

HIPPOCRATIC PAIN

Sarah E. Scullin

A DISSERTATION

in

Classical Studies

Presented to the Faculties of the University of Pennsylvania

in

Partial Fulfillment of the Requirements for the

Doctor of Philosophy

2012

Supervisor of the Dissertation

Ralph M. Rosen

Professor
Department of Classical Studies

Graduate Group Chairperson

Emily R. Wilson

Associate Professor
Department of Classical Studies

Dissertation Committee

Sheila Murnaghan, Professor of Classical Studies
Peter Struck, Associate Professor of Classical Studies

HIPPOCRATIC PAIN

COPYRIGHT

2012

Sarah E. Scullin

To Jason

Ear

Parrot

Sheep

ACKNOWLEDGMENTS

I must thank first and foremost the members of my committee, Bridget Murnaghan, Peter Struck, and, especially, my advisor Ralph M. Rosen, for their careful feedback and enlightening discussions. In particular, I must thank Bridget for her ability to combine devastatingly accurate criticism with helpful suggestions, Peter for his practical recommendations (“Write better sentences” may just be the best dissertation advice I have been given), and Ralph for constantly challenging me to consider the big picture. Ralph has a way of asking deceptively simple questions; it was only by endeavoring to answer them that I was able to find any kind of “point” to my project (thank you also, Ralph, for patiently enduring the sweeping reorganizations that inevitably followed on these profound conversations!).

I would also like to thank my colleagues, especially those who gave feedback in the dissertation workshop. The graduate students at Penn are some of the best (and friendliest! and most supportive!) in the field and this project was greatly augmented by a steady stream of feedback, emailed citations, casual conversations and, maybe most importantly (and certainly most prolifically), commiseration.

Several friends provided emotional and practical support (and cat care!) during one of the most trying times of my professional and personal life, especially Sam Beckelhymer, Sarah Beckmann, Ashlee Christian, Ann DeForest, Heather Elomaa, Joe Farrell, Matthew Farmer, Christopher Haley, Larry Kim,

Carrie Mowbray, Sarah Scheckter, Sira Schulz, Alison Traweek, and Joyce Trifiletti.

My family deserves special thanks, especially my mother, who has always supported my interests (including in ways that must have bored her to tears, like when I used to call her up during my undergraduate days and translate Homer for hours) and been a constant reservoir of encouragement, inspiration, and strength; my father, who in very tangible (and all too numerable) ways enabled my pursuit of a scholastic life and whose enthusiasm for music and history (expressed via fun concerts and not-quite-as-fun (sorry Dad!) history lessons) contributed to the formation of my own interests; my yet to be born son, who has already brought so much joy to my life during especially trying times (as well as a much needed impetus to finally get this project done!); and, lastly, my husband. Jason has worn many hats these past three years: colleague (he endured countless ramblings from me as I attempted to organize my thoughts in some kind of coherent manner), partner (the tears: so many tears), gopher (his many errands included checking out dozens of library books for me while my pregnant self languished in the heat of the Philadelphia summer), editor (all typos are my own), stenographer (after an unfortunate incident involving a mandoline, an ear of corn, and my finger), nurse (see above re: finger and add also first-trimester woes and foot surgery), best friend (who got me a job I didn't even have to interview for), father of my child (the ridiculous amount of hard work he put into his own dissertation in order to provide for his family was a constant source of inspiration), and my love (my rock and my everything).

ABSTRACT
HIPPOCRATIC PAIN

Sarah E. Scullin

Ralph M. Rosen

This dissertation assesses the manifold functions of pain in the practice of Hippocratic medicine and examines the interpenetration of pain and Hippocratic theories of the body. Chapter One contrasts the Hippocratic view of pain with the modern understanding of the phenomenon. While the experience of pain is actually subjective and need not necessarily be associated with a physical cause, Hippocratic authors conceived of pain as an objective phenomenon that was always caused by material change. The following three chapters of this project explore the consequences of this relationship between pain and material.

Chapter Two argues that, owing to its connection with material change, Hippocratic pain gains special semiotic currency: hence, pain is often the crucial or only sign of disease. As a symptom, pain is used to classify and identify diseases, predict the course or outcome of a disease, determine the type and application of treatment, and prove important theories, such as the theory of humors.

Chapter Three argues that the strategies whereby the physician perceives the patient's pain rely on – or at least reveal a belief in – the objectivity of pain experience and expression. Nevertheless, the Hippocratic physician shaped the phenomenon of pain both by prompting the patient to report only particular,

“relevant,” pains and by investing certain dimensions of the pain experience with special significance.

Chapter Four explores what happens to pain when the body within which it operates is “marked” as young or old, male or female. In some cases, the material etiology and association with change that define pain dictate how these patients were assumed to have felt (e.g. the bodies of unborn infants must of necessity experience pain if they undergo change). At the same time, however, assumptions about how marked bodies work can influence the presentation of pain in these patients (e.g. assumptions about the reliability of children and women influence how pain in these marked bodies is communicated to the physician).

TABLE OF CONTENTS

INTRODUCTION.....	1
CHAPTER ONE.....	6
<i>What is Pain?</i>	
CHAPTER TWO.....	38
<i>The Semiotics of Pain</i>	
CHAPTER THREE.....	73
<i>The Physician and Pain</i>	
CHAPTER FOUR.....	94
<i>Pain and Bodies</i>	
AFTERWORD.....	140
BIBLIOGRAPHY.....	142
INDEX LOCORUM.....	149

INTRODUCTION

The over five dozen texts of the Hippocratic Corpus, ranging in form from detailed case studies and personal musings to philosophically and rhetorically inclined polemical treatises, reflect many aspects of the thoughts, theories, practices and experiences of their anonymous Greek physician-authors. Even a cursory perusal of the corpus reveals that the strongest thread holding these various texts together is the topic of pain. In a fundamental sense, pain is the reason medicine was invented; it is one of the most common and reliable indications of disease; it is proof of the theory of humors (the idea that the human body is composed of liquids and that health depends on maintaining their proper balance); it is even present when it is not mentioned: surgical treatises do not mention the pain of the (more often than not) non-medicated patient ... but they do recommend that strong attendants hold the patients down and urge them to stop struggling during surgery.¹ In short, pain is everywhere in the corpus.

Yet the topic of pain in Hippocratic medicine, while treated incidentally in explorations of related subjects, has received scant scholarly attention in its own right. Rey, in her over 350 pages long *History of Pain*, devotes a mere 7 pages to the Hippocratic view of pain.² While several scholars have treated the vocabulary of pain in the *Hippocratic Corpus*, most have focused merely on the semantics of

¹On pain and the invention of medicine, see below, Introduction; on the relationship between pain and diseases, see below, Chapter Two; pain as proof of humors: *Nature of Man* 2; holding the surgical patient down: *In the Surgery* 6.1-3, cf. Jouanna 1999, 127f.

²Rey 1993, 26-32.

specific words for pain.³ Most recently, Holmes' study of the development of the body in Greek thought situates the emergence of body-soul dualism in medico-philosophical inquiries into the physicality of the symptom (which she defines as “often, though not always, painful”).⁴

The lack of attention paid to Hippocratic pain is especially surprising in light of its prominence in many of the definitions of medicine found within the Hippocratic corpus.⁵ The author of *The Art*, for example, states that the *technê* of medicine has three purposes (*The Art* 3.4-7):

First of all I suppose I ought to explain what I consider the responsibilities of “medicine” to be: to entirely relieve the sufferings of the sick, to blunt the extremities of disease, and to refuse to treat those who have been conquered already by their disease, knowing that medicine has no power over such situations.⁶

πρῶτόν γε διοριεῦμαι ὃ νομίζω ἰητρικὴν εἶναι, τὸ δὴ πάνπαν
ἀπαλλάσσειν τῶν νοσεόντων τοὺς καμάτους, καὶ τῶν νοσημάτων τὰς
σφοδρότητας ἀμβλύνειν, καὶ τὸ μὴ ἐγχειρῆειν τοῖσι κεκρατημένοισιν ὑπὸ
τῶν νοσημάτων, εἰδότας ὅτι ταῦτα οὐ δύναται ἰητρική.

This definition gives special prominence to the role of pain in the definition of medicine: the alleviation of suffering is, in fact, the only duty medicine is expected to accomplish thoroughly. Diseases may only be blunted, while some

³Several studies have merely catalogued aspects of Hippocratic pain: Byl 1993 lists different Hippocratic remedies for pain, Marzullo 1999 summarizes the vocabulary used for pain from Homer to Hippocrates, Villard 2006 itemizes the lexical and qualitative dimensions of pain. Rey 1993 and King 1988 both delve a little deeper into the subject, but still focus on lexical issues. Horden 1999 analyzes Rey and King's findings and concludes that the Hippocratics weren't interested in pain. King 1999 touches on the subject of pain narratives in Hippocratic medicine, but her focus on the experience of the second century CE patient (and author) Aelius Aristides is beyond the historical parameters of this project.

⁴Holmes 2010, 2.

⁵For other discussions of these passages, see Byl 1993, Rey 1993 and Villard 2006.

⁶Unless otherwise indicated, translations are my own.

diseases are beyond the scope of the medical art.⁷

The author of *Ancient Medicine* also draws a connection between medicine and suffering. Those who wish to explain the operation of medicine (and thus, of the human body) to laymen ought to explain it in terms that the general populace might understand (*Ancient Medicine* 2.10-13).

Above all, I believe that in speaking about this art one must say things that can be understood by lay people. For it is not fitting either to investigate or to speak about anything other than the affections of these very people when they are sick and suffering.⁸

Μάλιστα δέ μοι δοκείει περὶ ταύτης δεῖν λέγοντα τῆς τέχνης γνωστὰ λέγειν τοῖσι δημότησιν. Οὐ γὰρ περὶ ἄλλου τινὸς οὔτε ζητέειν προσήκει οὔτε λέγειν ἢ περὶ τῶν παθημάτων ὧν αὐτοὶ οὔτοι νοσέουσιν τε καὶ πονέουσιν ...

This same author stresses the role of pain as a motivating factor in the invention of medicine. Ancient humans used to suffer from both terrible pains and diseases, even early deaths, owing to the fact that they consumed raw food.⁹ These ancient peoples eventually learned through experimentation, however, how to prepare foods in such a way as to adapt them to the human constitution (*Ancient Medicine* 3.36-40):

To this discovery and search what more just or fitting name could one give than medicine, since it was discovered for the sake of the health, preservation, and nourishment of the human being, in place of that regimen which led to suffering, diseases, and death?¹⁰

Τῷ δ'εὐρήματι τούτῳ καὶ ζητήματι τί ἂν τις οὔνομα δικαιότερον ἢ προσήκον μᾶλλον θεῖη ἢ ἱητρικὴν; ὅτι γε εὖρηται ἐπὶ τῇ τοῦ ἀνθρώπου ὑγιείῃ τε καὶ τροφῇ καὶ σωτηρίῃ, ἀλλαγμὰ κείνης τῆς διαίτης, ἐξ ἧς οἱ

⁷On hopeless cases, see von Staden 1990. See also, Rosen and Horstmanshoff 2002.

⁸Tr. Schiefsky.

⁹*Ancient Medicine* 3.19-20.

¹⁰Tr. Schiefsky.

πόννοι καὶ νοῦσοι καὶ θάνατοι ἐγίνοντο.

The field of medicine is thus responsible for not just the promotion of health, but also for averting pain, disease, and death.

The Hippocratic patient was similarly focused – perhaps even more so than the physician – on medicine’s ability to remove pain. In an attempt to prove that patients die as a result of refusing to follow physician’s orders, rather than as a result of improper treatment on the part of physicians, the author of *The Art* contrasts the physician’s state of mind with the patient’s (*The Art* 7.12-18):

Patients, on the other hand, receive treatment knowing neither what they suffer, nor why they suffer, nor what will come to pass from their present condition, nor what will come to pass from similar conditions. They suffer pain in the present yet fear for the future; they are full of disease yet empty of food; they are desirous of receiving pleasures to counter their disease more than treatment to promote health, desperate not to die, but incapable of being strong.

οἱ δὲ οὔτε ἃ κάμνουσιν, οὔτε δι’ ἃ κάμνουσιν, οὔθ’ ὅ τι ἐκ τῶν παρεόντων ἔσται, οὔθ’ ὅ τι ἐκ τῶν τουτέοισιν ὁμοίων γίνεται, εἰδότες, ἐπιτάσσονται, ἀλγέοντες μὲν ἐν τῷ παρεόντι, φοβεύμενοι δὲ τὸ μέλλον, καὶ πλήρεις μὲν τῆς νόσου, κενεοὶ δὲ σιτίων, ἐθέλοντες τὰ πρὸς τὴν νοῦσον ἡδέα¹¹ μᾶλλον, ἢ τὰ πρὸς τὴν ὑγιεῖν προσδέχεσθαι, οὐκ ἀποθανεῖν ἐρῶντες, ἀλλὰ καρτερεῖν ἀδυνατέοντες.

The Hippocratic patient not only expected medicine to relieve his suffering, but may even have considered the purpose of medical treatment to be the promotion of pleasure, rather than the restoration of health (or, as discussed above, the removal of pain). In fact, this same author implies that most patients do not

¹¹Gomperz 1910 prefers the reading of ἡδη (A) to ἡδέα (MR). Even on Gomperz’ reading, however, the point is that the patient’s present painful state and desire for treatment against disease trump, in the patient’s eyes, the promotion of health or (it is implied) the prevention of disease.

submit to medical treatment for any other purpose than the relief of suffering.¹²

The author of *Regimen* synthesizes the views of the patient and physician when he acknowledges a connection between the patient's main concern (the removal of pain) and the physician's additional goals (the promotion of health) (*Regimen I-III* 15.5-6):

The following is also part of medicine: to remove what causes pain and, in so doing, to create health ...

καὶ τόδε ἰητρικῆς τὸ λυπέον ἀπαλλάσσειν, καὶ ὑφ' οὗ πονέει ἀφαιρέοντα
ὑγίέα ποιέειν ...

The connection drawn here between the removal of pain and the restoration of health hints at the etiological affinity between pain and disease in Hippocratic theory. That this author asserts that to remove one is to also cure the other is, while perhaps the boldest example of such claims, certainly not an outlier to Hippocratic notions of pain, disease, and the body: both pain and disease were thought to arise as a result of internal material imbalance. This project investigates how the connection between pain, disease, and humors arose (Chapter One) and explores the consequences of this relationship (Chapters Two, Three, and Four).

¹²*The Art* 11.29f. Cf. *Joints* 37, where the author claims that patients are unable to take proper care of themselves unless they suffer pain or fear death, and *Diseases I* 15, where the good condition of a patient's body prevents him from seeking treatment.

CHAPTER ONE

WHAT IS PAIN?

1. *Introduction*

This chapter analyzes the Hippocratic view of pain in the light of modern breakthroughs in understanding the phenomenon. Because the typical Western layperson often has an antiquated and incomplete understanding of the nature of pain, it is necessary first to establish what pain (actually) is (and isn't), so that the features of Hippocratic pain highlighted in this study may be appreciated as interesting and unique.¹³

What is pain? Pain is an entirely subjective experience. While we now know, however, that every person feels pain differently, in accordance with a combination of biological, experiential, and cultural factors, and that the perception of pain involves a series of complex neural processes (and need not, necessarily, be caused by actual physical damage), Hippocratic scientists conceived of pain as an objective phenomenon that was always caused by material change. This chapter briefly familiarizes the reader with the basics of the modern understanding of the nature of pain perception (Section 2) and the factors that contribute to the phenomenon's subjective nature (Section 3) before moving on to an investigation of Hippocratic inquiries into the nature of pain. This latter investigation is divided into three sections; first, I discuss the various pain mechanisms found in the *Corpus* and conclude that, for the Hippocratics, pain is always caused by some kind of change in the internal components of the

¹³On the history of pain, see Rey 1993.

human body (Section 4). The next section argues that Hippocratic pain was almost always an objective phenomenon: most authors assume that the pain experience is universal, with little to no variation at the level of the individual body. Furthermore, the Hippocratic notion of pain perception inverts the modern view: while Hippocratic pain cannot exist merely “in someone’s head,” it can and does exist absolutely in the body, whether the subject perceives it or not (Section 5). Finally, I consider how the link between Hippocratic pain and internal material change highlighted in Section 4 relates to the last point of Section 5: the notion of pains that exist independent of perception is consonant with an idea of pain that is figured not so much as a *reaction* to physical change but as, instead, a reified object *constituted* by changing and changed material (Section 6).

2. The Definition of Pain

The average person, given the permeating influence of Cartesian dualism in Western thought, is often surprised to learn that the experience of pain is not a simple matter of the “body” communicating to the “mind” that it has been damaged. It was René Descartes, in fact, who first posited the model of pain perception that most laypeople still assume is true: an external, noxious stimulus prompts the sending of a message along a pain pathway that runs directly from the source of injury, along a nerve or fiber, to the brain.¹⁴ Since that time, scientists proposed several models for the mechanics of nociception (the physiological perception of pain), but the field was revolutionized in 1968 by

¹⁴Descartes 1664. For the history of modern pain mechanisms, see, e.g. Melzack and Wall 2008. On the persistence of dualism in Western thought, see, Robinson 2011.

Melzack and Casey's identification of what they called the three dimensions of pain. Pain is not, they proposed, a straightforward physiological reaction – neural or otherwise – to physical damage. Rather, the phenomenon that subjects identify as “pain” is actually a synthesis of three systems: the “sensory-discriminative” (the awareness of the location, intensity, and duration of the pain stimulus), the “affective-motivational” (the experience of this stimulus as “unpleasant”), and the “cognitive-evaluative” (the assessment of and attention paid to the meaning of both the experience and the anticipated experience). Both the “sensory-discriminative” and the “affective-motivational” dimensions, furthermore, are subservient to the “cognitive-evaluative” component.¹⁵ What this hierarchy of dimensions means is that both individual experience and cultural expectations play a fundamental role in the experience of pain.

Melzack and Casey's contribution to the study of pain cannot be overstated. Not only must any subsequently proposed mechanism for pain perception endeavor to explain how and by what process these psychological components contribute to the experience of pain, but the very definition of pain must account for the inevitable subjectivity that arises from individual and societal experience.

The most recent definition of pain by the International Association for the Study of Pain (*IASP*), the organization that publishes the journal *Pain*, defines the experience as “[a]n unpleasant sensory and emotional experience associated with actual or potential tissue damage, or described in terms of such damage.”¹⁶ This

¹⁵Melzack and Casey 1968.

¹⁶<http://www.iasp-pain.org/Content/NavigationMenu/GeneralResourceLinks/Pain>

sentence is followed by a lengthy note:

The inability to communicate verbally does not negate the possibility that an individual is experiencing pain and is in need of appropriate pain-relieving treatment. Pain is always subjective. Each individual learns the application of the word through experiences related to injury in early life. Biologists recognize that those stimuli which cause pain are liable to damage tissue. Accordingly, pain is that experience we associate with actual or potential tissue damage. It is unquestionably a sensation in a part or parts of the body, but it is also always unpleasant and therefore also an emotional experience. Experiences which resemble pain but are not unpleasant, e.g., pricking, should not be called pain. Unpleasant abnormal experiences (dysesthesias) may also be pain but are not necessarily so because, subjectively, they may not have the usual sensory qualities of pain. Many people report pain in the absence of tissue damage or any likely pathophysiological cause; usually this happens for psychological reasons. There is usually no way to distinguish their experience from that due to tissue damage if we take the subjective report. If they regard their experience as pain and if they report it in the same ways as pain caused by tissue damage, it should be accepted as pain. This definition avoids tying pain to the stimulus. Activity induced in the nociceptor and nociceptive pathways by a noxious stimulus is not pain, which is always a psychological state, even though we may well appreciate that pain most often has a proximate physical cause.

Within this definition (and its lengthy note) are ideas that will be important to keep in mind. That pain is understood as both a sensory and an emotional experience is a reflection of the reality of the subjective nature of pain perception. Accordingly, it is explained that pain is “always a psychological state” that may often, *but not always*, be associated with a physical cause. The psychological element of this state of pain is particularly open to influence from culture and, thus, liable to constitute quite different experiences for members of different cultures.

3. *The Subjectivity of Pain*

The experience of pain is thus subjective. This subjectivity means that “pain” is not a stable, universal phenomenon, but that each person feels and experiences pain differently. What are the factors that make it possible for two individuals to experience *different* pain when receiving a hypothetically *identical* stimulus?

The lower threshold of perception—also known as the sensation threshold—is uniform across cultures. This means that every human being perceives the “lower” orders of sensation, such as warmth and tingling, in objective ways. But the pain perception threshold (the level at which one reports that a stimulus is painful) and the pain tolerance threshold (the level at which the individual withdraws from the stimulus), are both subject to variation based on both biological and psychological factors.¹⁷

There is some evidence that there may be some biological component to the subjectivity of pain. Functional MRI studies have shown that those who score as more sensitive to pain have different neural patterns: their brains react differently to pain, in other words.¹⁸ Age and sex may also affect the experience of pain; thus, for example, tolerance for pain has been shown to decrease as the body ages,¹⁹ or anatomical and hormonal differences may predispose female bodies to be more sensitive to pain.²⁰ However, scientists have also cautioned against making such presumptions, asserting that cultural influence (e.g.

¹⁷For an overview, see Melzack and Wall 2008, 17-19.

¹⁸Coghill 2003.

¹⁹Woodrow et al., 1972.

²⁰E.g. Sheffield et al. 2000, Latthe et al. 2006, Nicassio 2007, Greenspan et al. 2007, Popescu et al. 2010. Although, e.g., Ohel et al. 2006 found that pain threshold increases during labor.

assumed gendered reactions to pain) cannot be overlooked when accounting for results such as these.²¹

Far more consequential to the experience of pain are the effects of experience and culture. These psychological factors (corresponding to the “cognitive-evaluative” dimension of pain) can be grouped into three categories: situational, behavioral, and emotional.²²

Situational factors are “the psychological and contextual factors that exist in a specific pain situation.”²³ Thus, the expectation of a painful event can increase the amount of pain felt, while the belief that a pain will be long-lasting, and the idea that pain is mysterious both contribute to an intensification of pain.²⁴ The relevance of one's pain also affects the perception of it. There is such a category as “culturally-relevant” pain, although some scholars posit a type of unbearable pain that is insensitive to cultural relevance, such as infibulation.²⁵ Merely knowing *why* one is feeling pain, (such as receiving a diagnosis) lessens the intensity of pain felt.²⁶ Belief in the efficacy of a cure serves to reduce pain and fMRI studies of this phenomenon (known as the placebo effect) have been able to map brain activity in these situations.²⁷ Religious belief may ameliorate pain: Catholics, for example, experience a decrease in pain intensity when

²¹Esp. Nicassio 2007.

²²See McGrath 1994 and Melzack and Wall 2008 for an overview of the psychological factors in pain perception.

²³McGrath 1994, 59S. See also McGrath 1983.

²⁴Koyoma et al. 2005, Ploghaus et al. 1999; Williams and Thorn, 1988.

²⁵See, e.g. Kosambi 1967. The idea of “culturally-relevant” pain is connected to the findings of Pavlov 1927 and 1928 where dogs were shown to be insensitive to pain when the meaning of it is altered; Johansen 2002.

²⁶Brody and Waters, 1980.

²⁷Wager et al. 2004.

contemplating an image of the Virgin Mary.²⁸ Social expectations of response to pain have a great effect. Thus, sex differences in pain perception have been shown to correspond to societal expectations.²⁹ Context, belief, expectation, assumption – in other words, the factors that together constitute the *meaning* of pain – determine how (and even if) we feel pain.

The behavior of a person in pain can also affect the experience of the sensation. The degree to which one communicates pain directly influences the experience of the phenomenon,³⁰ while studies have attempted to classify patients in terms of their temperament and personality, so as to better evaluate pain in individuals belonging to these groups.³¹ Behavioral factors include not only one's own temperament and communication style, but also the behaviors of those close to them: solicitous and punishing behavior of significant others towards patients has been shown to decrease the subject's acceptance of pain (thereby increasing the intensity of felt pain).³² How one acts (and we should not forget that how one acts is often a byproduct of how society says we should act) and how those around us act thus increase or decrease the intensity of the pain we feel.

Finally, emotional state has a direct influence on the level of pain we feel. For example, anxiety and depression both increase pain: the presence of anxiety increases patients' negative response to pain sensations, while women who suffer

²⁸ Wiech et al. 2009.

²⁹ Defrin et al. 2009.

³⁰ Thibault et al. 2008.

³¹ Conrad et al. 2007, Mongini et al. 2009.

³² McCracken 2005.

from both are more likely to also suffer from chronic and recurrent pelvic pain.³³ In general, “negative” emotions, such as fear, anger, and frustration increase the perception of pain.

The phenomenon of pain, then, is in fact as much a product of one’s psychological state (and, so, beholden to the emotional, behavioral, and contextual factors that influence this state) as it is an experience of somatic damage. Keeping in mind the inherent subjectivity of pain, as well as the fact that pain need not have a physical stimulus, let us now turn to an analysis of how the Hippocratic authors conceived of the phenomenon.

4. Hippocratic Pain Mechanisms

We now know that “pain” is a term used to describe a complex, tripartite, psychological and (often but not always) physical experience. The Hippocratic assumption, however, is that the pain experience is uniformly objective. As we shall see, Hippocratic pain is always tied to a physical cause, although the stimulus is characterized more often as an imbalance, rather than in terms of tissue damage. Psychological factors play absolutely no role in pain perception; on those rare instances when pain is described in subjective terms, differences are thought to be due wholly to biological, not psychological factors.

Just as different authors disagree over the constituents of the human body,³⁴ so too do they provide different explanations for the cause of pain. A

³³Keogh et al. 2004; Latthe 2006.

³⁴Overview of humoral compositions.

closer look at these etiologies of pain, however, reveals many similarities.³⁵

One of the fullest accounts of the cause of pain is found in the treatise *Nature of Man*. This treatise is concerned with proving, over against those who claim that the human body is composed of a single element, that the body instead contains four materials within it. Pain plays a large role in debunking these monists' claims: if the human body were made up of only one substance, it could not feel pain (*Nature of Man* 2.11-16):

as there would be nothing from which a unity could suffer pain. And even if he were to suffer, the cure too would have to be one. But as a matter of fact cures are many. For in the body are many constituents, which, by heating, by cooling, by drying or by wetting one another contrary to nature, engender diseases; so that both the forms of diseases are many and the healing of them is manifold.³⁶

οὐδὲ γὰρ ἂν ἦν ὑφ' ὅτου ἀλγήσειεν ἐν ἐών· εἰ δ' οὖν καὶ ἀλγήσειεν, ἀνάγκη καὶ τὸ ἰώμενον ἐν εἶναι· νυνὶ δὲ πολλά· πολλά γάρ ἐστιν ἐν τῷ σώματι ἐνεόντα, ἃ, ὁκόταν ὑπ' ἀλλήλων παρὰ φύσιν θερμαίνηται τε καὶ ψύχεται, καὶ ξηραίνεται τε καὶ ὑγραίνεται, νούσους τίκτει· ὥστε πολλὰ μὲν ἰδέαι τῶν νοσημάτων, πολλὴ δὲ καὶ ἡ ἴησις αὐτέων ἐστίν.

Here we can see that the author takes for granted his audience's assumption that, at the most basic level, pain is caused by some sort of internal change. This notion of pain is the foundation upon which he rests the remainder of his arguments. Pain is caused by change – that's a fact – but what this author will do is explain what *type* and *manner* of changes occur within the body to produce pain. A little later on, the author elaborates both on the nature of these

³⁵On pain etiologies, see also Rey 1993, 30f.

³⁶Tr. Jones.

constituents – the body both feels pain and enjoys health due to the action of four elements within it: blood, phlegm, yellow bile and black bile³⁷ – and the precise mechanisms by which they cause pain – through depletion, surfeit, or the isolation of one of these elements. The author steadfastly adheres to his schema, explaining that when an element is in excess and flows to an inner part of the body, it necessarily creates a double pain: one in the place suffering from depletion, another in the place to which the element flowed.³⁸

Change is again fundamental to the notion of pain found in *Ancient Medicine*, although this author attributes the action of change not to four separate humors, but to the action of myriad “powers,” such as the bitter, salty, sweet, acrid, astringent or strong, within the body. So long as these qualities remain compounded, one is not harmed. However, pain arises when one of the powers in the body becomes separated off (*Ancient Medicine* 14.23-28):

In humans is the bitter and salty, the sweet and acrid, the sour and insipid, and thousands more, each possessing many powers, both in amount and strength. When these things are mixed and combined with each other they are neither detectable, nor do they cause pain. But, whenever one is separated off and on its own, then is it detectable and hurtful.³⁹

Ἐνὶ γὰρ ἀνθρώπῳ καὶ πικρὸν καὶ ἀλμυρὸν, καὶ γλυκὺ καὶ ὀξύ, καὶ στρυφνὸν καὶ πλαδαρὸν, καὶ ἄλλα μυρία, παντοίας δυνάμειας ἔχοντα, πληθὸς τε καὶ ἰσχύν. Ταῦτα μὲν μεμιγμένα καὶ κεκρημένα ἀλλήλοισιν οὔτε φανερά ἐστίν, οὔτε λυπέει τὸν ἄνθρωπον· ὅταν δέ τι τούτων ἀποκριθῇ, καὶ αὐτὸ ἐφ’ ἑωυτοῦ γένηται, τότε καὶ φανερόν ἐστι καὶ λυπέει τὸν ἄνθρωπον.

³⁷*Nature of Man* 4.1-3.

³⁸*Nature of Man* 4.5-15.

³⁹Unless otherwise indicated, translations are my own.

In addition to these “powers,” the attributes “hot” and “cold” can also cause pain, although to a lesser degree,⁴⁰ while the internal structure of the body itself can cause both pain and disease. For example, when “breath” (*pneuma*) within the body rushes against a structure that is neither strong enough to withstand its pressure, nor soft enough to receive it, pain is caused.⁴¹ The liver, for example, suffers the sharpest and most frequent pains (as well as abscesses and tumors) on account of its tenderness and the amount of blood within it. The diaphragm, while also susceptible to such pains, is less so owing to its inherent strength.⁴²

The author of *Breaths*, while ultimately identifying “wind” (*pneuma*) as the source of all pain and health in the body, nevertheless believes that pain is the result of the interaction between material and structures within the body. For example, he explains that *pneuma* causes pain in the head together with fever when veins in the head become filled with air. These inflated veins then exert pressure on the blood in the head, causing pain.⁴³

The author of *Affections* claims that all disease arises from bile and phlegm. The behavior of either or both of these humors within the body can cause pain. For example, overeating or excessive drinking, by overheating the body and thereby stirring up bile and phlegm, cause pain.⁴⁴ When phlegm, during strangury, enters a dry, cold, or empty bladder, it causes pain, but, should the bladder be moist, replete, and full of urine, it causes less pain.⁴⁵ Both bile and

⁴⁰*Ancient Medicine* 19. On “hot” and “cold,” see also *Places in Man* 42, discussed below.

⁴¹*Breaths* 3.

⁴²*Ancient Medicine* 22.49-53.

⁴³*Breaths* 8.30-36.

⁴⁴*Affections* 27.1-18.

⁴⁵*Affections* 28.6-8.

phlegm cause sciatica: both humors give rise to congealed blood that causes pain in the blood vessels of the leg wherever it accumulates.⁴⁶ Here we can see that in some cases, it is not the humors *per se*, but the material result of their action that causes pain. In the case of sciatica, pain is produced by congealed blood, not bile and phlegm. At another point in this treatise, the author claims that all drugs that treat pain are safe, but those that remove bile and phlegm can be dangerous.⁴⁷ Clearly pain cannot be (or be caused by) bile and phlegm alone, if pain on the one hand and bile and phlegm on the other, are separate therapeutic targets.

The author of *Places in Man*, on the other hand, draws a more direct connection between certain humors and pain. In most cases, he says, blood, whenever it is in such a state as to cause disease, produces pain, while phlegm produces heaviness (Τὸ μὲν αἷμα ὁπότεν νοῦσον ποιέη, ὀδύνην παρέχει, τὸ δὲ φλέγμα βάρος, ὡς τὰ πολλά, *Places in Man* 33.18-20). Blood may cause pain in all human beings under most circumstances, but the effects of cold and heat are not universal (*Places in Man* 42.1-10):

pain arises from cold and from heat, and both from excessively great amounts and from too little. In persons that are cooled by nature out of their body towards the skin, pain arises from excessive heating, in those by nature hot, from cold, in those by nature dry, when they are moistened, and in those by nature moist, when they are dried. For in each thing that is altered with respect to its nature, and destroyed, pains arise. Pains are cured by opposites, and there is a specific thing for each disease: in persons by nature hot, and who are ill because of cooling, it is what heats, and so on according to this principle.⁴⁸

⁴⁶*Affections* 29

⁴⁷*Affections* 33.

⁴⁸Tr. Potter.

Ὁδύνη τε γίνεται καὶ διὰ τὸ ψυχρὸν καὶ διὰ τὸ θερμὸν, καὶ διὰ τὸ πλεόν
λίην καὶ διὰ τὸ ἔλασσον· καὶ ἐν μὲν τοῖσιν ἐψυγμένοισι τοῦ σώματος διὰ
τὸ θερμαῖνον, ἐν δὲ τοῖσι τεθερμασμένοισι διὰ τὸ ψυχραῖνον ὁδύνη
γίνεται· καὶ ἐν μὲν τοῖσι ψυχροῖσι φύσει διὰ τὸ θερμὸν, ἐν δὲ τοῖσι
θερμοῖσι φύσει διὰ τὸ ψυχρὸν· καὶ ἐν μὲν τοῖσι ξηροῖσι φύσει
ὕγραιομένοισιν, ἐν δὲ τοῖσιν ὕγροῖσι φύσει ξηραιομένοισι· τὴν γὰρ
φύσιν διαλασσομένοις ἐκάστοισι καὶ διαφθειρομένοις αἱ ὁδύνη
γίνονται· ὑγιαίνονταί τε αἱ ὁδύνη τοῖσιν ὑπεναντίοισιν· ἴδιον ἐκάστῳ
νοσήματί ἐστι· τοῖσι θερμοῖσι φύσει, διὰ δὲ τὸ ψυχρὸν νοσέουσι,
θερμαῖνόν τε καὶ τᾶλλα τούτων κατὰ λόγον.

While the general principle of what causes pain – internal material change – is identical to that found throughout the corpus, this author allows for variation in the quality of the material (hot, cold, moist, or dry) that causes pain in each individual.⁴⁹ The contradictory effects of hot and cold thus illustrate the author's point that "it is impossible to quickly learn the art of medicine, inasmuch as it has no fixed principle" (Ἱητρικὴν οὐ δυνατόν ἐστι ταχὺ μαθεῖν διὰ τόδε, ὅτι ἀδύνατόν ἐστι καθεστηκός τι ἐν αὐτῇ σόφισμα γενέσθαι, *Places in Man* 41.1-2).⁵⁰

These pain etiologies have thus far described how the *internal* workings of the body – humors, powers, and breath – cause pain. While there are fewer instances of an author describing the cause of pain associated with tissue damage that arises from external injury, there is some evidence that injury-pain was caused by the same mechanism as humoral-pain. The author of *The Art* explains that the anatomical structures within the body – flesh, organs, veins, sinews – are surrounded by liquid-filled cells. Should any of these cells be broken open (as in injury, we can only assume), this liquid matter (ἰχώρ) exits the cells in great

⁴⁹Cf. King 1988, 56f. on this passage.

⁵⁰See also the discussion of hot and cold in *Ancient Medicine* 16, discussed below, 16f.

quantity and causes much pain.⁵¹ The author of *Places in Man* imagines a similarly humoral mechanism for injury pain (*Places in Man* 32:

Fractures in the head: if the bone is fractured and shatters, this is not dangerous: you must heal such a patient with moistening medications. But if the bone fractures and a cleft arises, this is dangerous. Trephine the patient in order that the serum flowing down through the cleft in the bone does not make the membrane suppurate, for inasmuch as it enters through a narrow space and does not come out again, it produces pain and makes the patient delirious. You must trephine the patient, in order that there will be a way out for the serum – not just a way in – by sawing open a wide space. Apply medications that attract moisture, and bathe.⁵²

Κεφαλῆς κατάγματα· ἥν μὲν τὸ ὀστέον καταγῇ καὶ ξυντριβῇ, ἀκίνδυνον καὶ ἰᾶσθαι χρὴ τοῦτον ὑγραίνουσι φαρμάκοισιν· ἥν δὲ ῥαγῇ καὶ ῥωγμὴ ἐγγένηται, ἐπικίνδυνον· τοῦτον πρίειν, ὥς μὴ κατὰ τὴν ῥωγμὴν τοῦ ὀστέου ἰχώρ ῥέων τὴν μήνιγγα σήπη· ὥστε γὰρ κατὰ στενὸν ἐσιὼν μὲν, ἐξιὼν δὲ οὐ, λυπέει καὶ μαίνεσθαι ποιεῖ τὸν ἄνθρωπον· τοῦτον χρὴ πρίειν, ὥς ἔξοδος ᾗ τῷ ἰχώρῳ, μὴ μόνον ἔσοδος, εὐρέως διαπρισθέντος, καὶ φαρμάκοις χρῆσθαι, ἅσσα ἐφ' ἐωυτὰ τὸ ὑγρὸν ἔλκουσι, καὶ λούειν.

Notice that the explanation of this pain mechanism is incidental to the discussion at large – otherwise we would expect an explanation for the cause of pain in the (presumably just as) painful shattered fracture of the skull. Instead, we are told that the type of fracture that causes a split in the skull is particularly dangerous and requires trephination in order to draw off the serous liquid that arises as a result of such damage. The only relevant pain in this discussion is that occasioned by the abundance of this serous liquid and not the pain caused by

⁵¹*The Art* 10.

⁵²Tr. Potter.

fractures in general.⁵³ Finally, the author of *Breaths* explains that the pain felt in lacerations of the flesh are caused by wind running into the gap of the cut.⁵⁴ In this case, the author's special preference for assigning the cause of all disease to *pneuma* can be seen to affect his etiology for injury-specific pain. Yet his strategy is not so different from that of the authors of *Places in Man* or *The Art*: in all three of these treatises, the pain of injury is attributed to an imbalance of whichever material is claimed to cause pain and disease in other circumstances.

For the Hippocratics, then, pain is caused by the abnormal behavior of material within the body. While individual authors may have their preference for the exact makeup of this material, all pain is caused by change and all change is of a physical, material, concrete nature.

5. *The Objectivity of Hippocratic Pain*

As I discussed in Section 3, the experience of pain is one that is highly subjective, owing to differences on the individual, societal, and even anatomic level. By contrast, Hippocratic pain is almost always objective. Furthermore, on those rare occasions when allowance is made for variation in pain experience, this variation is hardly ever at the level of the individual, and is always physically- (not psychologically-) engendered.

Most prevalent is the attitude that pain is straightforwardly objective. The

⁵³This point touches on the usefulness of pain to the Hippocratic physician. As I argue below, Chapters Two and Three, pain was useful insofar as it was an indication of events that took place within the body. It comes as no surprise, then, that the surgical treatises make almost no mention of pain, concerned as they are with surgical technique, not the identification, prediction, or treatment of disease. Cf. Jouanna 1999, 127f.

⁵⁴*Breaths* 11.

author of *Ancient Medicine* claims that ancient humans suffered *the same* violent pains when they consumed unprepared, raw foods that modern humans would suffer if they should subsist on an *identical* diet.⁵⁵ In *Fractures* we find a similar attitude that a certain condition produces the same pain in all humans. He asserts that the physician should not bind a patient's arm in a supine position, as such a posture would be painful. So painful, he claims, that anyone could discover this truth by positioning their arm in this way (in fact, he says, a weaker person could in this way lead a stronger person).⁵⁶ As we will see in Chapter Two, the usefulness of pain in diagnosis and prognosis in particular depended on pain being a static criterion for identifying disease and charting and predicting its course; species of disease may present differently, inasmuch as the quality and quantity of diseased material could differ by individual, but the mechanism by which pain represented – or was constituted by – certain types of diseased material was fixed and stable.

On the rare occasions authors do indicate that pains might be different, in most cases they clearly conceived of these pains as *actually different* pains, caused by different types of humoral imbalance. For example, the author of *Nature of Man* says that young men suffer more pain as a result of overexertion than older men. Note that this author does not say that the young do not tolerate pain as well as the elderly; rather, because the young have drier, tenser, and firmer

⁵⁵*Ancient Medicine* 3. Although the author moves on to qualify this statement (“in the past they probably suffered less, since they were used to this diet, but even so, their sufferings were severe,” Ἡσίων μὲν οὖν ταῦτα τότε εἰκὸς ἦν πάσχειν διὰ τὴν συνήθειαν· ἰσχυρῶς δὲ καὶ τότε, *Ancient Medicine* 3.20-21), his point that basic human anatomy has not changed lends support to the objectivity of the sensation of pain.

⁵⁶*Fractures* 3.

bodies, when they overexert themselves, their bodies become more damaged and, thus, suffer more pain.⁵⁷ Note too that this distinction in pain experience is drawn at the level of age group (“young people”), not at any idiosyncratic level (i.e. “some people”).⁵⁸

The author of *Ancient Medicine*, on the other hand, seems to allow for variation in pain experience at the individual level (*Ancient Medicine* 6):

It is necessary to know this well: those of the sick to whom gruels are not beneficial, but rather opposed, see their fever and pains become more acute if they take them, and it is clear that what they have taken provides nourishment and growth for the disease, but wasting and weakness for the body. All people in this condition who take dry food, either barley cake or bread, even if it is only very little, would be harmed ten times more severely and more manifestly than if they took gruels, for no other reason than the strength of the food in relation to their condition. As for the person for whom gruels are beneficial but eating solid food is not, if he were to eat a lot of it he would be harmed much more than if he ate a little, and even if he ate a little, he would suffer. Accordingly, all the causes of suffering can be reduced to the same thing, namely that it is the strongest foods that harm the human being most severely and most manifestly, in both health and sickness.⁵⁹

Εὖ δὲ χρὴ τοῦτο εἰδέναι, ὅτι τοῖς τὰ ροφήματα ἐν τῇσι νούσοισιν οὐ
 συμφέρει, ἀλλ’ ἀντικρυς, ὅταν ταῦτα προσαίρωνται, παροξύνονται σφίσιν
 οἱ τε πυρετοὶ καὶ τὰ ἀλγήματα· καὶ δῆλον τὸ προσενεχθὲν τῇ μὲν νόσῳ
 τροφή τε καὶ αὐξησις γενόμενον, τῷ δὲ σώματι φθίσις τε καὶ ἀρρωστίη.
 Ὅκοσοι δ’ ἂν τῶν ἀνθρώπων ἐν ταύτῃ τῇ διαθέσει ἔοντες
 προσενέγκωνται ξηρὸν σιτίον, ἢ μᾶζαν, ἢ ἄρτον, καὶ πάνυ σμικρὸν,
 δεκαπλασίως ἂν μᾶλλον καὶ ἐπιφανέστερον κακωθεῖεν ἢ ροφείοντες, δι’
 οὐδὲν ἄλλο ἢ διὰ τὴν ἰσχὺν τοῦ βρώματος πρὸς τὴν διάθεσιν· καὶ ὅτω
 ροφείν συμφέρει, ἐσθίειν δ’ οὐ, εἰ πλείω φάγοι, πολὺ ἂν μᾶλλον
 κακωθεῖ ἢ ὀλίγα· καὶ εἰ ὀλίγα δὲ, πονήσειεν ἄν. Πάντα δὴ τὰ αἷτια τοῦ

⁵⁷*Nature of Man* 4.

⁵⁸On age and sex as distinguishing factors, and on variation in pain experience in general, see below, Chapter Four.

⁵⁹Tr. Schiefsky.

πόνου ἐξ τὸ αὐτὸ ἀνάγεται, τὰ ἰσχυρότατα μάλιστα τε καὶ ἐπιφανέστατα
 λυμαίνεσθαι τὸν ἄνθρωπον, καὶ τὸν ὑγίεια ἔόντα, καὶ τὸν νοσέοντα.

While this passage initially seems to allow for individual variation in pain experience – e.g. some people feel more pain than others when they eat gruel – the author is clearly imagining a *class* of individuals who are ill suited for the consumption of gruel. While we are not told the precise mechanism whereby gruel proves more injurious to this group, the author nevertheless speaks of the amount of pain occasioned by gruel, then states that solid food causes *more* pain (ten times or more pain, to be precise) than gruel. In both cases, the mechanism of pain is the same; the amount or intensity may vary, but this variation is the result of the strength of harmful material or the susceptibility of the class of patient.

For the Hippocratics, therefore, the mechanism that causes pain is a stable concept. This stability is at least partly due to the simple equation that a certain pain equals a particular imbalance of a specific humoral material. The patient rarely enters the equation except in those situations where the class of body (i.e. female, old, gruel-amenable) predisposes the patient towards a specific type of imbalance. In none of these situations, then, is pain a subjective phenomenon the perception of which varied from person to person.

All of which makes the following treatment for ear pain remarkably striking (*Epidemics VI* 5.7):

If a patient has pain in the ear, twirl wool around your finger and pour warm fat on it, then put the wool in the palm of your hand and move it underneath the ear so that the patient thinks something is coming out of it. Then throw the wool upon the fire: a

deceit.

Ἦν οὖς ἀλγέη, εἰρίον περὶ τὸν δάκτυλον ἐλίξας, ἐγγέειν ἄλειφα θερμὸν,
ἔπειτα ἐπιθεὶς ἔσω ἐν τῷ θέναρὶ τὸ εἰρίον ὑπὸ τὸ οὖς ἐπιθεῖναι, ὥς δοκέη
τί οἱ ἐξιέναι, ἔπειτα ἐπὶ πῦρ ἐπιβάλλειν· ἀπάτη.

In the context of the Hippocratic Corpus, this passage is certainly an outlier.⁶⁰ Is the pain in the patient's ear "real"? If it does exist as a result of humoral imbalance, why is this treatment recommended?

First, we should not discount the possibility that this "treatment" was not thought to be effective *per se*. Rather, we may have here one of the showy displays to attract clients that most Hippocratic authors claim to despise.⁶¹ In this case, this pyrotechnic exhibition would be a preamble to "real" treatment.⁶²

This author may have included this treatment, however, owing to some belief in its efficacy.⁶³ While no explanation is given as to why this sleight of hand would have been thought effective, we can make some assumptions about what such an explanation might look like: the pain never existed to begin with, or: the pain did exist, but the patient's mental or emotional response to this deceptive treatment effected real, material change in the body.

If this pain was not "all in the patient's head," it may have been thought to have been *cured* by the patient's head. In other words, the patient's belief in the cure would have been thought to somehow influence the material composition of the body, not unlike the modern placebo effect. While such an explanation is not

⁶⁰On this passage, see Manetti and Roselli 1982, King 1998, Jouanna 1999, 133-134.

⁶¹E.g. *Sacred Disease* 2, *Joints* 42.

⁶²On attracting clients through public display, see, Edelstein 1967, 69-70. On the physician and the public sphere more generally, see Jouanna 1999, 75-111.

⁶³On the efficacy of Hippocratic medicine, see Demand 1999.

to be found in the Corpus, however, we do have some evidence for a belief in the ability of mental or emotional states to *cause*, if not *cure*, illness. The author of *Epidemics III* records two cases where intense grief causes illness in women.⁶⁴ This “ear trick” could have been thought of as a reversal of this type of process: the patient’s belief in the efficacy of this spectacular treatment would, in this view, provoke an alteration of his physical makeup. It should be stressed, however, that no such connection between mental state and physical imbalance is made by the author of *Epidemics VI*.

That this pain doesn’t exist *at all*, save in the patient’s head is the least likely scenario. Not only are no other examples of nonexistent or psychosomatic pain to be found in the Hippocratic Corpus, we find, on the contrary, a belief in pains that exist *despite* the patient’s inability to perceive them. For example, in the treatise *Breaths*, epileptics are said to be senseless – literally – to not feel pain – in the face of pains (ἀνάλγητοί τε πρὸς τοὺς πόνους, *Breaths* 14).⁶⁵ The idea seems to be that these pains are actually present in the patient but, because of his seizure, he is unaware of them. In a similar vein, the author of *Aphorisms* claims that numbness *removes* pain, and not that numbness, for example, dulls one’s sensation of pain.⁶⁶ Here, again, pain is real and material. Numbness does not drive a wedge between mind and matter so much as *remove* matter altogether.

This last point raises some questions about the relationship between pain and perceptibility. That “pain” can exist apart from perception implies that pain

⁶⁴*Epidemics III* 3.17(11) and 3.17(15). In both cases the cause of disease was attributed to *lupê*. On the ambiguity of this term, see below, Chapter Three.

⁶⁵Cf. *Aphorisms* 2.6.

⁶⁶*Aphorisms* 5.25, cf. *Use of Liquids* 1 and 6.

has its own physicality. Where pain as defined by the *IASP* is said to exist *provided that* the subject perceives “pain” and need not necessarily have a “proximate physical cause,” the Hippocratic notion of pain would appear to be reversed: physical cause is the *sine qua non* of pain, while the patient’s perception of this event, though usually coincident to the phenomenon, is not essential to its existence.

The relationship between material imbalance, perception, and pain, was nicely articulated above by the author of *Ancient Medicine* (*Ancient Medicine* 14.23-28):

In humans is the bitter and salty, the sweet and acrid, the sour and insipid, and thousands more, each possessing many powers, both in amount and strength. When these things are mixed and combined with each other they are neither detectible, nor do they cause a person to hurt. But, whenever one is separated off and on its own, then is it detectible and hurtful.

Ἐνι γὰρ ἀνθρώπῳ καὶ πικρὸν καὶ ἀλμυρὸν, καὶ γλυκὺ καὶ ὀξύ, καὶ στρυφνὸν καὶ πλαδαρὸν, καὶ ἄλλα μυρία, παντοίας δυνάμιας ἔχοντα, πληθὸς τε καὶ ἰσχύν. Ταῦτα μὲν μεμιγμένα καὶ κεκρημένα ἀλλήλοισιν οὔτε φανερά ἐστίν, οὔτε λυπέει τὸν ἄνθρωπον· ὅταν δέ τι τουτέων ἀποκριθῇ, καὶ αὐτὸ ἐφ’ ἑωυτοῦ γένηται, τότε καὶ φανερόν ἐστι καὶ λυπέει τὸν ἄνθρωπον.

The constituency of the human body in health is not naturally apparent to the owner of the body. However, should any of the substances within the human body grow apart from the admixture, such a separation is not only able to be perceived, but it *also* causes harm.⁶⁷ The sensation of something “wrong” with the

⁶⁷On the perceptibility of pain, see Holmes 2010, 108-110 and below, Section 5.

body is often what we mean when we speak of pain. For the Hippocratics, on the other hand, the “something wrong” in the body *is* pain; sensation is conceived of as a separate, though usually concurrent, process. That these two processes are separate, however, allows for the types of miscommunication that we saw above: although *undergoing* pain, epileptics do not *feel* pain.⁶⁸

That pain denotes a state that need not be perceived in order to exist relies on the etiological connection between pain and the material within the body. Holmes takes this passage as evidence for a Hippocratic belief in a “threshold of perceptibility” of sensation, a notion that is crucial to her thesis that the figuring of the body as a locus of imperceptible activity is the precursor to the emergence of consciousness as a state separated from the physical body.⁶⁹ The kind of transformation of subjective experiences into objective processes that we see in this passage was, she argues, an important step in the development of the “body as cavity” in Greek thought.

Where Holmes’ project focuses on the function of all symptoms (a symptom, she says, is “often, though not always, painful,” Holmes 2010, 2), I am interested in how pain became a symptom in the first place. As I argue below in Chapter Two, Hippocratic pain is, to borrow Holmes’ framework, often – but not always – a symptom; hence, by subsuming pain under symptom, we collapse any distinction between these two categories – be it the kind of distinction that is manifest in Hippocratic practice (see below, Chapter Two) or be it the type of

⁶⁸These types of situations are perhaps analogous to, e.g., patients being unable to sense the temperature of hot water (*Use of Liquids* 1); just because the patient cannot perceive the heat of the water, the water is, nevertheless, hot.

⁶⁹“Threshold of perceptibility,” Holmes 2010, 115-116.

inherent difference between actual objective material and subjective experience that I will elucidate in the following section.⁷⁰

6. *The Materiality of Hippocratic Pain*

Holmes uses the apt phrase “potentially seen” to characterize the internal material substances and processes of the body. This phrase is particularly apt, since it both draws attention to the materiality of everything that happens within the body and highlights the invisibility of what occurs beneath the surface of the skin. I wish to suggest, however, that Hippocratic symptoms should be further divided into those that are perceptible only to the patient (pain) and those that may also be seen by the physician (almost everything else). The material that *causes* pain can be seen by the physician once it exits the body – thus its status as “potentially seen.” However, Hippocratic physicians could not see, objectively confirm, or otherwise observe “pain” in the same ways they could when it comes to other symptoms of disease, such as burping, sneezing, flatus, urine sediment, nosebleeds, hiccups, rashes, boils, hemorrhoids, fractures, feces, mucous, seizure, talking nonsense, weeping, fever.⁷¹

⁷⁰I want to stress that I am in no way criticizing Holmes for subsuming pain under the category of symptom: the Greek symptom *is*, of course, “often, though not always, painful.” Her project and mine are focused merely on different stages of a cognitive process.

⁷¹I do not mean to imply that Holmes is unaware of this difference (first articulated at Holmes 2010, 134: “The fact the disease is so elusive reminds us that the medical writers are working with two kinds of “imperceptibility”: what is potentially seen and what is seen with the mind [...]) Rather than openly acknowledging these two classes of imperceptibles, however, the medical writers usually conflate them. By doing so, they allow their claims about the nature of the body or the disease to masquerade as concrete objects of perception, as we saw in relation to the language surrounding symptoms.”), merely that the difference is not crucial to her thesis. Hence, too, her ambiguous terminology: while Holmes’ “symptom” is not always painful, she nevertheless subsumes the experience of any type of symptom under the term “suffering” (e.g. 134) and overemphasizes the “visibility” of pain (in particular, in the context of prognosis, 157-159). On the purpose of physicians’ efforts to “see” pain without the benefit of the patient’s

The calculus involved with turning pain into a “visible” indication, or even instantiation, of an object involves more abstraction than the one that connects, e.g. audible flatus with trapped *pneuma*, or menstruation with an overabundance of blood. How pervasive or successful was this collapse between pain and cause? If pain is not a process whereby one perceives material imbalance (i.e., a sensation), must it necessarily *be* that material imbalance?

The author of *Ancient Medicine*, when explaining how material containing harsh powers causes pain when it flows towards the eyes or throat, says that it is necessary to reckon the cause of each symptom to be those things which, when they are present in such a way, exist concurrently with the symptom, yet, once they change, so too does the symptom disappear (Δεῖ δὲ δήπου ταῦτα αἴτια ἐκάστου ἡγέεσθαι, ὧν παρεόντων μὲν τοιοῦτον τρόπον ἀνάγκη γίνεσθαι, μεταβαλλόντων δὲ ἐς ἄλλην κρῆσιν παύεσθαι, *Ancient Medicine* 19.14-16). Here pain – indeed, all symptoms – are closely connected with the material within the body. This passage suggests that the physician should realize that the cause of pain can be identified as the particular material imbalance that coincides with pain. This coincidence allows pain to thus signify material imbalance without the author articulating the precise relationship between pain and matter.

In several contexts, however, pain seems to be concretized.⁷² Pain often has its own substantive presence – a materiality that is particularly apparent when pain is described in motion, as in the case history of Cleinias’ young sister (*Epidemics VII* 101):

sensation, see below, Chapter Three.

⁷²Pace Marzullo 1999, 127: “il ‘dolore’ mai costituisce oggetto autonomo: fornisce meccanico indizio, di ordine semiotico, privo di primario interesse, di problematicità.”

Cleinius' youthful sister vomited a bloody vomit for fourteen days, whatever she ate or drank. There was no fever. Belching, and with contractions a suffocation went to the heart. Castorium, seseli stopped all symptoms, and juice from pomegranate rind. The pain shifted, in moderate form, to her flanks. Onion juice, and acrid wine with milk, and minute amounts of bread with olive oil.⁷³

Τῇ Κλεινίου ἀδελφῇ, τῇ ἀφηλικεστέρῃ, ἔμετος, ὃ τι προσδέξαιτο, τεσσαρεσκαίδεκα ἡμέρας, ἄνευ πυρετοῦ, αἱματωδῶν· ἐρευγμοί· καί, ξυνεσταλμένων, ἐχώρει πρὸς καρδίην πνίγμα. Καστόριον, σέσελι πάντα ἔπαυσε, καὶ τὸ ἀπὸ τῆς σίδης· ἀπέστη δὲ ἄλγημα μέτριον ἐς κενεῶνα. Βολβοῦ χυλός· καὶ οἶνος γαλακτώδης αὐστηρός· καὶ ἄρτοι ὡς ἐλάχιστοι ξὺν ἐλαίῳ.

Or that of a certain Andreas (*Epidemics VII* 43.17-20):

... there was pain around the armpits and the thorax. It went down into the legs without signs, and ceased. Bathing helped, and ointment made with vinegar. In the second month, perhaps, or the third, the pain went to the kidneys, having appeared there sometime before. He recovered.⁷⁴

... Ὀδύνη δὲ ἦν περὶ τὰς μασχάλας καὶ τὰ πλευρά· ἐς σκέλεα διῆλθεν ἀσήμεως, καὶ ἔληξεν. Λουτρὸν ὠφέλει καὶ χρίσμα τὸ ἐν τῷ ὄξει. Μηνὶ δὲ δευτέρῳ ἴσως ἢ τρίτῳ, ἐς νεφροὺς ἡ ὀδύνη, καὶ πρότερόν ποτε γενομένη, κατέστη.

In both of these cases, pain itself is described as shifting or moving throughout the body. Cleinius' sister's pain gets up and moves to her flanks; Andreas' pain moves down into his legs, then settles into his kidneys. We are not told that diseased material is moving about the body; rather, the phenomenon of pain has

⁷³Tr. Smith.

⁷⁴Tr. Smith.

its own weight: the same pain can migrate throughout the body in a fashion identical to that of humors.

That the mere presence of pain was often described as attracting or dispelling diseased material points to a special connection between matter and pain. Abscesses are more likely to form in areas that are already in pain, while humors in general were thought to migrate and settle in any part of the body that suffered pain before the onset of illness.⁷⁵ In both of these cases, pain is reified to the point that it has its own gravitational force. In addition to causing harm, pain may also cure a condition. For example, a copious bloody flow from the nostrils, or spasm, or pain in the hips were said to cure those suffering from slack hypochondria.⁷⁶ That hip pain is classed together with spasm and nosebleed suggests that the phenomenon was as physical as these conditions.

Certain diseases may prevent the contraction of other diseases by virtue of their pain. The author of *Humors* claims that hemorrhoids and other such suppurating affections can alleviate symptoms of subsequent diseases by virtue of their pain, weight, or some other cause (*Humors* 20.6-7):

Sufferers from hemorrhoids are attacked neither by pleurisy, nor by pneumonia, nor by spreading ulcer, nor by boils, nor by swellings, nor perhaps by skin-eruptions and skin-diseases. However, unseasonably cured, many have been quickly caught by such diseases, and, moreover, in a fatal manner. All other abscessions, too, such as fistula, are cures of other diseases. So symptoms that relieve complaints if they come after their development, prevent the development if they come before. Suspected places cause relief, by acting as receptacles owing to pain, weight, or any other cause.⁷⁷

⁷⁵*Humors* 7 and *Aphorisms* 4.33. Cf. *Places in Man* 24, where disease is thought to attract humors.

⁷⁶Coan *Prenotions* 290.

⁷⁷Tr. Jones.

Οἱ αἰμορροΐδας ἔχοντες οὔτε πλευρίτιδι, οὔτε περιπνευμονίῃ, οὔτε φαγεδαίνῃ, οὔτε δοθιῇσιν, οὔτε τερμίνθοισιν ἀλίσκονται, ἴσως δὲ οὐδὲ λέπρησιν, ἴσως δὲ οὐδὲ ἀλφοῖσιν· ἡτρευθέντες γέ μιν ἀκαίρως, συχνοὶ τοιούτοισιν οὐ βραδέως ἐάλωσαν, καὶ ὀλέθρια οὕτως· καὶ ὅσαι ἄλλαι ἀποστάσεις, οἷον σύριγγες, ἐτέρων ἄκος· ὅσα δὲ, ἐφ' οἷσι γενόμενα ῥύεται, τούτων προγενόμενα κωλύματα· οἱ ὑποπτοὶ τόποι ὑποδεξάμενοι πόνῳ ἢ βάρει, ἢ ἄλλῳ τινὶ ῥύονται ...⁷⁸

The connection between pain and weight here is particularly suggestive.⁷⁹ These suspected places take on additional material (ὑποδεξάμενοι) as a direct consequence of the presence of pain or weight or some other thing (πόνῳ ἢ βάρει, ἢ ἄλλῳ τινὶ).⁸⁰ The physicality of both pain and weight suggests that we ought to think of pain not as a reaction to physical imbalance, but as a particular kind of physical imbalance: one whose primary quality is that of unpleasantness.⁸¹

The treatment of pain provides another context in which pain seems to take on the weight of materiality.⁸² The spontaneous evacuation of material from the body is often credited with relieving pain. For example, intense headache is relieved by the runoff of pus or water from the nose, mouth, or ears.⁸³ This trouble and intense pain is relieved when material leaves the head, regardless of the location of egress. Correspondingly, when an evacuation is incomplete, pain

⁷⁸cf. *Epidemics* VI 3.23.

⁷⁹Pain and weight are also connected in *Internal Affections* 49.

⁸⁰On “suspected places,” cf. Jones 1931 (2005), 93 n.1: “A ‘suspected place’ is one in which we might expect a morbid affection to arise, and pain here, or an accumulation of humours, might relieve affections elsewhere. The phenomenon is common enough in certain forms of neuralgia, the pains of which often jump from place to place in such a way that one pain seems to relieve another.”

⁸¹Note that this formulation of pain corresponds nicely with Melzack and Wall’s “affective-motivational” dimension of pain.

⁸²For an extensive report of Hippocratic therapies for pain, see Byl 1992. On anodynes in particular, see King 1988.

⁸³*Aphorisms* 6.10.

is not fully relieved. For example, hemorrhage can cure pain of the head and neck, but when the bladder is blocked, the resolution of pain takes more time.⁸⁴

That phlebotomy was often the first line of defense against pain underscores the materiality of the phenomenon. *Nature of Man* (9) contains a lengthy description of the various veins in the body, including instructions on which vein to cut when a patient is pained. Here, phlebotomy is shown to be a highly scientific remedy. Where one was supposed to cut a patient depended precisely on where the patient was experiencing pain. That phlebotomy was *particularly* suited for the removal of pain is suggested by, e.g. the author of *Epidemics III*, who claims that phlebotomy of a patient who was suffering from pain, fever and cough successfully removed the pains, but not the cough.⁸⁵

This link between material in the body and pain is quite clear when the author of *Coan Prenotions* says that if pains in the lungs do not cease as a result of expectoration, phlebotomy, or regimen, they will turn into pus within the patient.⁸⁶ In other words, if these pains do not exit the body fully via expectoration, bloodletting, or the drying action of regimen, they transform into a different kind of material: pus.

The material connection between “cure” and “pain” was strong enough that authors could reverse the process in order to “diagnose” the cause of pain. The author of *Epidemics VI* claims that when he shook “the patient whose liver was folded at the lobe,” his pain suddenly ceased.⁸⁷ Clearly, the author

⁸⁴*Coan Prenotions* 166.

⁸⁵*Epidemics* 3.3.17(8).7-9.

⁸⁶*Coan Prenotions* 388. Cf. *Prognostic* 15.1-4.

⁸⁷*Epidemics VI* 8.28.

retroactively diagnosed this patient with a “folded liver lobe” in order to explain why the pain would have suddenly stopped upon succussion. The attitude displayed towards pain in the context of therapy indicates that the phenomenon had its own physical presence.

In addition to often connoting some type of physical presence, pain could act with a great amount of agency. Pain may cause weakness in patients: the author of *Regimen in Acute Diseases* complains that physicians are not able to recognize the various circumstances under which diseases are exacerbated or weakened. For example, he says, physicians who wrongly suppose that a patient's weakness is due to lack of food (when he is actually weakened by pain) mistakenly give the patient ptisan, drink and food. It is left unsaid what the proper treatment is to counteract a pain that causes weakness.⁸⁸ The force of pain may prevent a patient from being able to catch his breath,⁸⁹ or cause choking.⁹⁰ Pain can even provoke the passage of material from the body.⁹¹ Pain alone can even cause death,⁹² or cure other pain, as we are told in a lengthy and abruptly staccato list of mandates by the author of *Epidemics VI* (*Epidemics VI* 2.1):

make wide, make narrow, sometimes, yes, other times no. Humors, some of them, drive out, dry out others, and others induce, sometimes yes, sometimes no. Diminish, nourish the body, skin, flesh, etc., sometimes yes, sometimes no. Smooth, roughen, harden, soften, sometimes, sometimes not. Wake up, put to sleep: and all other such things. Divert, right off the bat retain what yields, and make leave what resists. Draw on another humor, not the one that

⁸⁸*Regimen in Acute Diseases* 11.65-85.

⁸⁹*Epidemics VII* 2.2-3.

⁹⁰*Internal Affections* 47.6.

⁹¹E.g. *Coan Prenotions* 120. Cf. *Coan Prenotions* 299 and 369.

⁹²E.g. *Coan Prenotions* 311 and 462.1-3.

is flowing, but encourage the one that flows to continue in that state, bring about a similar state, i.e. pain stops pain, as for unusual conditions, if it prevails upwards and is aloft, take care of it from below, and vice versa, i.e. cleansing of the head, phlebotomy, whenever it is not removed without cause.

Εὐρῦναι, στενυγρῶσαι, τὰ μὲν, ναὶ, τὰ δὲ μή. Χυμοὺς, τοὺς μὲν, ἐξῶσαι, τοὺς δὲ ξηρᾶναι, τοὺς δὲ ἐνθεῖναι, καὶ τῇ μὲν, τῇ δὲ μή. Λεπτῦναι, παχῦναι τεῦχος, δέρμα, σάρκας, καὶ τᾶλλα, καὶ τὰ μὲν, τὰ δὲ μή. Λειῖναι, τρηχῦναι, σκληρῦναι, μαλθάσαι, τὰ μὲν, τὰ δὲ μή. Ἐπεγεῖραι, ναρκῶσαι· καὶ τᾶλλα ὅσα τοιαῦτα. Παροχετεύειν, ὑπεῖξαντα ἀντισπᾶν αὐτίκα, ἀντιτείναντα ὑπεῖσαι. Ἄλλον χυμὸν, μὴ τὸν ἰόντα, ἄγειν, τὸν δὲ ἰόντα συνεκχυμοῦν, ἐργάσασθαι τὸ ὅμοιον, οἷον ὀδύνη ὀδύνην παύει, τὰ ἀνόμοια, ἣν ῥέπη ἄνωθεν ἀρθέντα, κάτωθεν λύειν, καὶ τὰ ἐναντία ταῦτα, οἷον κεφαλῆς κάθαρσις, φλεβοτομία, ὅτε οὐκ εἰκὴ ἀφαιρέται.

This passage not only suggests that pain was thought to stop pain, it may even indicate that pain was induced by the physician as a palliative for another pain.⁹³

The author of *Aphorisms* explains how pain might have such an analgesic effect: when two concurrent pains occur in different parts of the body, the stronger pain weakens the other one.⁹⁴ This explanation is quite counter to how pain is now understood. Rather than explaining this phenomenon in terms of the subjectivity of pain perception (i.e., by explaining that the patient is less bothered by the weaker pain, inasmuch as the stronger one claims the majority of his attention), the phenomenon is interpreted in objective terms: there are two pains that exist. One is stronger and, by virtue of its strength, weakens the other.

These are the types of pains that Holmes, I suspect, would call “strangely concrete;” yet is their obvious materiality so strange in light of pain’s etiology?⁹⁵

⁹³First suggested by King 1988.

⁹⁴*Aphorisms* 2.46.

⁹⁵Holmes 2010, 136. Holmes uses this phrase in a discussion of *Regimen in Acute Diseases* 17, where

Pain is not *always* so strikingly concrete, yet it is also rarely expressly figured as a reaction to (i.e. sensation of) material imbalance. Rather, I suspect that in most cases the Hippocratic notion of “pain” is a shorthand for some kind of perceptible (and thus, significant enough) material imbalance. By “shorthand,” I mean that “pain” neither fully symbolizes the result of material imbalance nor fully consists of material. Rather, owing to a collapse between the categories of material, perception, symptom and disease, “pain” can for the most part exist in the conceptual space between cause and effect.⁹⁶ On occasion, however, authors can make use of either end of the spectrum, as we have seen: pain can, as the result of material imbalance, prove that the human body is heterogeneous, but it can also, *qua* material imbalance, leap about the body, yield to phlebotomy, draw disease to itself, and even take on temperature. This last possibility apparently happened in Crannon, where, we are told “old pains were cold, and new pains were warm and for the most part bloody” (αἱ παλαιαὶ ὀδύναι, ψυχραί· αἱ δὲ νεαραὶ, θερμαί, αἵματι δὲ αἱ πλεῖσται, *Epidemics* VI 1.7.1-2).

7. Conclusion

The etiology of pain enables this inherently *invisible*, subjective sensation to transform into a materially-connected – even occasionally material – “potentially

the cause of death in so-called “stricken” patients is attributed to the physician’s failure to “loosen” the pain in the patient’s side prior to giving him food. While this concretized pain is certainly strange in light of the modern notion of pain, it is not, I suggest, an outlier – or even unusual – in the context of Hippocratic pain.

⁹⁶While Holmes 2010 (esp. 130-132) speaks of the “interval” between cause and effect as a way of emphasizing the physician’s ability to intervene in the body’s cavity, when I speak of pain existing between cause and effect, I do not mean that pain occupies the physical or temporal space between the two. Rather, I mean that pain is figured sometimes as cause (material imbalance) and other times as effect (caused by material imbalance).

visible” object. As a consequence of this reification, the phenomenon of pain is able to function as a stable, perceptible sign.⁹⁷ The following chapter explores the ways in which “visible” pain (that is, perceived pain *qua* symptom) reveals the invisible (disease). Yet, as we shall see, the conceptual collapse whereby (actually invisible) “visible” pain is used to “see” (potentially visible but, at the moment, nevertheless) invisible material imbalance, is not perfect. Rather, the imprecise relationship between pain and matter that I have articulated here provides an unstable foundation for the association between pain and disease; just as pain exists somewhere between cause and effect, so too does pain rest uneasily between symptom and disease.

⁹⁷Cf. Holmes 2010, 119: “the texts of the Hippocratic Corpus, despite the diversity of ideas and styles, undeniably attest a new self-consciousness about how knowledge about what is unseen is created.”

CHAPTER TWO

THE SEMIOTICS OF PAIN

1. *Introduction*

As we saw in Chapter One, by connecting the phenomenon of pain with potentially visible material change within the body, the Hippocratic authors imbued this perception with a physical reality. This connection with material change and assumed objectivity endowed pain with semiotic currency. By “semiotic,” I mean that pain, owing to its connection to the material inside of the body, could now be used to signify the existence of something else; pain was, in this sense, a symptom.⁹⁸ This chapter explores the ways in which this now materially-connected (but actually invisible) pain was used to indicate and point to the existence of unseen (but nevertheless concrete and tangible) matter.

Pain was a remarkably productive and useful symptom for Hippocratic physicians and authors. I begin by considering the evidence that Hippocratic authors were unaware of the obvious importance they placed on the symptom of pain (Section 2). I then move to a catalogue of the semiotic use of pain in nosology, prognosis, therapy, and theoretical proof that reveals the special role of pain in all of these processes (Sections 3, 4, 5, and 6). I then discuss the relationship between pain and disease and suggest that the inconstancy of this relationship is to blame for the disjoint between the use of pain as a sign and the omission of pain in discussions of the use of signs (Section 7). Furthermore, I

⁹⁸On the symptom in Greek medicine, see Diller 1932, Perilli 1991 and 1994, Manetti 1993, 36-52 and 1994, Fausti 2002, and Holmes 2010, 121-191.

suggest that understanding the relationship between pain and disease is a crucial component to answering the question posed at the conclusion of Chapter One: is pain the *result* of material change? Or is pain *constituted by* matter (Section 8)?

2. Did the Hippocratics Consider Pain a Sign of Disease?

While several treatises encourage physicians to utilize pain as a sign, variously pointing to the semiotic value the Hippocratics found in this sensation, these discussions neglect or otherwise misrepresent the extra importance given to pain in these situations.⁹⁹ The author of *The Art*, for example, explains how diseases reveal themselves to the physician (*The Art* 12.1-9):

Now medicine, being prevented, in cases of empyema, and of diseased liver, kidneys, and the cavities generally, from seeing with the sight with which all men see everything most perfectly, has nevertheless discovered other means to help it. There is clearness or roughness of the voice, rapidity or slowness of respiration, and for the customary discharges the ways through which they severally pass, sometimes smell, sometimes colour, sometimes thinness or thickness furnishing medicine with the means of inferring, what condition these symptoms indicate, what symptoms mean that a part is already affected and what that a part may hereafter be affected.¹⁰⁰

Ἱητρικὴ δὲ, τοῦτο μὲν τῶν ἐμπύων, τοῦτο δὲ τῶν τὸ ἥπαρ ἢ τοὺς νεφροὺς, τοῦτο δὲ τῶν ξυμπάντων ἐν τῇ νηδύϊ νοσεύντων ἀπεστερημένη τι ἰδεῖν ὄψει, ἥ τὰ πάντα πάντες ἱκανωτάτως ὁρῶσιν, ὅμως ἄλλας εὐπορίας συνεργοὺς ἐφεῦρε, φωνῆς τε γὰρ λαμπρότητι καὶ τρηχύτητι, καὶ πνεύματος ταχυτήτι καὶ βραδυτήτι, καὶ ρευμάτων, ἃ διαρρεῖν εἴωθεν, ἐκάστοισι, δι' ὧν ἔξοδοι δέδονται, ὧν τὰ μὲν ὁδμησι, τὰ δὲ χροίησι, τὰ δὲ λεπτότητι καὶ παχύτητι διασταθμωμένη τεκμαίρεται, ὧν τε σημεῖα ταῦτα, ἃ τε πεπονθότων, ἃ τε παθεῖν δυναμένων.

Despite the fact that Hippocratic physicians routinely relied on pain to “see”

⁹⁹See also *Epidemics* VI 8.9 and 8.24.

¹⁰⁰Tr. Jones.

disease, this author only takes into account those symptoms that are actually visible to the physician. In other cases, however, less visible symptoms, such as pain, are “counted” as symptoms. For example, the author of the treatise *Humors* urges physicians to receive instruction regarding the significance of symptoms, including those of pain and painlessness (*Humors* 2):

Pay attention to the following: things which stop of their own accord, or for example the boils that arise from burning heat, in what situations things harm or help, structures of the body, movement, disturbances, settling down, sleep, waking up, distress, yawning, shivering, whether something should be created or stopped, to anticipate something. Instruction regarding vomit, emissions from below, sputum, mucus, cough, eructation, hiccups, flatus, urine, sneezing, tears, itching, plucking, touching, thirst, hunger, satiety, sleeps, pain, painlessness, the body, the mind, learning, recollection, voice, silence.

Σκεπτέα ταῦτα· τὰ αὐτόματα λήγοντα, ἢ οἷον αἱ ἀπὸ καυμάτων ἐπεγειρόμεναι φλυκτίδες, ἐφ’ οἷσιν οἷα βλάπτει ἢ ὠφελεῖ, σχήματα, κίνησις, μετεωρισμός, παλινίδρυσις, ὕπνος, ἐγρήγορις, ἀλύκη, χάσμη, φρίκη, ἅτε ποιητέα ἢ κωλυτέα, φθάσαι. Παίδευσις ἐμέτου, κάτω διεξόδου, πτυάλου, μύξης, βηχός, ἐρεύξιος, λυγμοῦ, φύσης, οὔρου, πταρμοῦ, δακρύων, κνησμῶν, τιλμῶν, ψαυσίων, δίψης, λιμοῦ, πλησμονῆς, ὕπνων, πόνων, ἀπονίης, σώματος, γνῶμης, μαθήσιος, μνήμης, φωνῆς, σιγῆς.

The instruction to pay attention to pain and painlessness comes in a long list of symptoms. Some of these symptoms are as material as vomit, mucus and urine, while others are decidedly more imperceptible and so less quantifiable, such as “the mind,” “learning,” and, of course, “pain.” The physician should be sure to have studied what these various symptoms signify in various circumstances. This author includes both the presence and absence of pain within the category of symptom; he does not, however, accord to the symptom of pain any extra significance beyond that given to any other symptom. The position of pain

within this list lends no significance to the terms whatsoever, if any symptom in such a long and perfunctory list could be said to have been given special prominence. In fact, as we shall see below, the position of pain in this list is in marked contrast to the special prominence of pain found in most of the nosological treatises when the symptoms of individual diseases are listed.

More interesting, perhaps, are the instances where similar programmatic statements neglect to even list pain as an important symptom to observe when making calculations. For example, the author of *Epidemics I* claims to have paid attention to a large variety of circumstances and symptoms when diagnosing diseases (*Epidemics I* 3.10)¹⁰¹:

The following are the criteria I considered (taking into account both the common nature of every human as well as the particular constitution of each patient) when distinguishing between the diseases: the disease, the diseased person, the treatments applied, the person who prescribed them (since the practitioner can make things better or worse), the constitution in its entirety (but especially the heavens and the nature of each place), the custom, regimen, habits, and age of each patient. Also utterances, tempers, silence, thoughts, sleep, not sleeping, the timing and content of dreams, plucking, itching, weeping, paroxysms, fecal matter, urine, sputa, vomit. Any changes from one disease into another, the humoral manifestations of such transitions (both those that signal death and those that signal crisis), sweating, chill, rigor, cough, sneezing, hiccough, breathing, belching, flatulence (both silent and not), hemorrhages and hemorrhoids. A diagnosis must be made by considering both these things and whatever occurs as a result of these things.

Τὰ δὲ περὶ τὰ νοσήματα, ἐξ ὧν διαγιγνώσκομεν, μαθόντες ἐκ τῆς κοινῆς φύσιος ἀπάντων, καὶ τῆς ἰδίης ἐκάστου· ἐκ τοῦ νοσήματος· ἐκ τοῦ νοσέοντος· ἐκ τῶν προσφερομένων· ἐκ τοῦ προσφέροντος, ἐπὶ τὸ ῥᾶον γὰρ καὶ χαλεπώτερον ἐκ τούτου· ἐκ τῆς καταστάσιος ὅλης, καὶ κατὰ μέρη τῶν οὐρανίων καὶ χώρας ἐκάστης· ἐκ τοῦ ἔθους· ἐκ τῆς διαίτης· ἐκ

¹⁰¹Cf. *Epidemics IV* 43 and *Epidemics VI* 8.17.

τῶν ἐπιτηδευμάτων· ἐκ τῆς ἡλικίης ἐκάστου· λόγοισι· τρόποισι· σιγῇ·
 διανοήμασιν· ὕπνοισιν, οὐχ ὕπνοισιν· ἐνυπνίοισιν οἷοις καὶ ὅτε· τιλμοῖσι·
 κνησμοῖσι· δακρύοισιν· ἐκ τῶν παροξυσμῶν· διαχωρήμασιν· οὔροις·
 πτυάλοισιν· ἐμέτοις· καὶ ὅσαι ἐξ οἷων ἐς οἷα διαδοχαὶ νοσημάτων, καὶ
 ἀποστάσεις ἐπὶ τὸ ὀλέθριον καὶ κρίσιμον· ἰδρῶς· ψύξης· ῥίγος· βήξ·
 πταρμοί· λυγμοί· πνεύματα· ἐρεύξεις· φῦσαι, σιγῶδες, ψοφώδες·
 αἰμορράγαι, αἰμορροΐδες· ἐκ τούτων καὶ ὅσα διὰ τούτων σκεπτέον.

This author claims to have taken many factors into consideration when diagnosing disease. Not only did he pay attention to a great variety of symptoms, he also calculated for such varied circumstances as the heavens, the patient's age, and even his thoughts and dreams. The author does not mention, however, the symptom of pain. This omission comes in spite of the fact that both the constitutions (the accounts of epidemic diseases in various regions) and the case histories (the accounts of individual patients) in this treatise *do* include accounts of patients' pain.

The only such discussion that comes close to representing the dynamic role of the symptom of pain in Hippocratic medicine takes place in a list of the symptoms (Τεκμήρια) of disease (*Nutriments* 26):

Symptoms: tickling irritation, (severe)¹⁰² pain, discharge, mind, sweat, sediment in urine, calmness, tossing in bed, fixed stare, fantasies, jaundice, hiccup, seizure, whole blood, sleep, from both these things and others in accordance with natural constitution, and all other things of such sort that generally help or not. Pains of the whole body or of a part [are] signs of greater or lesser severity, from both [locations of pain come signs] of greater severity and from both [come signs] of lesser.

Τεκμήρια, γαργαλισμός, ὀδύνη, ῥῆξις, γνώμη, ἰδρῶς, οὔρων ὑπόστασις, ἡσυχία, ῥιπτασμός, ὅψιος στάσις, φαντασίαι, ἵκτερος, λυγμός, ἐπιληψία, αἷμα ὀλοσχερές, ὕπνος, καὶ ἐκ τούτων καὶ ἐκ τῶν ἄλλων τῶν κατὰ φύσιν,

¹⁰²On the semantics of pain, see King 1988, Byl 1992, Rey 1995, 17–23, Horden 1999, Marzullo 1999, Villard 2006 and below, Chapter Three.

καὶ ὅσα ἄλλα τοιουτότροπα ἐς βλάβην καὶ ἐς ὠφελίην ὁρμᾷ· πόνοι ὅλου
καὶ μέρους· μεγέθους σημήϊα, τοῦ μὲν ἐς τὸ μᾶλλον, τοῦ δὲ ἐς τὸ ἥσσον,
καὶ ἀπ' ἀμφοτέρων ἐς τὸ μᾶλλον καὶ ἀπ' ἀμφοτέρων ἐς τὸ ἥσσον.

The first mention of pain (ὀδύνη) occurs in a list of symptoms not very unlike that found in *Humors* 2 above. Just as in that example, there seems to be no special order to the symptoms listed, and the nature of the symptoms include both the obviously material and visible (e.g. “sediment in urine”) and the (to us, at least, if not the Hippocratics) intangible (e.g. “mind”). This passage ends, however, with a second mention of pain (πόνοι) that does recognize the special position of pain in both medical practice and diagnostic, prognostic, and therapeutic theory. This aphoristic passage grows especially telegraphic by the end, but we can say with confidence that it draws some kind of connection between pain and prognosis. Pains, both those within the entire body, and those in specific locations, are useful signals (σημήϊα) of the patient’s improvement or decline. Nevertheless, pain played a significant role in more than just prognosis; the processes of diagnosis and therapy in particular relied on pain.

To a certain degree, then, Hippocratic authors seem to have been aware of the semiotic value that they accorded to pain. That some of these passages, however, do not seem to count pain as a symptom, and that those that do count it as such rarely assign any special prominence to the symptom, flies in the face of the reality of Hippocratic practice. In what follows, then, I examine the various circumstances under which pain has a semiotic function. In the conclusion of this chapter I will return to the issue of this apparent disconnect between Hippocratic reliance on pain for semiotic functions on the one hand and, on the

other, an apparent disregard for (or obliviousness to) this practice.

3. Pain and Nosology

Pain plays a prominent role in the classification of diseases (nosology).¹⁰³

At the most basic level, pain may signify a transition from health to disease, as when one author says that one could consider hunger a disease, inasmuch as it causes pain.¹⁰⁴ For the author of *Epidemics II* as well, pain is a sign of the onset of disease: the author states that the beginning of an illness should be reckoned from the point at which the patient began to feel pain.”¹⁰⁵ The author of *Diseases I*, however, does not paint in such broad strokes. He posits a class of diseases that have pain, as well as an additional class of diseases that, while not mortal, cause intense pain, but the implication in both cases are that there are diseases that do not occasion pain.¹⁰⁶ At a very basic level, then, the presence of pain signifies whether a patient is suffering from a disease – or a particular class of disease – or not.

The class of disease known as “acute” are defined by one author as the most deadly and the most painful. As such, these diseases require the closest care and most precise treatment (τῶν νόσων σχεδόν τι μάλιστα αἱ ὀξεῖαι καὶ ἀποκτείνουσι καὶ ἐπιπονώταταί εἰσι, *Affections* 13.1-2).¹⁰⁷ The author of *Aphorisms*

¹⁰³On the basic principles of Hippocratic nosology, see Lonie 1965, Wittern 1987, Langholf 1990, Potter 1990, and Roselli 1990.

¹⁰⁴*Breaths* 1.

¹⁰⁵*Epidemics II* 1.11.

¹⁰⁶*Diseases I* 5 and 8.

¹⁰⁷On the classification of acute diseases, see Potter 1990, 251-252. Acute diseases are defined (variously, as Potter notes) at *Aphorisms* 4.23, *Epidemics III* 8 and 16, and *Regimen in Acute Diseases* 5.

similarly distinguishes acute diseases from non-acute ones based on the amount of pain experienced in both. Acute diseases cause extreme pain (1.7) and the severity of the pain a patient experiences is directly related to the severity of the disease from which he suffers (6.7).¹⁰⁸

Pain can be the criterion that distinguishes disease from health or classifies groups of diseases. More often than not, however, pain in the nosological treatises differentiates between individual diseases.¹⁰⁹ I have identified, furthermore, five ways in which pain serves to classify diseases: (1) pain can, in conjunction with other symptoms, aid in identifying a disease, (2) pain can constitute the “name” of a disease, (3) pain can constitute the entirety of a disease by virtue of being its only symptom, (4) pain, as the only symptom in complementary distribution, can differentiate between diseases or (5) between species of a single disease. I have chosen in this section to discuss evidence pulled mainly from the treatise *Affections*, inasmuch as this treatise tidily employs four of these five strategies, although in a few cases I have included additional examples from other treatises and have, in every case, also indicated where in the corpus additional examples can be found.

Pain can function as a straightforward symptom of a named disease. Pleurisy, for example, is recognized by the presence of fever, pain in the side, shortness of breath, and coughing, phrenitis by mild fever and pain near the hypochondrium that tends to the right, near the liver. Tenesmus occurs when the

¹⁰⁸On the relationship between intensity of pain and intensity of disease, see below, Chapter Three.

¹⁰⁹The treatises *Barrenness Affections*, (*Diseases of Women III*), *Diseases I*, *Diseases II*, *Diseases III*, *Diseases of Women I-II*, *Internal Affections*, *Nature of Woman*, and *Sight* all, in part or whole, classify diseases.

patient's stool contains dark blood and mucus and the bowels are in pain, especially during defecation, while the disease of arthritis causes the patient to suffer from fever and sharp pains in the joints.¹¹⁰ In each of these afflictions, pain, in conjunction with one or more additional symptoms, aids in defining and identifying a particular disease. In each case, the pain is specified: for all four diseases, by location, while in the case of tenesmus we are also told the physical circumstance under which the pain is present (defecation) and in the case of arthritis the intensity of the pain is further specified.¹¹¹ Furthermore, in the descriptions of each of these diseases, the additional symptom(s) in combination with which pain defines the disease are all decidedly more observable and material than pain; fever, shortness of breath, coughing, and bloody and mucus-filled stool are all physical phenomena that manifest externally in obvious and measurable ways.¹¹²

In many cases, the symptom of pain is singled out for special mention. In these cases, the definition of an otherwise unnamed disease is headed with a description of the type of pain that occurs. One might say, then, that these diseases are named for the pains with which they are associated. Included in the author's discussion of diseases that arise from the head are pains in the head and pain of the ears ("If pains should attack the head," "Ἦν ἐς τὴν κεφαλὴν ὀδύναι ἐμπέσωσι, *Affections* 2.1, and "If pain should attack the ears," "Ἦν ἐς τὰ ὦτα ὀδύνη ἐμπέσῃ, *Affections* 4.1).¹¹³ The former is caused by an overabundance of phlegm in

¹¹⁰All examples taken from *Affections*. Pleurisy: 7; phrenitis: 10; tenesmus: 26; arthritic disease: 30.

¹¹¹On the dimensions of pain, see below, Chapter Three.

¹¹²On the materiality of pain, see above, Chapter One.

¹¹³Potter 1990, 253 identifies the three ways in which diseases are named: in reference to "the

the head and should be treated with hot water washes, induced sneezing, and a diet of gruel and water, while the latter is caused when an excess of phlegm travels from the head into the ears and should be treated with a vapor bath, a medication designed to draw phlegm upwards, or a purgation. While these conditions both arise from an excess of phlegm (all disease, according to the author of this treatise, is caused by either bile or phlegm),¹¹⁴ the different treatments applied against them corresponds to the difference between the two diseases. Furthermore, any doubt as to the status of either of these conditions as diseases is put to rest when the author states that he has thus listed all of the diseases that arise out of the head (ὅσα ἀπὸ τῆς κεφαλῆς φύεται νοσήματα, *Affections* 5.4-5). These two diseases are identified by their manifestation as pain in a specific location and, inasmuch as this criterion introduces each disease, they are “named” by their symptom.¹¹⁵

Sometimes named diseases, while not taking their names from the pain associated with them, nevertheless are defined only by the symptom of pain.

Witness the full entry on sciatica (*Affections* 29):

Whenever sciatica occurs, pain seizes the area around the point where the hip attaches, the upper part of the rump, and the area around the buttock and in the end it spreads throughout the entire leg. It helps this patient, whenever pain is present, to soften the part of the leg the pain happens to settle in with baths, fomentations, and vapor baths and to purge the bowels. When the pain abates, give a downward-acting medication and after this, order the

essential sign(s), the primary site, or the etiology of the disease. The many diseases that do not have names are referred to by some version of the formula: ‘if/when “x” happens’, where ‘x’ represents one or more of the same three features.”

¹¹⁴*Affections* 1.

¹¹⁵In the case of pains of the head, this type of naming was concretized into the term κεφαλαλγία, “headache.” “Pains in the sides” seems to have been a particularly productive phrase: see, e.g. *Aphorisms* 3.23, 6.5, *Coan Prenotions* 372, *Epidemics* VI 2.5 and 7.11, and *Regimen in Acute Diseases* (Appendix) 33.

patient to drink refined donkey milk. Give for the pain the medicines which are listed in the book about medications. This disease arises whenever bile and phlegm settle down in the blood vessels (either because of some other disease, or for some other reason). As a consequence, whatever portion of the blood has been brought to a stand from the phlegm and bile becomes diseased. Accordingly, this material wanders about through the blood vessel of the leg and wherever it settles, there does the pain become especially obvious. This disease is long and painful, but not deadly. If the pain firmly establishes itself in a certain spot, and is not driven out by medications, cauterize the area where the pain happens to be, and burn with a linen towel.

Ἰσχιάς δὲ ὅταν γένηται, ὀδύνη λαμβάνει ἐς τὴν πρόσφυσιν τοῦ ἰσχίου καὶ ἐς ἄκρον τὸ πυγαῖον καὶ ἐς τὸν γλουτόν· τέλος δὲ καὶ διὰ παντὸς τοῦ σκέλεος πλανᾶται ἡ ὀδύνη. Τούτῳ συμφέρει, ὅταν ἡ ὀδύνη ἔχῃ, μαλάσσειν καθ' ὅκοιον ἂν τυγχάνῃ τοῦ σκέλεος στηρίζουσα ἡ ὀδύνη, ἐν λουτροῖσι καὶ χλιάσμασι καὶ πυρίῃσι, καὶ τὴν κοιλίην ὑπάγειν· ὅταν δὲ λωφήσῃ ἡ ὀδύνη, φάρμακον δοῦναι κάτω καὶ μετὰ ταῦτα πιεῖν γάλα ὄνου ἐφθόν· διδόναι δὲ τῆς ὀδύνης ἃ γέγραπται παρὰ τοῖσι φαρμάκοισιν. Ἡ δὲ νοῦσος γίνεται, ἐπειδὴν χολὴ καὶ φλέγμα ἐς τὴν αἰμορροῖον φλέβα καταστηρίξῃ, ἢ ἐξ ἐτέρης νούσου, ἢ ἄλλως, ὁκόσον ἂν τοῦ αἵματος ὑπὸ φλέγματος καὶ χολῆς νοσήσῃ ξυνεστηκός· τοῦτο γὰρ πλανᾶται ἀνά τὸ σκέλος διὰ τῆς φλεβὸς τῆς αἰμορροῖου καὶ ὅκου ἂν στῇ, ἡ ὀδύνη κατὰ τοῦτο ἔνδηλος μάλιστα γίνεται, ἢ δὲ νοῦσος μακρὴ γίνεται καὶ ἐπίπονος, θανατώδης δὲ οὗ· ἢν δὲ ἐς ἓν τι χωρίον καταστηρίξῃ ἡ ὀδύνη καὶ στῇ, καὶ τοῖσι φαρμάκοισι μὴ ἐξελαύνηται, καῦσαι καθ' ὅκοιον ἂν τόπον τυγχάνῃ ἐοῦσα ἡ ὀδύνη, καίειν δὲ τῷ ὤμολίνῳ.

Sciatica is long and painful, the author tells us. While the given etiology of sciatica is quite involved (both bile and phlegm collect in blood vessels and infect the blood; this diseased blood then establishes itself in the leg and causes pain), the one and only symptom of sciatica is – as we are told multiple times – pain.

In the case of sciatica, the only symptom of the disease is pain. When it comes to certain classes of diseases, namely those affecting the areas of kidney, bowel, or lung, pain is often the only *distinguishing* symptom between these diseases.

The author of *Internal Affections* identifies four kidney diseases. In each of

these diseases the patient's urine displays some abnormality (*Internal Affections* 14-17):

(1st Disease): urine contains sand.

(2nd Disease): urine contains blood that eventually turns to pus.

(3rd Disease): urine resembles the juice that runs off from roast beef.

(4th Disease): the patient has difficulty urinating and the urine produced contains thick white or red sediment. Later, the feet and legs grow cold and he passes almost no urine.

How distinguishing are these characteristics really? The sandy sediment in the urine produced in the first disease is different enough from the urine deposits described in the second and third diseases to be a distinguishing symptom; however, the visible difference between sandy sediment and the white sediment described in the fourth disease may be slight. Furthermore, in the case of the final three diseases, the distinction between the quality of the urine has the potential to be minimal; the contrast between blood, roast beef jus, and red sediment, after all, seems to be one of hue and viscosity, two qualities that are certainly in the eye of the beholder. Urine deposits, however, are not the only symptoms of these diseases (*Internal Affections* 14-17):

(1st Disease): the patient suffers from sharp pain in the kidney, loin, flank and the testicle on the same side as the kidney. Pain ceases upon urination, but comes back later. When urinating, the patient rubs his penis on account of the pain.

(2nd Disease): pains press the patient terribly just as in the first disease. The patient feels increased pain if he exerts himself in any way. Eventually there is swelling next to the spine (once the kidney suppurates).

(3rd Disease): There are pains briefly in the loins, bladder, perineum

and kidney. The pains remit, but then quickly return sharply. Sometimes there is pain in the narrow part of the abdomen.

(4th Disease): pains in the side, flank, loins and the muscle of the lower back. This patient suffers the same pain as a woman in labor. He feels no pain if he lies on the painful side, but if he lies on the opposite side feels like it is hanging down. This disease continues on in the same way for a year or more, then the pains increase and there is internal suppuration with concurrent swelling.

In all four diseases, the symptom of pain varies in terms of intensity, duration, location, and circumstance. We are told that the pains of the second disease are as intense as those suffered in the first, while the pains of the third disease increase in intensity and those of the fourth are as intense as labor pains and grow eventually worse. In chronological terms, the pains in all four diseases appear intermittently: in the first disease, the pain disappears upon urination, but returns later; in the second, the pain increases upon physical exertion; in the third, the pains appear only briefly at first, then return just as quickly, and with a vengeance; in the fourth disease, the pains persist for at least a year before increasing in intensity. The location of pain also serves to distinguish the first and second diseases together (both diseases affect the same areas) from the third and fourth diseases, respectively: kidney, loin, flank, and testicle (first and second disease); loins, bladder, perineum, and kidney, and sometimes abdomen (third disease); side, flank, loins, lower back muscle (fourth disease). Finally, the circumstances under which the patient feels pain is also variable: in the first disease, the patient suffers during urination (at which point he also rubs his penis); in the second disease pain occurs upon exertion; and in the fourth the patient feels (or doesn't feel) pain, depending on what side he lies. We can see,

then, the pains experienced in these four diseases differ from each other in multiple ways, while the urines produced in each may not have been as easily distinguishable.

Pain plays a similar role in distinguishing between intestinal diseases. The author of *Affections* even remarks on the similarity between dysentery, lientery, and diarrhea, then goes on to prescribe the same treatment for all three (Αὗται αἱ νοῦσοι, ἥ τε δυσεντερία καὶ ἡ λειεντερία καὶ διάρροια, παραπλήσιαί εἰσι, καὶ δεῖ αὐτάς οὕτως ἰῆσθαι, *Affections* 25). In fact, just as in the case of the kidney diseases described in *Internal Affections*, these intestinal diseases are distinguished in terms of both pains (*Affections* 23-26):

(Dysentery): pain and colic throughout the intestinal cavity.

(Lientery): no pain.

(Long bouts of diarrhea): [the symptoms of diarrhea are not given in this treatise, however, the condition is described in *Nature of Woman* 36.5 as causing pain. Furthermore, in *Aphorisms* 7.29, *Crises* 10.4 and 53.1, and *Diseases I* 7.11 the condition is modified with the adjective ἰσχυρός, “violent, severe,” a term that is often used to describe the quality of certain pains¹¹⁶).

and the content and character of their effluvia. In the case of these diseases, the patient’s stool contains either (*Affections* 23-25):

(Dysentery) bile, phlegm, and burnt blood.

(Lientery) undigested food and water.

(Long bouts of diarrhea) undigested food and water, eventually

¹¹⁶On the dimensions of pain, see below, Chapter Three..

phlegm.

Effluvia and pain work in tandem to distinguish between these three diseases: lientery and diarrhea provoke the passage of identical stool, but the former is painless, while the latter is painful. In dysentery and diarrhea the situation is reversed: both cause pain, but the stool produced is, in the first disease, full of bile, phlegm, and burnt blood and, in the latter, watery and full of undigested food.

Dysentery and lientery are distinguishable in terms of both effluvia and pain. The etymologies of the terms “dysentery” and “lientery,” however, indicate that the fundamental notional difference between the two rests not so much in the quality of the effluvia as in the ease or difficulty with which the stool is evacuated: lientery (λεῖον, “gentle” + ἔντερον, “intestines”) is gentle, while dysentery (δυσ-, “bad” + ἔντερον, “intestines”) is difficult. While these qualities could refer to the stool produced in each condition (in this case, we would want to understand a contrast between “smooth” and “hard”), the distinction between the effluvia seems to be more one of content, than of density or texture. It makes more sense that these prefixes are a reference to the pain involved in bowel evacuation, inasmuch as we are told outright that dysentery is painful, while lientery is not.¹¹⁷

In renal and intestinal diseases, then, pain operates in conjunction with

¹¹⁷By way of contrast, the term diarrhea (διά, “through” + ῥέω, “flow”) evokes the character of the “runny” effluvia produced in this disease, while the etymology of the intestinal disease tenesmus, the “straining” disease (from τείνω), a condition described in the section immediately following this one, evokes the quality of bowel evacuation (tenesmus is characterized by constipation, pain in the lower intestinal cavity, especially during attempted defecation, and the presence of mucus and dark blood in the stool).

effluvia to distinguish between similar diseases. When it comes to distinguishing between diseases of the lung, however, pain plays an even more vital role (*Places in Man* 14.1-6, 12-16):

Whenever there is a flowing of material to the chest and bile is there, this condition is made clear by the following: pain in the flank and the collar bone on the same side as the flank, fever, the top of the tongue becomes green, and congealed stuff is coughed up. The dangerous time for this disease is the seventh or ninth day. *Whenever both sides have pain, but the other symptoms are the same as in the first disease, it is called pneumonia (the first disease is called pleuritis)* ... pneumonia is by far the more dangerous (of the two), its pains in the flanks and collar bones are much stronger, and the tongue is greener, and the patient feels pain in the throat from the drainage, and a strong weariness occurs, and the breath is restrained on the sixth or seventh day.

‘Ὅποταν δὲ ἐς τὸν κίθαρον ῥέῃ καὶ χολὴ ᾗ, τῷδε δῆλόν ἐστιν ὁδύνη ἔχει ἐς τὴν λαπάρην καὶ ἐς τὴν κληῖδα τὴν ἐς τὴν λαπάρην, καὶ πυρετὸς, καὶ ἡ γλῶσσα τὰ ἄνω χλωρὴ γίνεται, καὶ ἀποχρέμπεται ξυμπεπηγότα· ταύτης τῆς νόσου ἐβδομαίῳ ὁ κίνδυνός ἐστιν ἢ ἐνναταίῳ. Ὅκοταν ἀμφοτέρω τὰ πλευρὰ ἀλγέῃ, τὰ δ’ ἄλλα ὅμοια ᾗ τῇ ἐτέρῃ, αὕτη μὲν περιπλευμονίη ἐστίν, ἢ δ’ ἐτέρη πλευρίτις ... Ἡ περιπλευμονίη πολὺ ἐπικινδυνότερὴ ἐστὶ, καὶ ὁδύνη πολὺ ἰσχυρότεραι εἰσιν αἱ ἐς τὰς λαπάρας καὶ ἐς τὰς κληῖδας, καὶ ἡ γλῶσσα πολὺ ὠχρότερη, καὶ τὴν φάρυγγα ἀλγέει ὑπὸ τοῦ ῥεύματος, καὶ κόπος ἔχει ἰσχυρὸς, καὶ πνεῦμα ἐκταῖον ἢ ἐβδομαῖον λάζεται.

The location of pain (in one or both sides) is the *only* distinguishable difference between pleurisy and pneumonia. Similarly, in *Diseases I*, pleurisy is characterized by fever, severe pains in the side, pain in the shoulder, collarbone, and axilla, and the coughing up of matured material; sometimes there is also pain in the area below the side which then often causes bilious urine. By contrast, pneumonia causes fever and pain, especially in the back, sides, shoulders and spine, and the coughing up of matured material. Again, the only reliable difference between these two diseases is the location and quality of the pains

experienced in each.¹¹⁸

Finally, pain can also be the only distinguishing symptom among varieties of disease. The author of *Diseases III* distinguishes between two types of pneumonia: one in which the patient feels pain from the beginning of the disease, and another where no pain is felt until the patient begins to cough up material. This latter disease, he claims, both lasts longer and is more intense than the former.¹¹⁹

We can see then, that pain differentiates between diseases in at least five ways. Pain can be (1) a symptom of disease, (2) can “name” a disease or (3) constitute a disease. Additionally, pain may be the only factor that distinguishes (4) between diseases or (5) varieties of the same disease.¹²⁰

4. Pain and Prognosis

The author of *Diseases I* claims that any prospective physician must learn, among other things, “what bad thing following another bad thing creates something good, and which bad thing necessarily follows on another bad thing (ὅ τι κακὸν ἐπὶ κακῷ γυνόμενον ἀγαθὸν ποιέει· καὶ ὅ τι κακὸν ἐπὶ κακῷ ἀνάγκη γενέσθαι, *Diseases I* 1.25-26). The prediction of the course and outcome of disease was a large part of Hippocratic medicine,¹²¹ an operation that, in many cases, depended on the sign

¹¹⁸Cf. the diseases described in *Internal Affections* 18 and 19: the latter disease is generally identical to the first, save that the patient experiences a sharp pain in the spleen.

¹¹⁹*Diseases III* 15; cf. *Critical Days* 10.

¹²⁰It should be noted, however, that the semiotic dynamism of pain is potentially limited in treatises where diseases are classified in terms of affected location or etiology – or, in the case of the gynecological diseases, both. On the limited semiotic value of pain in so-called women’s diseases, see Chapter Four.

¹²¹The “prognostic” treatises include *Coan Prenotions*, *Humors*, *Crises*, *Critical Days*, *Prognostic*, *Prorrhetic I*, *Prorrhetic II*. On prognosis in Hippocratic medicine, see Pagel 1939, Edelstein 1967, 65-

of pain.

Pain could be used simply to indicate the length of a disease. For example, pain in the groin during fever indicates that the disease will be of long duration.¹²² Pain could also be put to more strenuous use, however. In order to predict the crises of disease, authors often relied on pain. The commencement of pain in a disease characterized by fever, headache, darkened vision, heartburn and vomiting is used to predict when the disease will reach a crisis: if the pain begins on the first day of the disease, the patient will fare the worst on the fourth and fifth day. The majority of patients, however, begin to feel pain on the third day, feel the worst on the fifth, and regain health on the ninth or eleventh day. Finally, if a patient should not feel pain until the fifth day, crisis will not occur until the fourteenth.¹²³ An example from *Diseases III* is equally elaborate (*Diseases III* 16): in both bilious and sanguinous pleurisies, if the pains are mild at first, but grow sharp on the fifth or sixth day, the disease is over by the twelfth day and is not very mortal; if the pains are mild at first, but sharp from the seventh or eighth day onwards, the crisis and recovery occur on the fourteenth day.

Pain is certainly a “bad” sensation in the eyes of the sufferer and, as we have already seen, was closely associated with disease.¹²⁴ Given these associations, it is not surprising that pain was often considered to be a bad sign. In every kind of fever, for example, pain of the neck is a bad sign, and is the

85 and Thivel 1985.

¹²²Coan *Prenotions* 73.

¹²³*Prognostic* 24.

¹²⁴On pain as a “negative” sensation, see Chapter One.

worst sign in patients who are likely to become delirious.¹²⁵

Pain doesn't always have a negative meaning, however: a sudden nosebleed that occurs during a fever in summer or fall is a fatal sign *unless* a mass of blood forces excess blood out of the nose or anus, or causes an abscess, or creates pains in the hypochondrium, or pains that move towards a testicle or the legs.¹²⁶

Just as pain can be good, *not* feeling pain can be bad: it is a fatal sign for pains to disappear without a reason, while giving birth without pain is considered a dangerous sign.¹²⁷

Pain doesn't just look forward. The author of *Prorrhetic I* states that "pain of the heart that follows upon pain in the lower back is a sign of hemorrhage and, I think, also a sign that a hemorrhage happened previously" (Ὁσφύϊ ἐπωδύνῳ καρδιαλγικὰ προσιόντα, σημεῖα αἰμορρῶδεα, οἷμαι δὲ καὶ προγενόμενα, *Prorrhetic I* 130). Here, pain certainly predicts a future event and, the author suspects, may be proof of a prior event.¹²⁸

In some cases, pain was the predominant circumstance under which prognoses were made, as is the case for angina (*Coan Prenotions* 366-370):

(366) fatal: in angina, pains moving to head together with fever and no other signs.

(367) fatal: in angina, pains moving to legs together with fever and no other signs.

(368) a pain of the hypochondrium that comes from anginas, when

¹²⁵*Prorrhetic I* 73.

¹²⁶*Regimen in Acute Diseases (Appendix)* 29.

¹²⁷*Coan Prenotions* 364 and 527; on the benefits of pain in childbirth, see Chapter Four.

¹²⁸On the tendency of diseases to "settle" in places that are in pain, see Chapter One.

there is no crisis, but there is sluggishness, kills the patient without obvious cause, even when it seems especially alright.

(369) intense pain that arrives in the chest and intestinal cavity as a result of lessening anginas, together with no other signs, causes the patient to suffer purulent diarrhea, and be released (most of the time) from this disease.

(370) fatal: all symptoms that arise from anginas, save those that create a perceptible pain; Chronic pains travel to the legs and the patient has difficult suppuration.

(366) Ἐν κυνάγχῃ ἀσήμως εἰς κεφαλὴν ἀλγήματα μετὰ πυρετοῦ, ὀλέθρια.

(367) Ἐν κυνάγχῃ ἀσήμως ἐς σκέλη ἀλγήματα μετὰ πυρετοῦ, ὀλέθρια.

(368) Ἐκ κυναγχικῶν ἀκρίτως ὑποχονδρίου ἄλγημα, μετὰ ἀκрасίης καὶ νωθρότητος γενόμενον, κτείνει λαθραίως, εἰ καὶ πάνυ δοκοῖεν ἐπιεικῶς ἔχειν.

(369) Ἐκ κυναγχικῶν ἀσήμως ἰσχνανθέντων ἐς στήθος ἄλγημα καὶ ἐς κοιλίην ἔλθον σύντονον, ποιεῖ πυῶδες διαχωρεῖν, ἄλλως καὶ λυομένου τὸ τοιοῦτον.

(370) Ἐκ κυναγχικῶν πάντα ὀλέθρια, ὅσα μὴ ἔκδηλον ἐποίησεν ἄλγημα· ἀτὰρ καὶ ἐς σκέλεα ἀλγήματα χρόνια φοιτᾷ, καὶ ἐκπυοῦται δυσκόλως.

In each of these five prognoses, pain is used to indicate the outcome of angina.

Several of the circumstances under which a patient suffering from angina feels pain were thought to be mortal (the pains in 366, 367, 368), but the pain felt in 369 was considered beneficial, and section 370 states that any symptom *except* for pain, causes death!

While authors may have utilized all types of symptoms to make predictions,¹²⁹ we cannot discount the role pain played in prognosis.

¹²⁹Holmes 2010, 156-162 identifies effluvia and behavior as the most productive symptoms in prognosis, although, as I argued in Chapter One, when considering pain *per se*, we must account for the qualitative difference between other symptoms and the symptom of pain: perceptibility.

5. *Pain and Therapy*

We have already seen in Chapter One how the treatment of pain relies on the notion that pain is a byproduct of material imbalance. Just as the treatment of disease attempts to restore the body to a proportional balance, so, too, does the treatment for pain involve various techniques for removing one or more humors from one or more bodily exits. The treatments found in the Hippocratic Corpus fall into two categories: those that treat specific symptoms (overwhelmingly the symptom is pain), and those that treat whole diseases (and thus treat an array of symptoms). Pain figures in more than just obviously analgesic procedures, however.¹³⁰ Most treatments, regardless of their intended target, rely on the indications that pain provides.

Throughout the Hippocratic treatises, the behavior of pain is consistently a deciding factor, if not often the only factor, in how a patient is to be treated. For example, the following is the treatment prescribed for a certain nephritic disease (*Internal Affections* 18.14-29):

[H]ave the patient drink squirting-cucumber juice, thapsia root, hellebore, or scammony juice. After the cleaning, administer the same things as to the patients above. If the disease does not go away with this treatment, fatten the patient on milk, and burn four eschars beside his right shoulder-blade, three into the acetabulum of his right hip-joint, two under his buttock, two in the middle of his thigh, and one each above his knee and his ankle. If a person is cauterized in this way, it will not allow the disease to migrate either upwards or downwards. If, however, pain breaks out first, and, before you can cauterize, it becomes fixed in the leg, the patient will become lame; if it becomes fixed in the head, he will become deaf or blind, if in the bladder, blood will be passed along with the urine

¹³⁰On anodynes, see King 1988 and Rey 1993, 31f.

for forty days; if pain occupies the bladder, give the same medications as to a patient with strangury. If the pain settle somewhere else, cauterize: burn fleshy parts with irons, osseous and fibrous ones with fungi ...¹³¹

Τοῦτον, ὅταν οὕτως ἔχη, ἐλατήριον πῖσαι ἢ θαψίης ρίζαν ἢ ἐλλέβορον ἢ ὀπὸν σκαμμωνίης· μετὰ δὲ τὴν κάθαρσιν ταῦτὰ προσφέρειν, ἃ καὶ τοῖσι πρόσθεν. Ἦν δὲ μὴ ὑπὸ ταύτης τῆς θεραπείης παύηται, γάλακτι παχύνας καῦσαι κάτω τὴν ὠμοπλάτην τὴν δεξιὴν τέσσαρας ἐσχάρας, καὶ ἐς τὴν κοτυλίδα τοῦ ἰσχίου τοῦ δεξιοῦ τρεῖς, καὶ ὑπὸ τὸν γλουτὸν δύο, καὶ ἐν τῷ μέσῳ τοῦ μηροῦ δύο, καὶ ὑπὲρ τοῦ γούνατος μίην, καὶ ὑπὲρ τοῦ σφυροῦ μίην. Οὗτος, ἦν οὕτω καθῆ, οὐκ ἀφήσιν οὔτε ἄνω οὔτε κάτω τὴν νοῦσον διαχωρέειν. Ἦν δὲ κου ἡ ὀδύνη φθῇ ῥαγεῖσα, ἦν μὲν στηρίξη ἐς τὸ σκέλος πρὶν ἢ καθῆναι, χωλὸς ἔσται· ἦν δὲ ἐς τὴν κεφαλὴν, κωφὸς ἢ τυφλὸς· ἦν δὲ ἐς τὴν κύστιν, προχωρεῖ ἅμα τῷ οὖρῳ αἵματος μάλιστα τεσσαράκοντα ἡμέρας. Ἀλλὰ χρὴ, ἦν ἐς τὴν κύστιν ῥαγῇ, διδόναι τὰ αὐτὰ φάρμακα, ἃ καὶ τῷ στραγγουριῶντι· καὶ ἦν κου ἄλλη ἡ ὀδύνη στῆ, καῦσαι· καίειν δὲ χρὴ τὰ μὲν σαρκώδεα σιδηρίοις, τὰ δὲ ὀστώδεα καὶ νευρώδεα μύκησι.

The first half of this therapy relies on treating the patient before the pain of this disease should settle in any particular place in the body. The patient must be treated differently, however, if pain should settle in certain areas: if the bladder becomes pained, the physician must give the patient a medication for strangury and if any other body part besides the bladder should grow pained, the physician must use cautery.

Injunctions to treat a patient differently based on the behavior of pain could be quite involved. For example, in all acute diseases, treatment for pains in the side were supposed to follow a particular course. In the first place, these pains were treated with hot fomentations. If the pain should show signs of extending to the collarbone, however, the physician was supposed to phlebotomize the inner vein of the elbow. If, however, the pain was under the

¹³¹Tr. Potter, modified.

diaphragm and did not show signs of heading towards the collar bone, the physician was supposed to soften the bowels, using any number of appropriate purgatives. As soon as the patient takes the purgative, the physician then placed the patient on a restricted diet that he gradually increased, but only if the pain in the side had disappeared.¹³² Both type and manner of treatment relied on the sign of pain.

In the case history of a patient in *Epidemics VII* we can see that this use of pain to determine treatment occurred in practice as well (*Epidemics VII* 112.1-6):

Polyphantus, in Abdera, had pain in the head with severe fever. Urine thin, lots of it, deposits shaggy and disordered. When the pain in his head did not stop, a sternutatory was applied on the tenth day. Afterwards he had a severe pain in the neck. He produced urine that was red, turbid, like a mule's. his mind was unsound in a phrenetic manner. He died with powerful convulsions ...¹³³

Πολύφαντος ἐν Ἀβδήροισι κεφαλὴν ὠδυνᾶτο ἐν πυρετῷ σφοδρῷ· οὖρα λεπτά, πολλὰ· ὑποστάσιες δασεαὶ καὶ ἀνατεταραγμέναι· οὐ παυομένου δὲ τοῦ ἀλγήματος τῆς κεφαλῆς, πταρμικὰ προσετέθη ἔονται δεκαταίῳ. Μετὰ δὲ, ἐς τράχηλον ὀδύνη ἰσχυρή· οὖρον ἦλθεν ἐρυθρόν, ἀνατεταραγμένον, οἶον ὑποζυγίου· παρέκρουσε τρόπον φρενιτικόν· ἀπέθανεν ἐν σπασμοῖσιν ἰσχυροῖσιν.

Polyphantus' physician treated him with a sternutatory in direct response to the fact that the pain in his head persisted. Clearly, the principle that underlies the instructions in the examples from *Internal Affections* and *Regimen in Acute Diseases* – that specific types of pain dictate the type of treatment a patient should receive – is also behind Polyphantus' sternutatory.

The evidence I have examined thus far shows how pain is used as a sign

¹³²*Regimen in Acute Diseases* 7.

¹³³Tr. Smith.

to indicate the type and manner of therapy a physician should use to treat disease.¹³⁴ In some cases, however, it seems that pain is not so much a guiding factor in the treatment of disease as it is a symptom that must be dealt with *separately* from the disease proper. Consider the prescribed treatment for pleurisy (*Affections* 7.1-11):

Pleurisy, there are fever, pain in the side, orthopnoea and coughing. At the beginning the patient expectorates sputum that is slightly bilious, but then by the fifth or sixth day also somewhat purulent. Against the pain in his side, give this patient a medication to remove phlegm and bile from the side, for if you do this the pain will be mildest. Clean the cavity downwards by giving a medication and cooling it with an enema; this is very beneficial throughout the whole course of the disease. Administer drinks and gruel: give these draughts quickly in order that the sputum will be cleaned thoroughly from the side. When the side begins to be cleaned, it is beneficial to bring the material lying against the chest wall to maturity by warming the side from the outside; earlier this is not useful, as the material only becomes dry ...¹³⁵

Πλευρίτις πυρετὸς ἴσχει, καὶ τοῦ πλευροῦ ὀδύνη, καὶ ὀρθοπνοίη, καὶ βήξ· καὶ τὸ σίελον κατ' ἀρχὰς μὲν ὑπόχολον πτύει, ἐπειδὰν δὲ πεμπταῖος γένηται ἢ ἑκταῖος, καὶ ὑόπυον. Τούτῳ τοῦ μὲν πλευροῦ τῆς ὀδύνης διδόναι, ὃ τι ἀποστήσει ἀπὸ τοῦ πλευροῦ τό τε φλέγμα καὶ τὴν χολήν· ἡ γὰρ ὀδύνη οὕτως ἂν εἴη μαλακωτάτη· τὴν δὲ κοιλίην θεραπεύειν ὑπάγοντι καὶ ψύχοντι κλύσματι· οὕτω γὰρ τῇ νούσῳ τῇ συμπίσσει συμφορώτατα· προσφέρειν δὲ ποτόν τε καὶ ρόφημα, καὶ τὰ πόματα διδόναι ὀξύτερα, ὥς τὸ σίελον ἀνακαθαίρηται ἀπὸ τοῦ πλευροῦ· ὅταν δὲ καθαίρεσθαι ἄρξηται τὸ πῦον, θερμαίνοντα ξυμφέρει τὸ πλευρὸν ἔξωθεν πεπαίνειν τὰ πρὸς τὸ πλευρόν· πρόσθεν δὲ οὐ ξυμφέρει· ξηραίνεται γάρ.

“Pain in the side” is one of four symptoms of pleurisy, yet it is to receive its own treatment, separate from those designed to treat the rest of the disease. We are

¹³⁴See also *Aphorisms* 4.18, 4.20; *Diseases II* 14, 16, 18, 19, 27, 45, 47, 54-58, 67, 69; *Diseases III* 1, 3; *Epidemics II* 5.21; *Crises* 56, 59; *Affections* 7; *Internal Affections* 4, 7, 14, 16, 19, 24, 27, 41; *Places in Man* 12; *Regimen in Acute Diseases* 19, 24; *Regimen in Acute Diseases (Appendix)* 31, 51. It is likely no coincidence that the treatises that tend to use pain as an indication of type and manner of treatment are the ones that most equate pain with disease. For a list of these treatises, see below, p. 27, n. 44.

¹³⁵Tr. Potter.

told that the medication for removing bile and phlegm is meant to reduce the pain to a milder state and it is quite clear that this treatment is intended to treat the symptom of pain in particular (τοῦ ... πλευροῦ τῆς ὀδύνης). Conversely, the additional therapies (purgative, enema, drinks and gruel) do not target individual symptoms, while the purgative/enema combination is said to be helpful during the entirety of the disease (οὕτω γὰρ τῇ νόσῳ τῇ ξυμπάσῃ ξυμφορώτατα).¹³⁶

Pain, then, is an indication of how and in what manner a patient should receive treatment. The circumstances under which pain dictates treatment, however, indicate that, in some cases at least, the symptom of pain was decoupled from the rest of disease and treated as a separate affliction. This dichotomy (pain as a symptom of disease and pain as its own disease), as we will see below in Section 7, was not restricted to therapy, but was operative in almost every context.

6. Pain and Theoretical Proof

Hippocratic authors even use the existence of pain as proof of an important claim, capitalizing, perhaps, on the semiotic power pain displayed in many other contexts.¹³⁷ The author of *Internal Affections*, for example, relies on the existence of pain as proof for his claim that sciatica is caused by exposure to the sun (*Internal Affections* 51.1-7):

¹³⁶See also, *Diseases III* 7, 12; *Affections* 9, 10, 15, 23, 27, 28, 29, 30; *Places in Man* 17, 20, 26; *Regimen in Acute Diseases* 22, 23.

¹³⁷Cf. Holmes 2010, 125. Holmes states that the symptom is used in diagnosis, prognosis, and proof, while I prefer to count the use of pain in therapy as a distinct usage. On the problems with subsuming pain under the category of “the symptom,” see above, Chapter One.

Sciatica: sciatica comes about from the following origins in most cases: if the patient gets sun for too much time and the joints of the hip are warmed through and the moisture in the joints is dried up by the heat. My proof that drying and stiffening occur: The person who has this disease is unable to turn or move the joints because of both the pain in them and the stiffening of the vertebrae.

Περὶ ἰσχιάδος ἰσχιάς δὲ ἀπὸ τῶνδε τῶν ἀφορμῶν γίνεται μάλιστα τοῖσι πολλοῖσιν, ἣν εἰληθῇ ἐν τῷ ἡλίῳ πολὺν χρόνον καὶ τὰ ἰσχία διαθερμανθῇ καὶ τὸ ὑγρὸν ἀναξηρανθῇ ὑπὸ τοῦ καύματος τὸ ἐνεὸν ἐν τοῖσιν ἄρθροισιν. Ὡς δὲ ἀναξηραίνεται καὶ πῆγνυται, τότε μοι τεκμήριον· ὁ γὰρ νοσέων στρέφεσθαι ἢ κινέειν τὰ ἄρθρα οὐ δύναται ὑπὸ τῆς ἐν αὐτοῖσιν ἀλγηδόνης καὶ τοῦ ζυμπεπηγέναι τοὺς σπονδύλους·

Here, the fact that the patient cannot move on account of pain is adduced as (an admittedly tendentious) proof of the supposed cause of this disease.

Most striking of these proofs, of course, is the tactic employed by the author of *Nature of Man* in service of his argument against the proposition that the human body is a unity, composed of only one element. Such a body, he asserts, would not feel pain. If this hypothetical body were to feel pain, he adds, there would exist only one cure for disease. Since, however, there are many cures in existence, the body must be composed of a multitude of elements.¹³⁸ This proof assumes that the audience has a particular idea about the nature of pain. Pain must, in this view, arise as a result of material change and, since a unity could never undergo change, clearly the body must be composed of multiple substances. I have, so far, discussed the relationship between humoral theory and pain in unidirectional terms: because the body contains observable humors, pain (as some kind of manifestation¹³⁹ of a change in internal balance) is therefore a

¹³⁸*Nature of Man* 2.11-12. See also the discussion of this passage above, Chapter One. Holmes 2010 discusses the philosophical tradition behind arguments such as this one.

¹³⁹See above, Chapter One, for a discussion of whether pain is a reaction to material change, or if it actually exists as the change.

useful indication that change has occurred within the body. This is a relationship that relies on taking the existence of humors within the body as a given: it is humoral theory, in other words, that imbues pain with such significance. In this example from *Nature of Man*, however, we can see that the road runs both ways: just as the existence of humors sanctions the physician's reliance on the symbol of pain, so too can the existence of pain legitimize the theory of humors.

7. *Pain and Disease*

I want to return to the topic of pain's semiotic function in nosology in order to highlight the unstable relationship between pain and disease. As we saw, pain distinguishes disease and between diseases in several different ways. This variety, as I aim now to suggest, reflects a corresponding diversity in the very notion of pain.

Pain can be construed as either a symptom of disease or as a disease itself. As a symptom, pain is subordinate to the category of disease; Hippocratic diseases are syndromes (constellations of symptoms) and, when it functions as a symptom, pain works in tandem with other signs to signify the presence of disease.¹⁴⁰ It is in this role as symptom that I have suggested pain has a robust semiotic function in the contexts of nosology, prognosis, therapy, and theoretical proof.

Consider again the treatise *Affections*. Here we find pain operating as both symptom and disease. Pain is listed as a symptom in several "named" diseases: pleurisy, pneumonia, phrenitis, fever, ileus, dysentery, lenteria, tenesmus,

¹⁴⁰Syndrome: Holmes 2010, 133.

arthritis, and gout;¹⁴¹ while pain *is* a disease in *Affections* 2, 4, 15 and 16. The disease of sciatica straddles this divide, inasmuch as the disease, although named for the location (“the hip disease”), rather than the nature of the affliction, nevertheless is constituted by pain and pain alone. Any ambiguity over the confused relationship between pain and disease in this treatise, furthermore, is dispelled by the fact that the author refers to the diseases of cholera and diarrhea as “pains” (ἀλγίματα, *Affections* 27.15).¹⁴²

This confusion over the categorization of pain permeates the entire Hippocratic Corpus. Rarely can a treatise be found to be entirely consistent about the position of pain relative to disease, although there are certainly treatises that lean heavily in one or the other direction.¹⁴³

I have spent most of this chapter unambiguously referring to pain as a symptom, and focusing on evidence that reveals pain in this function. In what remains, however, I shall show that pain should not, *de facto*, be assumed to function as a symptom.

In some cases, pain and disease are clearly different “things” (or

¹⁴¹*Affections* 7, 9, 10, 14, 21, 23, 25, 26, 30 and 31.

¹⁴²Cf., e.g. *Nature of Man* 15.

¹⁴³Pain is (mostly) a symptom of disease: *Airs, Waters, Places, Barrenness (Diseases of Women III), Coan Prenotions, Crises, Diseases I, Diseases II, Diseases III, Diseases in Women I, Diseases in Women II, Epidemics I, Epidemics III, Epidemics IV, Internal Affections, Nature of Woman, Prorrhetic I, Regimen in Acute Diseases, The Art, The Sacred Disease*. Pain is (mostly) a disease: *Aphorisms, Breaths, Epidemics VI, Glands, Nature of Man, Places in Man, Prognostic, Regimen, Regimen in Health, Use of Liquids*. Mixed: *Affections, Epidemics II, Epidemics V, Epidemics VII, Humors, Regimen in Acute Diseases (Appendix), Prorrhetic II*. Note that this division aligns nicely with the now outdated Coan/Cnidian division of the corpus. On the Coan/Cnidian distinction in scholarship, see, Thivel 1981 and Langholf 1990, 12-36. Holmes 2010 reaches similar conclusions when analyzing the role of the symptom in nosology, prognostication, and theoretical proof: 151, n. 16, “interpretations of symptoms *do* depend on context, with the result that the division between prognostic and diagnostic functions remains useful.”

“categories” or “states”).¹⁴⁴ The treatise *Ancient Medicine*, for example, seems to elevate pain to the same level as disease. On multiple occasions in this polemical treatise, the author refers to illness and pain in the same breath: he claims that discussions of medicine are really about what patients suffer when they are sick or in pain (Οὐ γὰρ περὶ ἄλλου τινὸς οὔτε ζητέειν προσήκει οὔτε λέγειν ἢ περὶ τῶν παθημάτων ὧν αὐτοὶ οὗτοι νοσέουσιν τε καὶ πονέουσιν, *Ancient Medicine* 2.11-13); that ancient peoples suffered from pains, diseases and early death if they followed an improper diet, πόνοισί τε ἰσχυροῖσι καὶ νούσοισι περιπίπτοντες, καὶ διὰ ταχέος θανάτοισιν, *Ancient Medicine* 3.19-20; and that ancient people realized that unprepared foods cause pain, disease, and death (ἀπὸ τουτέων δ’ αὐτέων πόνους τε καὶ νούσους καὶ θανάτους ἔσσεσθαι, *Ancient Medicine* 3.34-35 and ἐξ ἧς οἱ πόνοι καὶ νοῦσοι καὶ θάνατοι ἐγίνοντο, *Ancient Medicine* 3.40) forms a crucial part of the author’s narrative of the invention of medicine. In all of these situations, while it is clear that pain, disease, and death are all to be avoided, it is equally clear that these three outcomes are discrete. At a later point, it becomes clear that pain does not necessarily indicate disease. This point comes during a discussion of the operation of coldness and hotness within the body (*Ancient Medicine* 16.1-11):

I at least think that of all the properties, coldness and hotness have the least affect in the body for the following reason: so long as the two are mixed together with each other, they do not cause hurt; for the cold finds temperance and measure from the hot, and the hot from the cold. But, whenever one of these is separated off, then it causes hurt. When cold is the culprit, it causes some hurt for the person, [I say some since] on account of the speed when straightway for this very reason heat arises from the same place within the person, needing no assistance or preparation. These

¹⁴⁴Holmes 2010, 124, 138-142 sees disease as a “process,” not a “thing.”

things function the same for those who are in health and those who are sick.

Ψυχρότητα δ' ἔγωγε καὶ θερμότητα πασέων ἥκιστα τῶν δυναμίων νομίζω δυναστεύειν ἐν τῷ σώματι διὰ τάσδε τὰς προφάσιας· ὃν μὲν ἂν δήπου χρόνον μεμιγμένα αὐτὰ αὐτέοισιν, ἅμα τὸ ψυχρὸν τε καὶ θερμὸν ἔη, οὐ λυπέει· κρήσις γὰρ καὶ μετριότης τῷ μὲν ψυχρῷ γίνεται ἀπὸ τοῦ θερμοῦ, τῷ δὲ θερμῷ ἀπὸ τοῦ ψυχροῦ· ὅταν δὲ ἀποκριθεῖη χωρὶς ἑκάτερον, τότε λυπέει· ἐν δὲ δὴ τουτέῳ τῷ καιρῷ, ὅταν τὸ ψυχρὸν ἐπιγένηται καὶ τι λυπήσῃ τὸν ἄνθρωπον, διὰ ταχέος πρῶτον δι' αὐτὸ τοῦτο πάρεστι τὸ θερμὸν αὐτόθεν ἐκ τοῦ ἀνθρώπου, οὐδεμιῆς βοηθείης οὐδὲ παρασκευῆς δεόμενον· καὶ ταῦτα καὶ ἐν ὑγιαίνουσι τοῖσιν ἀνθρώποισιν ἀπεργάζεται, καὶ ἐν κάμνουσιν.

Clearly, if the same set of factors cause pain in both health and disease – if the *same* pain, in other words, can afflict a healthy or a diseased person – this pain, at least, cannot be the same thing as disease. In this case, the existence of pain cannot signal a state of disease.

Pains and diseases, then, may be separate categories that only overlap in certain circumstances. On the other hand, pain can be entirely interchangeable with disease. The treatise *Breaths*, concerned as it is with proving that all disease is caused by wind, *pneuma*, asserts that all diseases are identical with the exception of their location.¹⁴⁵ He explains the process in the following way: after *pneuma* fills the veins in the head, weight then presses upon the blood therein and forces the leanest component in the blood out of the veins; this expressed material then flows to other parts of the body and accumulates (*Breaths* 10.8-11):

Wherever in the body the runoff goes, there does *disease* establish itself: if it goes to the eyes, there is the *pain*; if it goes to the ears, there is the *disease*; if it goes to the sternum it becomes *coryza*

¹⁴⁵*Breaths* 2.1-4. As we will see below, Chapter Three, the location of a disease is often determined solely by where a patient feels pain, while diseases themselves are often categorized by type and location of pain.

(hoarseness), when it goes to chest it is called *brankhos* (sore throat).

ὅποι δ' ἂν ἀθρόον ἀφίκηται τοῦ σώματος, ἐνταῦθα ξυνίσταται ἡ νοῦσος·
ἢν μὲν οὖν ἐπὶ τὴν ὄψιν ἔλθῃ, ταύτης ὁ πόνος· ἢν δὲ ἐς τὰς ἀκοὰς,
ἐνταῦθ' ἡ νοῦσος· ἢν δὲ ἐς τὰς ῥίνας, κόρυζα γίνεται· ἢν δὲ ἐς τὰ στέρνα,
βράγχος καλέεται.

The same material, depending on where it settles, is called either pain, disease, coryza, or *brankhos*. In some locations, convention dictates the use of a specific term (e.g. coryza) to refer to this surplus of matter. In other locations, however, the affliction is referred to as “pain” or “disease.” Clearly the two terms here function synonymously.

To what extent did the equivalence of pain to disease rob pain of its primary meaning? In other words, how “painful” were these pains when they were construed neither as discrete symptoms of disease nor separate conditions worthy of their own treatment? A case study from *Epidemics VII* may contain the answer (*Epidemics VII* 5.1-5):

The son of Kydis, around the turning of the winter sun, had shivering and fever, pain of the right ear, and pain of the head. That *pain* (the ear pain) was his constant companion ever since he was an infant, and was runny, carious and smelly, but was *painless* for most of the time. At that time, however, the pain and the head-pain were terrible ...

Τῷ Κύδιος περὶ χειμερινὰς ἡλίου τροπὰς ῥίγος καὶ πυρετὸς, καὶ ὠτὸς δεξιοῦ ἄλγημα, καὶ κεφαλῆς ὀδύνη· τὸ δὲ τοιοῦτον ἄλγημα εὐθὺς ἐκ σμικροῦ παιδίου παρηκολούθει ῥευματῶδες καὶ συριγγῶδες καὶ ἔνοδμον, ἔχον δὲ οὕτω τὰ πολλὰ ἀνώδυνον ἦν· τότε δὲ ἡ ὀδύνη ἦν δεινὴ καὶ ἡ κεφαλαλγίη ...

Clearly we cannot, despite the scanty definition in the *LSJ* (“*pain felt or caused, suffering*”) imagine that in this context ἄλγημα refers to felt pain. If it did, we would be hard-pressed to explain why the ἄλγημα could have been painless for

so long (ἀνώδυνον), or why it only at a later time (τότε) became a terrible pain (ὀδύνη ... δεινή). It is certainly tempting, and, I think, correct, to take both this pain, and all other unambiguous instances where “pain” and “disease” are used synonymously (such as the example above from *Affections* 27.15) at face value; in these cases, not only is there no notional difference between pain and disease, but, it seems, pain has been assimilated completely to the category of disease (which, as we saw above in Section 3, was generally considered to be a bodily state that need not necessarily be painful).

8. Conclusion

Why do the Hippocratics avoid stating outright the special importance of pain to diagnosis, prognosis, and treatment? I suspect that this omission depends on the nebulous status of pain that I highlighted above (Section 7). Before explaining exactly how and why the hazy relationship between pain and disease lies behind this oversight, however, it will be useful to first focus on the patient, inasmuch as the discussion so far has only considered the usefulness and relevance of pain as it relates to the physician and the practice of his craft.

As we saw above, therapies for pain and disease both identify pain as a separate entity from disease. While it may be that the singling out of pain relies on an assumption that by treating pain, the physician is incidentally also treating disease, we would do well to recall the evidence from *Diseases I* 5 that some diseases, though painful, technically require no treatment. While a patient may recover spontaneously from such a condition, however, it is still possible to treat

the symptoms (*Diseases I* 5.11-16):

There is a class of diseases and wounds that, while they do not cause death, nevertheless have proper moments for treatment. There are pains in these diseases and the pains can, if someone administers the right treatment, be brought to an end. The services offered by the doctor, when they do occur, have no real benefit for these patients, since, if no physician had been present, the pains (diseases?) would have stopped.

Ὅκοσα δὲ τῶν νοσημάτων ἢ τραυμάτων μὴ ἐς θάνατον φέρει, ἀλλὰ καίριά ἐστιν, ὁδύναι τε γίνονται ἐν αὐτέοισι, καὶ οἷά τε ἐστίν, ἣν τις ὀρθῶς θεραπεύσῃ, παύσασθαι, τούτοισι δὲ οὐκ ἀρκέουσι γινόμεναι αἱ ὠφέλειαι ἀπὸ τοῦ ἱητροῦ ὅταν γίνωνται· καὶ γὰρ μὴ παρεόντος τοῦ ἱητροῦ, ἐπαύσαντο ἄν.

That some physicians acquiesce to treat these diseases aligns with the notion, lamented throughout the corpus, that in the eyes of most patients medicine was useful only insofar as it removed pain, and not (as physicians would prefer) in its capacity to restore and maintain health.¹⁴⁶ Without the knowledge to interpret the (dangerous) significance of non-painful physical symptoms, patients seek medical assistance only at that point when they find themselves to be suffering.¹⁴⁷

All of this is to say that, while pain may be a useful phenomenon in the eyes of the physician, it is an unwelcome sensation in the experience of the patient. This distinction – that physicians use pain to “see” inside the body, while the patient *actually* perceives the (invisible) pain – may lie at the heart of the differing instantiations of pain found in the Hippocratic treatises. Since pain is rarely a visible symptom in the same way that other symptoms are,¹⁴⁸ it has little or no place in the lists of predominantly tangible symptoms that I discussed in

¹⁴⁶See above, Introduction, on the relationship between the treatment of pain and the purpose of medicine.

¹⁴⁷On the exception of gynecological conditions, see below, Chapter Four.

¹⁴⁸On the visibility of pain, see below, Chapter Three.

Section 1. What we may be seeing, furthermore, when we consider the variation in forms of pain highlighted in Section 7 are the relics of forcing something as imperceptible (to the physician) as pain into the service of medicine.

The issue of the categorization of pain relates to the question regarding its materiality that I raised at the end of Chapter One. It is likely that, regardless of whether pain is conceived of as the result of material change or if it actually *constitutes* material change (in this latter case, pain itself actually occupies some physical space), “pain” is no more or less material than “disease.” Either pain and disease are a reaction to material imbalance, or pain and disease (the latter often defined as pain plus additional results of material change) amount to a particular *degree* of material imbalance. An imbalance that passes from an imperceptible state to a perceptible one thus turns into pain or disease.¹⁴⁹ In the context of their relationship to material change, then, pain and disease are aligned in such a way that they have little or no categorical distinction.

In their relation to perceptibility, however, pain and disease are two distinct phenomena. As material imbalance moves to the point of perceptibility, the patient *feels* pain, on the one hand, while the physician *sees* disease, on the other. While we can see, in practice, that pain is utilized by the physician as a sign (that is, as a visible manifestation of an invisible material change) just as much as other, actually visible or observable symptoms are (e.g. sputa, fecal matter, urine, sweat, shivering, mania), pain remains, nevertheless, in the purview of the patient, not the physician. We saw in Chapter One how Hippocratic theorizing about pain connected the inherently invisible sensation of

¹⁴⁹On the perceptibility of pain, see above, Chapter One.

pain with the potentially visible material within the body. In this chapter I have argued on the one hand that this connection endowed pain with a robust semiotic function, and, on the other, that, owing to the fact that patients' and physicians' unequal relationships to pain cannot be completely reconciled, pain's status as symptom is inconstant. In the following chapter, I will look at the ways in which, given pain's relationship to the material within the body, and its consequent semiotic function, physicians both endeavored to "see" their patients' pain and, having thus appropriated pain into the category of visible, attempted to set about measuring the object of pain.

CHAPTER THREE

THE PHYSICIAN AND PAIN

1. *Introduction*

As I argued in Chapter One, Hippocratic pain is an objective fact, not a subjective sensation. The connection pain shares with the dynamic material inside the body transforms this invisible sensation into perceptible proof of the body's inner workings. This material connection, however, also leads to some ambiguity regarding the degree to which pain is fully reified; in some cases, "pain" takes the heft of materiality upon itself. The material etiology of pain, furthermore, imbued the phenomenon with special semiotic force; pain comes to be an important – perhaps the most important – symptom of disease within the contexts of diagnosis, therapy, prognosis, and theoretical proof (Chapter Two). Yet, just as the boundary between "pain as *reaction to* material imbalance" and "pain *as* material imbalance" is hazy, so, too, is the line between "pain as symptom *of* disease" and "pain *as* disease" substantially blurred. I suggested that the classificatory confusion of pain and disease can be accounted for by the relationship of both states to materiality and perceptibility. Inasmuch as both pain and disease are figured as material imbalance (or reactions to material imbalance), in many contexts the two are etiologically synonymous. In other cases, however, pain is subordinated to disease: pain *qua* objective sensation becomes, often in conjunction with other (actually tangible) signs, the object by which the physician "sees" disease. In this chapter I return to the issue of

perceptibility and pain. While the physician directly sees or otherwise assesses the patient's other symptoms, pain for the most part must be communicated to the physician by the patient, verbally or through some other means. The first half of this chapter sketches the various strategies employed by Hippocratic physicians to "see" the pain of their patients. All of these strategies either rely on – or at least reveal a belief in – the objectivity of pain (Section 2). At the same time, the Hippocratic physician shaped the phenomenon of pain both by prompting the patient to report only particular, "relevant," pains and, as I argue in Section 3, by investing certain dimensions of the pain experience with special significance.

2. *The Perception of (the Patient's) Pain*

2.1 *The Physician and Perception*

We have already seen how pain was used to see (via reasoning) inside the patient's body and so identify various aspects of disease. Yet, as I have pointed out, where the other symptoms of disease are perceptible to the physician, pain is in the purview of the patient alone. Hippocratic authors rarely acknowledge this problem. The author of *Prorrhetic II*, for example, takes for granted the notion that diseases of the bladder are easily identified by the pain experienced in such conditions (*Prorrhetic II* 4). These diseases are recognizable to the physician by means of a phenomenon that the physician does not inherently perceive.¹⁵⁰

Despite this incongruity, the author of *Ancient Medicine* stresses the

¹⁵⁰Cf. Holmes 2010, 118: "[l]ocated uncomfortably between the knowing physician and the body is the patient, the one who suffers."

importance of perception to the study of medicine (*Ancient Medicine* 9.11-15):

For one must aim at a measure; but you will find no measure – nor number nor weight besides – by referring to which you will know with precision, except the feeling of the body. Hence it is difficult to acquire knowledge so precise that one errs only slightly in one direction or the other. And I would strongly praise this doctor, the one who makes only small errors.¹⁵¹

Δεῖ γάρ μέτρου τινὸς στοχάσασθαι· μέτρον δὲ, οὐδὲ σταθμὸν, οὐδὲ ἀριθμὸν οὐδένα ἄλλον, πρὸς ὃ ἀναφέρων εἴσῃ τὸ ἀκριβὲς, οὐκ ἂν εὐροίης ἄλλ’ ἢ τοῦ σώματος τὴν αἴσθησιν· διὸ ἔργον οὕτω καταμαθεῖν ἀκριβέως, ὥστε σμικρὰ ἀμαρτάνειν ἔνθα ἢ ἔνθα· κἂν ἐγὼ τοῦτον τὸν ἱητρὸν ἰσχυρῶς ἐπαινέοιμι τὸν σμικρὰ ἀμαρτάνοντα.

This author acknowledges that the physician must rely upon the “measure” of the body’s sensation (τοῦ σώματος τὴν αἴσθησιν) in order to make the calculations necessary for his profession. But whose body? Whose sensation?

We find our answers in a few places. The author of *Epidemics VI* explains how the body contributes to medical knowledge (*Epidemics VI* 8.17):

The body’s role in medical inquiry: sight, sound, smell, touch, taste, reason.

Τὸ σῶμα ἔργον ἐς τὴν σκέψιν ἄγειν, ὄψις, ἀκοή, ῥίς, ἀφή, γλῶσσα, λογισμός.

And the author of *Epidemics IV* identifies the means by which crises and other aspects of the disease are recognized (*Epidemics IV* 43):

By means of eyes, ears, nose, and hands do we recognize crises and other things. (We recognize) the sick person (by the following): by seeing or touching or smelling or tasting and by knowing in other respects. Hair, complexion, skin, veins, tendons, muscles, flesh, bones, marrow, brain, material from the blood, guts, stomach, bile, the other humors, joints, pulse, trembling, spasms, hiccup, breath

¹⁵¹Tr. Schiefsky.

on both sides, excrement.

Ὅτι τοῖσιν ὄμμασι, τοῖσιν οὖσιν, τῇσι ῥίσι, τῇ χειρὶ αἱ κρίσεις, καὶ τᾶλλα, οἷσι γινώσκουμεν. Ὁ ἀσθενέων· ὁ δρῶν, ἢ θιγὼν, ἢ ὀσφρανθεὶς, ἢ γευσάμενος, τὰ δ' ἄλλα γινούσ· τρίχες, χροίη, δέρματα, φλέβες, νεῦρα, μύες, σάρκες, ὀστέα, μυελός, ἐγκέφαλος, καὶ τὰ ἀπὸ τοῦ αἵματος, σπλάγχνα, κοιλίη, χολή, οἱ ἄλλοι χυμοὶ, ἄρθρα, σφυγμοὶ, τρόμοι, σπασμοὶ, λύγγες ἀμφὶ πνεῦμα· ἄφοδοι· οἷσι γινώσκουμεν.

Where is pain? Surely this sensation belongs in such a list? The absence of pain is glaring unless one understands the “subject” of these perceptions – the person using the bodily senses of sight, touch, taste, and smell – is the physician, not the patient. Pain is also missing from a similar list found in the treatise *In the Surgery* (*In the Surgery* 1):

[Examination: look for] what is like or unlike the normal, beginning with the most marked signs and those easiest to recognise, open to all kinds of investigation, which can be seen, touched and heard, which are open to all our senses, sight, touch, hearing, the nose, the tongue and the understanding, which can be known by all our sources of knowledge.¹⁵²

Ἡ ὅμοια ἢ ἀνόμοια ἐξ ἀρχῆς ἀπὸ τῶν μεγίστων, ἀπὸ τῶν ῥηίστων, ἀπὸ τῶν πάντη πάντως γινωσκομένων. Ἄ καὶ ἰδεῖν, καὶ θιγεῖν, καὶ ἀκοῦσαι ἔστιν· ἃ καὶ τῇ ὄψει, καὶ τῇ ἀφῇ, καὶ τῇ ἀκοῇ, καὶ τῇ ῥινί, καὶ τῇ γλώσσει, καὶ τῇ γνώμῃ ἔστιν αἰσθέσθαι· ἃ, οἷς γινώσκουμεν ἅπασιν, ἔστι γινῶναι.

Consider the relationship between the physician and pain found in the rest of this treatise: the physician should practice his operations so they can be performed, among other things, “painlessly” (“well, nicely, swiftly, painlessly, neatly, resourcefully,” ἀγαθῶς, καλῶς, ταχέως, ἀπόνως, εὐρύθμως, εὐπόρως, 4.9-10); bandages, similarly, should be applied “painlessly” (ἀπόνως, 7.2), that is to say, “accomplished with ease” (ἀπόνως δὲ, ῥηϊδίως δρῆν, 7.3). In these situations, the

¹⁵²Tr. Withington.

physician should deftly practice his craft in a way that avoids any “effort” (not “pain”) on his part.

By way of contrast, one should instruct the attendants to hold the patient down during surgery (*In the Surgery* 6.1-3):

Let those who look after the patient present the part for operation as you want it, and hold fast the rest of the body so as to be all steady, keeping silence and obeying their superior.¹⁵³

Οἱ δὲ περὶ τὸν ἀσθενέοντα τὸ μὲν χειριζόμενον παρεχόντων, ὡς ἂν δοκῇ τὸ δὲ ἄλλο σῶμα κατεχόντων, ὡς ἂν ἀτρεμέῃ, σιγῶντες, ἀκούοντες τοῦ ἐφ' ἐστεῶτος

The surgical patient's pain is presumably the reason he needs held down, yet no mention is made here, or in the context of any other surgeries, of pain. It is not medically relevant.¹⁵⁴

The acknowledged “tools” of perception are therefore only those sensations within the purview of the physician. The physician, presumably, is unable to perceive the patient's pain. The author of *Epidemics II* seems to have been especially concerned about this fact (*Epidemics II* 2.10):

How can one recognize extreme pains by sight? Fear, tolerance, experience, cowardice.

Ὅδυνας τὰς ἰσχυροτάτας, ὅτῳ τρόπῳ διαγνοίῃ ἂν τις ἰδὼν· ὁ φόβος, αἱ εὐφορίαι, αἱ ἐμπειρίαι, καὶ αἱ δειλίαι.

It is only, perhaps, these extremely serious pains that present themselves in such

¹⁵³Tr. Withington.

¹⁵⁴A point first made by Jouanna 1999, 127f.: “The almost total silence regarding the pain of the one being operated on, whether in the case of common procedures such as venesection and cauterization, or in the case of more dangerous ones such as trephination, is surprising ... pain interested the physician insofar as it was a meaningful symptom for establishing the diagnosis or prognosis of the illness. The pain of the patient when he was being operated on was of another kind: it was a necessary evil that did not enter into the language of signs and symptoms.”

an obviously visual way. On many occasions we are told of the extreme physical and vocal behavior that can be prompted by pain¹⁵⁵: for example, a swollen, festering and gangrenous womb causes the patient to shout, jump around, and feel pain in the abdomen, groin, waist, and nethers (*Diseases of Women II* 171.9-11);¹⁵⁶ a patient suffering from hip disease will shout (“*oimoi*”) if anyone attempts to move him.¹⁵⁷ Certain pains, then, can be recognized by the physician through the vocalizations and actions of the patient.

The pain need not be so extreme so as to provoke such extreme behavior, however. Something as unobtrusive as the patient’s posture can indicate the presence of pain. For example, the author of *Prognostic* says that for a patient to lie on his back contrary to custom is an indication that he has pain in his belly.¹⁵⁸ That the treatises that bother to announce the significance of bodily position are all prognostic, however, suggests that these techniques were not universally applicable for pain perception. What is more, a closer look at the context of this example reveals that these physicians were not trying to recognize the “symptom” of pain at all. This passage follows after a general discussion of what the physician should observe and report upon first entering the patient’s room.

¹⁵⁵I.e. *Coan Prenotions* 262, *Diseases II* 16, 17, and 69, *Diseases III* 13, *Epidemics V* 17, *Epidemics VII* 3, 11, and 93, *Critical Days* 5 and 8, *Internal Affections* 4, 7, 13, 14, 17, 36, 47, 49, 51 and 53. Holmes focuses on the visibility of these types of pain expressions, in an effort to emphasize the social transgressiveness of such behavior. Holmes 2010, 159: “prognostic signs ... are regularly located at the nodes of personal identity;” cf. 157: “We can credit the significance of these symptoms in part to their immediate, intuitive intelligibility. The spectacle of a person “seized” by pain or biting his own tongue does not simply express his struggle with an amorphous, impersonal disease but powerfully dramatizes that struggle.” Holmes claims that prognostic signs in particular focus on “visible” pain, but I have noticed no such contextual distinction. One need only look at any of the examples from *Internal Affections* to see how “visible” pain was also useful to diagnosis, for example.

¹⁵⁶*Affections of Women* 171.9-11.

¹⁵⁷*Internal Affections* 51.10-11.

¹⁵⁸*Prognostic* 3; cf. *Prognostic* 5, 9, 10, 11; *Epidemics II* 2.10; *Prorrhetic I* 75; *Prorrhetic II* 32; *Coan Prenotions* 8, 46, 487. Cf. *Prognostic* 1.

The physician should announce these observations to the patient in order to gain his trust by accurately reporting the past, present and future. The author then adds that as a result of such observation, it is (incidentally) possible to treat the patient better. These recognitions of pain are more focused on establishing a doctor-patient relationship than on “seeing” pain.

Most likely, all of these examples of intense pain provoking abnormal vocal and physical behavior reveal an effort to communicate the intensity of the pain, rather than a technique for “seeing” such pain. The greatest proof against the latter option is the fact that, outside of a prognostic setting, physicians seem to have been hesitant to assume that a patient was in pain *merely* based on their behavior. The author of *Epidemics VII*, for example, reports that attendants had difficulty restraining a patient, inasmuch as, whenever someone would grab her and hold her down for a brief time, she would suddenly and intensely jump up and shout *as if* from a blow, terrible pain, or fear. (ἀναπηδῶσαν καὶ βοῶσαν ἐξαίφνης καὶ συντόνως, ὥσπερ ἂν ἐκ πληγῆς καὶ δεινῆς ὀδύνης καὶ φόβου, *Epidemics VII* 11.22-24). Behavior alone would not seem to be enough, without additional confirmation from the patient, for the physician to “see” pain in his patient.

Rather, in order to accurately record pain on the basis of non-verbal cues, it seems that the physician relied on other indications from the patient. Otherwise, how could a female patient have indicated with her hand that a gathering about her spleen was painless (κατὰ σπλῆνα τῇ χειρὶ ἐδείκνυνεν ὀλίγον χρόνον ξύστρεμμα ἀνώδυνον, *Epidemics VII* 84.6-7)? The author of *Epidemics V* explicitly indicates that such non-verbal communication requires the patient’s

cooperation (*Epidemics V* 91):

Polemarchus' wife suffered some sort of a pain that was terrible in her hip during an arthritic disease that arose from the failure of her menses. She lost her voice for the entire night and into the middle of the day. She could hear and had her wits about her, and signaled with her hand that there was a pain around her hip.

Τῇ Πολεμάρχου ἐν ἀρθριτικοῖς ἰσχίου ἄλγημά τι δεινὸν, ἐξ αἰτίας
γυναικείων μὴ γινομένων· ἡ φωνὴ ἴσχετο νύκτα ὅλην μέχρι μέσον
ἡμέρης· ἤκουε δὲ καὶ ἐφρόνεε, καὶ ἐσήμαινε τῇ χειρὶ, ὅτι περὶ τὸ ἰσχίον
εἶη τὸ ἄλγημα.

It is *because* this woman's mind was sound, and her hearing was unaffected, that she was presumably able to communicate with the physician.

Physicians, then, relied on the patient to communicate, verbally or not, their experience of pain. In some situations, observable signs of pain may have been taken into account, but these seem to be special cases. The physician's observation of the patient's positioning is a tool used to prove to the patient the physician's special powers. Such a strategy, in fact, relies on the patient feeling the pain; the patient is certainly aware of the pain and the physician's miraculous ability to know about this sensation was calculated to forge a strong relationship of trust. A particular kind of pain – strong, intense, or otherwise extreme pain – is characterized by the types of vocal and physical behavior it elicits. While such behavior is a signal of the pain's intensity, it is doubtful that physicians would have relied on such behavior *on its own* to deduce pain. Visible behaviors typically associated with pain *could* correspond with the patient's experience, but physicians hesitate to conclude that a patient is in pain without confirmation. That the physician did not trust in his own perceptions to observe pain does not

mean that the process whereby patients communicated their pain was unmediated. On the contrary, several treatises indicate that the physician almost always questioned the patient about his or her pains.

The author of *Affections* recommends that a physician question the patient regarding his symptoms (Ὅταν δὲ ἐπὶ νοσέοντα ἀφίκη, ἐπανερωτᾶν χρή ἃ πάσχει, *Affections* 37.1). In many cases, the questioning put to the patient is quite “leading.” For example, the author of *Prognostic* recommends, when a patient has suffered a nosebleed, asking whether the patient’s head is in pain or if his vision is blurred.¹⁵⁹ The same author also explains that one may determine if an internal abscess affects only on one side of the body by turning the patient and asking if he has pain on the other side.¹⁶⁰

The author of *Prorrhetic II* offers our most robust example of the kind of thorough interrogation a patient might expect to receive (*Prorrhetic II* 42):

In people in whom pains arise about the joints together with swellings, and then cease – but not in the manner of gout – you will discover that the inward parts are enlarged, and that there is a white precipitate in the urine; *if you ask the person, he will say that his temples often have pains, and he will also say that he has night-sweats.* If, however, neither this precipitate comes down in the urine nor the sweats set in, there is a danger either that the joints will become lame, or that what they call meliceris (a cyst filled with a honey-like substance) will arise in them. This disease arises in people in whom an epistaxis was common in their childhood and youth has stopped. *Thus you must ask whether such an epistaxis occurred when the person was young; also whether there is itching of the chest and back, whether the cavities are causing violent pains without any apparent disturbance, and whether haemorrhoids have developed* – for this is how these diseases begin. If these people appear to have a poor colour, *ask whether they have pains in the head; they will say they do.* In those whose cavities are painful on the right side, the pains are more

¹⁵⁹*Prognostic* 7.15-16.

¹⁶⁰*Prognostic* 16.7-9.

violent, and especially when what remains of the pain is at the hypochondrium in the region of the liver. These pains are relieved at once by rumblings in the belly; when the pain stops, thick yellow-green urine is passed. This form of the complaint, though not at all mortal, is especially chronic. When the disease is already long-standing, patients become dim of vision from it. *You must ask about the blood – whether the patient haemorrhaged when he was young – about the dimness of vision, about the thickening and greenness of the urine, and about the rumblings – whether they occurred and whether they gave any relief when they did occur; patients will say that all these things were so.*¹⁶¹

Οἷσι δὲ περὶ τὰ ἄρθρα ὀδύναί τε γίνονται καὶ ἐπάρσεις καὶ καταπαύονται, οὐκ ἐν τῷ ποδαγρικῷ τρόπῳ, εὐρήσεις τὰ τε σπλάγχνα μεγάλα καὶ ἐν τῷ οὖρῳ λευκὴν ὑπόστασιν· καὶ τοὺς κροτάφους, ἣν ἐπέρη, φήσιν πολλάκις ἀλγέειν· φήσιν δὲ καὶ ἰδρῶτας αὐτῷ γίνεσθαι νυκτερινούς. Ἦν δὲ μήτε ὑπὸ τῷ οὖρῳ ὑφίσταται ἢ ὑπόστασις αὕτη, μήτε οἱ ἰδρῶτες γίνονται, κίνδυνος ἢ χλωθῆναι τὰ ἄρθρα, ἢ ὁ δὴ μελικηρίδα καλέουσι γίνεσθαι ὑπ’ αὐτοῖσι. Γίνεται δὲ τὸ νόσημα τοῦτο οἷσιν ἐν τῇ παιδίῃ τε καὶ νεότητι ξύνηθες ἐὼν αἷμα ῥεῖν ἐκ τῶν ῥινῶν πέπνυται. Ἐπανερέσθαι οὖν περὶ τῆς τοῦ αἵματος ῥήξιος, εἰ ἐγένετο ἐν τῇ νεότητι· καὶ αἱ κνιδώσεις ἐν τε τῷ στήθει καὶ τῷ μεταφρένῳ εἰ ἐννεῖσι· καὶ ὁκόσοις αἱ κοιλίαι ἰσχυρὰς ὀδύνας παρέχουσιν ἄνευ ἐκταραξίων· καὶ ὁκόσοισιν αἰμορροΐδες γίνονται· αὕτη γὰρ ἡ ἀρχὴ τῶν νοσημάτων τούτων. Ἦν δὲ κακὸς χρόσι οἱ ἄνθρωποι οὗτοι φαίνονται, ἐπανερέσθαι καὶ κεφαλὴν εἰ ὀδυνῶνται· φήσουσι γάρ. Τούτων δὲ ὁκόσοισιν αἱ κοιλίαι ἐπώδυναι ἐν γε τοῖς δεξιῶσι εἶεν, τὰ ἀλγήματα ἰσχυρότερα γίνεται, καὶ μάλιστα, ὅταν πρὸς τῷ ὑποχονδρίῳ κατὰ τὸ ἥπαρ τὸ ὑπόλειμμα τῆς ὀδύνης ᾖ. Ὁφελέει δὲ ταύτας τὰς ὀδύνας τὸ παραυτίκα ψόφος ἐν τῇ γαστρὶ γενόμενος· ὁκόταν δὲ ἡ ὀδύνη παύσῃται, τὸ οὔρον παχὺ καὶ χλωρὸν οὐρέουσιν. Ἔστι δὲ θανατώδης μὲν οὐδαμῶς ὁ τρόπος οὗτος, χρόνιος δὲ κάρτα· ὁκόταν δὲ παλαιὸν ᾖ ἢ τὸ νόσημα, ἀμβλυώσουσιν οἱ ἄνθρωποι ὑπ’ αὐτοῦ. Ἀλλ’ ἐπανερέσθαι περὶ τοῦ αἵματος, εἰ νέφω ἐόντι ἔρρει, καὶ περὶ τοῦ ἀμβλυωγμοῦ, καὶ περὶ τοῦ οὔρου τῆς κενώσεως καὶ τῆς χλωρότητος, καὶ ἀμφὶ τῶν ψόφων εἰ ἐγγίνονται τε καὶ ὠφελέουσιν ἐπιγινόμενοι· φήσουσι γὰρ πάντα ταῦτα.

It is clear that this author, at least, does not expect the patient to spontaneously offer up a report of his pain or other symptoms. Rather, the physician, armed with his knowledge of both the likelihood of the existence of particular symptoms as well as their significance, carefully asks the patient a series of “yes

¹⁶¹Tr. Potter. Emphasis mine. Cf. *Prorrhetic* II 41.

or no" questions. This type of strategy allows the physician to see what he expects to see and establishes and reinforces for the patient which of his sufferings are medically relevant. The author of *Prorrhetic II*, for as much as he advocates for the physician's meddling in the process of the reporting of pain, nevertheless relies completely on the objectivity and universality of the pain experience.¹⁶² Witness, for example, his absolute certainty that patients who have a poor complexion will affirm that they have pain in the head.

In addition to thoroughly questioning the patient about pain, as well as the occasional observation of any extreme behavior on the patient's part, physicians also involved themselves in the pain perceiving process by manually examining the patient.¹⁶³ The diagnosis of a particular type of lung ulceration, for example, includes the patient feeling an ulcer-like pain upon being touched in the region of the hypochondrium (τῶν ὑποχονδρίων ὡς ἔλκος ψαυόμενος ἀλγέει, *Internal Affections* 1.23).¹⁶⁴ Female patients suffering from reproductive disorders were especially likely to be manually examined.¹⁶⁵ For example, when a woman suffers from suppressed menses, "when she is touched, she will feel pain, especially in the lower part of her abdomen," (ψαυομένη ἀλγήσει, καὶ μάλιστα τὸ ἥτρον, *Diseases of Women I* 2.35-36). In several of these cases, the author states simply that a woman feels pain when touched, without specifying where this pain occurs. That the vagina and cervix were often manually examined,¹⁶⁶

¹⁶²Villard 2006, esp. 66f. takes interrogation as proof of the physician's mistrust of the patient.

¹⁶³Cf. Villard 2006, 65f.

¹⁶⁴See also *Epidemics II* 2.24, *Epidemics VII* 51, *Diseases II* 72, *Wounds in the Head* 20.

¹⁶⁵*Diseases of Women I* 2.35-36, 2.57-59, 36.47, and 60.14, *Diseases of Women II* 112.4, 129.3, 137.4, and 177.11; *Epidemics IV* 1; *Nature of Woman*, 35.12, and 38.2. Cf. Villard 2006, 65-66.

¹⁶⁶*Diseases of Women I* 20.3, *Diseases of Women II* 118.3, 134.12, 163.2, 165.2, 168.3, and 171.4; *Nature*

however, indicates that the formulaic "she feels pain when touched" is a shorthand for "she feels pain when given a vaginal exam."

The process whereby a patient's perceived pain is translated into a "visible" medical sign was exceedingly mediated by the physician. In particular, through a process of manually examining and methodically interviewing the patient, the physician inserts himself into the process of pain perception. This insertion need not represent any suspicion of pain's subjectivity, so much as a desire on the part of the physician to filter out irrelevant symptoms.

3. *The Dimensions of Pain*

The issue of relevance does not fade away once a particular pain has been deemed worthy of attention. On the contrary, certain dimensions of the pain experience were privileged in the context of diagnosis, prognosis, and treatment. It is not enough, in most cases, merely to observe that a patient is suffering. The "type" of pain, any qualities it may possess, its spatial and temporal dimensions, its level of intensity, the circumstances under which it appears, and, on occasion, its metaphorical resemblance to other types of pain, are all at various times relevant to the physician.

The author of *Ancient Medicine* stresses the importance of identifying the particular kind of suffering any particular foodstuff occasions (*Ancient Medicine* 20.17-22):

One cannot merely know that cheese is a troublesome food because it brings pain to anyone who eats too much of it, but one must also

of Woman 8.3 and 13.3.

know what kind of pain and why and with what internal constituent it clashes. For there are many edibles and potables that are inherently troublesome, and they do not affect someone in the same way.

Καὶ μὴ ἀπλῶς οὕτω δοκέειν ὅτι πονηρὸν βρώμα τυρός· πόνον γὰρ φέρει τῷ πληρωθέντι αὐτέου, ἀλλὰ τίνα τε πόνον καὶ διὰ τί καὶ τίνι τῶν ἐν τῷ ἀνθρώπῳ ἐνεόντων ἀνεπιτήδειον. Ἔστι γὰρ καὶ ἄλλα πολλὰ βρώματα καὶ πόματα φύσει πονηρά, καὶ διατίθησι τὸν ἄνθρωπον οὐ τὸν αὐτὸν τρόπον.

The use of the phrase “what type of pain” (τίνα ... πόνον) indicates that this author believes pain is entirely classifiable. Other authors allude to the typology of pain: one must ascertain whether pains of the sides, chest, or any other body part, differ from one another (Τῶν ὀδυνέων ἐν πλευρῇσι, καὶ ἐν στήθεσι, καὶ ἐν τοῖσιν ἄλλοισι μέρεσιν, ἣν μέγα διαφέρωσι, καταμαθητέον, *Aphorisms* 6.5), whereas the pains felt in a variety of sciatic diseases are more or less identical (ὀδύναί παραπλήσιοι ἀπὸ πάντων τούτων τῶν νοσημάτων, *Internal Affections* 51.13-14). How did Hippocratic physicians distinguish between types of pains? How consistent are these distinctions and to what extent do they approach anything like a taxonomy of pain?

The only aspect of Hippocratic pain to receive measurable scholarly attention is the vocabulary of pain.¹⁶⁷ Scholars have attempted to assess the semantics of different words for pain (typically focusing on the three word families of *ponos*, *odynê*, *algos/algêma*). King claims that “to an extent, in the medical texts *ponos* is often used for long-lasting pain, dull pain; *odyne* for sharp

¹⁶⁷These are King 1988, Rey 1993, Horden 1999, Marzullo 1999, and Villard 2006.

pain, pain which pierces the body.”¹⁶⁸ Rey claims that the *odunê* family of words “is almost always used in a precise sense – either qualifying, or by giving some clue as to the whereabouts of the pain,” whereas those words related to *ponos* “describe a general state of suffering or illness, and ... when the localisation of pain is referred to, it is almost always approximate.”¹⁶⁹ Marzullo focuses on the literary pedigree of the various words for pain used by Hippocratic authors, concluding that while they inherited a robust vocabulary for pain, they rarely altered its semantics in any meaningful way,¹⁷⁰ while Horden, on the other hand, challenges King in particular by expressing intense skepticism regarding the possibility of deriving precise and individual meanings for each of these terms throughout the corpus. She points out how both *ponos* and *odunê* encompass a wide range of meaning in various contexts across multiple treatises. In fact, Horden argues these authors were uninterested in pain, claiming that “pain is not an especially vivid subject” in the Hippocratic Corpus.¹⁷¹ Finally, Villard, although apparently unaware of Horden’s objections, similarly concludes that terms from any of the three families of pain words are essentially interchangeable when used in the context of physical pain.¹⁷²

¹⁶⁸King 1988, p. 58. As Horden (1999, p. 300) points out, both authors ignore the *algêma* family of pain words.

¹⁶⁹Rey 1993, p. 28.

¹⁷⁰Marzullo 1999.

¹⁷¹Horden 1999, p. 298.

¹⁷²Villard 2006, pp. 63-64. Unlike Horden, however, Villard does not think that pain was of little interest to Hippocratic physicians. Horden 1999 is perhaps best ignored. Her admitted lack of expertise and her assumption that an analysis of the place of pain in Hippocratic medicine ought to begin and end with the concordance are both cause for concern. Consider in particular the twisted logic that underlies her assertion that pain was only a subject of “some concern” to the Hippocratics since it was so similar to disease (Horden 1999, 305: “Part of the reason why the Hippocratic authors are not much interested in the subtleties of pain, or very interesting when they do write about it, is that those statements about pain and disease are nearly tautologous”). I am baffled as to how one could conclude that the similarities between pain and disease prove the

All of these scholars share a similar approach to the issue of pain semantics. It seems that, regardless of the answers they propose, they are all attempting to answer the question: what do these different words mean? Thus, we are faced with a wide range of conflicting reports, from Rey's and King's precise definitions to Horden's dismissal of the topic altogether. My own impression is somewhere in the middle. Horden is right to question King and Rey: for every generalized statement about the meaning of these terms, it is hardly difficult to find enough exceptions to at least question, if not invalidate, these "rules."¹⁷³ That the meanings of these terms vary, both within the Corpus and within individual treatises, is not, however, reason enough to conclude that Hippocratic physicians made no effort to classify pain at the lexical level. The mere fact that authors use different terms for pain indicates to me (*contra* Horden) an attempt to develop or draw upon contrastive meanings. Take, for example, the following case history from *Epidemics I* (*Epidemics I* 3.13(5)):

The wife of Epicrates, who lay sick near the founder, when near her delivery was seized with severe rigor without, it was said, becoming warm, and the same symptoms occurred on the following day. On the third day she gave birth to a daughter, and the delivery was in every respect normal. On the second day after the delivery she was seized with acute fever, πόνος of the heart and in the genitals. A pessary relieved these symptoms, but there was πόνος in the head, neck and loins. No sleep. From the bowels passed scanty stools, bilious, thin and unmixed. Urine thin and blackish. Delirium on the night of the sixth day from the day the fever began. Seventh day. All symptoms exacerbated; sleeplessness; delirium; thirst; bilious, highly-coloured stools. Eighth day. Rigor;

unimportance of pain to Hippocratic medicine.

¹⁷³For example, Horden 1999, 300f. counters Rey's claims that *odynê* is used for a precisely located pain, while *ponos* by contrast refers to generalized suffering: "Both terms, not just *odyne*, can be used of pain in a particular part, and the way *odyne* is localized seems hardly more precise than the manner in which *ponos* is deployed."

more sleep. Ninth day. The same symptoms. Tenth day. She had ἄλγος with πόνος in the legs; ὀδύνη again in the heart; heaviness in the head; no delirium; more sleep; constipation. Eleventh day. Urine of better colour, with a thick deposit; was easier. Fourteenth day. Rigor; acute fever. Fifteenth day. Vomited fairly frequently bilious, yellow vomit; sweated without fever; at night, however, acute fever; urine thick, with a white sediment. Sixteenth day. Exacerbation; an uncomfortable night; no sleep; delirium. Eighteenth day. Thirst; tongue parched; no sleep; much delirium; pain in the legs. About the twentieth day. Slight rigors in the early morning; coma; quiet sleep; scanty, bilious, black vomits; deafness at night. About the twenty-first day. Heaviness all over the left side, with ὀδύνη; slight coughing; urine thick, turbid, reddish, no sediment on standing. In other respects easier; no fever. From the beginning she had ὀδύνη in her throat; redness; uvula drawn back; throughout there persisted an acrid flux, smarting, and salt. About the twenty-seventh day. No fever; sediment in urine; some ἄλγος in the side. About the thirty-first day. Attacked by fever; bowels disordered and bilious. Fortieth day. Scanty, bilious vomits. Eightieth day. Complete crisis with cessation of fever.¹⁷⁴

Ἐπικράτεος γυναῖκα, ἣ κατέκειτο παρὰ Ἀρχιγέτην, περὶ τόκον ἤδη ἐοῦσαν, ῥίγος ἔλαβεν ἰσχυρῶς, οὐκ ἐθερμάνθη ὡς ἔλεγον· καὶ τῇ ὑστεραίῃ τὰ αὐτά. Τρίτῃ δὲ ἔτεκε θυγατέρα, καὶ τᾶλλα πάντα κατὰ λόγον ἦλθεν. Δευτέρῃ μετὰ τόκον, ἔλαβε πυρετὸς ὀξύς· καρδίας πόνος καὶ γυναικείων· προσθεμένη δὲ, ταῦτα μὲν ἐκουφίσθη· κεφαλῆς δὲ καὶ τραχήλου καὶ ὀσφύος πόνος· ὕπνοι οὐκ ἐνήσαν· ἀπὸ δὲ κοιλίης ὀλίγα, χολώδεα, λεπτὰ διήει ἄκρητα· οὖρα λεπτὰ, ὑπομέλανα. Ἀφ' ἧς δὲ ἔλαβε πῦρ, ἐς νύκτα ἐκταίῃ παρέκρυσεν. Ἐβδόμῃ πάντα παρωξύνθη· ἄγρυπνος· παρέκρυσεν· διψώδης· διαχωρήματα χολώδεα, κατακορέα. Ὀγδόῃ ἐπερρίγωσεν· ἐκοιμήθη πλείω. Ἐνάτῃ διὰ τῶν αὐτῶν. Δεκάτῃ, σκέλεα ἐπιπόνως ἦλγε· καρδίας πάλιν ὀδύνη· καρηβαρίη· οὐ παρέκρυσεν· ἐκοιμάτο μᾶλλον· κοιλίῃ ἐπέστη. Ἐνδεκάτῃ οὔρησεν εὐχρώτερα, συχνὴν ὑπόστασιν ἔχοντα· διήγε κουφότερον. Τεσσαρεσκαίδεκάτῃ, ἐπερρίγωσεν· πυρετὸς ὀξύς. Πεντεκαίδεκάτῃ, ἤμεσε χολώδεα, ξανθὰ, ὑπόσυχνα· ἴδρωσεν· ἄπυρος· ἐς νύκτα δὲ πυρετὸς ὀξύς· οὖρα πάχος ἔχοντα· ὑπόστασις λευκή. Ἐκκαίδεκάτῃ, παρωξύνθη· νύκτα δυσφόρως· οὐχ ὕπνωσεν· παρέκρυσεν. Ὀκτωκαίδεκάτῃ διψώδης· γλῶσσα ἐπεκαύθη· οὐχ ὕπνωσεν· παρέκρυσεν· πουλλά· σκέλεα ἐπωδύνως εἶχεν. Περὶ δὲ εἰκοστήν, πρῶτ' σμικρὰ ἐπερρίγωσεν· κωματώδης δι' ἡσυχίης ὕπνωσεν· ἤμεσε χολώδεα ὀλίγα, μέλανα· ἐς νύκτα κώφωσις. Περὶ δὲ πρώτην καὶ εἰκοστήν, πλευροῦ ἀριστεροῦ βάρος δι' ὅλου μετ' ὀδύνης· σμικρὰ ἐπέβησεν· οὖρα δὲ πάχος ἔχοντα, θολερὰ, ὑπέρυθρα· κείμενα οὐ καθίστατο· τὰ δ' ἄλλα κουφοτέρως·

¹⁷⁴Tr. Jones.

οὐκ ἄπυρος αὐθις· ἐξ ἀρχῆς φάρυγγα ἐπωδύνως ἔρευθος· κίων
 ἀνεσπασμένος· ῥεῦμα δριμύ, δακνῶδες, ἀλμυρῶδες διὰ τέλεος παρέμενεν.
 Περὶ δὲ εἰκοστὴν ἑβδόμην, ἄπυρος, οὖροις ὑπόστασις· πλευρὸν ἤλγεεν.
 Περὶ δὲ πρώτην καὶ τριακοστὴν, πῦρ ἐλάβετο· κοιλίη χολώδεσιν
 ὑπεταράχθη· ἤμεσε τῇ τεσσαρακοστῇ ὀλίγα χολώδεα. Ἐκρίθη τελέως
 ἄπυρος τῇ ὀγδοηκοστῇ.

That a single patient is described as feeling *ponos*, *algos*, and *odynê* indicates at the very least some attempt at distinguishing between types of pain, either on the part of the physician-author, or the patient. That a pain can be described as ἄλγος with πόνος (ἐπιπόνως ἤλγεε), for example, suggests that the author is indicating some kind of contrast between the two terms. On the other hand, however, note that the same heart pain is first described as πόνος, then labelled as ὀδύνη (“πόνος of the heart ... ὀδύνη again in the heart”), suggesting that sometimes differing pain words are used more for *variatio* than to make any kind of semantic distinction. While the Hippocratic semantics of pain do not approach anything like a systematic taxonomy, however, we can at least acknowledge the effort made to distinguish between such pains.¹⁷⁵

In addition to being distinguished (somehow) at the lexical level, pains could also be further differentiated in terms of quality, space, time, intensity, circumstance, and metaphor. While Villard has catalogued the variety of terms used to distinguish pains in these ways, there may still be room for further analysis of some of these strategies.¹⁷⁶

¹⁷⁵That the lexical studies of Hippocratic pain exaggerate any indications of a pain taxonomy, and that Horden takes the *absence* of such a taxonomy as evidence that pain was not important to the Hippocratics, both suggest that modern evaluations of Hippocratic pain are unconsciously tinged by the modern experience of pain; almost all of us, after all, have been asked in a clinical setting to describe our pains in precise, often numeric (“On a scale of one to ten, how would you rate your pain?”), terms.

¹⁷⁶See Villard 2006 for an extensive catalogue of these strategies.

Little more can be said about the qualities (e.g. softness, sharpness, weightiness, etc.) assigned to pains beyond merely cataloguing them. That pain may be described in terms of weight perhaps suggests some connection with the peccant material thought to cause pain.¹⁷⁷ For example, the idea that whenever the kidneys are full of food they experience a heavy pain draws a clear connection between the “heaviness” of the pain and the surfeit of food.¹⁷⁸ There may be some connection between “gnawing” pain and an acrid or bilious cause,¹⁷⁹ but at other times this quality is associated with ardent fever.¹⁸⁰ In all, however, there is nothing to suggest that the quality of a pain sensation was associated with any particular etiology.

The spatial dimension of pain, on the other hand, was a highly productive criterion. While pain itself can, curiously, be described in terms of its own spatial dimensions,¹⁸¹ for the most part, the location and movement of pain was used to diagnose, locate, and track disease. For example, the author of *Coan Prenotions* offers an explanation of pneumonia (*Coan Prenotions* 394):

When the pain occurs on one side of the clavicle, the upper part of the lobe of that lung is diseased; when the pain occurs on both sides of the clavicle, the upper part of both lobes are diseased; when the pain is in the middle of the side, the middle part of the lung is diseased; when the pain is near the diaphragm, the lower part of the lung is diseased; and when the pain is in an entire side, the area on that whole side is diseased.

¹⁷⁷On the materiality of pain, see above, Chapter One.

¹⁷⁸*Epidemics* VI 1.5.1. Cf. *Coan Prenotions* 523.1-2, *Prorrhetic* I 109.5, *Epidemics* I 3.13(7).1.

¹⁷⁹E.g. *Ancient Medicine* 19 and *Regimen in Acute Diseases* (Appendix) 7.

¹⁸⁰*Regimen in Acute Diseases* (Appendix) 1, *Regimen in Acute Diseases* 1.8-9.

¹⁸¹Among other signs, small pains in the throat indicate delirium in acute diseases (*Coan Prenotions* 269); a wounded man who suffered a wound from a javelin felt a tiny pain in his stomach on the third day after his accident. On the fourth day, however, a pain rushed upon him terribly (*Epidemics* VII 33, cf. *Epidemics* V 61). Movement, too, can be a descriptor of pain: pains that occur in the hypochondrium during fever are said to leap about (*Coan Prenotions* 293.2).

καὶ οἷσι μὲν πρὸς τὴν μίαν κληΐδα ὁ πόνος γίνεται, ἢ ἄνω πτέρυξ τοῦ πλεύμονος ἢ μία νοσέει· οἷσι δὲ πρὸς ἄμφω τὰς κληΐδας ὁ πόνος γίνεται, αἱ ἄνω πτέρυγες τοῦ πλεύμονος ἄμφω νοσέουσιν· οἷσι δὲ κατὰ μέσῃ τὴν πλευρὴν, ἢ μέσῃ· οἷσι δὲ πρὸς τὴν διάτασιν, ἢ κάτω· οἷσι δὲ πᾶν τὸ ἐν μέρος πονέει, πάντα τὰ κατὰ τοῦτο μέρος νοσέει.

It is taken for granted, in this instance, that a patient has contracted pneumonia, while the location of the pain is used to determine the position of the disease.

The temporal dimensions of time have various semiotic functions. Frequency or duration can be diagnostic or prognostic markers. Strong and long-lasting pains of the head that occur with fever, should any other deadly symptom accompany them, are said to be extremely deadly. However, should the pain continue beyond twenty days while the fever persists, either nosebleed or some other *apostasis* into the lower part of the body occurs. When the pain has just begun, however, nosebleed or abscess are likely, particularly when the pain is around the temples and forehead.¹⁸² The observation that the most violent fevers in an epidemic were also the longest and most painful (πάντων βιαιότατοι τῶν τότε γενομένων, καὶ μακρότατοι, καὶ μετὰ πόνων μεγίστων γενόμενοι, *Epidemics I* 2.4.60-61) is certainly related to the idea that length of disease corresponds with pain, and vice versa.¹⁸³

Similarly, the intensity of pain and the seriousness or intensity of disease often correspond. As we saw in Chapter Two, the author of *Aphorisms* claims that all acute diseases are accompanied by extreme pain.¹⁸⁴ Throughout the corpus, pain intensity is a marker of the degree of disease a patient experiences: excessive

¹⁸²*Prognostic* 21.1-8.

¹⁸³E.g. *Internal Affections* 48.

¹⁸⁴*Aphorisms* 1.7.

sweating causes excessive pain,¹⁸⁵ quick, continuous, and strong pain causes a speedy crisis,¹⁸⁶ and so on.¹⁸⁷ The connection between these two concepts is strong enough that the author of *Diseases III* feels the need to remark on situations that do not follow this general rule: thus, if a patient experiences tears during pleurisy, the disease is “more painful, *but not* more mortal,” while another variety of lung disease is “less mortal, *even though* painful.”¹⁸⁸

Finally, the circumstances under which pain is felt (e.g. a patient suffering from a phlegmatic disease will feel pain when she exerts herself, *Diseases II* 70), and the occasional metaphorical expression of pain (e.g. the pain felt during a withering disease resembles that of a needle prick, *Diseases II* 66) do not seem to be associated with any particular type of material imbalance or disease.

Beyond merely cataloguing their variety, what can be said about the dimensions of pain recorded by Hippocratic authors? Again, I doubt that much more than broad generalizations can be made about the significance of any particular dimension of pain to medical practice. This does not mean, however, that pain – in particular, these aspects of pain that were deemed worthy of note – was unimportant to Hippocratic physicians (*pace* Horden). On the contrary, to return to the passage from *Ancient Medicine*, Hippocratics paid a great deal of attention to “what kind of pain” is felt during discrete diseases or as a result of certain activities. That they never moved beyond the descriptive, however, to form a taxonomy of pain, speaks more perhaps to the subjectivity and ineffability

¹⁸⁵*Aphorisms* 7.85.

¹⁸⁶*Epidemics II* 1.6.

¹⁸⁷See also *Critical Days* 3, *Internal Affections* 36.

¹⁸⁸*Diseases III* 16.

of pain than it does to any kind of Hippocratic indifference to pain.¹⁸⁹

4. *Conclusion*

The physician's trust in the patient's report of pain and his impulse to catalogue various dimensions of that pain both reflect the Hippocratic notion of objective, materially-based, pain. After all, a system that insists on the materiality of pain and then exploits that connection in order to use pain to "see" inside the body has little place for the instability of subjective perception. Assessing Hippocratic interest in pain, furthermore, in terms of the success or failure of the classification of pain is an approach that strikes me as outdated, reminiscent as it is of the attempts of scholars a few generations ago to assess Hippocratic medicine merely in terms of how "right" or "wrong" its theories and practices were. Rather, as I suggested above, the fact that the evident Hippocratic urge to categorize pain did not – and could not – result in any uniform classificatory scheme suggests the limits of such a system of objective pain. That the Hippocratics resolutely upheld the notion of objective pain in the face of the evidence for its subjectivity speaks to the fundamental importance of pain to Hippocratic theory and practice. In the following chapter I look more closely at places where Hippocratic authors do seem to acknowledge that sometimes different people (or, better put, different classes of "bodies") feel different pain. As we shall see, however, even in these situations the fundamentals of Hippocratic pain that I have outlined in Chapters One, Two, and Three, continue to obtain.

¹⁸⁹On the inherent ineffability of pain, see Scarry 1987.

CHAPTER FOUR

PAIN AND BODIES

1. *Introduction*

This chapter explores how Hippocratic theories of pain intersect with assumptions about “marked” bodies (e.g. “old bodies,” “female bodies”). As we have already seen, the Hippocratic notion of pain was deeply rooted in theories about the very composition of the body. So far, I have assumed (as Hippocratic authors almost always did, save in “specialized” contexts) that the body within which Hippocratic pain operates is a mere vessel. This normative body was, for the Hippocratics, assumed to be male, in the prime of life, and humorally-balanced (Section 2). In this final chapter, however, I will consider what happens when this body is young or old, male or female. Hippocratic theorizing about how age and sex affect the body is as fundamentally tied to humoral theory as the notion of pain. When these two elements intersect, therefore, they interpenetrate in ways that are especially strange. The influence of pain theory is far reaching: bodies of unborn infants must of necessity experience pain if they undergo change (Section 3), while young and old people naturally suffer *different* pains in the same diseases, since they have different bodies (Section 4). Assumptions about how female bodies work, on the other hand, govern the assumed mechanics and semiotics of female pain (Section 5), while assumptions about the reliability of children and women influence how pain in these marked bodies is communicated to the physician (Section 6).

2. Age, Sex, and the Body

This chapter explores the ways in which the significance of pain is altered when an otherwise unmarked body is further distinguished. While bodies could conceivably be delimited in a number of ways – i.e. according to socio-economic or enslaved status, complexion or ethnicity – Hippocratic authors distinguish between bodies according to age and/or sex.¹⁹⁰ In fact, many treatises explicitly instruct the physician to take a patient's age into consideration when formulating a diagnosis, prescribing treatment, or offering a prognosis, indicating that age was thought to affect a body's reaction to disease.¹⁹¹ Furthermore, while none of these statements include the explicit instruction to consider a patient's sex, this omission is likely owed to the fact that the criteria of sex, particularly for adults, was *so* distinguishing as to not require mention. After all, entire treatises are devoted to the subject of “women's diseases.”¹⁹²

While many age groupings are to be found in the Corpus,¹⁹³ for the most part, the ages are divided into four groups: childhood, youth, adulthood, and old

¹⁹⁰Which is not to say that other factors are not, on occasion, relevant to a patient's bodily state; environmental determinism was, after all, a cornerstone of Hippocratic theory.

¹⁹¹*Nature of Man* 9.25-32, *Regimen in Health* 2, *Humors* 1, *Aphorisms* 1.2, 1.17, *Regimen I-III* 67, *Regimen in Acute Diseases (Appendix)* 11.1-13, *Diseases of Women* I 11.

¹⁹²The gynecological treatises are *Barrenness (Diseases of Women III)*, *Diseases of Women I-II*, *Eight Months' Child*, *Excision of the Fetus*, *Girls*, *Nature of Woman*, *Nature of the Child/Generation*, *Seven Months' Child*, and *Superfetation*. For a general overview of Hippocratic Gynecology, see: Dean-Jones 1994, Hanson 1990, King 1998, Lloyd 1983, Sissa 1990.

¹⁹³E.g., children up to 5 years of age: *Prorrhetic II* 22.1-8; children until 8 or 10 years of age: *Epidemics I* 2.4.108-110; persons under 35 years of age (*Airs, Waters, Places* 4.19-35, *Prognostic* 7.17-18, 21.8, 24, *Nature of Man* 12.1-10, *Coan Prenotions* 156, 274); beyond 35 years of age, *Prognostic* 24; after 25 years of age: *Aphorisms* 5.7; between 7 and 15 years of age: *Coan Prenotions* 462; between 14 and 42 years of age: *Coan Prenotions* 502; between 18 and 35 years of age: *Aphorisms* 5.9, 7.87, *Coan Prenotions* 431; over 20 years of age: *The Sacred Disease* 10.18-30; up to 30 years of age: *Coan Prenotions* 139; beyond 30 years of age: *Coan Prenotions* 139; between 40 and 60 years of age: *Aphorisms* 6.57, *Prorrhetic II* 40.12-14; between 42 and 62 years of age: *Coan Prenotions* 502; beyond 40 years of age: *Aphorisms* 7.82; beyond 50 years of age: *Epidemics VI* 8.4

age. One could imagine, then, in a fully intersecting system, the Hippocratics conceiving of eight “types” of bodies, each distinguished by age and sex, though the most common types of marked bodies are four in number: young, male, female, or old.

In order to understand how the intersection of age and sex results in only four categories of body, it is first necessary to understand the Hippocratic conception of aging. Aging was thought of as a cooling process. The human body is hottest at birth and the intense heat of the infant and growing child wanes as the person grows old. Eventually this internal heat is entirely consumed—this is death.¹⁹⁴ During growth, the body requires a constant supply of fuel – food – to feed the fires of growth. By contrast, the elderly require the least amount of food, so as not to “quench” their internal heat.¹⁹⁵

Where the identifying criteria for age hinges on the temperature within the body, the main difference between male and female bodies lay in the texture and density of the flesh. In adults, female bodies had softer, spongier flesh while flesh of males was harder and denser.¹⁹⁶ This difference led to other secondary differences between men and women: it was by virtue of this spongy flesh that the female accrued excess moisture, owing to this excess of humors (mostly

¹⁹⁴E.g. *Nature of Man* 12.22-32.

¹⁹⁵*Aphorisms* 1.14. This concept of aging as a cooling process affected not only how Hippocratics thought of bodies – it also had an effect on their conception of the soul. The substance of the soul was thought to be subsumed during youth – especially childhood – since the innate heat of the body consumed the essence of the soul. In a parallel process, the inherent coolness of old age was also inimical to the function of the soul. It was during adulthood – or the “prime-of-life” – that the temperature of the body created a suitable environment for the flourishing of the soul.

¹⁹⁶On the nature of female flesh, see Dean-Jones 1994, 55-59 Hanson 1975, King 1998, 28-29, 32, 34, 71, 77, 92 and 96.

blood), had a different internal temperature than the male body.¹⁹⁷

When one compares the qualities of age and sex it becomes clear why this intersection produces only four functionally different bodies, rather than eight. Children and the aged, regardless of sex, had hot and moist or cold and moist bodies, respectively. During the reproductive years, i.e. those encompassing both puberty and adulthood, however, the distinction ceases to be one of age, and becomes one of sex. In other words, adulthood is the only one of the three age groups during which sex is a meaningful distinction. For the most part, then, young bodies were compared to old, female to male.

In the context of theoretical discussions, children were more often conceived of as a monolithic, sexless (or at least, not sex-specified) group.¹⁹⁸

Where childhood was primarily sexless (that is to say, sex is rarely adduced as an

¹⁹⁷ Although the Hippocratics disagreed on this last point. Women are hotter: *Nature of Woman* 1.1, *Nature of the Child/Generation* 15; Men are hotter: *Barrenness (Diseases of Women III)* 206, *Regimen I-III* 34. Cf. Dean-Jones 1994, 45f.

¹⁹⁸ Apart from the passage from *Seven Months' Child* 9 (discussed below) that discusses the difference between male and female infants with regard to development, there is little evidence that sex difference among children was considered relevant. Rather, sex differences were considered to be a hallmark of the procreative age, encompassing puberty and adulthood. When attention *was* paid to the sex of children, it was restricted to the sex of an unborn infant – and the significance of the fetus' sex, furthermore, was more often adduced in relevance to the mother's health. In other words, childhood and old age were primarily sexless states, defined by age and marked by the level of heat (hot for children, cold for the aged) found in the body. This is not to suggest that it was impossible to conceive of children in terms of sex, inasmuch as there is evidence that when the group "children" is discussed as a whole, the Hippocratic authors conceived of the group as either sexless or as male. For example, *Airs, Waters, Places* 4.19-35 claims that, in climates with waters that are harsh and cold as a result of exposure to cold winds, children are subject to dropsy in the testicle. It is clear, in this case, that children are *male* children. Another passage from the same treatise differentiates claims male and female children suffer differently from urinary stones (*Airs, Waters, Places* 9.26-43). This passage suggests that children who consume milk, regardless of sex, may be equally susceptible to stones if the milk they consume is overly bilious. In other words, children are equally diseased by improper regimen. However, when it comes to *passing* stones, the author suggests that stones provide more of a problem for boys, owing to anatomical and behavioral difference: boys have a narrower and lengthier urethra than girls do. Leaving aside the puzzling observation that girls drink more than boys do, this passage illustrates that, when physicians may have had occasion to consider sex difference at this age, boys were differentiated from girls in terms of visible anatomical difference, rather than with regard to the more fundamental criteria of innate moisture or heat.

explanation for symptoms), puberty marks the beginning of such a distinction. Adulthood, as we will see below, was defined almost exclusively in terms of sex, and puberty marks a transition from a state where one's body was marked primarily for age (young and therefore, hot) to one where sex is *the* defining characteristic (dry and solid-fleshed for men and wet and loose-fleshed for women).

As we saw earlier, according to Hippocratic theory, young bodies are hot while old bodies are cold.¹⁹⁹ Old bodies are also, in contrast to the firm and dry bodies of youth, soft and moist.²⁰⁰ While the period of life that commences at puberty and ends at old age has sex as its main dichotomy, the period of old age, however, is most often contrasted with younger age. Just as children were often treated as a monolithic group, so too are old people considered a group where sex differences are rarely relevant, if they exist at all. Dean-Jones has suggested that the reason the Hippocratics were unconcerned with menopause – nowhere in the corpus is the process explained – is because the cessation of menses marks the point at which a woman's body ceases to be female.²⁰¹ Just as sexual differentiation for the purpose of procreation begins at puberty (and thus, it is at this age where we find sex being linked to disease), so too does it end when a woman loses the ability to procreate. What had been the defining criterion of health – menstruation – ceases and a woman is re-assimilated into a category –

¹⁹⁹*Nature of Man* 12.22-32.

²⁰⁰*Regimen in Health* 2.

²⁰¹Cf. Dean-Jones 1994 105-108, esp. 107: "Whereas menarche differentiated women from men, menopause signaled the reassimilation of the female body to the male (and hence more tractable) body. Whatever the change was that brought about menopause, therefore, did not require specialized knowledge."

old age – that is populated by men. In fact, the only place where we find old people differentiated by sex is in the case histories of the *Epidemics*.²⁰²

For the most part, then, the ability of sex to mark a body as fundamentally different in the context of disease is operative during the reproductive years, while the marker of age is only applicable to the young and old. In what follows, I examine how pain in these marked bodies (young, old, and female) is transformed by the interaction between theories of age, sex, and pain.

3. *Pain and the Fetus*

As we saw in Chapter One, the *fact* of Hippocratic pain – owing to the certainty that material change in a bodily state necessarily produces pain – was incontestable. Thus, in situations where a patient's body is suffering from material imbalance, pain is *known* to exist within that same body, whether or not the subject can sense it. A similar process of deductive reasoning seems to have resulted in the Hippocratic insistence on fetal pain. The treatises *Seven Months' Child* and *Eight Months' Child* both on occasion address the *ponos* of their respective subjects.²⁰³ The seven months' child – that is to say, a fetus of six month's gestation – suffers *ponos* when it inadvertently loosens the membranes of the gestational sac. Once the membrane is loosened, the child, owing to its weight, moves into the newly-created area within the womb. For the following forty days the child struggles (*ponein*). There are two causes of this *ponos*: both the fact that the infant is no longer receiving nourishment from the same place as

²⁰²See passages below.

²⁰³For the vocabulary of pain, see above, Chapter Three. On the semantic field of *ponos*, see King 1988 and Rey 1993.

before and the *ponoi* of the mother herself contribute to the *ponos* felt by the infant. The mother feels *ponoi* when the loosened membranes and the resulting tensions in the umbilical cord caused by the infant moving further down in the womb produce *odynai* in her.²⁰⁴ Regardless of the precise valence of the term *ponos*,²⁰⁵ it is clear that this sensation is caused both by a change in the state of the fetus (the movement within the womb and subsequent change in nourishment) and by the state of the mother's body – in particular, the sensation of pain (*ponoi* and *odynai*) felt by her.

That this unborn infant is thought to feel *ponos* seems to be a result of the intersection of theories about pain and about gestation. The symbiotic link between the maternal and fetal bodies likely underlies the idea that a mother's pain is mirrored by – or even, in this case, perhaps causes – a pain in the fetus. Secondly, the idea that pain and disease are caused by change gives rise to the idea that the fetus must suffer, inasmuch as it experiences change in location and nourishment.²⁰⁶

Several other passages from *Seven Months' Child* and *Eight Months' Child* connect the *ponos* experienced by the unborn child with physical change. *Eight Months' Child* 2 states that the majority of children born at seven months' gestation do not live since they are unable to survive the changes caused by birth, owing to their diminutive size. If a fetus of this age undergoes the process of birth in addition to the sufferings (*ponoi*) it experienced within the womb, it

²⁰⁴*Seven Months' Child* 3.

²⁰⁵We must understand *ponos* as meaning "pain" of some sort, at least in the case of the mother's *ponoi*, considering the word is glossed as *odynai*.

²⁰⁶For the notion that pain is caused by change, see above, Chapter One.

will perish. If a child should suffer such *ponoi* as occur during the eight month of pregnancy and then be born in the ninth month, however, it may survive, but it will be thin as a result of its *ponoi*.²⁰⁷ The more time that passes between these *ponoi* and birth, however, the greater the chance of survival, since the infant will be less thin and more robust.²⁰⁸ Furthermore, *Eight Months' Child* 10 states that even a child born in the tenth month is unlikely to survive, owing to the twofold *ponoi* suffered from both the premature membrane rupture and birth.

These last few passages all share in common the notion that the process of birth itself was painful for the infant. That infants – even prior to or during birth – were thought to feel pain is likely related to the theory that infants are perceptive on their first day of life. The fact that infants both laugh and cry in sleep is adduced as proof of their powers of perception. These powers, however, are not fully matured, inasmuch as they do not respond in kind when touched.²⁰⁹ In addition to possessing powers of perception, albeit blunted, infants were thought to possess sensibility. In this case, however, these powers were thought to differ according to the infant's sex. Whereas boys *in utero* differentiate with respect to reproductive organs sooner than girls, once born, girls are more sensible than boys. In the case of genitals, boys' organs are visible after forty days of gestation, while girls' are not, since "like parts in like places remain similar for a long time." These parts take longer to differentiate because of their "habituation and attraction." Once born, however, girls outstrip boys with respect to maturity, sensibility, and aging, owing to both regimen and the inherent weakness of their

²⁰⁷*Seven Months' Child* 6.

²⁰⁸*Seven Months' Child* 7.

²⁰⁹*Seven Months' Child* 9.

bodies.²¹⁰ Despite these developed theories of infant perception, however, the assumption of pain in the fetus relies more on an insistent reliance on the etiology of pain than on the infant's ability to perceive such pain.²¹¹

4. *Pain and Old Age*

Where strict adherence to the theory of Hippocratic pain mechanics results in the idea that infants must suffer pain, assumptions about the nature of the elderly body engenders the idea that the old suffer less than the young. That the old suffer less is not, however, evidence for a Hippocratic "subjective" pain: the issue is not one of tolerance. On the contrary, young bodies are, owing to their physical makeup, more likely to experience greater and more frequent pains.

The density and strength of an adult male's flesh, as well as the tension and dryness of his body, is adduced as the reason why younger men suffer more pain than older men (*Diseases I* 22.12-21)²¹²:

When younger men are subject to one of the affections that were said to arise from exertions, they suffer in more ways and more severely, and have more pains than do others; diseases usually become apparent in them immediately, so that they either expectorate or vomit blood, although sometimes the disease escapes the patient's notice because of his good bodily condition. Older men suffer less often and, when they do, more mildly, since they are themselves weaker, and also they have more understanding and take better care of their affections. Thus, to begin with, these diseases occur less often, on the whole, in older

²¹⁰*Seven Months' Child* 9.

²¹¹On the separation of the perception of pain from the existence of pain, see above, Chapter One.

²¹²While the immediate distinction drawn in this instance is one of age, not sex, it should be noted that the differences between the young and aged male bodies are, in principle, the same as those between male and female, inasmuch as the primary distinction between male and female flesh is one of density.

men than in younger ones, and, when they do occur, they are milder in older men and more violent in younger ones.²¹³

Καὶ ὁκόσοι μὲν νεώτεροι πάσχουσι τι τούτων, ὅσα εἴρηται ἀπὸ πόνων παθήματα γίνεσθαι, πάσχουσι πλέω τε καὶ ἰσχυρότερα καὶ ἀλγέουσι μᾶλλον τῶν ἄλλων, καὶ παραυτίκα ἔκδηλα αὐτοῖσιν, ὥστε ἢ πτύσαι αἶμα ἢ ἐμέσαι, τὰ δὲ καὶ γινόμενα λανθάνει αὐτοὺς ὑπὸ εὐεξίης τοῦ σώματος· οἱ δὲ γεραίτεροι πάσχουσι μὲν ὀλιγάκις, καὶ ὅταν πάθωσιν, ἀσθενέστερα πάσχουσιν, ἅτε ἀσθενέστεροι ἐόντες, καὶ ἐπαῖουσι μᾶλλον, καὶ ἐπιμελέονται μᾶλλον τῶν παθημάτων. Γίνεται οὖν τὴν ἀρχὴν τὸ παράπαν ἥσσον τῷ γεραιτέρῳ ἢ τῷ νεωτέρῳ· καὶ ὁκόταν γένηται, τῷ μὲν γεραιτέρῳ ἀσθενέστερα γίνεται, τῷ δὲ νεωτέρῳ ἰσχυρότερα.

Note that the younger man suffers *more* and *sharper* pains than the older man.

These two types of bodies, then, owing to their different densities and compositions, experience different pains (as opposed to experiencing pain differently, as a subjective pain model would understand it).²¹⁴

In other cases, by virtue of their age, an older person is said to suffer less pain. Old men endure fasting most easily, followed by middle aged men, youths, and, finally, children.²¹⁵ This tolerance of fasting is directly related to the dwindling of heat that coincides with aging, while the cooler temperature of the aged body also meant that fevers were less hot.²¹⁶

When old age *is* to blame for a disease, there is sometimes an attitude of resolution to the fact: there is little for the physician to do: curvature of the spine

²¹³Tr. Potter.

²¹⁴Unfortunately, the author feels that this one example is sufficient to demonstrate the concept that various bodies suffer differently, having begun with the enticing statement that in terms of recovery from these diseases, men differ from women, younger men from older men, and younger women from older women. Nowhere in the corpus, then, are there any explicit comparisons of the pains suffered by women and men.

²¹⁵*Aphorisms* 1.13.

²¹⁶*Aphorisms* 1.14.

is just something that can happen in old age,²¹⁷ recurrent heart pain in an old person meant sudden death,²¹⁸ and when epilepsy occurs for the first time in old age, these patients, if they do not die (which was the usual result), were expected to recover spontaneously and derive little benefit from physicians.²¹⁹ When an older patient suffers from gout he is similarly incurable by medicine, but his escape is not spontaneous; if the older gout patient should develop dysentery he will be cured of his illness.²²⁰ The author of *Aphorisms* makes the even broader claim that any condition that becomes chronic in old men generally last until his death.²²¹ While this statement provides a rather pessimistic view of old age when taken on its own, it is preceded by the assertion that old men in general suffer less illness than young men.

If diseases in the elderly *were* treated, the patients were often assumed to respond poorly to such treatment: lichen, lepra, and leuce are said to be healed the easiest in young patients,²²² while problems in the kidney and bladder are equally difficult to cure in old patients.²²³

The aged thus suffer the least from pain and disease and are the least likely to either need or benefit from medical attention. In addition to the idea that the aged are less susceptible to pain and disease,²²⁴ the physical process of aging could actually cure many illnesses (*Epidemics* VI 5.3):

²¹⁷*Joints* 47.1-3.

²¹⁸*Coan Prenotions* 280.

²¹⁹*Prorrhetic* II 9.

²²⁰*Prorrhetic* II 8.

²²¹*Aphorisms* 2.39.

²²²*Prorrhetic* II 43.

²²³*Aphorisms* 6.6.

²²⁴E.g. *Aphorisms* 2.39, *Sacred Disease* 9.1-15, and *Affections* 30.10.

Innate, chronic diseases depart in old age because of concoction, dissolution, and rarefaction.

Νοῦσοι ξύντροφοι ἐν γήραϊ καὶ διὰ πεπασμὸν λείπουσι, καὶ διὰ λύσιν, καὶ δι' ἀραίωσιν.

The intersection of theoretical assumptions about the aging process (that the aging body loses both heat and moisture) with theories of pain and disease results in the notion that aged bodies experience less pain than others. The Hippocratics steadfastly held to these ideas, presumably in the face of the sufferings of the elderly. Witness one of the few case histories of an aged patient (*Epidemics IV 1.42*):

The old man who lived on the stone porch felt pain in his lower back and both of his legs. Both pains descended into his thighs, sometimes to his lower leg, sometimes to his knees. His condition became especially chronic and many relapses occurred. Swelling in the feet, lower back, lower legs. Small glands, hard stomach, distended abdomen. Racked by pain in most parts. He was discovered to have a hard and painful bladder. Eruptions. Fevers. Afterwards he had pain in his ears. The same tumor, the gland was unable to be felt, his bone did not suppurate, but became septic and straightway he became feverish.

Ὁ ἐν τοῖσι λιθίνοισι προπύλοισι πρέσβυς ὀσφὺν ἤλγησε καὶ σκέλεα ἄμφω καὶ θάτερον κατέβαινεν ἐπὶ μηρούς, καὶ ποτε κνήμας, καὶ ποτε γούνατα. Ἐγχρονιζούσης μάλιστα, πολλαὶ παλινδρομίαι ἐγεγένητο· οἴδημα ἐν ποσὶν, ὀσφύϊ, κνήμῃ βραχὺ βουβῶνες, γαστήρ σκληρὴ, καὶ ἔντασις ἥτρου ἢ πᾶσα, καὶ ὀδυνώδης τὰ πλεῖστα· εὐρέθη ἔχων καὶ κύστιν σκληρὴν καὶ ὀδυνώδεα καὶ βλαστήματα, καὶ θέρμαι. Καὶ μετὰ ταῦτα ἤλγῃκει παρ' οὗς· ταῦτόν σύστρεμμα, ἀδένος οὐκ ἐπιψαύοντος, ὀστέον οὐκ ἀποπυοῦν, καὶ τοῦτο ἐμωλύνθη, καὶ τότε εὐθὺς ἐπυρέτηνεν.

The old man's disease *is* pain. He suffers from pains in his loins and both legs.

These pains move and recur as time passes, his bladder is hard and painful and his entire belly is in pain. It is difficult to reconcile the Hippocratic theoretical assumptions that the aged are less disposed to illness and pain with the reality of

the old man's pain. Nevertheless, as we have by now seen time and again, Hippocratic physicians were likely to view pain as confirmation of the assumed materiality of the body. Unfortunately for this patient, it appears that the physician was content to witness, but not treat, his pain.

5. *The Mechanics and Semiotics of Female Pain*

5.1 *Female Pain and Nosology*

When theories about pain intersect with assumptions about women, the links between pain, change, and disease no longer obtain. As argued in Chapter Two, non-gynecological nosological treatises rely heavily on the symptom of pain to differentiate diseases and this use of pain in diagnosis follows naturally upon the assumption that pain is not only a useful indicator of illness, but, in many cases, actually constituted disease itself.²²⁵ The equation between pain and disease resulted from the notion that both phenomena result from an imbalance of humors. Pain and disease were also linked by the self-purported purpose of medicine; many treatises state that the purpose of medicine is to diminish pain and remove disease. By comparison, one finds no such stated purpose within the gynecological treatises. Rather, the purpose of women's medicine seems to be the promotion or restoration of proper reproductive function.²²⁶ In other words, the focus of women's medicine is not the removal of pain and suffering, but the restoration and promotion of reproductive health. Even when a woman suffers from what we might consider a general disease (i.e. one that is caused and

²²⁵The non-gynecological nosological treatises include *Affections, Breaths, Diseases I-IV*, and *Internal Affections*.

²²⁶Cf. Jouanna 1999, 174.

progresses in the same way for all humans), the cause may still have been understood within the context of a malfunction of her reproductive system²²⁷ On this view, a woman's reproductive organs are the locus of disease in her body, regardless of the manifestation of the disease. Even in non-gynecological treatises, when women are mentioned, they are classed separately from men, while their symptoms are also different from others.²²⁸ When female patients are recorded in the *Epidemics*, their complaints are often gynecological in nature²²⁹ and even when they are not, reproductive functions – primarily childbirth and menstruation – are recorded, often in such a way as to indicate that they are responsible either for the woman's illness, or for her return to health.²³⁰

As a result of the strong connections between pain and disease, a typical description of disease in a non-gynecological treatise will either list pain as the primary component of a disease or even "name" the disease after the type and location of pain that constitutes it.²³¹ The nosology of the gynecological treatises, however, rarely equates disease with pain.²³² Instead, diseases are almost exclusively classified etiologically; to the behavior of the womb, the behavior of the menses, or a fertility issue, while pain is merely one of many symptoms experienced when a woman's reproductive system malfunctions.

²²⁷Dean-Jones has argued that the diseases discussed in the non-gynecological treatises may have been considered "men's diseases," and that *any* disease a woman experiences was a "woman's disease." However, see Manuli 1983 on the statement at *Diseases of Women I* 62 that all diseases in women are "women's diseases."

²²⁸Cf. Dean-Jones 1994, 114f.

²²⁹Lloyd (1983, 67-68) reckons that roughly one-third of the case histories in the *Epidemics* record the treatment of women. Demand's figures, however are somewhat higher, since she also includes cases where female patients are adduced as examples (Demand 1998, 78 and n. 11).

²³⁰E.g. Hanson 1994 reports that 33 case histories in the *Epidemics* are concerned with childbirth.

²³¹See Roselli 1990 for an overview of the "typical" presentation of symptoms in the nosological treatises *Diseases II* and *Internal Affections*.

²³²For exceptions, see *Diseases of Women I* 46 and 52.

The author of *Places in Man* attributes the cause of all women's diseases to the movement of the uterus from its accustomed position (*Places in Man* 47.1-20):

Diseases of women, as they are called. The uterus is the cause of all these diseases; for however it changes from its normal position – whether it moves forward, or whether it withdraws – it produces diseases. When the uterus does not drop its os and does not move so that it is outside and touching the labia, the disease is very minor. But when it moves ahead towards the front and inserts its os against the labium, first this produces pain because of the contact, and also the menstrual flow fails to take place because the uterus is obstructed and capped by its impaction against the labia, and when this flow is held back it produces swelling and pain. If the uterus descends downwards and turns aside to fall against the groin, it will produce pain; and if it ascends upwards, turns aside and becomes obstructed, in this way too it produces a disease, on account of its porousness; when the uterus is diseased in this way, it provokes pain in the hips and in the head. When the uterus becomes filled and swells shut, nothing flows and it fills up; when it is full, it touches the hip-joints. When the uterus has become filled with fluid, dilated and immobile, and when it touches the hip-joints, it produces pains both in the hip-joints and in the groin, and something like spheres pass by in the belly, and the patient has pain in her head, sometimes in one half, sometimes in the whole head; such is the disease that arises.²³³

Τὰ γυναικεῖα νοσεύματα καλούμενα· αἱ ὑστέραι πάντων τῶν νοσημάτων αἰτιαί εἰσιν· αὗται γὰρ ὅπη ἂν ἐκ τῆς φύσιος μετακινήθωσι, νούσους παρέχουσιν, ἢν τε προέλθωσιν, ἢν τε παραχωρήσωσιν. Καὶ ὅταν μὲν μὴ βάλλουσαι τὸ στόμα αἱ μήτραι καὶ μὴ ψάφουσιν τῶν κρημνῶν μετακεκινημέναι ἔωσιν ἔξω, σμικροτάτη νοῦσός ἐστιν· ἐπεὶ δὲ προκινήθωσιν ἐς τὸ ἔμπροσθεν καὶ ἐμβάλλωσι τὸ στόμα ἐς τὸν κρημνὸν, πρῶτον μὲν ψάψασα πόνον παρέσχεν, εἴτα ἀποφραχθεῖσα ἡ μήτηρ καὶ ἐπιπρωμασθεῖσα ὑπὸ τῆς ἐμβλήσεως τῆς ἐς τὸν κρημνὸν, οὐ γίνεται ῥόος τὰ καταμήνια καλούμενα· τοῦτο δὲ συνιστάμενον οἶδος τε καὶ ὀδύνην παρέχει. Καὶ ἢν μὲν κάτω κατελθοῦσα καὶ ἀποστραφεῖσα ἐμβάλλῃ ἐς τὸν βουβῶνα, ὀδύνην παρέξει· ἢν δὲ ἄνω ἐπαναχωρήσασα ἀποστραφῇ καὶ ἀποφραχθῇ, καὶ οὕτω διὰ τὴν ἀραιότητα νοῦσον παρέχει· ὁπότεν δὲ διὰ τοῦτο νοσέῃ, ἐς τὰ ἰσχία καὶ τὴν κεφαλὴν ὀδύνην ποιεῖ. Ὅποτεν δὲ αἱ μήτραι πρησθεῖσαι συνοιδήσωσιν, οὐ ῥεῖ οὐδὲν, καὶ πλέαι γίνονται· ἐπὶ τὴν δὲ πλέαι γίνονται, ψάφουσιν τῶν ἰσχύων· ἐπὶ τὴν δὲ πλησθεῖσαι αἱ μήτραι ὑγρότητος διευρυνόμεναι οὐ χωρέονται, ψάφωσι δὲ τῶν

²³³Tr. Potter.

ισχίων, ὀδύνας παρέχουσι καὶ ἐς τὰ ἰσχία καὶ ἐς τὸν βουβῶνα, καὶ οἶον σφαίραι ἐν τῇ γαστρὶ ὑποτρέχουσι, καὶ τὴν κεφαλὴν πονέουσι, τοτὲ μὲν ἐς τὸ ἕτερον μέρος, τοτὲ δὲ ὅλην, οἷη γίνεται καὶ ἡ νοῦσος.

The immediate cause of pain in women's diseases is not excess humor, as it is in many of the general diseases. Rather, humoral imbalance provokes abnormal behavior in the uterus and this organ in turn causes pain, primarily by touching other places within the body.²³⁴ Rather than framing all women's diseases by first describing the pains they cause and then explaining what happens inside the body to produce these diseases (as is the case in non-gynecological diseases), the author classifies women's diseases etiologically. It is clear that, for the author of *Places in Man*, when it comes to the female body, disease may cause pain, but it is not constituted by pain. Furthermore, pain in the female body is no longer coterminous with disease, but is a reaction *to* the affected uterus.

In the gynecological treatises, the behavior of the womb may also provoke illness, as the author of *Places in Man* asserts. The spongy nature of female flesh, however, especially its propensity to draw liquid to itself, is at the root of the difference between female and other bodies.²³⁵ The affections described in these treatises include not only those caused by the movement of the uterus, but also an array of conditions involving diseased flows and infertility. Yet, despite the fact that many of the conditions described in the gynecological treatises have the same mechanism as many “andrological” diseases – that is, they are caused by a

²³⁴That an organ can be a source of pain is not unusual in itself. For example, in *Affections* 28 we are told that pain in strangury is caused when the bladder is dry, cold, or empty. That the cause of all diseases in women is an organ, however, is unusual. Cf. King 1998, 34: “[i]n the Hippocratic texts, organs are often of less importance than fluids.” On organs in Hippocratic Medicine, see, e.g. Gundert 1992.

²³⁵Cf. *Nature of the Child/Generation* 21 and *Diseases of Women* I 1. On the nature of female flesh, see Dean-Jones 1994, 55-9 Hanson 1975, King 1998, 28-9, 32, 34, 71, 77, 92 and 96.

diseased blockage or flow of humor – the nosological pattern of disease in women privileges the mechanisms of disease over the symptom of pain.²³⁶

Compare the following descriptions, which both reflect the typical method of disease classification found in their respective treatises (*Affections* 15 and *Diseases of Women II* 113):

Other pains that occur in the cavity in the summer: pains that attack the hypochondrium and the cardia ... Patients generally suffer these pains because of phlegm, when it is disturbed and attacks the heart ...

Ἄλλοι δὲ ἄλλοι ὀδύναι ἐν τῷ θέρει κατὰ τὴν κοιλίην γίνονται, ὁκόσαι μὲν πρὸς τὰ ὑποχόνδρια καὶ τὴν καρδίην ... πάσχουσι δὲ ταῦτα μάλιστα ὑπὸ τοῦ φλέγματος, ὅταν κινηθὲν προσπέσῃ πρὸς τὴν καρδίην ...

and:

Red flux: a flowing of blood like that from a freshly slaughtered beast, conspicuous clots, sometimes the red flow gushes out and the lower abdomen swells, then reduces, grows weak, then hardens, ulcerative pain when touched, fever and shivering. Pain in the area near the genitals, the pubis, near the flank, waist, tendons, uterus and breast. Also she hurts in her shoulder blades and all her other body parts. She is weak and faint and her complexion changes.

Ῥόος ἐρυθρός· ῥέει τοιόνδε οἶον αἷμα νεοσφαγέος, καὶ θρομβία διαλάμποντα, ἄλλοτε δὲ καὶ ῥόον ἐρυθρὸν ἐκβράσσει, καὶ ἡ γαστήρ ἢ νειαίρη ἐπαίρεται, καὶ λεπτύνεται, καὶ νηπελεῖ, καὶ σκληρύνεται, καὶ ἀλγέει ψαυομένη ὡς ἔλκεος, καὶ πῦρ ἔχει καὶ βρυγμός· ὀδύνη τε ἐς αὐτὰ τὰ αἰδοῖα καὶ τὸ ἐπίσειον καὶ ἐς τὸν κενεῶνα καὶ τὰς ἰζύας καὶ τένοντα καὶ κοιλίην καὶ στῆθος, καὶ τὰς ὠμοπλάτας καὶ ἄλλα πάντα ἀλγέει, καὶ ἀδυναμία καὶ ὀλιγοψυχία ἔχει, καὶ ὁ χρῶς τρέπεται.

The pain described in *Affections* is more than just a symptom of disease, it is the disease itself (“pains in the cavity,” etc.). Remove the label of pain, and the

²³⁶For “andrological,” see Dean-Jones 1994, 119.

disease has no name. In the case of the red flux described in *Diseases of Women*, however, the situation is reversed: we are told that the excessive red flow gushes out of the body and clots and that several symptoms, including all sorts of pains, result from this flow. After labeling the disease, the author of *Affections* explains that these pains, or diseases, are caused by the movement of phlegm towards the heart. The disease comes first, then is followed by a description of the action within the body that causes the disease. Where the disease in *Affections* is conflated with the pains that it causes, to such an extent that the disease is called “pain,” the disease in *Diseases of Women* is labeled in such a way as to draw a connection not between disease and symptom, but between disease and cause: red flux. In both of these examples, the disease is caused by the abnormal behavior of a humor inside of the body: phlegm or blood. The author of *Affections*, however, elevates the experience of pain above that of mere symptom by turning the patient's experience into his problem.²³⁷

In the case of childbirth, the cause of a woman's pain is even further mediated within her body. The assumed passivity of women led to the assumption that the entire process of labor was caused by the action of the infant inside of her body.²³⁸ Hanson has shown that the therapies prescribed in cases of dystocia (difficult labor), focused as they are on ways of inducing a child to exit the mother's body, indicate that physicians assumed that the pain – in fact, the entire process – of childbirth was caused by the fetus' efforts to birth itself.²³⁹

²³⁷On Hippocratic nosological strategies, see Potter 1990.

²³⁸Fasbender 1897 was the first to draw attention to the fetus' active role in birth. For further discussion, see Hanson 1991, 1994, and 1999; Lonie 1981, Dean-Jones 1994, 212; Demand 1994, 19.

²³⁹Hanson 1999 argues that the therapies for difficult labor reveal the assumption that pain in

Pain in women, then, is figured as a reaction to an independent force: excessive humor, a wandering womb, or a laboring infant. For a woman to be in pain is thus for her to be a passive reactor and, as we will see in the next section, this “breakdown” in the cause of pain has a significant effect on the utility of female pain as a sign in diagnosis.

The link between pain and disease in unmarked bodies elevates the importance of pain above the other symptoms of disease. The criterion of pain can even be the prime factor that distinguishes one disease from another, as I showed in Chapter Two. The location of pain was one of the primary ways in which pain was distinguished for the purposes of diagnosis.²⁴⁰ In the case of women’s diseases, however, the significance of the location of pain is dramatically lessened.

Time and again, a breakdown in the reproductive system is said to provoke pain in the waist, loin, groin, belly, womb, or head or some combination of the six.²⁴¹ The variety of the locations in which pain was thought to manifest is

childbirth is caused by the baby, not uterine contractions.

²⁴⁰See *Breaths* 2.1-4 for the statement that all diseases have the same manner (*tropos*), but differ in where they occur (*topos*). On the location of pain, see above, Chapter Three.

²⁴¹These parts account for almost 57% of the instances when pain is localized in a body part in the gynecological treatises. Waist: *Barrenness (Diseases of Women III)* 228.4; *Diseases of Women I* 3.2, 24.9, 36.10, 37.3, 57.7, 59.8, 60.16, 63.2, 64.6; *Diseases of Women II* 112.2, 113.6, 120.4, 122.8, 134.3, 139.3, 140.2, 141.5, 144.3, 146.5, 156.7, 162.4, 166.4, 167.8, 168.5, 170.3, 171.10, 175.6, 177.6; *Nature of Woman* 2.7, 5.2, 6.3, 7.3, 9.2, 11.4, 12.6, 13.4, 15.2, 35.14, 37.5, 40.5, 43.3, 45.6, 46.6, 47.2, 54.3, 70.1, 89.2; loin: *Diseases of Women I* 2.20, 2.48, 3.14, 4.16, 5.14, 34.9, 36.23, 60.17, 61.26; *Diseases of Women II* 110.18, 115.2, 137.22, 157.4, 163.5; *Nature of Woman* 35.15, 39.5, 54.2; groin: *Diseases of Women I* 3.13, 4.16-17, 38.6-7, 57.7, 59.8, 63.3; *Diseases of Women II* 110.13-14, 115.3, 144.3, 162.4, 171.10; belly: *Barrenness (Diseases of Women III)* 228.4, 246.1; *Diseases of Women I* 3.1-2, 36.22, 45.8, 46.2, 52.3, 57.6, 59.7, 60.16, 61.26, 63.3, 64.5-6, 74.3; *Diseases of Women II* 120.4, 122.7, 131.2, 134.2, 135.2, 137.22, 139.2, 141.5, 144.2, 146.4-5, 156.6, 157.4, 162.3-4, 163.5, 167.7, 170.2-3; *Nature of Woman* 2.7, 5.2, 6.2, 7.3, 8.2, 9.2, 11.4, 12.5-6, 13.4, 14.2, 15.2, 37.5, 39.4-5, 40.5, 43.2, 45.5-6, 46.5, 54.2-3, 89.1; womb: *Barrenness (Diseases of Women III)* 206.28, 206.34, 207.1, 209.24; *Diseases of Women I* 36.49, 51.5, 52.1, 56.2, 56.6; *Diseases of Women II* 154.7, 156.6, 172.1, 172.5; *Nature of Woman* 80.1, 85.1, 92.1.

more homogenous than what is found in the "general" texts.²⁴² Furthermore, since the location of pain in women's diseases is so limited, it is no longer a viable or important criterion for the differentiation of diseases. For example, in the treatise *Nature of Woman*, pains in the lower belly and the waist are listed as symptoms in six different diseases (a completely prolapsed uterus, folding of the cervix, incomplete delivery of the afterbirth, a womb full of phlegm, erysipelas (a type of lesion) in the womb, and an unnatural gaping of the womb, *Nature of Woman* 5.2, 7.3, 9.2, 11.4, 12.5-6, and 13.4, respectively).

The rather limited locations of pain found in the gynecological treatises comes as no surprise given that these treatises are concerned with describing the course of diseases effected by a breakdown in reproductive function. What is a productive sign in other bodies – the precise location of pain – is merely another symptom in gynecological diseases. The limited location of pain is a natural extension of the notion that all women's diseases (and perhaps, all diseases in women) were caused by reproductive failure.²⁴³

While physicians may have expected less variety in the location of pain in women's diseases, they were primed to recognize the temporal dimensions of female pain. Several instances point to an effort to measure female pain in cycles.

The Hippocratics expected the principles of cyclicity as manifested in general medicine to also carry over to female reproductive function. The author of *On the Seven Months' Child* makes this connection explicit. He states that the reproductive functions of women – conception, miscarriage, and birth – follow

²⁴²On the location of pain, cf. Villard 2006, 73.

²⁴³Cf. Dean-Jones 1994, 112.

the same crises as general human affections such as disease, convalescence and death (ἧσι δὲ γυναιξὶν αἱ συλλήψεις τῶν ἐμβρύων καὶ οἱ τρωσμοί τε καὶ οἱ τόκοι κρίνονται ἐν οἷσιν περ αἷ τε νοῦσοι καὶ αἱ ὑγίαιαι καὶ οἱ θάνατοι τοῖσι σύμπασιν ἀνθρώποισιν, *On The Seven Months' Child*, 9.1-3).

The author of *Epidemics II* claims that in pregnant women, pains occur throughout gestation according to a fixed pattern. In a staccato list of topics related to gestation we are told that “pains come in cycles” (Οἱ πόνοι ἐν περιόδοισιν). The author later elaborates by saying that pains associated with pregnancy occur on the third day after fifty and the sixth after one hundred and that monthly pains manifest in the second and fourth months of pregnancy (Οἱ πόνοι περὶ τρίτην ἡμέρην πρὸς τῇσι πεντήκοντα, καὶ ἕκτην πρὸς τῇσιν ἑκατόν· μηνιαῖοι, δευτεραίῳ καὶ τεταρταίῳ, *Epidemics II* 3.17, cf. *Epidemics VI* 8.6).

The menses may also be cyclical. In fact, the same author explicitly refers to menstruation as a cycle (περίοδος) and further links the process to pregnancy by stating that the heaviness felt during the period is related to the pains felt during the eighth month of gestation (τὰ πρὸ τούτων βάρεια ἀδελφὰ τῶν ὀκταμήνων πόνων, *ibid*).²⁴⁴

In theory, at least, pains felt as a consequence of reproductive issues were thought to follow temporal patterns. In practice, however, it is unclear how the physician was supposed to identify these cycles. Only one case within the *Epidemics* records that a female patient's pains were cyclical. This case history records that a young girl who suffered from an acute and ardent fever,

²⁴⁴For Hippocratic views on the cyclicity of the menses, see Dean-Jones 1989, esp. 63 and 181.

presumably as the result of suppressed menarche,²⁴⁵ suffered pains “on the even days.”²⁴⁶

While this case history mentions that the *parthenos*’ pain occurs in cycles, the author makes no move to explain the significance of this event. As in most of the case histories, the phenomenon is merely recorded, with no explanation. In theory and practice, then, it seems that the precise nature of the cyclicity of female pain was of little interest. Rather, the authors of *Epidemics* and *Seven Months’ Child* all share in common a vague assumption that pain in women followed a pattern.

The pains associated with reproductive function – menstruation, childbirth, and the movement of the uterus – seem to have been considered a type of pain altogether different from those felt by other bodies in other afflictions.

The pains of birth would seem to be the primary type of female pain to which other female pains are compared or assimilated. On occasion, the “pangs” of labor are referred to by the term *ôdines* (*Diseases of Women I* 65 and 68), while on even more occasions a term for “pain” is employed. On two occasions, the pains of menstruation are likened to those of childbirth.²⁴⁷ Finally, we are told that sharp and strong pains suffered during an abundant flow fall upon the groin and move in the same way as birth pangs (φοιτεύουσαι ὥσπερ ὠδῖνες, *Diseases of*

²⁴⁵The author mentions that, in addition to suffering a nosebleed, the young woman commenced menarche once her fever dissipated. Cf. *Aphorisms* 5.33. See Dean-Jones 1994, 143-144 and King 1998, 68-74 for the connection between nosebleeds and menstruation.

²⁴⁶*Epidemics III* 3.17(12).

²⁴⁷In *Diseases of Women I* 2 we are told that a woman experiences the pains associated with the third month of pregnancy during her menstrual period; in *Epidemics II* 3.17, as noted above, p. 10, the heaviness felt during menstruation is said to be related to the pains felt during the eighth month of pregnancy

Women II 110.14-15). In all of these cases, the pains of childbirth are referred to as if the reader should both understand their nature and recognize their manifestation.

Pain in elderly or inexperienced women may still be equated with these special pains. We are told that an old woman (*graiê*) suffered from a disease known as white phlegm.²⁴⁸ After most of her symptoms disappeared, she then developed glaucoma. After a short-lived improvement in her glaucoma, pains "that appeared to be hysterical" appeared in her hip and leg.²⁴⁹ That these pains are described as "apparently hysterical" indicates some doubt on the author's part as to whether the uterus was truly to blame for the old woman's pains. Such doubt is likely a reflection of the notion that, beyond menopause, the uterus was not thought to play a role in women's diseases. What, then, compels the physician to identify these pains as potentially hysterical? The symptoms recorded in this case history seem to be linked to the internal flux of white phlegm – after the old woman's white phlegm stopped manifesting it presumably traveled to her eyes, hence the connection between the glaucoma's appearance and the white phlegm's disappearance. Similarly, the pains in her hip and leg commence when her glaucoma momentarily improves. Even though, by virtue of her age, this woman's uterus played little role in her body, the location of her pains (the hip in particular being one of the few places consistently marked for pain in women of reproductive age) coupled with the evidence that her condition is caused by a migratory overabundance of humor, perhaps

²⁴⁸On this disease, see Grmek 1989, 146.

²⁴⁹*Epidemics IV* 1.30.

prompted the author to suggest that the uterus may be to blame for her pain.

In one other case history female pains are identified in a woman who could have had no experience of the phenomenon (*Epidemics V* 1.25):

In Larissa, the female servant of Dyseridos, when she was young, had terrible pain whenever she had sex – otherwise she was without pain. She never conceived. When she was sixty years of age she began to have pain around the middle of the day, like she was in strong labor. From the middle of the day she ate many leeks, then the strongest pain ever seized her. She stood up and felt something rough in the mouth of her uterus. Then, after she fainted, another woman put her hand down there and squeezed out a rough stone as big as the whorl of a spindle. She was immediately healthy.

Ἐν Λαρίσσει, ἀμφίπολος Δυσήριδος, νέη ἐοῦσα, ὁκότε λαγνεύοιτο, περιωδύνειν ἰσχυρῶς, ἄλλως δὲ ἀνώδυνος ἦν. Ἐκύησε δὲ οὐδέποτε. Ἐξηκονταέτης δὲ γενομένη, ὠδυνᾶτο ἀπὸ μέσου ἡμέρης, ὡς ὠδίνουσα ἰσχυρῶς· πρὸ δὲ μέσου ἡμέρης αὕτη πράσα τρώγουσα πούλλα, ἐπειδὴ ὁδύνη αὐτὴν ἔλαβεν ἰσχυροτάτῃ τῶν πρόσθεν, ἀνασταῖσα ἐπέψασέ τινας τρηχέος ἐν τῷ στόματι τῆς μήτρης. Ἐπειτα, ἤδη λειποψυχούσης αὐτῆς, ἑτέρα γυνή, καθεῖσα τὴν χειρὰ, ἐξεπίεσε λίθον ὅσον σπόνδυλον ἀτράκτου, τρηχύν· καὶ ὑγιὴς τότε αὐτίκα καὶ ἔπειτα ἦν.

This woman, despite never experiencing the pain of childbirth (she never conceived a child) is said to have experienced a pain akin to strong labor when "delivering" a stone.²⁵⁰

That both of these women are recorded as experiencing a type of pain that is typically assigned to either a woman who is experiencing birth (*Epidemics V* 1.25), or one who is suffering from a displaced womb (*Epidemics IV* 1.30) when neither woman could have had experience with such a complaint speaks to the

²⁵⁰The analogy between the stone and an infant is easier to imagine when we consider *Diseases of Women I* 33. The author explains how pain is caused during a breech birth by using the metaphor of an olive pit in an oil flask. If one were to throw the pit into a small-mouthed flask, the pit, if transverse, would not easily come out of the opening. In a lateral or breech birth, then, the woman experiences a great deal of pain since the "olive pit" inside of her is not positioned in such a way as to easily come out of her "oil flask."

pervasiveness of the notion of “female” pain. In addition, that a woman need not have experienced such pains in order to be identified as experiencing them, suggests that these pains were identified by the physician, rather than recognized by the patient, a point to which I shall return in the next section.

In several ways, then, pain plays a different role in the diagnosis of disease in women than it does in other bodies. The location of pain – while a useful diagnostic sign for other patients to such a degree that diseases may even be defined by where pains occur – cedes ground to the location of the uterus as an etiological criterion for disease. The uterus may move around within the body, causing various types of diseases, but the pains it occasions are more restricted in location. On the other hand, pain takes on other dimensions in women. In bodies marked as “female,” the temporal dimension of pain displays cyclical tendencies. In addition, pain felt “when touched” becomes another symptom useful for diagnosis. Lastly, not only were reproductive women thought to suffer their own particular types of pains, but the notion of “female pain” was so pervasive that physicians thought they recognized it in women who, by definition, could not possibly have been experiencing such pains.

5.2 *The Meaning of Female Pain*

As I argued in Chapter Two, the role of pain in prognosis reflects the fact that all pain was not universally understood as having a negative value. Rather, in certain circumstances pain was thought of as a “good” sign. That a woman’s reproductive system was to blame for her illness has great repercussions for how

a woman's pain was understood. Pain in a woman is focused through the actions of the uterus, and hence the meaning of a woman's pain is influenced by the significance accorded to her reproductive functions. It should come as no surprise, then, that in many cases the meaning of a woman's pain, especially when connected to her positive role as life-giver, is portrayed as a boon.

The author of *Diseases of Women I* explains that the process of childbirth and lochia (post-natal bleeding) fundamentally alters the body of the woman.²⁵¹ This treatise begins with the statement that a woman who has never experienced birth suffers more both during birth and menstruation than a woman who has given birth previously. The author explains that the process of birth and the lochia transform the body. The woman's body is broken down at the level of the flesh, so that she is able to bear any later accumulations of moisture. Furthermore, the woman's body and womb become accustomed to being full. Because the process of birth also expands the woman's womb, it easier for her to "get rid" of her menses and she is thereby less likely to suffer from any blockages.

Taking this passage together with the statement from *Diseases I* 8 that a physician, should he attempt to treat a laboring woman's pains, may be blamed for her death, King has argued that Hippocratic physicians believed the pain of childbirth to be not only natural for a woman, but also necessary for her health.²⁵² In fact, pain was thought to be so integral to the process of birth, that the author of *Coan Prenotions* claims that it is dangerous for a woman to feel no pain while

²⁵¹*Diseases of Women I* 1.1-24. On this passage, see Dean-Jones 1994, 72 and King 1998, Ch. 6.

²⁵²King, 1998, Ch. 6 and 1999.

giving birth (Τὸ πρὸ τῶν τόκων ἐπιρρίγοῦν, καὶ τὰ ἀνωδύνως τικτόμενα, κινδυνώδεα , *Coan Prenotions* 527).²⁵³

The process of childbirth itself, then, was not only considered necessary for a woman's health, but also carried with it the promise of less pain in the future.²⁵⁴

In addition to these circumstances where the natural pain of the female reproductive process was expected to be salutary, in several other circumstances, the meaning of a woman's pain was thought to be positive. *Aphorisms* 5.53 states that if a pregnant woman's breasts become thin, she is likely to miscarry. If, however, her breasts become hard again, "she will suffer pain, either in the breasts or in the hip joints, eyes, or knees, and there is no miscarriage."²⁵⁵ In this case, pain felt in the hardened breasts is an indication of a return to health and a successful birth.

In other circumstances, a lack of pain in the mother may bode poorly for the fetus. *Superfetation* 11 warns that a fetus will be born dead – or will not survive for long – if the laboring mother experiences a copious flow of blood – *without pain* – before delivery. The prognosis for the child is entirely dependent on the state of the mother's body: a flux from her body presages the death of the fetus. It is only when this blood flow is painless, however, that it is of any significance. In this case, should the mother wish for her child to survive, it is a

²⁵³This passage also discussed above, Chapter Three. See Hanson 1999 for a discussion of this passage in relation to the expectation of pain in childbirth.

²⁵⁴On *less* pain as opposed to *no* pain, see Dean-Jones 1994, 126: "[a]lthough the use of the comparative adverbs (χαλεπώτερον, θᾶσσον) to describe the suffering of a childless woman shows that giving birth did not guarantee absolutely pain-free menstruation, motherhood was generally viewed as the ultimate solution to women's problems, and easing normal menstruation was no exception."

²⁵⁵Cf. *Aphorisms* 5.37 and 5.52.

better sign for her to feel pain during such a flux.

In addition to signifying a successful birth, pain may also indicate conception. If after a suppository a woman suffers pains in her joints, among other symptoms, she has a greater hope of conceiving than women who do not respond to the suppository.²⁵⁶ It was thought that the most difficult women in which to compel pregnancy were those whose menses disappear without any effect on their complexion, or without any pain. However, if a woman's menses disappear, she says that she has headaches and, in addition, has a poor complexion for no obvious reason, the woman's uterus must be cleaned in order to restore, it is implied, her fertility.²⁵⁷ In all of these cases, then, pain offers women confirmation of fertility.

Under many circumstances, then, a woman's pain signals a positive outcome. The pain of childbirth carries with it the promise not only of health, but also of less painful menstruation and easier subsequent births. In other situations, pain indicates a positive outcome for a woman's reproductive function in that it can signify conception or successful pregnancy. A Hippocratic patient likely understood her pain as part of a normal, natural, even occasionally beneficial, process and, as these examples show, there even must have been situations in which a woman was relieved to experience pain. The contextualization and meaning of pain has a profound effect on how one experiences the phenomenon.²⁵⁸ In addition, studies have shown that a woman's

²⁵⁶*Barrenness (Diseases of Women III)* 214.6-9, cf. *Superfetation* 20.

²⁵⁷*Prorrhetic II* 24.

²⁵⁸See, e.g. McGrath 1994 and Melzack and Wall 2008 for an overview of the psychological factors in pain perception.

experience of pain in childbirth is mediated through cultural assumptions about the process.²⁵⁹ In all likelihood, then, these assumptions about the role of pain in women's health would have shaped a woman's very experience of pain in these circumstances.

6. *The Communication of Pain in Marked Bodies*

6.1 *Communication of Children's Pain*

As we saw in Chapter Three, Hippocratic physicians occasionally utilized patient's physical cues as a measure of the intensity of their pain. At the same time, however, physicians were hesitant to "diagnose" pain on the basis of physical behavior alone; whenever possible, physicians preferred to receive a report (verbal or not) from a lucid patient rather than rely on their own observations to deduce the presence of pain.

Two case studies in the *Epidemics* concern children, *paidia*, who are infants. *Epidemics VII* 1.106 describes the case of a two month old infant who suffered from pustules all over his body and subsequently died. While this passage is evidence that infants were treated by Hippocratic physicians, it contains little evidence of a concern with – or acknowledgement of – the perceptions or sensibilities of the child.

The other passage from *Epidemics*, however, indicates an interest in the pains of the infant that parallels the presentation of pain in adult cases (*Epidemics VII* 1.52):

²⁵⁹See, e.g. McLachlan and Waldenstrom 2005.

The infant son²⁶⁰ of Hegesipolis had, for nearly four months, a gnawing pain by the navel. As time passed, the pain intensified, he beat on his belly, plucked at it. Fever seized him. He wasted away. The bones were seized. His feet swelled; testicles. The parts of the belly around the navel formed a loose-textured stalk of material that was going to make a disturbance in the bowel. He did not want food. He would take milk. The end was near. The bowel became watery, and bloody serous matter came out, foul-smelling. The intestine was inflamed. He died after vomiting a small short phlegmy object that seemed like the embryo of the flatworm. On his death the suture of his skull became very hollow. While he was sick he kept drawing down with the hand from the front of his head, especially as the end was imminent, but he had no pain in the head. And on the left thigh underneath the lower gland, a livid area. The testicles lost their swelling, perhaps on the previous day. Similar symptoms occurred for the child of Hegetorides, which died. Except that more vomiting occurred towards the end.²⁶¹

Ἡγησιπόλιος παιδίον σχεδὸν τέσσαρας μῆνας ἄλγημα περὶ ὀμφαλὸν βρωτικὸν εἶχεν· προϊόντος δὲ, ἐπέτεινεν ἡ ὀδύνη, ἔκοπτε τὴν γαστέρα, ἐτίλλετο, θέρμαι ἐπελάμβανον· ἐτήκετο· ὅστέα ἐλείφθη· τὰ πόδια ἐπῶδει, ὄρχιες γαστρὸς τὸ περὶ ὀμφαλὸν πεφουσημένον ἄρα, οἶον οἷσι μέλλουσι κοιλίαι ἐκταράσσεσθαι· ἀπόσιτος ἐγένετο, γάλα μούνον προσεδέχετο· ὑπόγυον, καὶ ἡ κοιλίη καθυγράνθη, καὶ ὕφαιμος ἰχώρ ὑπῆει κάκοδος· κοιλίη ἐπίμπρατο. Ἐτελεύτησεν ἐμέσας μικρὸν, βραχὺ, φλεγματώδης, ὥστε δόξαι οἶον γονὴν τῆς πλατείας. Τελευτήσαντι δ' ἡ ῥαφή τῆς κεφαλῆς σφόδρα ἐκοιλάνθη· ἀρρώστων δ' αἰεὶ τῇ χειρὶ κατῆγε κατὰ τοῦ βρέγματος, μάλιστα δ' ὑπόγυον, οὐκ ἤλγει δὲ τὴν κεφαλὴν· καὶ ἐν μηρῷ ἀριστερῷ ὑπὸ βουβῶνα τὸ κάτω, πελιδνόν· ἴσως τῇ προτεραίῃ ὄρχιες κατισχνάνθησαν. Ὅμοια δὲ καὶ τῷ Ἡγητορίδεω παιδίῳ ἀπέβη, πλὴν ὅτι ἔμετοι προσεγένοντο ὑπὸ τὴν τελευτὴν πλείους.

The presentation of pain in this case study conforms with that found throughout the *Epidemics*: the infant's complaint initially is pain – and a particular type of pain at that: a “gnawing” pain in his belly. This pain is specified in several ways: by the term used for the pain (ἄλγημα), in terms of quality (βρωτικὸν), and in terms of location (περὶ ὀμφαλὸν). We are then told that this pain increased in

²⁶⁰Smith, *per litteras*: “the suggestion of the hollowing of the fontanelle on his head, which could be from dehydration, is still persuasive to me that the child is in his first or second year.”

²⁶¹Tr. Smith.

intensity and later that he did *not* feel pain in his head.²⁶²

So far, then, this case study is quite "normal" when it comes to how pain is typically recorded in individual case studies. Yet this very fact – that in terms of recorded symptoms this case could just as easily describe the course of the same disease in an adult – is surprising. How exactly does the physician know that the infant is suffering from such a particular or precise pain? How does he know that this pain intensifies? Or that the infant does *not* feel pain in his head?

Here it helps to examine the atypical aspects of this case study: the inclusion of detailed descriptions of the infant's behavior. He is described as plucking at and beating his belly as well as his head. Presumably it was actions such as these, as well as, perhaps, vocalization such as crying, that led the physician to assume that the infant was in pain and that the pain was localized to his belly.

That the physician would have relied on such non-verbal behavioral clues in the process of "translating" the infant's felt experience into the description found in this case study accounts for much of how the child's pain is described. Certainly by beating at his stomach, the infant indicated pain in that region, while an increase in the intensity of such behavior could have reasonably corresponded to an increase in the intensity of his pain. But what of the fact that we are told that the pain was "gnawing"? And what especially of the fact that – in spite of the infant's gesturing in the area of his head – we are told that he did *not* feel pain in his head? It is certainly possible that the child possessed enough language ability to communicate that, despite his gestures, his head was not in

²⁶²On the dimensions of pain, see above, Chapter Three.

pain. We should not discount the possibility, however, that the physician assumed the child's head was not in pain after comparison with the symptoms of the child of Hegetorides. We do not know the specific disease this infant was supposed to have suffered and, thus, cannot investigate whether the nosology of his disease allowed for the possibility of head pain.

Several case studies highlight emotional and obstinate behavior in children in pain. For example, a boy in *Epidemics IV* who suffered from a hemorrhage, constipation, and a painful and hard hypochondrium is recorded as tossing about and crying out loudly,²⁶³ while the author of *Epidemics VII* compiles cases where children who suffer bone damage cry out loudly, *klangodes*.²⁶⁴ In this latter instance the author is clearly in the process of categorizing the symptoms children experience when suffering from head wounds. While not all children cry out shrilly as a result of this condition, the author still feels the need to record that in many cases children will exhibit this behavior.

In all of these examples, the behavior of children is considered meaningful and relevant to the case study, and is included among the child's symptoms. These responses to pain seem to be taken as evidence for the location and intensity of pain in a way that similar behavior from adults is not. That the behavior of children could be taken as evidence for pain explains why the author of *Epidemics VII* feels compelled to explain that the infant discussed above did not feel pain in his head, despite his continuous gesturing at that area.

Despite these behavioral clues that a physician could rely upon in

²⁶³*Epidemics IV* 1.20.7-11.

²⁶⁴*Epidemics VII* 35; cf. *Epidemics V* 97.

assessing a child's symptoms, however, there is some indication that the verbal reports of children were nevertheless considered unreliable. The author of *Epidemics VII* relates the case of a child who suffered from a small fistula in his naval. The author says that the child "claimed" that bilious matter exited the fistula whenever he was feverish.²⁶⁵ Rather than simply relate this symptom, the author casts some doubt on the claim by framing the report with the distancing *ephê*, "he said."

The author of *Prorrhetic II* goes one step further in his mistrust of children's ability to relate accurately their symptoms. He relates a variety of symptoms that, if present, indicate that a child has suffered epileptic attacks in the past. The author claims that, if one should suspect that a child has suffered epileptic attacks in the past, the child's caretaker (*trephontos*) will, if prompted, confirm that the child has suffered one or more of the symptoms. However, the author warns, many caretakers will say that they haven't noticed any of the tell-tale signs.²⁶⁶ What does it say about the mistrust this author has in a child's ability to read accurately the signs within his own body that the author would instead choose to rely on the report of those who, he admits, often will disavow precise knowledge of the child's experience?

The author of the *Sacred Disease* believes that children are neither experienced enough to understand what is happening to their bodies nor acculturated enough to hide their reaction, and as a result, grow fearful during seizures. The author of *Sacred Disease* connects epileptic children's propensity to

²⁶⁵*Epidemics VII* 1.117.

²⁶⁶*Prorrhetic II* 10.

run to their mother's out of fear during a seizure with the child's lack of shame

(*Sacred Disease* 12):

Those who are accustomed to the disease sense when they are going to have a fit and so flee from human sight – to home if their own house is near, but if not, to some empty place, where the fewest will witness them falling, and straightway they conceal themselves. They run away because they are ashamed, not because they are fearful, as many assume. But children, when they are first attacked, because of their inexperience with the symptoms of the disease, fall down wherever they happen to be. However, once they have had experience with multiple epileptic fits, whenever they sense an attack coming on they grow fearful and frightened of the symptoms of the attack and so flee to their mothers, or to anyone else they know well. For, owing to their young age, they have not yet learned to have shame.

Ὅκοσοι δὲ ἤδη ἐθάδες εἰσὶ τῇ νούσῳ, προγινώσκουσιν ὁκόταν μέλλωσι λήψεσθαι, καὶ φεύγουσιν ἐκ τῶν ἀνθρώπων, ἢν μὲν ἐγγὺς αὐτῶν ὁ οἶκος ᾔη, οἴκαδε, ἢν δὲ μὴ, ἐς τὸ ἐρημότατον, ὅπῃ μέλλουσιν ὄψεσθαι αὐτὸν ἐλάχιστοι πεσόντα, εὐθύς τε ἐγκαλύπτεται· τοῦτο δὲ ποιεῖ ὑπὸ αἰσχύνῃς τοῦ πάθεος καὶ οὐχ ὑπὸ φόβου, ὡς οἱ πολλοὶ νομίζουσι, τοῦ δαιμονίου. Τὰ δὲ παιδάρια τὸ μὲν πρῶτον πίπτουσιν ὅπῃ ἂν τύχωσιν ὑπὸ ἀηθίης· ὅταν δὲ πλεονάκεις κατάληπτοι γένωνται, ἐπειδὴν προαίσθωνται, φεύγουσι παρὰ τὰς μητέρας ἢ παρὰ ἄλλον ὄντινα μάλιστα γινώσκουσιν, ὑπὸ δέους καὶ φόβου τῆς πάθης· τὸ γὰρ αἰσχύνεσθαι παῖδες ὄντες οὐπω γινώσκουσιν.

That the child's behavior is thought to be because of shamelessness suggests that the Hippocratic's propensity to record the behavior of children was linked to the idea that children had not simply learned yet how to control their reactions to pain. In other words, children were reacting outside of social norms, *not* in response to pain that they "felt more" than adults. If this is true, the reaction of children to pain may be one of the few places where Hippocratics were prepared to acknowledge the subjectivity of pain *expression* (if not experience). A similar assumption seems to underlie the passage from *Prorrhetic II*: children are

considered to be illiterate when it comes to understanding or communicating pain, or any of the symptoms, within their bodies.

6.2 Communication of Female Pain

Pain in female bodies, being mediated through reproductive function, loses some significance as a diagnostic sign, while its tendency to indicate a positive prognosis increases. Both the diagnostic and the prognostic functions of female pain affected physicians' views on the woman's ability to interpret or translate her pain. The positive value attached to pain, in particular its tendency to signify conception, is likely to blame for the attitude that women can be deceived by pain. Furthermore, the process whereby the female patient communicated pain to the physician may have been affected by the assumption of the location of pain in women's diseases. In fact, it is likely that a combination of mistrust in women's ability to interpret their pain, and the notion that women were hesitant to share their troubles with male physicians, may underlie the presentation of pain in diagnosis.

King has argued that women's bodies, and women's interpretations of the signs in their bodies, are both deceitful from the perspective of the Hippocratic physician. In complaints of a gynecological nature, women's ability to accurately access the state of their body is dependent on their experience. While women who have experience in female conditions (especially pregnancy) are trusted, those who are inexperienced are represented as not knowing what happens in

their body.²⁶⁷ This mistrust of the patient stems from the fact that the physician is “one stage further away from the reality of the disease” (p. 45) and must rely on his own abilities to perceive what is happening in the patient's body.

All of the situations King adduces focus on how the physician, not the patient, can be deceived by the patient's body. What of the woman's ability to be deceived by her own body? Take, for example, the statement at *Fleshes* 19 that women who have experience quite easily recognize the symptoms of pregnancy: a sudden chill, followed by heat, shivering, and tension, as well as a sluggish feeling in her joints, body, and uterus. So far, this statement supports the argument that a woman can overcome the disadvantages of having a deceptive body once she has experience of that body's processes. The passage continues, however, by stating that only women who are “in a clean state” and not humid experience these symptoms, but that many of those who are stout or phlegmatic are not able to recognize what happens in their body. That the state of a woman's body had such influence over her ability to recognize, or even perceive, what happens inside of her seems to directly contradict the idea that experience “teaches” a woman how to interpret the signs in her body. The idea that experience is necessary for proper reading of signs presupposes that the signs are present in the woman to begin with. A woman's inexperience, then, lies in her misreading of signs that present themselves, rather than in her inaccurate sensation of them. By contrast, the idea that the condition of a woman's body may prevent her from even “seeing” the signs at all leaves little room for the operation of experience. Taking the evidence from *On Fleshes*, then, it is entirely

²⁶⁷Cf. King 1998, 53. See also Demand 1995.

possible for a woman who, despite having had experience of, in this case, pregnancy, to nevertheless be constitutionally incapable of experiencing symptoms altogether.

Even if she is sensible to pain, a woman may still inaccurately read the significance of her pain.²⁶⁸ Many women, we are told, misinterpret pain during sex as a positive sign. The author of *Diseases of Women I* 3 says that when a woman's menses fail to appear, the woman supposes that she is pregnant and that when she feels pain during intercourse, she supposes that something is inside of her. The author of *Prorrhetic* says that women are deceived into thinking they are pregnant when their menses disappear and their abdomens swell. These women, however, do not produce milk or, if they do, produce only a small amount, and, what is more, suffer pain in their head, neck and hypochondrium. Women who are pregnant, on the other hand, produce milk and do not suffer such pains, unless they were habitual.²⁶⁹ In all of these situations, the woman has felt a pain and subsequently misinterpreted its meaning.

There is also evidence that women were not trusted to communicate their pain. On several occasions, an author distances himself from acknowledging the reality of a woman's pains (among other symptoms) by saying that the female patient "says" that she has pain.²⁷⁰ While such a strategy may merely indicate that the woman communicated her symptoms to the physician, as a man would,²⁷¹ I suspect that more is at play. After all, if we were to expect the physician to frame

²⁶⁸As may men. Cf. *Diseases I* 20: patients can be deceived by moving pains into supposing that their ulcer has (also) moved.

²⁶⁹*Prorrhetic II* 26.

²⁷⁰*Epidemics VII* 1.11, *Prorrhetic II* 24.

²⁷¹Cf. King 1998, 47: "like men, women can tell the doctor how their bodies feel."

every symptom felt by the patient with “he said” or “she said,” we would find many more examples of this technique in the case histories. As it is, case histories often contain information that must have been said by the patient, yet merely list such symptoms as fact.

On other occasions it is clear that the women are expected to report pain after careful interrogation. It is necessary to learn by inquiry (πυνθάνεσθαι δὲ χρή, *Prorrhetic II* 24.7) about a woman's menses if she is unable to become pregnant. Women who are of a greenish complexion for no reason will “say they have headaches and that their menses are difficult, irregular, and scanty” (αὐταὶ φήσουσι κεφαλὴν ἀλγέειν, καὶ τὰ καταμήνια πονηρῶς τε σφίσι καὶ ἀκρίτως γίνεσθαι, *Prorrhetic II* 24.17-18). One may diagnose that a woman's uterus has turned towards the head if the woman says that she has pain in the small vessels of her nose and eyes.²⁷² After administering a clyster to a woman suffering from flux, it may be necessary to treat her again if, after being questioned, she says that the mouth of her uterus is hard and she has pain (ἦν μετὰ ταῦτα αὐτὴ ἐρωτηθεῖσα φηὶ τὸ στόμα τῶν ὑστερέων σκληρὸν εἶναι καὶ ὀδύνην ἔχειν, *Diseases of Women II* 119.30-31). It is clear that, in these cases, the question put to these women was not, e.g., “What do you feel?” or “Where does it hurt?” but must have been much more pointed. Women suffering from chronic fluxes were subjected to extremely leading questioning. The physician is instructed to ask such patients whether they have pain in their head, loins and lower belly, and then to ask if their teeth are on edge, their vision is blurred and their ears are ringing (Τὰς δὲ ὑπὸ τῶν ῥόων

²⁷²*Nature of Woman* 48, *Diseases of Women II* 123.

τῶν πολυχρονίων ἐχομένας ἐρωτᾶν, εἰ κεφαλὴν ἀλγέουσι καὶ ὀσφὺν καὶ τὸ κάτω τῆς γαστροῦ· ἐρέσθαι δὲ καὶ περὶ αἰμωδίας, καὶ ἀμβλυωμοῦ, καὶ ἥχων, *Prorrhetic II* 27).

We can see evidence of such interrogation in a case history from *Epidemics*. A woman suffering from fever and pains in her head, upon arising, is reported to have said that her heart was weakening. After a few days, she was prompted via questioning to say that her entire body, and not just her head, was in pain (μετὰ τὰς πρώτας ἡμέρας, ἐρωτωμένη, οὐκ ἔτι μόνην κεφαλὴν, ἀλλὰ καὶ ὅλον τὸ σῶμα πονέειν ἔφη, *Epidemics VII* 11.5-6).

By highlighting this evidence for the interrogation of female patients, I do not mean to suggest that male patients were not similarly led on by the physician. In fact, as I argued in Chapter Three, such leading questioning was probably standard. What is unusual, however, is the emphasis placed on the interrogation of women, and the framing of female utterances with the distancing “she said.”

The extra emphasis on the interrogation of women may stem from the belief that women were reluctant to communicate with male physicians. In particular, it was thought that women were often too embarrassed to discuss their conditions with male physicians.²⁷³ The practice of mistrusting a woman's unprompted vocalizations of pain, or prompting a shy woman to communicate her pain, may or may not have been supported by generalizations about female behavior. At any rate, the process whereby pain was communicated from female patient to male physician nevertheless created a situation where apparent pain

²⁷³*Diseases of Women I* 62. Cf. King 1998, 47.

would accord most easily with expected pain.

Such practices may especially have been reflected in (or may have reflected) the limited location of pain in the diagnosis of disease in women. How is it that women, even when suffering from epidemic diseases, were not just thought, but also observed to have, their own set of symptoms? Pain is especially vulnerable to the influence of cultural assumption.²⁷⁴ Physicians' propensity to tell a woman where she was feeling pain by prompting her with pointed questions assured that the assumptions about pain in women, especially its location, were reflected in practice.

7. Conclusion

The material etiology of pain was so entrenched in Hippocratic doctrine that the process of birth, being emblematic of change, was assumed to cause pain in the neonate. At the same time, however, when faced with an expressive infant or child, it seems Hippocratic physicians found themselves conflicted: to what extent could they trust in the authenticity of children's nonverbal pain cues? Assessing pain in a child thus seems to have pushed at the limits of Hippocratic trust in the objectivity of the pain experience, at least when it comes to reporting such pain, while the child's observable behavior becomes both an indication that a child is in pain and a manifestation of childish *inexperience*.

Female pain is another topic where Hippocratic theory runs against social assumptions, although in this case, the assumptions win out. The reduction of the locus and operation of female health and disease to the reproductive system

²⁷⁴See above, Chapter One.

transforms pain from a productive symbol of disease to a – routinely salutary – byproduct of necessary change. At the same time we can see how extensively the assumed purpose of medicine affects the role of pain. In contrast to the attitude of both physicians and patients towards the role of medicine in alleviating pain that I highlighted in the Introduction, gynecological medicine was concerned with the conception and birth of children.

Female pain was often, then, figured as an incidental reaction to the *real* issue of misdirected menses, misbehaving womb, or inherently painful childbirth. I do not mean to suggest that women were thought to suffer less pains than others; rather, the significance of female pain shifts from the physician's purview to the patient's.

In fact, a typical Hippocratic physician, if asked, might assert that female bodies experience more pain than others. Women, after all, were thought to feel less intense, but nevertheless longer, pleasure during orgasm than men, while men enjoy a higher intensity of pleasure owing to the swiftness and violence of their ejaculation.²⁷⁵ Is it possible that a similar schema was thought to underlie pain in men and women? That is, was the female body both more disposed to experience pain and less susceptible to the most intense pains?

The author of *Places in Man* claims that those parts of the body that are dry are more likely to become ill and to suffer more (*Places in Man* 1.3-8):

[D]iseases arise from the whole body indifferently, although the drier component of the body is disposed to become ill and to suffer more, the moist component less. For whereas any disease that occupies a dry part is fixed and unremitting, one in a moist part

²⁷⁵*Nature of the Child/Generation 4.*

flows somewhere else and generally occupies different parts of the body at different times; through constantly changing, it has interruptions and goes away sooner, and so it is not fixed.²⁷⁶

τῶν νοσημάτων ἀπὸ παντὸς ὁμοίως τοῦ σώματος τὸ μὲν ξηρότερον, πεφυκὸς νόσους λάξεσθαι καὶ μᾶλλον πονέειν, τὸ δὲ ὑγρὸν ἥσσον· τὸ μὲν γὰρ ἐν τῷ ξηρῷ νόσημα πηγνυταί τε καὶ οὐ διαπαύει, τὸ δ' ἐν τῷ ὑγρῷ διαρρέει, καὶ τοῦ σώματος ἄλλοτε ἄλλο μάλιστα ἔχει, καὶ αἰεὶ μεταλλάσσει ἀνάπαισιν ποιεῖ, καὶ θᾶσσον παύεται, ὥστε οὐ πεπηγός.

Following this line of argument, then, a body that contains within it more dry areas will, when affected in these parts, suffer greater, more continual, and longer-lasting pain.

Men's flesh, in contrast to women's and, as we have seen, the elderly, was dense and compact and the areas of the body that are not so – the glands – are small. The male body does not draw moisture to itself as the woman's does, owing to both the texture of his flesh and the exercise that it undergoes.²⁷⁷ On the other hand, women, in particular those who have not experienced childbirth, suffer as a result of their looser, softer flesh. Because of its spongy nature the flesh of the female body draws excess moisture to itself that must be purged (via menstruation in a healthy woman). The looser and softer her flesh, and the broader her internal passages, the less her pain during menstruation, childbirth, and lochia.²⁷⁸

While a woman, then, is more easily overloaded with excess humor, owing to her regimen and the texture of her flesh, the natural processes of her body are nevertheless well equipped to dispatch of such excess humor in a way

²⁷⁶Tr. Potter.

²⁷⁷*Glands* 16.

²⁷⁸*Diseases of Women* I 1.

that decreases her pain: menstruation, childbirth and lochia all ameliorate future pain. Men's bodies, on the other hand, are neither disposed towards creating and drawing excess blood, nor are they, however, equipped to dispose of excess humor when it arises in disease (or, more properly, when it *is* disease).

Women are more liable to pain than men, while men, when they *are* in pain, suffer from greater pains than women.

I have shown how the pain experienced in a "marked" body was analyzed and understood in the context of the patient's age or sex; pain was explained, treated and situated within the context of "young," "old," or "female," before or instead of contextualizing the phenomenon according to other criteria, such as environment, regimen, or constitution. Just as the unmarked (i.e. adult male) body, may have been susceptible to more severe and stubborn pains, so too did the owner of such a body enjoy a greater variety of contexts in which to impart meaning to pain.

In many respects, the adult male is the least "visible" category of body in the Hippocratic Corpus. After all, women have entire treatises devoted to their peculiar diseases. *Parthenoi*, as well, have their own tract, while infants and children are accorded special prominence in many treatises (not to mention *Seven and Eight Months' Child*). Yet there are no "men's diseases."²⁷⁹ When the bodies of men *are* discussed explicitly, it is generally as a corollary to a more in depth explication of women's bodies. In other cases, it is difficult to distinguish "male" qualities from *human* qualities. The adult male body, in other words, was the

²⁷⁹Despite the tongue-in-cheek comment of the author of *Diseases of Women I* that physicians often make mistakes when treating women under the assumption that they are suffering from the "diseases of men." On the statement, see Manuli 1983, 186 and Hanson 1989, 38.

"norm" and, as such, received very little attention in its own right. On the surface, then, it is difficult to add much more to the picture of "adult male pain" that has not been discussed in previous chapters. However, it is possible to gain a more individualized view of the adult male's experience of pain by taking into consideration the great number factors that could mark a male body. In fact, the pain of a "normal" male was more likely to have been understood in the context of a large variety of factors, including not just the season, district, and constitution that so many Hippocratic authors claim as significant, but also socio-economic or foreign status, regimen, complexion, and even baldness.²⁸⁰

While generalized statements about the human body could conceivably refer to both men and women, on several occasions such generalized statements are clearly in reference to males alone. For example, the author of *Airs, Waters, Places* states that a dry season, while harmful to the bilious is beneficial for those who are phlegmatic, humid, or women.²⁸¹ In this case, because all women are thought to be wet, regardless of constitution, the entire sex is treated as a monolithic category. Men, on the other hand, can be further individualized within their category. Their bodies can be humid, phlegmatic, or bilious, with varying results. This statement about the effects of a dry season on the humid, phlegmatic, and bilious, we must conclude, refers only to men.²⁸²

That authors go out of their way to indicate when both men and women should be understood as the subject of such statements, furthermore, highlights

²⁸⁰However, for the notion that the constitutions of the *Epidemics* consider both male and female bodies under the rubric of environmental factors, see Hanson 1989, esp. 39: "Being women is a less unifying factor in the etiology and nosology than is climatic exposure."

²⁸¹*Airs, Waters, Places* 10.60-70.

²⁸²This attitude of "all women, some men" is also to be found at, e.g., *Airs, Waters, Places* 10.16-44.

how most of “general” medicine is really just “adult male” medicine.²⁸³

Furthermore, the inverse (statements that don’t specifically include women) also reinforce this conclusion: e.g. those with moist noses and semen are said to be healthy.²⁸⁴

Thus, there is plenty of evidence to support the supposition that female bodies may not have been specified beyond sex. For example, Hippocratic physicians rarely take enslaved status into account when treating women: the fact that a woman’s body was female was enough explanation for her pain and disease).²⁸⁵ On the other hand, there is every reason to assume that men – by virtue of possessing unmarked bodies – were thought to be subject to the full array of variables that affect the body in health and disease. So, while a woman’s reproductive function – parturition and menstruation – may have provided physicians with an additional means of “seeing” inside her body, her pains and sufferings were analyzed in the broader context of “female.” Men may have lacked these additional comparanda, but they gained, as we have seen, more opportunities for individualized contextualization of their sufferings.²⁸⁶

²⁸³I.e. *Epidemics* VI 4.11: “those who always ate beans, men and women; and *Prorrhetic* II 31: “those with a poor complexion ... both men and women.”

²⁸⁴*Epidemics* VI 6.8. See also *Epidemics* III 3.14, *Aphorisms* 3.14, 3.11. and *Regimen in Acute Diseases* (Appendix) 9.27-33.

²⁸⁵Demand 1998 has proven quite effectively that, unlike what is to be found in Aristotle, the Hippocratics did not distinguish between “enslaved” and “not-enslaved” so much as they distinguished between “male” and “female.” McKeown 2002 follows Demand on the whole, although he adduces evidence that the Hippocratics were aware of the “occupational hazards” of slavery.

²⁸⁶However, see *Epidemics* VI 6.8, discussed above, for evidence that semen, too, could function as a marker of health and disease as much as menses. In addition, it is not the case that women were incapable of being considered, e.g. phlegmatic. *Barrenness* (*Diseases of Women* III) 226, *Diseases of Women* I 9, 18, 26, 29, 82, *Diseases of Women* II 134 and *Nature of Woman* 22 and 33 all reference bilious or phlegmatic women. However, both *Nature of Woman* 106 and *Diseases of Women* I 8.3 instruct the physician to determine whether a woman’s menses are bilious or phlegmatic, while *Nature of the Child/Generation* 55 mentions a phlegmatic uterus. This suggests that even when a

Male pain was both useful to the physician as a meaningful symptom of disease and, when contextualized, understood within a greater variety of circumstances. "Marked" pain, on the other hand, was not as relevant to the physician: female pain loses semiotic currency while at the same time gaining more meaning for the patient; geriatric pain is both less likely and less treatable; the pain of the child must be assumed, but can it be trusted?

woman's body may have been particularized, this particularization may have only focused on the "sexed" elements of her body.

AFTERWORD

This dissertation has made two broad claims: first, that Hippocratic pain was unwaveringly material and objective and, secondly, that the clash between this theory of objective pain and the actual inherent subjectivity of the pain experience prevented any kind of tidy categorization or taxonomy of pain, despite Hippocratic impulses in that direction.

Thus, we have seen the material etiology of pain engender a productive semiotic system (Chapter Two) and we have witnessed how the obstinate belief in the objectivity of the pain mechanism results in both material explanations for different pain experiences and the odd notions of *de facto* fetal pain, mild or nonexistent geriatric pain, and salubrious female pain (Chapter Four).

At the same time, however, the Hippocratics are both inconsistent in their definition of the relationship between pain and peccant material (Chapter One) or between pain and disease (Chapter Two), and frustratingly labile when it comes to the meaning or value of the dimensions of pain they insist are relevant (Chapter Three). Furthermore, there is the distinct possibility that the theoretical insistence on the objectivity of pain went to pieces in the face of practical consideration of bodily variation (Chapter Four). Hippocratic pain may have been objective, but, tied as the phenomenon was to material imbalance, if every human body was assumed to be composed of an idiosyncratic mixture of constituents, it follows that *everyone's* pain was different.

The only reality of pain that obtains in all cultures is its inconsistency: pain

actually is subjective. The history of pain could very well be rewritten as the struggle to come to terms, consciously or not, with this fact. Furthermore, that modern medicine now acknowledges the subjectivity of pain does not mean that it has “solved” the problem of pain. Physicians, after all, still find the symptom of pain to be too useful to ignore, despite the fact that pain assessment tools are far from perfect.²⁸⁷ In highlighting the limitations of the Hippocratic approach to pain, then, I do not mean to suggest that Hippocratic pain “failed,” so much as to celebrate that, inasmuch as all medical attempts to make sense of pain are uniquely deficient, Hippocratic pain was “wrong” in particularly interesting ways – ways that both arose from and then reinforced the very foundations of Hippocratic theory.

²⁸⁷Reviews of pain assessment tools include Duhn and Medves 2004, Williamson and Hoggart 2005, and Zwakhlen et al. 2006.

BIBLIOGRAPHY

- Brody, H. and D.B. Waters, "Diagnosis is treatment," *Journal of Family Practice* 10.3 (1980), 445-449.
- Byl, S., "Le traitement de la douleur dans le *Corpus hippocratique*," in: López Férez 1992, 203-213.
- Coghill, R.C., McHaffie, J.G. and Y.-F. Yen, "Neural Correlates of Interindividual Differences in the Subjective Experience of Pain," *Proceedings of the National Academy of Sciences of the United States of America* 100.14 (2003), 8538-8542.
- Conrad, R., Schilling, G., Bausch, C., Nadstawek, J., Wartenberg, H.C., Wegener, I., Geiser, F., Imbierowicz, K. and R. Liedtke, "Temperament and character personality profiles and personality disorders in chronic pain patients," *Pain* 133 (2007), 197-209.
- Defrin, R., Shramm, L. and I. Eli, "Gender role expectations of pain is associated with pain tolerance limit but not with pain threshold," *Pain* 145 (2009), 230-236.
- Dean-Jones, L., "Menstrual Bleeding according to the Hippocratics and Aristotle," *Transactions of the American Philological Association* 119 (1989), 177-191.
- Dean-Jones, L., *Women's bodies in classical Greek science*. Oxford, 1994.
- Demand, N., *Birth, Death, and Motherhood in Classical Greece*. Baltimore, 1994.
- Demand, N., "Monuments, midwives and gynecology," *Clio Medica* 27 (1995), 275-290.
- Demand, N., "Women and Slaves as Hippocratic Patients," in: Joshel S.R. and S. Murnaghan, eds., *Women and Slaves in Greco-Roman Culture: Differential Equations*. London, New York, 1998, 70-85.
- Demand, N., "Did the Greeks believe in the efficacy of Hippocratic treatment – and, if so, why?" in: Garofalo et al. 1999, 139-148.
- Descartes, R., *Traite de l'homme*. Leiden, 1664.
- Diller, A., "Cross-cultural Pain Semantics," *Pain* 9 (1980), 9-26.
- Duhn, L.J. and J.M. Medves, "A Systematic Integrative Review of Infant Pain

- Assessment Tools," *Advances in Neonatal Care* 4.3 (2004), 126-140.
- Edelstein, L., "Hippocratic Prognosis," in: Temkin, O. and C.L. Temkin, eds., *Ancient Medicine: Selected Papers of Ludwig Edelstein*. Tr. C.L. Temkin. Baltimore, 1967, 65-85.
- Fasbender, H., *Entwickelungslehre, Geburtshülfe, und Gynäkologie in den hippokratischen Schriften*. Stuttgart, 1897.
- Fausti, D., "Malattia e normalità. Il medico ippocratico e l'inferenza dei segni non verbali," in: Thivel, A. and A. Zucker, eds., *Le Normal et le pathologique dans la collection hippocratique. Actes du Xème Colloque international hippocratique, Nice, 6-8 Octobre 1999*. Nice, 2002, 229-244.
- Garofalo, I., Lami, A., Manetti, D. and A. Roselli, eds., *Aspetti della terapia nel "Corpus Hippocraticum": atti del IX° Colloquio internazionale hippocratique, Pisa, 25-29 settembre 1996*. Florence, 1999.
- Gomperz, T., *Die Apologie der Heilkunst*, 2nd ed. Leipzig, 1910.
- Greenspan, J.D., Craft, R.M., LeResche, L., Arendt-Nielsen, L., Berkley, K.J., Fillingim, R.B., Gold, M.S., Holdcroft, A., Lautenbacher, S., Mayer, E.A., Mogil, J.S., Murphy, A.Z., Traub, R.J., and the Consensus Working Group of the Sex, Gender, and Pain SIG of the IASP, "Studying sex and gender differences in pain and analgesia: A consensus report," *Pain* 132 (2007), S26-S45.
- Grmek, M.D., *Diseases in the ancient Greek world*. Baltimore, 1989.
- Gundert, B., "Parts and Their Roles in Hippocratic Medicine," *Isis* 83.3 (1992), 453-465.
- Halperin, D.M., Winkler, J.J. and F.I. Zeitlin, eds., *Before Sexuality: The Construction of Erotic Experience in the Ancient World*. Princeton, 1990.
- Hanson, A.E., "Hippocrates: 'Diseases of Women 1'," *Signs* 1.2 (1975), 567-584.
- Hanson, A.E., "The Eight Months' Child and the Etiquette of Birth: Obsit Omen," *Bulletin of the History of Medicine* 61.4 (1987), 589-602.
- Hanson, A.E., "Diseases of Women In the epidemics," *Sudhoffs Archiv; Zeitschrift für Wissenschaftsgeschichte* 27 (1989), 38-51.
- Hanson, A.E., "The Medical Writers' Woman," in: Halperin et al. 1990, 309-338.
- Hanson, A.E., "Continuity and Change: Three Case Studies in Hippocratic

- Gynecological Therapy and Theory," in: S.B. Pomeroy, ed., *Women's History and Ancient History*. Chapel Hill, 1991, 73-110.
- Hanson, A.E., "A Division of Labor: Roles for Men in Greek and Roman Births," *Thamyris* 1.2 (1994), 157-202.
- Hanson, A.E., "A hair on her liver has been lacerated..." in: Garofalo et al. 1999, 235-254.
- Holmes, B., *The Symptom and the Subject: The Emergence of the Physical Body in Ancient Greece*. Princeton, 2010.
- Horden, P., "Pain in Hippocratic Medicine," in: Hinnells, J.R. and R. Porter, eds., *Religion, Health and Suffering*. London, 1999, 295-315.
- Jouanna, J., *Hippocrates*. Tr. M.B. DeBevoise. Baltimore, 1999.
- Johansen, R.E.B., "Pain as a Counterpoint to Culture: Toward an Analysis of Pain Associated with Infibulation among Somali Immigrants in Norway," *Medical Anthropology Quarterly*, New Series, 16.3 (2002), 312-340.
- Jones, W.H.S., *Hippocrates vol. IV*, Loeb Classical Library. Harvard, 2005.
- Jones, W.H.S., *Hippocrates vol. II*, Loeb Classical Library. Harvard, 2006.
- Keogh, E., Hamid, R., Hamid, S. and D. Ellery, "Investigating the effect of anxiety sensitivity, gender and negative interpretative bias on the perception of chest pain," *Pain* 111 (2004), 209-217.
- King, H., "The early anodynes: pain in the ancient world," in: Mann, R.D., ed., *The history of the management of pain from early principles to present practice*. Carnforth and Park Ridge, NJ, 1988, 51-62.
- King, H., *Hippocrates' woman: reading the female body in Ancient Greece*. London, 1998.
- King, H., "Chronic Pain and the Creation of Narrative," in: Porter, J., ed., *Constructions of the Classical Body*. Ann Arbor, 1999, 269-286.
- Kosambi, D.D., "Living prehistory in India," *Scientific American* 216 (1967), 105-114.
- Koyama, T., McHaffie, J.G., Laurienti, P.J., Coghill, R.C. and E.E. Smith, "The Subjective Experience of Pain: Where Expectations Become Reality," *Proceedings of the National Academy of Sciences of the United States of America* 102.36 (2005), 12950-12955.

- Langholf, V., *Medical Theories in Hippocrates: Early Texts and the "Epidemics."* Berlin, 1990.
- Latthe, P., Mignini, L., Gray, R., Hills, R. and K. Khan, "Factors Predisposing Women To Chronic Pelvic Pain: Systematic Review," *British Medical Journal* 332.7544 (2006), 749-751.
- Lloyd, G.E.R., *Science, Folklore and Ideology.* Cambridge, 1983.
- Lonie, I.M., "The Cnidian Treatises of the Corpvs Hippocraticvm," *The Classical Quarterly*, New Series, 15.1 (1965), 1-30.
- Lonie, I.M., *The Hippocratic Treatises "On Generation," "On the Nature of the Child," "Diseases IV."* Berlin, 1981.
- López Férez, J.A., ed., *Tratados Hipocráticos. Estudios acerca de su Contenido Forma e Influencia: Actas del VIIº Colloque International Hippocratique* (Madrid, 24-29 de Septiembre de 1990). Madrid, 1992.
- Marzullo, B., "Il 'Dolore' in Ippocrate," *Quaderni Urbinati di Cultura Classica*, New Series, 63.3 (1999), 123-128.
- Manetti, G., *Theories of the Sign in Classical Antiquity.* Tr. C. Richardson. Bloomington, IN, 1993. [*Le teorie del segno nell'antichità classica.* Milan, 1987.]
- Manetti, G., "Indizi e prove nella cultura greca: forza epistemica e criteri di validità dell'inferenza semiotica," *Quaderni storici* 85 (1994), 19-42.
- Manetti, D. and A. Roselli, *Ippocrate: Epidemie, libro sesto.* Florence, 1982.
- Manuli, P., "Donne mascoline, femmine sterili, vergini perpetue" and "Appendice," in: S. Campese, P., Manuli and G. Sissa, eds., *Madre Materia: sociologia e biologia della donna greca.* Turin, 1983, 147-92.
- McCracken, L., "Social context and acceptance of chronic pain: the role of solicitous and punishing responses," *Pain* 113 (2005), 155-159.
- McGrath, P.A., "The Role of Situational Variables in Pain Control," *Anesthesia Progress* 30.5 (1983), 137-146.
- McGrath, P.A., "Psychological Aspects of Pain Perception," *Archives of Oral Biology* 39, Suppl. (1994), 55S-62S.

- McKeown, N., "Seeing Things: Examining the Body of the Slave in Greek Medicine," *Slavery & Abolition: A Journal of Slave and Post-Slave Studies* 23.2 (2002), 29-40.
- McLachlan, H. and U. Waldenstrom, "Childbirth experiences in Australia of women born in Turkey, Vietnam, and Australia," *Birth: Issues in Perinatal Care* 32.4 (2005), 272-282.
- Melzack, R. and K.L. Casey, "Sensory, motivational and central control determinants of pain: A new conceptual model," in: Kenshalo, D., ed., *The Skin Senses*. Springfield, IL, 1968, 423-443.
- Melzack, R. and P.D. Wall, *The Challenge of Pain*. New York, 1983.
- Mongini, F., Rota, E., Evangelista, A., Ciccone, G., Milani, C., Ugolini, A., Ferrero, L., Mongino, T. and R. Rosato, "Personality profiles and subjective perception of pain in head patients," *Pain* 144 (2009), 125-129.
- Nicassio, P.M., "Understanding the role and significance of gender differences in pain and depression in Chinese elders with osteoarthritis," *Pain* 130 (2007), 6-7.
- Ohel, I., Walfisch, A., Shitenberg, D., Sheiner, E. and M. Hallak, "A rise in pain threshold during labor: A prospective clinical trial," *Pain* 132 (2007), S104-S108.
- Pagel, W., "Prognosis and Diagnosis: A Comparison of Ancient and Modern Medicine," *Journal of the Warburg Institute* 2.4 (1939), 382-398.
- "Pain," *International Association for the Study of Pain*. URL = <<http://www.iasp-pain.org/Content/NavigationMenu/GeneralResourceLinks/PainDefinitions/default.htm#Pain>>. Retrieved May 31, 2012.
- Pavlov, I. P., *Conditioned Reflexes: An Investigation of the Physiological Activity of the Cerebral Cortex*. Tr. and Ed. G.V. Anrep. London, 1927.
- Pavlov, I.P., *Lectures on Conditioned Reflexes*. London, 1928.
- Perilli, L., "Il lessico intellettuale di Ippocrate: σημαίνειν e τεκμαίρεσθαι," *Lexicon Philosophicum* 5 (1991), 153-179.
- Perilli, L., "Il lessico intellettuale di Ippocrate: l'extrapolazione logica (ἐκδιηγείσθαι, ἐλπίζειν, λογίζεσθαι, συμβάλλεσθαι)," *Aevum Antiquum* 7 (1994), 59-99.

- Ploghaus, A., Tracey, I., Gati, J.S., Clare, S., Menon, R.S., Matthews, P.M. and N.P. Rawlins, "Dissociating Pain from Its Anticipation in the Human Brain," *Science*, New Series, 284.5422 (1999), 1979-1981.
- Popescu, A., LeResche, L., Truelove, E.L. and M.T. Drangsholt, "Gender differences in pain modulation by diffuse noxious inhibitory controls: A systematic review," *Pain* 150 (2010), 309-318.
- Potter, P., *Hippocrates vol. V*, Loeb Classical Library. Harvard, 1988.
- Potter, P., *Hippocrates vol. VI*, Loeb Classical Library. Harvard, 1988.
- Potter, P., "Some Principles of Hippocratic Nosology," in: Potter et al. 1990, 237-253.
- Potter, P., Maloney G. and J. Desautels, eds., *La maladie et les maladies dans la Collection hippocratique: actes des VIe Colloque international hippocratique, Québec du 28 septembre au 3 octobre 1987*. Québec, 1990.
- Potter, P., *Hippocrates vol. VIII*, Loeb Classical Library. Harvard, 1995.
- Rey, R., *History of Pain*. Tr. L.E. Wallace and J.A. & S.W. Cadden. Paris, 1993.
- Robinson, H., "Dualism", in: E.N. Zalta, ed., *The Stanford Encyclopedia of Philosophy* (Winter 2011 Edition). URL = <<http://plato.stanford.edu/archives/win2011/entries/dualism/>>. Retrieved May 31, 2012.
- Roselli, A., "On symptoms of diseases: Some remarks about the account of symptoms in *Diseases II* and *Internal Affections*," in: Potter et al. 1990, 159-170.
- Rosen, R.M. and H.F.J. Horstmanshoff, "The *Andreia* of the Hippocratic Physician and the Problem of Incurables," in: Sluiter, I. and R.M. Rosen, eds., *Andreia: Manliness and Courage in Classical Antiquity*. Leiden, 2002.
- Schiefsky, M.J., *Hippocrates Ancient Medicine*, Translated with Introduction and Commentary. Leiden, 2005.
- Scarry, E., *The Body in Pain: The Making and Unmaking of the World*. Oxford, 1987.
- Sissa, G., "Maidenhood without Maidenhead: The Female Body in Ancient Greece," in: Halperin et al. 1990, 339-364.
- Smith, W.D., *Hippocrates vol. VII*, Loeb Classical Library. Harvard, 1994.

- Thibault, P., Loisel, P., Durand, M.-J., Catchlove, R. and M.J.L. Sullivan, "Psychological predictors of pain expression and activity intolerance in chronic pain patients," *Pain* 139 (2008), 47-54.
- Thivel, A., *Cuide et Cos?: essai sur les doctrines médicales dans la collection hippocratique*. Paris, 1981.
- Thivel, A., "Diagnostic et pronostic à l'époque d'Hippocrate et à la nôtre," *Gesnerus* 42 (1985), 479-497.
- Villard, L., "Vocabulaire et représentation de la douleur dans la *Collection hippocratique*," in: Prost, F. and J. Wilgaux, eds., *Penser et représenter le corps dans l'Antiquité*. Rennes, 2006, 61-78.
- von Staden, H., "Incurability and Hopelessness: The *Hippocratic Corpus*," in: Potter et al. 1990, 75-112.
- Wager, T.D., Rilling, J.K., Smith, E.E., Sokolik, A., Casey, K.L., Davidson, R.J., Kosslyn, S.M., Rose, R.M. and J.D. Cohen, "Placebo-Induced Changes in fMRI in the Anticipation and Experience of Pain," *Science. New Series*. 303.5661 (2004), 1162-1167.
- Wiech, K., Farias, M., Kahane, G., Shackel, N., Tiede, W. and I. Tracey, "An fMRI study measuring analgesia enhanced by religion as a belief system," *Pain* 139 (2009), 467-476.
- Williams, D.A. and B.E. Thorn, "An Empirical Assessment of Pain Beliefs," *Pain* 36.3 (1989), 351-358.
- Williamson, A. and B. Hoggart, "Pain: a review of three commonly used pain rating scales," *Journal of Clinical Nursing* 14.7 (2005), 798-804.
- Wittern, R., "Diagnostics in Classical Greek Medicine," in: Kawakita, Y., ed., *History of diagnostics: Proceedings of the 9th International Symposium on the Comparative History of Medicine*. Osaka, 1987, 69-89.
- Woodrow, K., Friedman, G., Siegelau, A. and M. Collen, "Pain tolerance: differences according to age, sex, and race," *Psychosomatic Medicine* 34.6 (1972), 548-556.
- Withington, E.T., *Hippocrates vol. III*, Loeb Classical Library. Harvard, 1999.
- Zwakhlen, S.M.G., Hamers, J.P.H., Abu-Saad, H.H. and M.P.F. Berger, "Pain in elderly people with severe dementia: A systematic review of behavioral pain assessment tools," *BMC Geriatrics* 6.3 (2006).

INDEX LOCORUM

Hippocrates

Affections

1, 47n.114
 2, 65
 2.1, 47
 4, 65
 4.1, 47
 5.4-5, 47
 7, 61n.134
 7.1-11, 61
 13.1-2, 45
 9, 62n.136
 10, 62n.136, 65n.141
 14, 65n.141
 15, 62n.136, 65, 110
 16, 65
 21, 65n.141
 23, 62n.136, 65n.141
 23-25, 51f.
 23-26, 51
 25, 65n.141
 26, 65n.141
 27, 62n.136
 27.1-18, 16n.44
 27.15, 65, 69
 28, 62n.136
 28.6-8, 16n.44
 29, 17n.46, 47f., 62n.136
 30, 62n.136, 65n.141
 30.10, 104n.224
 31, 65n.141
 33, 17n.47
 37.1, 81

Airs, Waters, Places

4.19-35, 95n.193
 9.26-43, 97n.198
 10.16-44, 138n.282
 10.60-70, 137n.281

Ancient Medicine

2.10-13, 3
 2.11-13, 66

3, 21n.55
 3.19-20, 3n.9, 66
 3.20-21, 21n.55
 3.34-35, 66
 3.36-40, 3
 3.40, 66
 6, 22f.
 9.11-15, 75
 14.23-28, 26, 50
 16, 18n.50
 16.1-11, 16f.
 19, 16n.40, 90n.179
 19.14-16, 29
 20.17-22, 84f.
 22.49-53, 16n.42

Aphorisms

1.2, 95n.191
 1.7, 45, 91n.184
 1.13, 103n.215
 1.14, 96n.195, 103n.216
 1.17, 95n.191
 2.6, 25n.65
 2.39, 104n.221, 104n.224
 2.46, 35n.94
 3.11, 138n.284
 3.14, 138n.284
 3.23, 47n.115
 4.18, 61n.134
 4.20, 61n.134
 4.33, 31n.75
 5.7, 95n.193
 5.9, 95n.193
 5.25, 25n.66
 5.33, 115n.249
 5.37, 120n.255
 5.52, 120n.255
 6.5, 47n.115, 85
 6.6, 104n.23
 6.7, 45
 6.10, 32n.83
 6.57, 95n.193
 7.29, 51
 7.82, 95n.193
 7.85, 92n.185
 7.87, 95n.193

Barrenness (Diseases of Women III)

206, 97n.197
 206.28, 113n.241
 206.34, 113n.241
 207.1, 113n.241
 209.24, 113n.241
 214.6-9, 121n.256
 226, 139n.286
 228.4, 112n.241
 246.1, 112n.241

Breaths

1, 44n.104
 2.1-4, 67n.145, 112n.240
 3, 16n.41
 8.30-36, 16n.43
 10.8-11, 67f.
 11, 20n.54
 14, 25

Coan Prenotions

8, 78n.158
 46, 78n.158
 73, 55n.122
 120, 34n.191
 139, 95n.193
 156, 95n.193
 166, 33n.84
 262, 78n.155
 269, 90n.181
 274, 95n.193
 280, 104n.218
 290, 31n.76
 293.2, 90n.181
 299, 34n.91
 311, 34n.92
 364, 56n.127
 366-370, 56f.
 369, 34n.191
 372, 47n.115
 388, 33n.86
 394, 90f.
 527, 56n.127, 120
 431, 95n.193
 462, 95n.193

462.1-3, 34n.92
 487, 78n.158
 502, 95n.193
 523.1-2, 90n.178
 527, 56n.127, 120

Crises

10.4, 51
 53.1, 51
 56, 61n.134
 59, 61n.134

Critical Days

3, 92n.187
 5, 78n.155
 8, 78n.155
 10, 54n.119

Diseases I

1.25-26, 54
 5, 44n.106, 69
 5.11-16, 70
 7.11, 51
 8, 44n.106, 119
 15, 5n.12
 20, 130n.268
 22.12-21, 102f.

Diseases II

14, 61n.134
 16, 61n.134, 78n.155
 17, 78n.155
 18, 61n.134
 19, 61n.134
 27, 61n.134
 45, 61n.134
 47, 61n.134
 54-58, 61n.134
 66, 92
 67, 61n.134
 69, 61n.134, 78n.155
 70, 92
 72, 83n.164

Diseases III

1, 61n.134

3, 61n.134
 7, 62n.136
 12, 62n.136
 13, 78n.155
 15, 119n.54
 16, 55, 92n.188

Diseases of Women I

1, 109n.235
 1.1-24, 119n.251
 2, 115n.247
 2.20, 112n.241
 2.35-36
 2.48, 112n.241
 2.57-59
 3, 130
 3.1-2, 112n.241
 3.2, 112n.241
 3.13, 112n.241
 3.14, 112n.241
 4.16, 112n.241
 4.16-17, 112n.241
 5.14, 112n.241
 8.3, 139n.286
 9, 139n.286
 11, 95n.191
 18, 139n.286
 20.3, 83n.166
 24.9, 112n.241
 26, 139n.286
 29, 139n.286
 33, 117n.250
 34.9, 112n.241
 36.10, 112n.241
 36.22, 112n.241
 36.23, 112n.241
 36.47, 83n.165
 36.49, 112n.241
 37.3, 112n.241
 38.6-7, 112n.241
 45.8, 112n.241
 46, 107n.232
 46.2, 112n.241
 51.5, 112n.241
 52, 107n.232
 52.1, 112n.241

52.3, 112n.241
 56.2, 112n.241
 56.6, 112n.241
 57.6, 112n.241
 57.7, 112n.241
 59.7, 112n.241
 59.8, 112n.241
 60.14, 83n.165
 60.16, 112n.241
 60.17, 112n.241
 61.26, 112n.241
 62, 107n.227, 132n.273
 63.2, 112n.241
 63.3, 112n.241
 64.5-6, 112n.241
 64.6, 112n.241
 65, 115
 68, 115
 74.3, 112n.241
 82, 139n.286

Diseases of Women II

110.13-14, 112n.241
 110.14-15, 70
 110.18, 112n.241
 112.2, 112n.241
 112.4, 83n.165
 113, 110
 113.6, 112n.241
 115.2, 112n.241
 115.3, 112n.241
 118.3, 83n.166
 119.30-31, 131
 120.4, 112n.241
 122.7, 112n.241
 122.8, 112n.241
 123, 131n.272
 129.3, 83n.165
 131.2, 112n.241
 134, 139n.286
 134.2, 112n.241
 134.3, 112n.241
 134.12, 83n.166
 135.2, 112n.241
 137.22, 112n.241
 137.4, 83n.165

137.22, 112n.241
 139.2, 112n.241
 139.3, 112n.241
 140.2, 112n.241
 141.5, 112n.241
 144.2, 112n.241
 144.3, 112n.241
 146.4-5, 112n.241
 146.5, 112n.241
 154.7, 112n.241
 156.6, 112n.241
 156.7, 112n.241
 157.4, 112n.241
 162.3-4, 112n.241
 162.4, 112n.241
 163.2, 83n.166
 163.5, 112n.241
 165.2, 83n.166
 166.4, 112n.241
 167.7, 112n.241
 167.8, 112n.241
 168.3, 83n.166
 168.5, 112n.241
 170.2-3, 112n.241
 170.3, 112n.241
 171.4, 83n.166
 171.9-11, 78
 171.10, 112n.241
 172.1, 112n.241
 172.5, 112n.241
 175.6, 112n.241
 177.6, 112n.241
 177.11, 83n.165

Eight Months' Child
 2, 100
 10, 101

Epidemics I
 2.4.60-61, 91
 2.4.108-110, 95n.193
 3.10, 41f.
 3.13(5), 87f.
 3.13(7).1, 90n.178

Epidemics II

1.6, 92n.186
 1.11, 44n.105
 2.10, 77
 2.24, 83n.164
 3.17, 114, 115n.247
 5.21, 61n.134

Epidemics III

8, 45n.107
 3.14, 138n.284
 3.17(8).7-9, 33n.85
 3.17(11), 25n.64
 3.17(12), 115n.246
 3.17(15), 25n.64
 16, 45n.107

Epidemics IV

1, 83n.165
 1.20.7-11, 125n.263
 1.30, 116n.249, 117
 1.42, 105
 43, 41n.101, 75f.

Epidemics V

1.25, 117
 17, 78n.155
 61, 90n.181
 91, 80
 97, 125n.264

Epidemics VI

1.5.1, 90n.178
 1.7.1-2, 36
 2.1, 34f.
 2.5, 47n.115
 3.23, 32n.78
 4.11, 138n.283
 5.3, 104f.
 5.7, 23f.
 6.8.4, 95n.193
 7.11, 47n.115
 8.4, 95n.193
 8.6, 114
 8.9, 39n.99
 8.17, 41n.101
 8.24, 39n.99

8.28, 34n.87

Epidemics VII

1.11, 130n.270
 1.52, 122f.
 1.106, 122
 1.117, 126n.265
 2.2-3, 34n.89
 3, 78n.155
 5.1-5, 68
 11, 78n.155
 11.5-6, 132
 11.22-24, 79
 33, 90n.181
 35, 125n.264
 43.17-20, 30
 51, 83n.164
 84.6-7, 79
 93, 78n.155
 101, 29f.
 112.1-6, 60

Fractures

3, 56

Nature of the Child/Generation

4, 134n.275
 15, 97n.197
 21, 109n.235
 55, 139n.286

Glands

16, 135n.277

Humors

1, 95n.191
 2, 40
 7, 31n.75
 20.6-7, 31f.

In the Surgery

1, 76
 4.9-10, 76
 6.1-3, 1n.1
 7.2, 76
 7.3, 76

Internal Affections

1.23, 83
 4, 61n.134, 78n.155
 7, 61n.134, 78n.155
 13, 78n.155
 14, 61n.134, 78n.155
 14-17, 49f.
 16, 61n.134
 17, 78n.155
 18, 54n.118
 18.14-29, 58f.
 19, 54n.118, 61n.134
 24, 61n.134
 27, 61n.134
 36, 78n.155
 41, 61n.134
 47, 78n.155
 47.6, 34n.90
 48, 91n.183
 49, 78n.155
 51, 78n.155
 51.1-7, 62f.
 51.10-11, 78n.157
 51.13-14, 85
 53, 78n.155

Joints

37, 5n.12
 42, 24n.61
 47.1-3, 104n.217

Nature of Man

2, 1n.1
 2.11-12, 114
 2.11-16, 14
 4, 22n.57
 4.1-3, 15n.37
 4.5-15, 15n.38
 9.25-32, 95n.191
 12.1-10, 95n.193
 12.22-32, 96n.194
 15, 65n.142

Nature of Woman

1.1, 97n.197

2.7, 112n.241
 5.2, 112n.241
 6.2, 112n.241
 6.3, 112n.241
 7.3, 112n.241
 8.2, 112n.241
 8.3, 83n.166
 9.2, 112n.241
 11.4, 112n.241
 12.5-6, 112n.241
 12.6, 112n.241
 13.3, 83n.166
 13.4, 112n.241
 14.2, 112n.241
 15.2, 112n.241
 22, 139n.286
 33, 139n.286
 35.12, 83n.165
 35.14, 112n.241
 35.15, 112n.241
 36.5, 51
 37.5, 112n.241
 38.2, 83n.165
 39.4-5, 112n.241
 39.5, 112n.241
 40.5, 112n.241
 43.2, 112n.241
 43.3, 112n.241
 45.5-6, 112n.241
 45.6, 112n.241
 46.5, 112n.241
 46.6, 112n.241
 47.2, 112n.241
 48, 131n.272
 54.2, 112n.241
 54.2-3, 112n.241
 54.3, 112n.241
 70.1, 112n.241
 80.1, 112n.241
 85.1, 112n.241
 89.1, 112n.241
 89.2, 112n.241
 92.1, 112n.241
 106, 139n.286

Nutrient

26, 42f.

Places in Man

1.3-8, 134f.

12, 61n.134

14.1-6, 53

14.12-16, 53

17, 62n.136

20, 62n.136

24, 31n.75

26, 62n.136

32, 19

41.1-2, 18

42, 16n.40

42.1-10, 17f.

47.1-20, 108f.

Prognostic

1, 78n.158

3, 78n.158

5, 78n.158

7.15-16

7.17-18

9, 78n.158

10, 78n.158

11, 78n.158

15.1-4, 33n.86

16.7-9, 81n.160

21.1-8, 91n.182

21.8, 95n.193

24, 95n.193

Prorrhetic I

73, 56n.125

75, 78n.158

109.5, 90n. 178

130, 56

Prorrhetic II

4, 74

8, 104n.220

9, 104n.119

10, 126n.266

22.1-8, 95n.193

24, 121n.257

24.7, 131

24.17-18, 131
 26, 130n.269
 27, 132
 31, 138n.283
 32, 78n.158
 40.12-1441
 42, 81f.
 43, 104n.222

Regimen I-III

15.5-6, 5
 34, 97n.197
 67, 95n.191

Regimen in Acute Diseases

1.8-9, 90n.180
 5, 44n.107
 7, 60n.132
 11.65-85
 17, 35n.95
 19, 61n.134
 22, 62n.136
 23, 62n.136
 24, 61n.134

Regimen in Acute Diseases (Appendix)

1, 90n.180
 7, 90n.179
 9.27-33, 138n.284
 11.1-13, 95n.191
 29, 56n.126
 31, 61n.134
 33, 47n.115
 51, 61n.134

Regimen in Health

2, 95n.191

Seven Months' Child

3, 100n.204
 6, 101n.207
 7, 101n. 208
 9, 97n.198, 101n.209, 102n.210
 9.1-3, 114

Superfetation

11, 120
20, 121n.256

The Art
3.4-7, 2
7.12-18, 4
10, 19n.51
11.29f., 5n.12
12.1-9, 39

The Sacred Disease
2, 24n.61
9.1-15, 104n.224
10.18-30, 95n.193
12, 127

Use of Liquids
1, 25n.66, 27n.68
6, 25n.66

Wounds in the Head
20, 83n.164