired by the "very interesting discussion lately arisen in the Northern Division of our United Kingdom," namely, the Edinburgh Bloodletting Controversy. While the controversy yielded no satisfaction for either camp in the 'change of type' divide, or the more than forty medical men who participated in its satellite discussions, it did throw into sharp relief the puzzle of phlebotomy's silent death,[58] an enigma which Markham intended to capitalize on as a subject for rumination. We learn that by the point of his writing, the "quiet revolution" had already rendered bleeding "an affair of the past."[59]

Markham's contribution to the bloodletting discourse is important because it indicates the extent to which, twenty-five to thirty years after Hall's *Observations* and the occurrence of a rapid decline in bloodletting, the issues raised in discussions of phlebotomy had and had not been settled. Throughout the subsequent installments of his panel in *The Lancet*, Markham worked to deconstruct the precepts embedded in the 'change of type' argument, attempting at last to undermine them and create a history of theories of inflammation and reasons for bloodletting in order to support his eventual conclusion. He admits that "the application of this resource of our art must ever, in some sense, be guided by conjecture,"[60] but nonetheless proposes that "there are many cases of

58 K Codell Carter, "Change of Type as an Explanation for the Decline of Therapeutic Bloodletting," *Studies in History and Philosophy of Biological and Biomedical Sciences* 41 (2010): 2.

59 W.O. Markham, "Remarks on the Inflammation and Bloodletting Controversy," *The Lancet* 70 (1857): 440.

60 W.O. Markham, "Remarks on the Inflammation and Bloodletting Controversy," *The Lancet* 70 (1857): 515.

internal inflammations in which bleeding must be considered a fit and proper remedy."[61] Having used several pages and months in order to reach this conclusion and elaborate on it, he has in effect succeeded in reiterating Hall's own opinion that "to neglect the full use of this most important of our remedies, when it is required, or to institute it when it is not so, is equally to endanger the safety of the patient."[62]

The medical profession's response to the decline of bloodletting is indicative of this decline's relatively silent nature. After the decline occurred, for which, occasionally, the Edinburgh Bloodletting Controversy was blamed by men like Markham, and for which sometimes the excesses of a previous generation or no reason at all was given, a gradual thought that the profession may have been overhasty crept back into the literature.

It was clear that neither the potential harm nor good of bloodletting was yet fully understood by the scientific establishment, and in the pages of the *Lancet* and elsewhere men began to cautiously advocate the selective use of the lancet once again. A fellow of the Royal Chirurgical Society quickly wrote *The Lancet* editors eagerly to thank them for publishing W. Cummings' "General Bloodletting, with Cases" in their September 1853 issue, saying that, "by my associations in the profession, and by the public announcements so frequently made, I am convinced that this remedy is decried to a most injurious extent...the day is coming when the profession will review this great subject, and the now too long-continued and too fashionable custom of despising the lancet, will

61 W.O. Markham, "Remarks on the Inflammation and Bloodletting Controversy," *The Lancet* 70 (1857): 623.

62 Marshall Hall, *Observations on Bloodletting: Founded Upon Researches on the Morbid and Curative Effects of Loss of Blood* (London: Sherwood Gilbert and Piper, 1836), 250.

be superseded by one in which its great merits will be duly appreciated..."[63]

Markham's subsequent attempts to reintroduce a moderate practice of bloodletting, not to mention the several publications still seeking to investigate bloodletting in the years following the Edinburgh Bloodletting Controversy, demonstrates that the therapy had not been satisfactorily described. This is significant, for these post-Edinburgh investigations often allude with some puzzlement to the pre-Edinburgh decline of bleeding and to the redoubling of the fear of the lancet in the wake of the Edinburgh Controversy. The decline of bloodletting and the visibility of its problematic science had somehow bred educated men who "had been taught that it was next to murder,"[64] leaving a generation of medical men interested in ways to correct this fear of the blade, and legitimatizations for the development of this therapeutic phobia in the first place.

The ultimate shortcoming of the medical discourse that attempted to engage bloodletting shows in the endeavor's failure to afford medical practitioners the legitimate claim to objective, scientific knowledge they craved. "The prevalent opinion with the public," a doctor in 1841 informs us

> is that medicine is a science involved in total uncertainty, the practice of which depends upon the chance efforts of the professor, and consequently resting for its successful issue more upon the ingenuity or natural endowments of the physician, than any certain date or principles known or established in the art itself.

The problematic relationship between published investigations of bloodletting and its decline did not go entirely unnoticed by other medical practitioners of the century. In 1875, Michell Clarke, then consulting surgeon to the Bristol Hospital, voiced his own dissatisfaction with change-of-type theory and Dr. Bennett's proposal that modern

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63 J.T. Mitchell, "Judicious General Bloodletting," *The Lancet* 62 (1853): 401.
64 J.T. Mitchell, "Judicious General Bloodletting," *The Lancet* 62 (1853): 401.

pathology had destroyed bloodletting. While allowing that modern pathology was a prerequisite for more effective diagnosis, and that that "has had much to do with the confirming and endorsing the relinquishment of the practice," he suggested that

> the proof of the advantage, so far as it has been derived from statistics and advanced pathological science, seems to me rather to have followed than to have preceded it. The statistics which prove pneumonia, apoplexy, etc., to have a better rate of recovery without than with bleeding, certainly were produced after the use of it was given up, and when it was being sought to account for this change; but, no doubt, they settled and established the issue.[65]

W.O. Markham, in what may have been a rhetorical flourish in light of his later engagement with the topic, wrote that he hesitated to tackle so "trite" a subject as the effects of the abstraction of blood in diseases, because the practice ("not unfrequently prejudicial to the interests of the sick") had already arrived at a radical alteration in practice, if not one echoed by conviction, with the result that "abstraction of blood in disease is, at this period of the world's history, *pro tanto*, something akin to the abstraction of life from the patient's body."[66] How had this occurred? In a response which is more frank than his later "Responses," he admits that he cannot account for it, and in fact, expresses simple shock that such an "anti-venesection epidemic" had taken root. Moreover, there is a thinly-veiled contempt directed toward the Edinburgh Medical Controversy, an event that Markham saw as a group of and that medical men who "have busied themselves...in attempting to find excuses for, or explanations of, the change in practice..."[67]

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65 Michell Clarke, "On the History of Bleeding, and Its Disuse in Modern Practice," *The British Medical Journal* 759 (1875): 63.

66 W.O. Markham, "Gulstonian Lectures on the Uses of Blood-Letting in Disease," *The British Medical Journal* 170 (1854): 359.

67 W.O. Markham, "Gulstonian Lectures on the Uses of Blood-Letting in Disease," *The British Medical Journal* 170 (1854): 359.

Conclusion

It seemed to be agreed upon by the middle of the century that it was only the *indiscriminate* employment of the lancet which was worthy of medical derision,and by Markham's estimation, even the discussion of this sea change was no longer fashionable. There are many examples of a subtle faith in the lancet returning as the century goes on, as if it had never been discussed problematically at all. States an army medical department report from 1865, "there cannot be a doubt that, in many instances, blood-letting is most beneficial, and especially in military practice."[68] The old rhetoric of plethora seemed to have survived the Edinburgh Bloodletting Controversy, for we are told that "when the patient is robust or of a full habit...the abstraction of blood will undoubtedly afford relief, and place the patient in a better condition as to recovery than if no such treatment had been resorted to."[69] The caveat regarding this endorsement is mild and unapologetic: "it should be practiced with circumspection, always recollecting that...it is necessary to husband the powers of the system for the reparative processes which it will be called upon to put forth at a later period."[70] Later still, in 1878 bloodletting was prescribed "with great advantage" in cases of catarro-rheumatic opthalamia and iritis even despite "misgivings" about applying the leech.[71] Individual men continued to make their way by the lancet, as late as the close of the century. We find

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68 Army Medical Department, *Statistical, sanitary, and medical reports Volume V.* (London: Harrison and Sons, 1865), 466.

69 Army Medical Department, *Statistical, sanitary, and medical reports Volume V.* (London: Harrison and Sons, 1865), 466.

70 Army Medical Department, *Statistical, sanitary, and medical reports Volume V.* (London: Harrison and Sons, 1865), 466.

71 T. Warton Jones, "Clinical Lecture on Blood-Letting," *The Lancet* 112 (1878): 613.

one man by the name of John Turner, fifty-three years old and residing in northeast Wales in 1891, describing himself as a practicing phlebotomist. But his fortunes are indicative, perhaps, of a sustained decline in some respects: he is also listed as an almsperson of Christ's Hospital.[72] Irrefutably gone were the days when one could see such a sign as that of John Rigg, Cupper, where "Gentlemen Only may be always accommodated (if not full) in the best and neatest manner with Lodging, Sweating, Bathing, or Cupping."[73] And yet, Osler's 1892 *The Principles and Practice of Medicine* still recommends the use of the lancet for pneumonia.

Clearly the nature of the decline of bloodletting is more complex than has been previously allowed, and certainly the textual sources we have examined to furnish us with an understanding of this decline have proven to be more problematic than revealing. The paucity of information inherent in the textual sources written while the decline of bloodletting was occuring is a problem which still requires future attention. We have looked to the explanatory efforts of the physicians immediately following this decline too often, without considering their relationship to the decline itself, or the discourse published by their predecessors. By underlining the absence of professionally motivational factors sufficient enough to drive a change in therapeutic practice in the discourse of the early nineteenth century, I have endeavored to make a case for the requestioning or overcoming of these sources as our chief point of reference. The statements made by medical men like W.O. Markham, in the attempt to explain a change in therapeutic preference that occurred almost thirty years previously, indicates a change

72 *Charitable endowments (Denbighshire)*. (London: Eyre and Spottiswoode, 1891), 18.
73 Woodifield, 'John Rigg, Cupper.' 18??, London.

that occurred in a realm too far removed from the published medical discourse to make it reliable. As I suggested by mentioning the impact of Dr. Carrick's favortism toward bloodletting in 1820s Bristol, this realm seems to be that of the individual medical man. Moreover, the series of decisions which manifested in a decreased use of lancet, leech, and cup must have been steered by psychological weights which have not yet factored into our history of bloodletting. W.O. Markham has given us hope for this approach in his own suspicion, interjected between the lines of his multi-edition narrative of medical change: "Physicians began to doubt the correctness of their method, and then to change it; and, as usual in such cases, frightened inordinately, they rushed into another extreme of practice,"[74] that being the abandonment of the lancet altogether.

W. Michell Clarke, seeking to explain the disuse of bloodletting by the time of his address to the Bath and Bristol branches of the British Medical Association in 1875, saw it thus: "When we come to inquire as to what immediately led to the giving up of bleeding, I think we shall be inclined to say that it was the excess of the last generation that caused the utter collapse of the practice."[75] It may then have been the legacy of Alford's experiences, not of Hall's or those engaged in the Edinburgh Bloodletting Controversy, which more deeply affected the therapeutic tide of bloodletting in the early nineteenth century.

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74 W.O. Markham, "Remarks on the Inflammation and Bloodletting Controversy," *The Lancet* 70 (1857): 623.

75 W. Michell Clarke, "On the History of Bleeding, and its Disuse in Modern Practice," *The British Medical Journal* 759 (1875): 68.

Afterword

The bloodletting investigations of the early nineteenth century occurred in an atmosphere of uncertainty in medical practice during a time characterized by epidemic crisis alongside bitter competition within an exceedingly overcrowded medical profession.[76] If medical practitioners had reasons still to practice bloodletting, yet the therapy declined in use, we must seek input from outside the hospital. I suspect that future insight lies with the other half of the medical equation: the patient. When a therapy's efficacy is in doubt, if patients expect it, it may continue to be practiced;[77] perhaps it can only topple without both halves of the doctor-patient equation engaged in participation. At the very least, the impact of a patient-public empowered by the choice offered by a crowded profession and a proliferation of alternative healing movements needs to be considered.[78] So too should we consider what effect the widely publicized body of critiques of physicians may have had, from James Gillray's popular prints,[79] to recurring satirical figures like Dr. Sangrado and Charles Dickens' Dr. Kutandkumagen (Cut-And-Come-Again).[80]

Beyond paper sources, the material history of bloodletting offers another avenue

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76 Irvine Loudon, *Medical Care and the General Practitioner* (Oxford: Clarendon Press, 1986), 208.
77 David Wootton, *Bad Medicine: Doctors Doing Harm Since Hippocrates* (Oxford: Oxford University Press, 2006), 252.
78 See Logie Barrow, "Why Were Most Medical Heretics at Their Most Confident Around the 1840s? (The Other Side of Mid-Victorian Medicine)," in *British Medicine in an Age of Reform*, eds. R. French and A. Wear (London and New York, Routledge, 1991), 165-185.
79 See for example, the iconic image of bloodletting: James Gillray, "Breathing A Vein," (London: H. Humphrey, 1804).
80 See Charles Dickens, *The Mudfog Papers* (London: R. Bentley, 1880).

worthy of inquest. Lancet-cases were wrought with such precious materials as silver, gold, and brass, and often more exotic materials such as sharkskin. These cases could even come from as far away as China, perhaps conferring a worldly prestige upon their owners, or at least presenting an opening for conversation in clinical situations. There are several examples of these exported lancet cases extant in public and private collections. These cases, which were etched and engraved with appealing patterns as well as personal insignia and initials, may provide insight into the practitioner's relationship to bloodletting in the nineteenth century which may add nuance to our understanding of its decline - and revival.

The impact of the cholera and typhus epidemics of the early nineteenth century on the practice of bloodletting during this period should also be considered as a nursery for the therapeutic decisions that amounted to bloodletting's decline. Because bloodletting was employed to combat inflammation, and because both of these diseases were understood to be inflammatory in nature, therapeutic bloodletting was drawn into the spotlight of medical debate, and weighted with the burdens one would expect from a treatment used, mostly unsuccessfully, to try and combat highly transmissible, fatal diseases which were little understood. These diseases, like most, were thought to "either consist in inflammation, or are consequences of it, more or less remote."[81] The mysteriousness of these diseases then becomes quickly apparent when we are told of inflammation that "its intimate nature, even with the aid of the microscope, is a matter of keen dispute."[82] If one wished to more deeply examine the possible causes of

81 Henry Clutterbuck, *A Series of Essays on Inflammation and its Varieties* (London, 1846) cited in *The Medico-Chirurgical Review and Journal of Practical Medicine* 49 (New York: R. & G.S.Wood, 1846): 251.

82 *The Medico-Chirurgical Review and Journal of Practical Medicine* 49 (New York: R. & G.S.Wood,

bloodletting's decline in the nineteenth century, they would do well to look closely at the discourse produced about bloodletting in specific relation to cholera and typhus' outbreaks, to determine if the 'negative press' generated by it may not be at least partially to blame for a concomitant decline. This unprecedented disease certainly resulted in anti-medical sentiment, even riots in a "dozen cities,"[83] and the Medico-Chirurgical Review was spurred to remind its readership of practitioners of the risks of overzealous bloodletting as a result of its extensive employment during the 1831 cholera epidemic.[84]

Recently, bloodletting has been used as a portal in the study of other historical contexts. Two examples of the current work being undertaken on the subject of phlebotomy's early years illustrates a very recent resurgence in interest in the topic of bloodletting and its promising new directions. Shigehisa Kuriyama's "Interpreting the History of Bloodletting"[85] has provided us with critical insights in the field of culturally comparative medical history by examining phlebotomy's genesis and its relationship to eastern modalities, specifically the evolution of Chinese acupuncture, and a Yale PhD candidate recently examined, in her "The Time of Bloodletting," phlebotomy's religious function in the monastic setting of the medieval west,[86] highlighting the cultural and social significance of what has otherwise been interpreted as a purely medical act.

The history of phlebotomy, especially of the eighteenth and nineteenth centuries, has described this therapy as something of a curiosity at best, or worse, an error "so

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1846): 251.

83 W.F. Bynum, *Science and the Practice of Medicine in the Nineteenth Century* (Cambridge: Cambridge University Press, 1994), 75.

84 Liakat Ali Parapia, "History of Bloodletting by Phlebotomy," *British Journal of Haematology* 143 (2008): 492.

85 See Shigehisa Kuriyama, "Interpreting the History of Bloodletting," *Journal of the History of Medicine and Allied Sciences* 60 (1995): 11-46.

86 See Mary K.K.H. Yearl, "In the Time of Bloodletting," PhD. Diss., (Yale University, 2005).

puzzling as to be virtually inexplicable."[87] Unfortunately, this has kept our understanding of bloodletting at arm's length, relegating it to the position of a very large historical footnote. A typical statement runs as follows: phlebotomy was "unfortunately" practised "up into" the nineteenth century.[88] I have endeavored to illustrate bloodletting as a more nuanced historical problem. The means by which one of medicine's enduring therapies came to be practised less frequently should be of great interest to medical historians, for it indicates a moment in which we might observe a paradigm shift. Progress, does not occur in a cultural vacuum; it is intimately tied to cultural and psychological factors which can help or hinder innovation.[89] This tenet should inform our future investigations into the decline of nineteenth-century bloodletting.

87 Joseph Agassi, *Science and Culture* (Boston: Kluwer Academic Publishers, 2003), 196.
88 Erwin H. Ackerknecht, *Therapeutics from the Primitives to the 20th Century* (New York: Hafner Press, 1973), 22.
89 David Wootton, *Bad Medicine: Doctors Doing Harm Since Hippocrates* (Oxford: Oxford University Press, 2006), 252.

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