

"What They Think of the Causes of So Much Suffering": S. Weir Mitchell, John Kearsley Mitchell, and Ideas about Phantom Limb Pain in Late Nineteenth-Century America

Author(s): Daniel Goldberg

Source: Spontaneous Generations: A Journal for the History and Philosophy of Science, Vol. 8, No. 1 (2016) 27-54.

Published by: The University of Toronto

DOI: 10.4245/sponge.v8i1.20844

EDITORIAL OFFICES

Institute for the History and Philosophy of Science and Technology Room 316 Victoria College, 91 Charles Street West Toronto, Ontario, Canada M5S 1K7 hapsat.society@utoronto.ca

Published online at jps.library.utoronto.ca/index.php/SpontaneousGenerations ISSN 1913 0465

Founded in 2006, Spontaneous Generations is an online academic journal published by graduate students at the Institute for the History and Philosophy of Science and Technology, University of Toronto. There is no subscription or membership fee. Spontaneous Generations provides immediate open access to its content on the principle that making research freely available to the public supports a greater global exchange of knowledge.

PEER-REVIEWED

"What They Think of the Causes of So Much Suffering"

S. Weir Mitchell, John Kearsley Mitchell, and Ideas about Phantom Limb Pain in Late nineteenth century America*

Daniel Goldberg[†]

I. Introduction

In February 1906, Henry S. Huidekoper wrote a remarkable letter to famed American neurologist and literatus Silas Weir Mitchell. Huidekoper hailed from a prominent Philadelphia family, was awarded the Medal of Honor for his service during the Civil War, and rose to become postmaster of the city between 1880 and 1886. The subject of Huidekoper's missive was "a talk we had some years ago, about the loss of a limb" (Huidekoper undated) In his own words, Huidekoper had been wounded twice while in command of a regiment at the Battle of Gettysburg. In his own words:

I was wounded on July 1st 1863, about 4 o'clock in the afternoon by a minie ball going through my right elbow joint. A cord with a noose at the end of it, which I carried for the purpose, was used as a ligature, and I returned to my command for further duty. I had soon, however, to abandon the field, and, walking a mile and a quarter, had my arm amputated about six o'clock, never quite loosing consciousness. (Huidekoper undated)

As tragic as this story may be, given the large numbers of Civil War soldiers who experienced amputations, it is in and of itself unremarkable (see Mary-Grant 2012; Hasegawa 2012; Jordan 2011; Hasegawa and Schmidt 2009; Skocpol 1992). What is unusual about the letter is that its primary

^{*} Received January 1, 2014. Accepted March 21, 2014.

[†] Daniel S. Goldberg is an assistant professor in the Department of Bioethics & Interdisciplinary Studies in The Brody School of Medicine at East Carolina University. His work in the history of medicine focuses on the history of pain and the history of medical imaging in the 19th and early 20th century U.S.

subject is the decades-later sequelae of the amputation. Moreover, rather than being related as part of a terse, austere clinical case record, the effects of the amputation are narrated in the amputee veteran's own voice. Enhanced by the epistolary form, Huidekoper's narrative shows something much rarer in its turn-of-the-century context: an ampute veteran's description of their own lived experiences following amputation, of what it feels like to be missing a limb. Thus, included in what scholars have generally termed a phenomenology of amputation is something rarer still: a self-described phenomenology of phantom limb pain.

Huidekoper informs Mitchell that, "[o]f course, as with everybody else who has lost a limb, the fingers are distinctly felt, and pains occur oftentimes to various parts of them, lasting, in my case, from one or ten seconds." (Huidekoper undated) Huidekoper explains further that

I am fond of writing with a pen, fond of the mechanical skill which writing requires, and I write often in my dreams, but always with the right hand which I used over forty years ago. To do this, I attempt to use the tendons which would hold and guide the pen, and this is done with so much fatigue in attempting to control the hand and move the pen, that I suffer great pain in my finger tendons, even to wakening me up from the most profound sleep because of pain in the lost hand. (Huidekoper undated)

In his 2012 cultural history of pain, Javier Moscoso noted that "[t]he majority of people who have spent their lives gripped by pain find no place in the history of medicine." (Moscoso 2012, 200). This fact holds true for a number of reasons. First, as Emily Dickinson famously noted, pain has an element of blank (Dickinson 1999, 339). It can be protean, elusive, and difficult to capture, privately certain and publicly questioned. Second, Elaine Scarry points out the tendency of pain to silence its sufferers, of the ways in which extreme pain can in at least some cases defy language itself (Scarry 1985). Those experiencing the difficulties of communicating pain to others often resort to complex figurative language, such that personal experiences of pain are transformed, for example, into theological and religious discourse on salvific pain in the Middle Ages (Cohen 2010), or into discourse on juridical torture in early modern France (Silverman 2001).

Third, healers of most epochs have shared a concern that undue attention to the patient's pain symptoms can distract critical attention and resources away from the underlying etiology. Like many issues involved in understanding pain, this issue is at once old and new. Esther Cohen has pointed out that medieval physicians voiced such concerns in the fifteenth and sixteenth centuries (Cohen 2010, 99), while the Institute of Medicine's 2011 report on pain in the U.S. also stresses the importance of regarding at least some kinds of pain as diseases in their own right (suggesting that at least some continue to view pain as merely symptoms of an underlying disease) (Institute of Medicine 2011).

For these reasons and many others besides, individual expressions of pain in a therapeutic context are rare well into the modern era. Even today, when investigators wish to obtain narratives of pain, ethnographers and social scientists set out intentionally to create such a record by directly asking people about the pain they experience. And yet there is little doubt that pain is a crucial part of the human condition in general and of healing traditions in particular. Understanding how people experienced pain, what meaning, if any, they made of it, whether healers desired to provide relief, and what relief, if any, was provided are self-evidently important areas for historical inquiry. To that end, Anglophone history of medicine has embraced the much-discussed "social turn," with a welcome emphasis on bottom-up history in which are centered the lived experiences of health, illness, and healing of decidedly non-elite patients and communities. But as historian of science Lorraine Daston recently noted: the success of the microscope of social historiography, of the examination of the "filigreed texture of the everyday," may benefit from the complementary telescope of the history of ideas (Daston 2013). This article offers such a lens for thinking about pain without lesion in late nineteenth-century America, specifically by considering the conundrum of phantom limb pain through some of the work on the subject by Weir Mitchell and his son, John Kearsley Mitchell.¹

The thesis of this paper is that phantom limb pain posed not only an enigma for increasingly dominant somaticist models in medicine and science, but also undermined frameworks of mechanical objectivity that penetrated public culture in late nineteenth century America. Specifically, the paper analyzes how the epistemic and veridical components of mechanical objectivity influenced understandings of phantom limb pain. Because natural objects were invested as sites of Truth under mechanical objectivity, the veracity of illness and disability increasingly became a function of material dysmorphologies and lesions. In their absence, observers often lodged skepticism regarding the pain and nervous ailments about which sufferers complained, a tendency which contributed to the rise of concerns about malingering (especially as to pain) in the mid-to-late nineteenth century U.S. However, the claim here is not that phantom limb pain per se qualifies as a kind of pain without lesion.² Indeed, the extent to which the Mitchells

¹ Weir Mitchell's father was also named John Kearsley Mitchell, but all references in this article refer to the son.

² Because disease nosologies were fluid in the nineteenth century, a wide variety of different terms could indicate some form of pain. Although the term "chronic pain" might well suffice to capture most of such terms, Bazanger (1998) shows that such a term did not

were able to ground such pain in the existence of a material pathology is the central subject of inquiry here. Accordingly, referring jointly to "pain without lesion" and "phantom limb pain" should not be taken as a conflation of the two. Rather, the point is to frame a question regarding the extent to which pain occurring in a limb that did not exist fit into emerging models of somaticism and mechanical objectivity that emphasized the natural objects of disease.

The article draws on several different sources that highlight the Mitchells' views regarding phantom limb pain, including medical journal articles and treatises authored by each, as well as an extraordinary cache of papers preserved in the Silas Weir Mitchell Collection at the College of Physicians of Philadelphia Historical Medical Library. These latter documents primarily relate to surveys sent out by Weir Mitchell and John Kearsley Mitchell to prior patients who had experienced amputations. Including Huidekoper's, approximately twenty completed surveys are extant, and they constitute a small but rich resource, permitting the historian a rare glimpse into the phenomenology of phantom limb pain in a late nineteenth to early twentieth century context as described by the amputees themselves.

Phantom Limb Sensations and the Enigma of Pain without LESION

Weir Mitchell's Lifelong Interest in Phantom Limb Pain

Sometime in the late 1880s to early 1890s, Weir Mitchell and his son John Kearlsey Mitchell collaborated in producing a survey that they proceeded to send to a number of Civil War veterans and/or prior patients identified as having undergone amputations. Although the surveys are a treasure, a detailed description of the contents is beyond the scope of this paper's emphasis on the tension caused by the misalignment of phantom limb pain with frameworks of somaticism and mechanical objectivity. Nevertheless, the collaboration itself is worth noting purely as a contribution to the historiography on Weir Mitchell himself, since it indicates that his interest in phantom limb pain persisted for most of his adult life. Although his interest is well-settled, the majority of the scholarship on this question focuses on his pseudonymous short story, "The Case of George Dedlow," published in 1866. The narrative of Dedlow, a quadruple amputee, "becomes a composite figure for the half-million Civil War soldiers who went home disfigured

arise until the 1960s and hence cannot be used in historiography on pain in the nineteenth century. Accordingly, historians of pain have often used the umbrella term "pain without lesion" to refer to a variety of forms of persistent pain in nineteenth century contexts, although the term is neither exclusive nor exhaustive. For discussion of this point, see (Goldberg 2012; Hodgkiss 2000).

and chronically ill." (Cervetti 2012, 82) As Erin O'Connor points out in explicating the broader significance of the story,

amputation exposed and ultimately interrogated the importance of physical wholeness to Victorian conceptions of identity. In fragmenting the body, amputation fractured ideas about the self—what it is, where it comes from, where it is located, and whether, in the absence of a complete body, it can ever be completely present. (O'Connor 1997, 744)

The issue was especially significant in the immediate postbellum era because, as Weir Mitchell noted in 1871, phantom limb phenomena "has been found to be true in every case. Only about five per cent of the men who have suffered amputation never have any feeling of the part as being present." (Mitchell 1871, 565) In context of pain, this is certainly reflected in Huidekoper's matter-of-fact declaration that "of course" he, "like everybody who had lost a limb," experienced such pain.

However, scholarship on Mitchell and phantom limb pain typically does not go past Dedlow and the early 1870s. The surveys demonstrate that nearly three decades later, Weir Mitchell maintained an avid interest in phantom limb pain, sufficient to justify the time and effort involved in attempting to track down veterans' contact information from the Pension Office, designing the instrument itself, and collating and analyzing the data. Moreover, Weir Mitchell's interest was infectious, or, perhaps even hereditary—he evidently passed that interest on to his son, and it would be the son who would in fact go on to write up some of the results in the 1895 treatise Remote Consequences of the Injuries of Nerves and their Treatment (Mitchell 1895, 13-14), about which much more will be said below.

Difficulties in Conceptualizing Phantom Limb Pain

Aside from the relatively narrow significance of the surveys for biography on Weir Mitchell, they contribute to larger understandings of the challenges that phantom limb pain posed for the Mitchells and for mid-to-late nineteenth century U.S. neurologists in general. These difficulties center on the absence of a discrete, material pathology to which the phantom limb pain can be localized, an absence that fit uncomfortably with increasingly dominant frameworks of somaticism and mechanical objectivity.

The Silas Weir Mitchell collection actually features two surveys, the second of which is longer, more detailed, and has a structure that itself demonstrates the Mitchells' interest in the pain experiences of the respondents.³ This second survey consists of twenty-two typed questions,

³ S. Weir Mitchell Collection, Box 11, Series 4.5.

some of which are divided into multiple subsections, and with blanks provided for answers. The survey completely fills three pages. The instructions, printed in italics at the header of the first page, provide that "Questions should be answered as fully as possible. The circular when filled out should be mailed in the enclosed addressed envelope." The questions are exhaustive, beginning by asking for background information for the respondent and the nature of the injury, and moving quickly to inquiries regarding inter alia the effect of the amputation on their general health, the presence of any general sensory augmentation or diminution, the texture and sensory capacity of the skin on the stump, whether and which prosthetics have been attempted, and involuntary movements and spasms of the stump. Several entries asking about pain appear in this survey. Question eight asks about symptoms following the operation, and there are specific fields for describing the character, extent, seat, and severity of the pain. Importantly, even while the instructions generally request full answers, the survey designers add a parenthetical to the query asking about the severity of the pain: "(This answer as fully as possible.)" Two full lines are then provided for the participant to answer the question, which is more than that provided for all other questions in the entire survey (save one).⁴ It follows that the survey designers were particularly interested in the amputees' experiences with pain, and the participants responded accordingly.

Although much of the metadata surrounding the surveys is lost to the historian, John Kearlsey himself notes in *Remote Consequences* the considerable difficulties he and his father encountered in obtaining responses. John Kearsley explained that procuring current addresses for the identified subjects was one challenge, but also admitted that recipients of the surveys were likely reluctant to answer.⁵ Although subtle, some such resistance is perceptible in several of the extant surveys, which is significant inasmuch as it suggests that even those respondents that received the survey and did not negatively self-select by declining to participate felt at least some hesitation or reluctance towards the Mitchells' project. That such reluctance is connected to difficulties the respondents encountered in obtaining relief for their pain is made plain by the respondents themselves.

For example, fifty-one-year-old Henry A. Kircher, of Belleville, Illinois experienced an amputation on November 27, 1863 after being shot three times—once while standing, once on the ground, and a third while being

⁴ Curiously, the same two lines are provided for answering the question "Record any increase in strength and size of remaining limbs if such has been noticed."

⁵ The reason Mitchell supplies for some of the survey recipients' apparent reluctance to answer is important, and is analyzed in detail in part III.C below.

of the enigma of phantom limb pain for John Kearsley. Kircher includes a hand-written note addressed to "Gentleman" in which he professes the following:

Should you really have any interest in knowing how we criples get along can say that I think my general health has not suffered on [account] of my wounds. Still the inconvenience and being deprived of free bodily actions of course I constantly feel and therefore have to live accordingly. (Kircher undated)

The language in the first sentence – "Should you really have any interest in knowing how we criples get along" – suggests that the writer is dubious that the investigators are truly interested in his and his fellow amputees' lived experiences as disabled persons.

Fifty-eight-year-old E.D. Watkins of Milltown, Kentucky had both feet and his right leg amputated in April 1865 due to "frost fever and gangrene." (Watkins undated). He reports "burning sensations" in three different locations in the survey, including one such interlineation scrawled in the header of page three. (Watkins undated). On the blank fourth page of the survey, he includes a handwritten note expressing his disinclination to go to a physician and pay the fee, but indicating that if the Mitchells "send another blank . . . I will go to some MD and have it filled out/if you will send me what they think think [sic] of the causes of so much suffering." (Watkins undated). The juxtaposition in Watkins's response is particularly interesting. Watkins directs a frank expression of unwillingness to see a physician towards one of the most famous physicians in the U.S. at the time. Yet, Watkins almost grudgingly agrees to follow the Mitchells' instructions and see a physician, although his assent is conditioned on the Mitchells' willingness to communicate their belief about the causes of his agony.

Why were the Mitchells so interested in pain and, in particular, phantom limb pain? Cervetti argues that the intense, burning pain Weir Mitchell observed and treated during the Civil War remained a constant area of concern and interest for the remainder of his life (Cervetti 2012, 76-79). Both Weir and John Kearsley Mitchell explain in their 1892 and 1893 cover letters accompanying the surveys that the interests of medicine and science are the primary rationale for the surveys. Given the difficulties phantom limb

⁶ The circumstances of Kircher's wounds are detailed in Kircher 1983.

pain posed for somaticist models of medicine (discussed below), there is little reason to doubt the existence of the Mitchells' genuine scientific interest. In his 1871 commentary on phantom limbs, Weir Mitchell states that

[u]ntil very lately no careful scientific study has been made of the physiological conditions which arise in persons who have been so unhappy as to lose limbs . . . The opportunity for such study is now to be sought in civil life . . . [E]ven in the best books there is as yet no clear and detailed statement as to this subject, which for interest alike popular and scientific is hardly to be surpassed, even in this time of scientific sensationalism. (Mitchell 1871, 564)

Indeed, Charles Ritchley, of Cheltenham, Illinois, expresses something approaching desperation that the causes of his unremitting pain seem to be so poorly understood. In a letter addressed to John Kearsley dated October 2, 1893, he puts it plainly:

My suffering has been severe at times in my feet that are gone sometimes both and others only one . . . [illegible] . . . Fighting it is so severe they are the worst at night. I shall hope you will find the causes and also be able to furnish is some relief. (Ritchley 1893)

Why did understanding the etiology of phantom limb pain pose such difficulties? On the one hand, the answer is obvious: it is difficult to explain how one may experience pains in a part of the body that no longer exists. Yet a central claim of this article is that apprehending the true difficulties in comprehending pain without lesion underscored by phantom limb pain requires attention to larger intellectual frameworks that shaped attitudes, practices, and beliefs towards such pain in the mid-to-late nineteenth century U.S.

III. TWO KEY INTELLECTUAL FRAMEWORKS THAT SHAPED INTERPRETATIONS OF AND RESPONSES TO PHANTOM LIMB PAIN AND PAIN WITHOUT LESION

Somaticism and the Problem of Phantom Limb Pain

The rise of what historian John Harley Warner terms "empiricism," and what others have variously termed "the Paris School" and "somaticism" (Warner 2003; Sappol 2002; Hannaway and LaBerge 1998; Foucault 1994; Maulitz 1987; Jewson 1976) is a familiar story to historians of modern Western medicine. Although the details of the changes are the subject of an immense literature, the nineteenth century sees nothing less than the social

transformation of Western medicine.⁷ Here we need only focus on the rise of anatomy, an ascent so significant that physician-historian Robert Martensen terms the reliance on anatomical learning the "distinctive knowledge-making feature" of Western medicine. (Martensen 2004, 95) Although anatomy itself is ancient, it is only during the nineteenth century that it literally begins to define orthodox medical practice itself in the West. Few have analyzed the shifts as perspicuously as Foucault in *The Birth of the Clinic*. In the book he emphasizes the growing importance during the nineteenth century of practices of pathological anatomy combined with clinical correlation. The physician or scientist sought first to identify discrete material pathologies, often termed lesions, and second to correlate clinically said lesions with symptoms and complaints communicated by the illness sufferer while they still lived. (Until the advent of X-rays, and for obvious reasons, detailed human anatomical investigations tended to occur postmortem).

Unsurprisingly, the rise of the anatomoclinical method saw a corresponding growth in the significance of localization and, especially as to nervous disease, to cerebral localization (see e.g. Kaitaro 2001; Jacyna 2000; Rey 1993, 132-260). The emphasis on the capacity to localize illness complaints to specific material lesions marks a shift from the humoral emphasis on flows and channels as opposed to solid tissues. Foucault explains:

The appearance of the clinic as a historical fact ... is indicated ... by the minute but decisive change, whereby the question: 'What is the matter with you?', with which the eighteenth-century dialogue between doctor and patient began ... was replaced by that other question: 'Where does it hurt?', in which we recognize the operation of the clinic and the principle of its entire discourse. (Foucault 1994, xviii)

These shifts in ideas about health, illness, mind, body, and, of course, healing practices both orthodox and heterodox, had serious implications for understandings and beliefs regarding pain. As historian of pain Roselyne Rey puts it, "[a]t the dawn of the nineteenth century, physicians were looking for a pure sign which would remove the ambiguities inherent in symptoms. They wished to find a sign, the meaning of which would be as certain as that provided by the lesion at dissection." (Rey 1993, 99). Indeed, Weir Mitchell's friend, colleague, and one-time supervisor, William Hammond, the Surgeon-General of the Federal army during the Civil War, noted in his 1886 treatise on *Spinal Irritation* that patients' denial of tenderness

⁷ The phrase originates with Paul Starr, *The Social Transformation of American Medicine* (Starr 1982). Although Starr's book is exclusively focused on the U.S., there is no serious dispute among historians regarding the existence of such a social transformation in Western allopathic medicine in general.

along the spine was immaterial given that his physical examination revealed otherwise: "I insisted, however, on a manual examination, and to her great surprise found three spots that were exceedingly painful to slight pressure." (Hammond 1886, 35). Hammond concludes that "[t]he fact that the patient denies the existence of tenderness should have no weight with the physician." (Hammond 1886, 35). Although the physician's palpations are not equivalent to the detection of morbid lesions postmortem, it nevertheless represents the significance of the body's material structure over the patient's self-report in determining the nature and cause of the patient's pain.

The problem, of course, for pain without lesion is obvious. If, as Charles Rosenberg puts it, by the end of the nineteenth century the social legitimacy of disease depends on its somatic identity (Rosenberg 2006, 414), then pain which seems to persist (or have persisted) in the absence of identifiable lesions is a serious problem for increasingly somaticist orthodox medical practices. Anglo-American neurologists devised ways of dealing with the problem, perhaps most notably by denying the very possibility of pain without lesion. That is, while they typically did not deny the pain of their socially privileged patients, such an entity as "pain without lesion" was not countenanced (Goldberg 2012). There existed only pain for which lesions could be localized and pain for which lesions could not be so localized largely because existing techniques did not permit such localization. Moreover, efforts to localize pain did not imply that the morbid lesions were necessarily local (in the sense of proximal) to the region of the body in which pain was experienced. Indeed, in his history of pain without lesion, psychiatrist Andrew Hodgkiss notes that for early nineteenth century English surgeon Benjamin Brodie, who spent much of his time treating nervous disease and pain, "any lesion anywhere in the body will do to account for an otherwise inexplicable pain." (Hodgkiss 2000, 59). Similarly, Hodgkiss recounts a memorable case of early-mid nineteenth century surgeon Joseph Swan's involving a woman who endured over eleven years of knee pain. Hodgkiss notes that Swan "attributed all the symptoms over the 11 years of disability to the minor structural lesion of a digital nerve" (Hodgkiss 2000, 62). Hodgkiss comments:

It seems rather perverse to us that Swan should be satisfied with a trivial lesion of a digital nerve as an explanation for a decade of multiple, disabling pains all over the body. But what was at stake for him were the tenets of a new anatomoclinical method. The whole thrust of this programme was to match symptom and

⁸ Mitchell dedicated *Injuries of Nerves and their Consequences* to Hammond, "[w]hose liberal views created the special hospital which furnished the chief experience of this volume; with admiration of his high qualities as physician and scholar, and with grateful memories of a long and constant friendship . . ." (Mitchell 1872, 7).

lesion, even if the lesion was at a distance from the pain and the pain was out of all proportion to the lesion. (Hodgkiss 2000, 63)

In terms of ideas, the neurologists who seemed to adhere to this general framework are drawing an important distinction between metaphysics and epistemology. There is no doubt that a lesion that can be correlated with the pain exists; the question is simply how the physician can *know* where it is seated. The problem is one of clinical sight, which again shows the significance of Foucault's construct of the clinical gaze.

However, phantom limb pain arguably stretched the limits of U.S. neurologists' explanatory capacities within an increasingly somaticist schema. It is one thing, after all, to claim that pain experienced by a patient or decedent in the foot could be correlated with a lesion somewhere in the foot, ankle, or lower leg, and another thing entirely to locate the lesion responsible for causing pain in a foot that simply does not exist. The difficulty is apparent in John Kearsley's discussion of case forty-nine in *Remote Consequences*, a text which earned congratulatory notes to both father and son from luminaries such as George Morehouse (Morehouse 1995) and Sir William Gowers (Gowers undated).

Case forty-nine, the record of which came from Weir Mitchell's clinical records rather than from one of the surveys, involved fifty-three-year-old J.D., who had been wounded in the right arm near the elbow during the Civil War in 1862 (Mitchell 1895, 193). As was not uncommon for minie ball wounds, J.D.'s wound suppurated, "discharging pus and pieces of bone, for over twenty years," finally resulting in amountation in 1886 (Mitchell 1895, 193). Seeing Weir Mitchell at the Philadelphia Infirmary for Nervous Disease in June 1891, J.D. experienced significant "chorea" and twitching of the stump, as well as phantom limb phenomena that included pain which worsened with changes in the weather and at nighttime (Mitchell 1895, 193-194). John Kearsley writes that J.D. reports "burning in the lost arm . . . and where the injury existed there is a sensation 'as of the crawling of worms over the part.'" (Mitchell 1895, 194-195) Apart from the significance of the phenomenological description of J.D.'s phantom limb experiences, John Kearsley shows the problems involved in accommodating phantom limb pain within a somaticist framework. In his "Remarks," John Kearsley notes that

It is remarkable that there is not in this [case] . . . any evidence of the presence of a neuritis. The possibility of a neuritis ascending from the nerve in the stump and affecting the spinal cord is to be considered . . . But the most careful examination does not indicate any such trouble; the difficulty has a more obscure origin. (Mitchell 1895, 195)

J.D. experiences all sorts of symptoms and health problems, as detailed in the

case description. John Kearsley attempts to understand these symptoms as a physician schooled in and adherent to somaticism, by looking for inflamed nervous tissue, i.e., a discrete material pathology that can be clinically correlated with J.D.'s illness complaints. This conceptual method also shows the influence of (nervous) localization – the symptoms must be localizable to said material pathologies. But John Kearsley cannot locate the neuritis. There is no apparent lesion to be found that can explain J.D.'s condition; "the difficulty has a more obscure origin." This is somaticism.

The epistemic problem posed by phantom limb pain is important because it links somaticism to the second intellectual framework that can illuminate key issues regarding such pain: the rise of mechanical objectivity.

Mechanical Objectivity and the Epistemic Problems Posed by Phantom Limb Pain

Nineteenth-century neurologists deemed the subjectivity of pain a problem—as do their contemporary counterparts—but too often the terms "subjectivity" and "objectivity" are utilized absent an analysis of their meaning and content, meaning and content that change over time. In fact, as Daston and Galison note, there have been at least four to five distinct concepts of objectivity in the West since the early modern era. Most relevant here is the rise of mechanical objectivity, an ascent that Daston and Galison pin to the middle decades of the nineteenth century (Daston and Galison 2007, 115-190). The fact that this chronology aligns almost exactly with the development of somaticism in medicine is not coincidental.

For purposes of understanding the special significance of pain without lesion in general and phantom limb pain in particular, several features of mechanical objectivity stand out. First, unlike its earlier cousin ("truth-to-nature" objectivity), the legitimacy of mechanical objectivity was predicated on the elimination of the investigator's subjective influence on the production of scientific knowledge (Daston and Galison 2007, 115-190). The idea was to let the Truth of the natural object under analysis speak for itself, and the concern was that the investigator's manipulation of the object could corrupt the process and frustrate or even preclude understanding of the Truth of the specimen, be it animal, vegetable, mineral, or – in the case of medicine - morbid lesions and processes. Second, under a mechanical objectivity paradigm, the natural object itself has enormous epistemological significance (Daston and Galison 2007, 115-190). It becomes invested as a site of Truth, which means that the primary aim of the investigator is to represent the exact specimen under analysis, imperfections and all. Altering the natural object so as to represent a perfect natural archetype in any ensuing depiction, as early modern investigators would have done, is anothema under a mechanical objectivity rubric, for the Truth of the specimen would again be corrupted

in the process (Daston and Galison 2007, 115-190).

Although the rise of somaticism is well-understood, there is comparatively less historiography linking its ascent to the concomitant wax of mechanical objectivity. As Daniel Goldberg contends,

[t]he development of mechanical objectivity is a primary intellectual framework that explains the hold of many of the changing concepts of science and clinical medicine that take place in the 19th century West. Accordingly, the increasing significance of anatomy and the capacity to clinically correlate discrete, material lesions visible at postmortem with illness complaints became seen as constitutive of allopathic medicine precisely because those sites inside the body were regarded as sites in which truth could be unearthed. (Goldberg 2013, 29)

The problem of knowing illness and the Truth of its causes is at the core of both somaticism and mechanical objectivity. Related to both is a rising anxiety about deception and quackery that pervades late Victorian culture in the U.S. (see Rogers 2011; Holmes 2004; Winter 2000; Mnookin 1998). Unsurprisingly, Victorians lionized forensics and detective stories precisely because they represented a balm for such anxiety; the physician or scientist was readily analogized to the detective that ferreted out the Truth of the matter through his empirical investigations (Pamboukian 2012; Kennedy 2004; Thomas 2000). A paradigm of mechanical objectivity therefore reflects a strong veridical function: the primary objective is to discern the exact natural object, and that object will reveal the Truth of the matter if the investigator eliminates as much of his subjective influence as possible in the knowledge-making process.

As to illness and pain, the natural object through which the Truth of the sufferer's illness complaint will be revealed are the discrete, material pathologies that can be clinically correlated. Phantom limb pain seemed to lack correlative natural objects that literally contained the germs of Truth, that represented a cipher through which experts could read the secrets of how pain could be experienced in a non-existent limb. This is why phantom limb pain posed a puzzle both for somaticist models in medicine and science and for frameworks of mechanical objectivity in late nineteenth century America.

Consider Case forty-six in Weir Mitchell's 1872 treatise, *Injuries of Nerves and their Consequences* (which is itself an expansion and revision of his famed 1864 work *Gunshot Wounds, and Other Injuries of Nerves*). In 1862, a soldier had his leg crushed in a railway accident and subsequently amputated "at the junction of the lower and middle third." (Mitchell 1872, 285). After suffering "intense neuralgia of the stump . . . in September, 1863, Dr. Bayless amputated [the stump] without relief." (Mitchell 1872, 285). Dr. Nott

(presumably the famed surgeon Josiah Nott) "removed the stump again" in May 1864, removing an inch of bone, and finding portions of two large nerves "enlarged and engorged. The pain continued, and was intolerable." (Mitchell 1872, 286). On June 1, 1864, Dr. Nott operated again, this time removing four inches of tissue from the sciatic, popliteal, and peroneal nerves (Mitchell 1872, 286). "No relief followed" (Mitchell 1872, 286). Dr. Nott continued to remove more and more of the soldier's leg, even admitting ("justly," comments Mitchell) that he had "'no very good physiological reason for so doing" (Mitchell 1872, 286). The intense pain continued, with Dr. Nott eventually removing the thigh four inches above the knee, and, in August 1865, the sciatic nerve "at its point of pelvic exit." (Mitchell 1872, 286).

After mentioning that he cannot confirm whether the nerve, which mostly looked "healthy," was examined under a microscope (this of course reflects the influence of somaticism), Mitchell noted that "the next day the pain returned." (Mitchell 1872, 286). Dr. Nott nevertheless maintained that the final procedure relieved the patient substantially, "but that his craving for opium caused him to malinger." (Mitchell 1872, 286). This last word is possibly the most significant in the entire case, albeit likely not for the wounded soldier himself. The soldier's physicians, especially Dr. Nott, were convinced that the seat of the patient's intense pain simply had to be located in the material nerve tissue itself. This is localization. Accordingly, further amputation and resection of nervous tissue was the appropriate remedy, save the unfortunate fact that doing so provided the patient with no relief whatsoever. The pain persisted, which in turn prompted further surgeries. Eventually even Dr. Nott apparently conceded the presence of pain without lesion, of pain without physiological justification. That justification, of course, resided within the natural object of the pain, which in this case is the nervous tissue.

And in the absence of the Truth revealed in those natural objects, a mechanical objectivity paradigm would suggest that in at least some cases, doubt can begin to fester. Even after multiple resections and amputations that reduce the patient's leg from approximately two-thirds of its original size to almost nothing, the physician grows suspicious of the patient's persistent complaints of pain. Indeed, he begins to suspect that the patient is malingering. This is an extremely important term for thinking about pain without lesion, although not because there is evidence that large numbers of American physicians frequently doubted their patients' experiences with pain.

Malingering and Doubts About Pain Without Lesion in the Mid-to-Late nineteenth century U.S.

The notion of malingering or, as Thomas Blatchford labeled it in his 1817 dissertation, "feigned disease," (Blatchfield 1817) is deeply intertwined with the late nineteenth and early twentieth century history of pain without lesion. But it is difficult to understand exactly why concerns of malingering grow so palpably in this time without understanding the convergence of somaticism, mechanical objectivity, and social anxieties over deception and authenticity. After all, concerns over feigned disease hardly appear for the first time in the latter half of the nineteenth century; anxieties over the issue appear in various medieval contexts, (see Farmer 2005; Muscatine 1948) and the matter is the principal subject of book III of Paolo Zacchia's seventeenth century Quaestiones medico-legales (de Renzi 2002; Ditchfield 1996). In analyzing the 1661 edition, historian Silvia de Renzi explains that "[e]vidence of pain was the main bone of contention . . . the legal requirement that witnesses other than the sufferer testified to pain and the difficulties in ascertaining its presence made the case legally, medically, and epistemologically challenging." (de Renzi 2002, 222).

But there is little question that concerns over feigned illness and malingering grow significantly in the late nineteenth to early twentieth century. N-grams show a significant increase in the proliferation of the term beginning in 1840 and carrying through about 1880. After a twenty-year plateau from 1880 to 1900, another significant increase occurs between 1900 and 1920 (these decades also see the publication of a number of pamphlets important to the history of malingering). In the modern era, malingering as a social anxiety is inextricably bound up with martial concerns (see Cooter 1998), encompassing both active conflict and pension status for veterans, the latter of which became a profound source of American political and moral debate by the late nineteenth century. Yet, the nineteenth century would see the expansion of concerns about malingering to different social groups. Historian Sharla Fett's work shows that in the U.S. a unique antebellum discourse of anxiety over feigned illness occurred within the plantation slave economy (Fett 2002, 169-192). Furthermore, in the latter half the nineteenth century, industrialization and the growth of railroads would combine to increase occupational and consumer hazards, contributing to a rise in concerns over malingering attached to workers' and consumers' bodies.¹⁰

⁹ Perhaps most notable among these are the works of Sir John Collie, especially his Malingering and Feigned Sickness (Collie 1913).

¹⁰I am indebted to Keith Wailoo for pointing out the significance of a framework that tracks concerns of pain and malingering across different social groups over the long

Mitchell's concerns over malingering begin at least as early as 1864, when he joined William W. Keen and George Morehouse in writing an influential article in the *American Journal of the Medical Sciences* entitled "On Malingering, Especially In Regard to Simulation of Disease in the Nervous System." (Mitchell, Keen, and Morehouse 1864) Of course, by 1864, the Civil War was dragging, and there were significant concerns among both Federal and Confederate armies regarding the depletion of their manpower, a concern which was exacerbated by flagging morale. Detection of malingerers became important, and military physicians on both sides began to publish instructions for such forensic work.

Aside from Keen, Mitchell, and Morehouse's paper, 1863 and 1864 saw the publication of two treatises with special emphasis on malingering, authored respectively by Roberts Bartholow (Federal) and J. Julian Chisolm (Confederate). Bartholow's 1863 tract was specifically entitled A Manual of Instructions for Enlisting and Discharging Soldiers: With Special Reference to the Medical Examination of Recruits, and the Detection of Disqualifying and Feigned Diseases (Bartholow 1863). Presaging the Civil War veterans whose mendicancy would hold an important place in late nineteenth century American cityscapes (and contributed heavily to the passage of the so-called "ugly laws") (Schweik 2010), Bartholow notes in the section on malingering that the "professional beggar, whose artful portraiture of sickness and suffering awakens the sympathy upon which his support depends" had heretofore remained unseen in the U.S. (Bartholow 1863, 87). Although Bartholow instructs that the physician's senses and observation are even more important than the use of "chemical tests" and the "microscope," the influence of mechanical objectivity is already apparent in his analysis (Bartholow 1863, 103). 11 In essence, the Truth of the Body will out. What does this mean?

Bartholow divides his discussion of malingering into types of impairments. He recommends that for a soldier claiming a hearing impairment, the physician "talk very loudly on some topic of interest to the malingerer and then suddenly and unexpectedly in a low tone" such that the subject "will be very certain to betray his artifice . . . The natural but involuntary language of the countenance gives evidence of what is passing around him through the organ of hearing." (Bartholow 1863, 108-109) It is the material structure of the body – in this case, the face – that reveals the Truth of the matter

nineteenth century. In this paper I can only mention the suggested approach, but hope to apply it exhaustively in future work.

¹¹Of course, where use of tools of clinical sight such as the microscope are helpful, Bartholow does not hesitate to recommend them, as in the case of a soldier claiming visual impairments for which he recommends the use of the microscope in the search for lesions (Bartholow 1863, 110-111).

regarding the soldier's illness complaint. Recourse to pathological anatomy is of course unavailable given that the subject in question is alive; but a mechanical objectivity rubric invests the natural object itself as the site of Truth. Regardless of the soldier's verbal claims, the material body itself reveals the Truth to the trained observer.

Detection of feigned paralysis is simple, but implicates the same intellectual framework:

In passing by a man in the hospital who professed to have paralysis of the left arm, I suddenly seized the paralyzed limb, without his being aware of my intention, and threw it up. Greatly surprised, and taken off his guard, he exerted all his force to prevent my raising the arm. His imposture was at once declared. (Bartholow 1863, 120-121; emphasis in the original)

Here too it is the somatic phenomenon itself—the capacity of the arm to lift – that reveals the true nature of the soldier's illness complaint (in this case, its falsity). Chisolm's 1864 manual of military surgery recommends a similar detection procedure for claims of intense pain: "making pressure upon the part when the patient sleeps." (Chisolm 1864, 444). He advises the same for detection of feigned paralysis; "by tying the sound arm to the body and tickling the nose or lips, when the palsied arm will innocently move to the face to brush away the offending body." (Chisolm 1864, 444). The Truth of the Body will out.

Pain, Bartholow notes, is a particular problem for the detective of malingering: "Pain of all descriptions, existing often without evident external sign, is peculiarly liable to be simulated, because difficult of recognition," and "[c]hronic rheumatism has the bad preeminence of being the disease most frequently feigned." (Bartholow 1863, 115-116). He quotes in full an 1863 regulation of the Bureau of Provost-Marshal General:

'Pain, whether simulating headache, neuralgia in any of its forms, rheumatism, lumbago, or affections of the muscles, bones, or joints, is a symptom of the disease so easily pretended that it is not to be admitted as a cause for exemption unless accompanied with manifest derangement of general health, wasting of a limb, or other positive sign of disqualifying local disease.' (Bartholow 1863, 116)

Note, of course, the emphasis on the visible signs of underlying morbidity, signs which must be inscribed upon the body itself in the form of "manifest" diminution of health, wasting of a limb, or a "positive sign" of a "local" disease. Chisolm agrees with his Federal counterpart, naming pain and rheumatism as two of the "most readily and frequently feigned . . . as difficult

of detection as their simulation is easy and hence the readiness with which such complaints are feigned." (Chisolm 1864, 443).

Here too we can see evidence of somaticist thought, as Bartholow remarks on several cases of feigned neuralgia that he observed: "In none of them were there any appreciable lesions or impairment of any of the functions or organs." (Bartholow 1863, 115-116). Bartholow avers further that

a long-continued neuralgic or rheumatic affection of a nerve or a set of muscles will produce some impairment of function or nutrition; so that a medical officer is justified in assuming that to be a case of imposture in which a rheumatic disease of long standing has produced neither of these lesions. (Bartholow 1863, 117-118)

Although not quite formulated as a specific test, the essential idea is the same, viz., that persistent symptoms of pain must be correlated with discrete, material pathologies if they are to be adjudged as legitimate. The natural objects, the lesions themselves, contain the Truth of the matter. The Truth of the Body will out.

Thus, concerns of feigned illness that during the nineteenth century most typically arise in a martial context find a special locus of anxiety for Bartholow and Chisolm as to pain, at least in part because of the difficulty of tying it to discrete, material lesions. It is important to note that Bartholow would go on to become a neurologist and faculty member at Jefferson Medical College in Philadelphia, where he was a close colleague of Weir Mitchell's. And of course, the forensic cast to Bartholow's work, and perhaps less obviously in Mitchell's case forty-six, fits in perfectly in a Victorian context extremely concerned with duplicity.

Apart from the resistance noted earlier, there are two additional hints of such doubts in the phantom limb surveys sent out by the Mitchells. First is a cover letter identical to the September 4, 1893 letter introducing the survey and printed on John Kearsley's letterhead. The back of the letter features an undated hand-written note signed by Willis Owens of Saginaw City, noting that it is "quite impossible" to complete the survey, and referencing no less than eleven different examinations by U.S. Surgeons "ordered by the Government." (Owens undated). Second, the surveys include a letter dated the fifth of November 1890, addressed to Weir Mitchell, and written by A. Parish on behalf of John Shields of Flemington, N.J. (Parish 1890). Parish describes the "more or less constant pain" Shields experiences, and then requests that Mitchell send his report of the case to Parish. Parish also requests that a notary public acknowledge Mitchell's signature.

Why would Parish make such requests? And what does the eleven different examinations of Owens conducted at the apparent behest of the federal government have to do with the impossibility of completing the survey? Some respondents could not write either by virtue of illiteracy or of their impairments, but this is clearly not the case with Owens, who took the time to draft a response in which he asserted the impossibility of completing the very survey made the subject of his response.

As noted, by 1890, Weir Mitchell enjoyed considerable fame beyond the world of elite academic medicine, and although it is impossible to know for certain, it seems unlikely that the letter-writer could by this time ask Mitchell for his notarized signature without knowledge of his renown. It seems plausible that at least one reason for requesting such from Weir Mitchell himself would be that his verified signature constituted a true and credible diagnosis of the nature of Shields's impairments and their causes. But why would Shields desire as such? And, again, what is the possible intellectual connection to Owens's concerns? The obvious answer to both questions relates to the rising concerns over pension entitlements, deception, and malingering.

Support for this suggestion comes from John Kearsley himself. In *Remote Consequences*, he details some of the difficulties involved in the data collection, but notes that despite his best efforts, many of those sent letters simply did not reply:

I believe one of the causes of these troubles to have been the impossibility of convincing the men that my questions were not a device of the Pension Examiners, and that my anxiety to know various minute details of their condition was not prompted by a desire to reduce or take away their pay. (Mitchell 1895, 14)

John Kearsley's statement here underscores many of the themes of this paper connected to phantom limb pain concerning the difficulty of accounting for such pain in a somaticist framework, the epistemic valence invested in the lesions that could not be clinically correlated with such pain (i.e., mechanical objectivity), and the rising social anxieties about deception, malingering, and military veterans' pension entitlements (see Linker 2011). By the 1890s, of course, American military veterans understood all too well the key roles physicians played as forensic truth-seekers in determining pension status, so John Kearsley's evident frustration is at least partly explained by the justness of the veterans' fears.

Cross-referencing the names, Civil War regiments, and states of origin of the respondents to the surveys and the cases documented in *Remote Consequences* produces only a single match: that of John Shields. He is identified as Case forty-six, and John Kearsley's clinical description includes notes from the same Dr. Parish of Flemington, N.J. The case includes a notation that Shields was personally examined in 1890, which means

that subsequent to the completion and return of his survey, John Kearsley arranged to see Shields. John Kearlsey notes the various kinds of pain Shields reports, and then concludes with a reasonably common expression of difficulty in connecting the pain complaints to a discrete lesion: "The case leaves much to the imagination. The obvious suggestion in reading the history is that the sympathetic nerve was wounded. Yet this, on further examination, seems very doubtful, for how could one buckshot passing backward through the left side of the larynx injure the sympathetic nerve?" (Mitchell 1895, 186)

One of the central claims of this article is that because at least some kinds of pain without lesion posed difficulties for waxing models of somaticism and mechanical objectivity, those pain complaints were more likely to animate skepticism and concerns of malingering in late nineteenth century neurological discourse. Yet in Shields's case this does not happen. John Kearlsey's final words on the case imply that accusations of dissimulation and malingering will not suffice to explain the puzzle of Shields's pain: "[It] should be said that the witness is a good one, and his statements entitled to absolute belief." (Mitchell 1895, 186). This faith is in no way incompatible with the claims made in this paper; the fact that phantom limb pain uneasily squared with important late nineteenth century intellectual frameworks obviously does not imply that all patients who presented with such pain were disbelieved by treating neurologists. Indeed, the record is reasonably clear that late nineteenth century U.S. physicians often took their patients' pain complaints quite seriously, consistent with the late Victorian emphasis on sympathy and suffering (Goldberg 2012).

In terms of the Shields case, two points matter more than John Kearlsey's apparent faith in the patient. First is the fact that the physician-writer feels it important to point out to his audience that he trusts the patient's narrative after noting the implausibility of a specific kind of discrete pathology that could explain it. John Kearsley therefore understands that readers aware of his difficulty in locating a pathology that can be clinically correlated with Shields's pain are likely to supply deception and malingering as the next-most-likely explanation. Hence follows John Kearsley's next sentence, intended to dissuade his readers from making the expected inference. Second, the patient is framed according to medico-legal rhetoric; he is a "witness" relating a narrative about which the physician and the physician's colleagues stand in judgment. Finders of fact in medico-legal contexts are charged with weighing the credibility of witnesses, and John Kearsley assures the readers that Shields is in fact a highly reliable witness. This language itself underscores the veridical frame through which John Kearsley's readers would have understood uncertain illness experiences like phantom limb pain. And of course, issues of verity, fact-finding, and doubt are central to the mechanical objectivity schema that shaped late nineteenth century ideas of Truth in American culture.

IV. CONCLUSION

There is little question that Silas Weir Mitchell and John Kearsley Mitchell construed phantom limb pain in terms of waxing frameworks of somaticism and mechanical objectivity. Of course, that the Mitchells interpreted their pain according to important intellectual constructs is unsurprising. However, these ideas posed significant challenges to the dominant understandings of pain that these frameworks shaped, and the Mitchells' attempts to accommodate phantom limb pain within these dominant intellectual scaffolds help explain rising epistemological anxieties about pain without lesion in general.

The significance of these ideas in explicating the Mitchells' perspectives on phantom limb pain is not offered here as any kind of grand unified theory that accounts for the entirety of Weir Mitchell's apparent lifelong interest in pain, nor that of his son's emphasis on pain remote in time and somatic space from injury to nerves. The claim is rather that no explanation of the Mitchells' interest in and conceptions of phantom limb pain is complete without comprehending the role that somaticism and mechanical objectivity played.

The surveys themselves establish that Weir Mitchell maintained interest in phantom limb decades after his publications in the subject (1866 for "Dedlow"; 1872 for *Injuries of Nerves*, respectively). Although this is a relatively narrow point in the historiography specifically focused on Weir Mitchell, the broader claims regarding the Mitchells' ideas on phantom limb pain are especially significant given the father's renown and the respect generally afforded the son among turn-of-the-century Anglo-American neurologists. Indeed, there is evidence that many prominent U.S. neurologists of the period maintained remarkably similar views on various kinds of pain without lesion (Goldberg 2012). While there may well be multiple reasons that explain such overlap, given the significance of somaticism in the "social transformation of American medicine," (Starr 1982) and mechanical objectivity to scientific, medical, and lay conceptions of Truth, it strains credulity to argue that these frameworks played no role in attitudes towards pain that seemed to present in the absence of material lesions that could be clinically correlated.

Of course, the existence of important commonalities in the ways in which late nineteenth century American neurologists interpreted and accounted for pain without lesion does not imply the absence of meaningful differences as well. Weir Mitchell's views on pain without lesion and phantom limb pain hardly remained static over the four plus decades of his active clinical career. Cervetti points out that as early as the late 1870s, Weir Mitchell

professed a belief in hysteria as "the transformation of emotional trauma into somatic manifestations." (Cervetti 2012, 108). Similar ideas, when combined with the perpetual inability to locate material lesions that could explain nervous disease, prompted twentieth century neurologists and psychiatrists to turn to theories of psychoneurosis that could accommodate the existence of nervous and psycho-pathological symptoms by reference to "functional" lesions arising from mental and emotional trauma.¹²

However, it would be fallacious to infer therefrom that Weir Mitchell abandoned his commitment to the existence of material pathologies that could ground the pain experiences in which he was so interested. 13 For example, as late as his 1909 presidential address to the American Neurological Association, Weir Mitchell noted that "[a]mid enormous gains in our art, we have sadly to confess the absolute standstill of the therapy of insanity and the relative failure, as concerns diagnosis, in mental maladies of even that most capable diagnostician, the post-mortem surgeon." (Mitchell 1910, 2). Yet, the very next sentence shows Mitchell's adherence to the emphasis on material pathologies explained by models of somaticism and mechanical objectivity: "I am satisfied, from many facts in cases of depressive and other manias, that somewhere in remote toxic products—outside of the brain—glandular or other, we shall one day detect the secret cause of a proportion of what we label insanities." (Mitchell 1910, 2). As noted above, this rhetoric epitomizes a primary conception of pain without lesion among leading U.S. neurologists in the late nineteenth to early twentieth cenutry: there was no such phenomenon. There was only pain with lesions that could be identified, and pain with lesions that could not vet be discerned.

¹²I am indebted to anonymous reviewer for this pointing out the significance of this notion. In 1909, however, Freud identified as a deficiency in Mitchell's famed rest cure the absence of psychotherapy intended to address such trauma. He opined that a treatment for hysteria that combined Breuer's cathartic psychotherapeutic approach with the rest cure "obtain[ed] all the physical improvements which we expect from [the rest cure], and such marked psychic improvement as never occurs in the rest cure without psychotherapy." (Freud 1909, 85-86). This shows that in Freud's eyes, at least, the theoretical framework that animated Mitchell's famed remedy reflected an emphasis on the material body as compared to an approach geared towards mental and psychic health, which is consistent with the view that somaticist commitments adhered to Mitchell's clinical work even late in his professional life.

¹³Indeed, a dialectic model of history suggests that even when challenged by an antithesis, existing theses do not simply vanish into the intellectual ether, but are assimilated with a rising antithesis into a new synthesis. Given the significance of both intellectual frameworks treated in this paper in shaping lay and professional understandings of health, disease, body, and truth, it would be peculiar indeed if they could be said to have been replaced wholeheartedly in the first quarter of the twentieth century. Future work will document the persistence of ideas of somaticism and mechanical objectivity in explicating problematic pain experiences well into the twentieth century.

Just one year after John Kearsley published Remote Consequences in 1895, Weir Mitchell read aloud at Massachusetts General Hospital a poem he had prepared for the fiftieth celebration of Ether Day entitled "The Birth and Death of Pain." Mitchell's speaker takes each in its turn, beginning by questioning the purpose of pain: "Nay thy quest is vain . . . And Love in Faith in vain an answer ask/When thrilling nerves demand what good is wrought/Where torture clogs the very source of thought." The synecdoche in these final two lines of the stanza is notable, since they reference the nerves and the brain ("the source of thought"). Cerebral localization therefore plays a role even in Weir Mitchell's metaphorical thinking about pain. This is further demonstrated in the close of the poem, when the speaker notes "No hour as sweet, as when hope, doubt and fears,/'Mid deepening stillness, watched one eager brain/With God-like will, decree the Death of Pain."

The emphasis on localization and material brain structures underscores the significance of intellectual frameworks of somaticism and mechanical objectivity in unpacking phantom limb pain in late nineteenth century America. Pain without lesion was problematic both because of the absence of any discrete material pathology that could be clinically correlated, and because the Truth of the pain could not be verified in the natural object itself. While these frameworks likely had more direct influence on the Mitchells' thinking about pain than on middle and lower-class interpretations of the meaning of pain, there is little question that changing models of objectivity and concomitant concerns over authenticity and deception proliferated throughout late Victorian and Gilded Age American culture. That these latter anxieties bled over into concerns about pain and malingering in lay discourse is perceptible in some of extant responses to the Mitchells' 1890s surveys that focused on pain. Thus, regardless of whether pain sufferers themselves were as deeply affected by frameworks of somaticism and mechanical objectivity as some of their healers, the latters' diagnoses, remedies, and faith in their patients' pain were likely so affected, with significant consequences for those who experienced pain themselves. As Rey puts it, in their quest for lesions that explained pain, nineteenth century physicians "were to be confronted . . . by that special exchange between physician and patient in which, whether consciously or not, the latter adopts a distinctive attitude in relating the details of his painful symptoms, partly as a game and partly for negotiating purposes." (Rev 1993, 99).

In any event, even as he lay dying, Mitchell was consumed with the subject of pain and the effects he had witnessed on so many. According to Cervetti,

with another Civil War article on his desk, Mitchell caught the flu, which developed quickly into pneumonia. Haunted by bodies ravaged by gunshot wounds and burning pain, delirious with thoughts of the war, he spent his final moments raving about Gettysburg. He died on January 4, 1914. (Cervetti 2012, 254)

Perhaps it would have been of some small comfort to the survey respondents to know that at least some of Weir Mitchell's dying thoughts turned to the kinds of pain and suffering they reported to him and his son.

Funding

This work was supported by a Visiting Fellowship with The Birkbeck Pain Project (a Wellcome Trust-funded grant) and by two Travel Grants provided by the Wood Institute at the College of Physicians of Philadelphia.

Daniel S. Goldberg
Department of Bioethics & Interdisciplinary Studies
Brody School of Medicine
2015-16 Honors College Faculty Fellow
East Carolina University
600 Moye Blvd, Mailstop 641
Greenville, N.C. 27834
goldbergd@ecu.edu.

References

- Bartholow, Roberts. 1863. A Manual of instructions for Enlisting and Discharging Soldiers: With Special Reference to the Medical Examination of Recruits, and the Detection of Disqualifying and Feigned Diseases. Philadelphia, P.A.: J.B. Lippincott & Co.
- Bazanger, Isabelle. 1998. Inventing Pain Medicine: From the Laboratory to the Clinic. New Brunswick, NJ: Rutgers University Press.
- Blatchfield, Thomas. 1817. An Inaugural Dissertation on Feigned Diseases. New York, N.Y.: Forbes & Co.
- Cervetti, Nancy. 2012. S. Weir Mitchell, 1829–1914: Philadelphia's Literary Physician. University Park, PA: The Pennsylvania University Press.
- Chisolm, Julian John. 1864. A Manual of Military Surgery, for the Use of Surgeons in the Confederate States Army. Columbia, S.C.: Evans & Cogswell.
- Cohen, Esther. 2010. The Modulated Scream: Pain in Late Medieval Culture. Chicago, Ill.: University of Chicago Press.
- Collie, Sir John. 1913. *Malingering and Feigned Sickness*. London, U.K.: Edward Arnold.
- Cooter, Roger. 1998. Malingering in Modernity: Psychological Scripts and Adversarial Encounters During the First World War. In *War, Medicine, and Modernity*, eds. Roger Cooter, Mark Harrison, and Steve Sturdy, 125-148. Phoenix Mill, U.K.: Sutton.

- Daston, Lorraine. 2013. Nature's Revenge: A History of Risk, Responsibility, and Reasonableness. Inaugural Lecture as Humanitas Visiting Professor in the History of Ideas, University of Oxford, Oxford, U.K., video record available at http://www.youtube.com/watch?v=qHRyflVKiTw.
- Daston, Lorraine J. and Peter Galison. 2007. Objectivity. New York: Zone Books. de Renzi, Silvia. 2002. Witnesses of the Body: Medico-Legal Cases in Seventeenth Century Rome. Studies in History and Philosophy of Science 33(2) (June): 219-42.
- Dickinson, Emily. 1999. *The Poems of Emily Dickinson*, ed. Ralph William Franklin. Cambridge, M.A.: Harvard University Press.
- Ditchfield, Simon. 1996. Sanctity in Early Modern Italy. *Journal of Ecclesiastical History* 47(1): 98-112.
- Farmer, Sharon. 2005. Surviving Poverty in Medieval Paris: Gender, Ideology, and the Daily Lives of the Poor. Ithaca, N.Y.: Cornell University Press.
- Fett, Sharla. 2002. Working Cures: Healing, Health, and Power on Southern Slave Plantations. Chapel Hill, N.C.: University of North Carolina Press.
- Foucault, Michel. 1994. *The Birth of the Clinic*, trans. A.M.S. Sheridan. New York: Vintage Press.
- Freud, Sigmund. 1909. Selected Papers on Hysteria and Other Psychoneuroses, trans. A.A. Brill. New York: Journal of Nervous & Mental Disease Pub. Co.
- Goldberg, Daniel S. 2012. Pain Without Lesion: Debate Among American Neurologists, 1850-1900. 19: Interdisciplinary Studies in the Long Nineteenth Century, 15: 1-24.
- Goldberg, Daniel S. 2013. The Transformative Power of X-Rays in U.S. Scientific & Medical Litigation: Mechanical Objectivity in *Smith v. Grant* (1896). *Perspectives on Science* 21(1): 23-57.
- Gowers, W. R. Undated. Letter from W.R. Gowers to John Kearsley Mitchell. Series 1 (Letters 1892-1914), John Kearsley Mitchell Papers, The College of Physicians Historical Medical Library.
- Hammond, William A. 1886. Spinal Irritation. Detroit, M.I.: George S. Davis.
- Hannaway, Caroline and Ann F. LaBerge. 1998. Constructing Paris Medicine, ed. Caroline Hannaway and Ann F. LaBerge. Amsterdam: Rodopi Press.
- Hasegawa, Guy R. 2012. Mending Broken Soldiers: The Union and Confederate Programs to Supply Artificial Limbs. Carbondale, Ill.: Southern Illinois University Press.
- Hasegawa, Guy R. and James M. Schmidt. 2009. Years of Change and Suffering: Modern Perspectives on Civil War Medicine. Edinburgh: Edinburgh Press.
- Hodgkiss, Andrew. 2000. From Lesion to Metaphor: Chronic Pain in British, French, and German Medical Writings, 1800-1914. Amsterdam: Rodopi Press
- Holmes, Martha Stoddard. 2004. Fictions of Affliction: Physical Disability in Victorian Culture. Ann Arbor, M.I.: University of Michigan Press.
- Huidekoper, Henry S. Undated. Letter from Henry S. Huidekoper to Silas Weir Mitchell. Box 11, Series 4.5, Silas Weir Mitchell Papers, The College of

- Physicians Historical Medical Library.
- Institute of Medicine. 2011. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research. Hyattsville, MD: The National Academies Press.
- Jacyna, L. S. 2000. Lost Words: Narratives of Language and the Brain 1825-1926. Princeton, N.J.: Princeton University Press.
- Jewson, N. D. 1976. The Disappearance of the Sick-Man from Medical Cosmology, 1770-1870. *Sociology* 10(2): 225-244.
- Jordan, Brian Matthew. 2011. 'Living Monuments': Union Veteran Amputees and the Embodied Memory of the Civil War. Civil War History 57(2): 121-152.
- Kaitaro, Timo. 2001. Biological and Epistemological Models of Localization in the Nineteenth Century: From Gall to Charcot. *Journal of the History of the Neurosciences* 10(3) (December): 262-276.
- Kennedy, Meegan. 2004. The Ghost in the Clinic: Gothic Medicine and Curious Fiction in Samuel Warren's Diary of a Late Physician. *Victorian Literature* and Culture 32(2): 327-351.
- Kircher, Henry A. Undated. Survey of Henry A. Kitcher. Box X, Series?, Silas Weir Mitchell Papers, The College of Physicians Historical Medical Library.
- Kircher, Henry A. 1983. A German in the Yankee Fatherland: The Civil War Letters of Henry A. Kircher, ed. Earl J. Hess. Kent, OH: Kent State University Press.
- Linker, Beth. 2011. War's Waste: Rehabilitation in World War I America. Chicago, Ill.: University of Chicago Press.
- Martensen, Robert L. 2004. *The Brain Takes Shape: An Early History*. New York: Oxford University Press.
- Mary-Grant, Susan. 2012. The Lost Boys: Citizen-Soldiers, Disabled Veterans, and Confederate Nationalism in the Age of People's War. *The Journal of the Civil War Era* 2(2): 233-259.
- Maulitz, Russell C. 1987. Morbid Appearances: The Anatomy of Pathology in the Early Nineteenth Century. Cambridge: Cambridge University Press.
- Mitchell, John Kearsley. 1895. Remote Consequences of the Injuries of Nerves and their Treatment. Philadelphia: Lea Brothers & Co.
- Mitchell, S. Weir. 1871. Phantom Limbs. Lippincott's Magazine of Popular Literature and Science 8: 563-569.
- Mitchell, S. Weir. 1872. *Injuries of Nerves and their Consequences*. Philadelphia, P.A.: J.B. Lippincott & Co.
- Mitchell, S. Weir. 1910. Address to the American Neurological Association.

 Transactions of the American Neurological Association 1.
- Mitchell, S. Weir, William W. Keen, and George Morehouse. 1864. On Malingering, Especially In Regard to Simulation of Disease in the Nervous System. American Journal of the Medical Sciences 48(96) (October): 367-394.
- Mnookin, Jennifer L. 1998. The Image of Truth: Photographic Evidence and the Power of Analogy. *Yale Journal of Law & the Humanities* 10, no. 1, article 1: 1-74.

- Morehouse, George. 1995. Letter from George Morehouse to S. Weir Mitchell, 2 May 1995. Box 11, Series 4.5, Silas Weir Mitchell Papers, The College of Physicians Historical Medical Library.
- Moscoso, Javier. 2012. *Pain: A Cultural History*, trans. Sarah Thomas and Paul House. London, U.K.: Palgrave MacMillan.
- Muscatine, Charles. 1948. The Feigned Illness in Chaucer's Troilus and Criseyde. *Modern Language Notes* 63(6) (June): 372-377.
- O'Connor, Erin. 1997. 'Fractions of Men': Engendering Amputation in Victorian Culture. Comparative Studies in Society and History, 39(4) (October): 742-777.
- Owens, Willis. Undated. Letter from Willis Owens on back of cover letter John Kearsley Mitchell's letterhead. Box 11, Series 4.5, Silas Weir Mitchell Papers, The College of Physicians Historical Medical Library.
- Pamboukian, Sylvia A. 2012. Doctoring the Novel: Medicine and Quackery from Shelley to Doyle. Athens, OH: Ohio State University Press.
- Parish, A. 1890. Letter from A. Parish to Weir Mitchell, 5 November 1890. Box 11, Series 4.5, Silas Weir Mitchell Papers, The College of Physicians Historical Medical Library.
- Rey, Roselyne. 1993. *The History of Pain*. Cambridge, MA: Harvard University Press.
- Ritchley, Charles. 1893. Letter from Charles Ritchley to John Kearsley Mitchell, 2 October 1893. Box 11, Series 4.5, Silas Weir Mitchell Papers, The College of Physicians Historical Medical Library.
- Rogers, Molly. 2011. Delia's Tears: Race, Science, and Photography in Nineteenth-Century America. New Haven, C.T.: Yale University Press.
- Rosenberg, Charles E. 2006. Contested Boundaries: Psychiatry, Disease, and Diagnosis. *Perspective in Biology and Medicine* 49, no. 3: 407-24.
- Sappol, Michael. 2002. A Traffic of Dead Bodies: Anatomy and Embodied Social Identity in Nineteenth-Century America. Princeton: Princeton University Press
- Scarry, Elaine. 1985. The Body in Pain: The Making and Unmaking of the World. New York, N.Y.: Oxford University Press.
- Schweik, Susan. 2010. The Ugly Laws: Disability in Public. New York, N.Y.: New York University Press.
- Silverman, Lisa. 2001. Tortured Subjects: Pain, Truth, and the Body in Early Modern France. Chicago, Ill.: University of Chicago Press.
- Skocpol, Theda. 1992. Protecting Soldiers and Mothers: The Political Origins of Social Policy in United States. Cambridge, M.A.: Harvard University Press.
- Starr, Paul. 1982. The Social Transformation of American Medicine. New York: Basic Books.
- Thomas, Ronald R. 2000. Detective Fiction and the Rise of Forensic Science. Cambridge, U.K.: Cambridge University Press.
- Warner, John Harley. 2003. Against the Spirit of the System: The French Impulse in Nineteenth-Century Medicine. Baltimore: Johns Hopkins University Press.

- D. Goldberg "What They Think of the Causes of So Much Suffering"
- Watkins, E. D. Undated. Survey of E.D. Watkins. Box 11, Series 4.5, Silas Weir Mitchell Papers, The College of Physicians Historical Medical Library.
- Winter, Alison. 2000. Mesmerized: Powers of Mind in Victorian Britain. Chicago, Ill.: University of Chicago Press.