

**WOMEN'S NATURE (*PHUSIS*) AND DISEASES
AS OBJECTS OF OBSERVATION IN
THE HIPPOCRATIC GYNECOLOGICAL WRITINGS:
AN EPISTEMOLOGICAL STUDY**

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ABSTRACT

WOMEN'S NATURE (*PHUSIS*) AND DISEASES AS OBJECTS OF
OBSERVATION IN
THE HIPPOCRATIC GYNECOLOGICAL TEXTS:
AN EPISTEMOLOGICAL STUDY

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This study concentrates on the disease and treatment cases of women in the Hippocratic texts, to identify and describe the Hippocratic medical style as one that, through its mode of practice, represents a significant departure in making the human body observable. As an antidote to a bias in the literature that has always made the male more visible, we chose to view Hippocrates's novel way of making the woman visible since, producing a new entity for observation, this style of practice led to the emergence of a new profession of medicine, gynecology. In this way, the "white armed" women of ancient times were brought into the realm of the visible.

Examination of the case histories in *the corpus* revealed that the observational style was used in light of two principles, that of nature as an active force, generally for healing, and water as a function and humor; both the nature and water concepts uniting the analytical and the metaphorical in a holistic way. The nature inspiration enables an ecological view of Hippocratic practice in such a way that later categories described by Kuhn as incommensurable are seen to function in interrelation.

The theoretical trajectory therefore, involves a short survey which starts with Popper and follows through Kuhn, Lakatos, Feyerabend, and finally Crombie, with the latter's concept of "styles of thinking" which accounts for how habits of thought inform specific practices like Hippocratic gynecology.

Key Words: styles of thinking, women studies, Hippocratic Corpus, phusis, theory of four humors.

ÖZ

HİPOKRATİK JİNEKOLOJİK METİNLERDE
GÖZLEM NESNELERİ OLARAK KADINLARIN DOĞASI
(FÜSİS) VE HASTALIKLARI:
EPİSTEMOLOJİK BİR ÇALIŞMA

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Bu çalışmada, Hipokratik tıp pratiğinin insan bedenini nasıl görünür kıldığını anlatmak ve anlamak için Hipokratik metinlerdeki kadın hasta geçmişleri ve bunların ele alınış biçimleri incelenmiştir. Genelde erkeklerin daha görünür olduğu eskiçağ yazının aksine, Hipokrates'in kadınları da görünür kılan metodu, gözlem, yeni bir gözlem nesnesi yaratarak, jinekolojiyi doğurmuştur. Böylece antikitenin “beyaz-kollu” kadını artık görünürün alanına getirilmiş olur.

Bu hikayelerde, gözleme dayalı Hipokratik iş yapma biçiminin temelde iki kaynak ışığında çalıştığı söylenebilir: her ikisi de, analitik ve analogik olanı bütünleştiren şekilde, genelde sağaltmaya doğru aktif bir güç olan doğa, ve bedeni oluşturan dört temel sıvıdan (suyuk) biri olan su. Doğa'nın Hipokratik pratikte bu kullanılış biçimi ekolojik bir bakış açısıyla Kuhn'un “karşılaştırılmazlık” kategorisine karşı, bir arada iş yapma biçimlerini mümkün kılar.

Çalışmada kısaca bilimsel (d)evrimlerin yapısı incelenmeye Popper ile başlanmış, Kuhn, Lakatos, Feyerabend, ve son olarak Crombie ile devam edilip, sonuncunun ‘düşünme biçimleri’ kavramının, pratiğe odaklanması ile, Hipokratik jinekolojik metodu anlamakta kullanıldığı vurgulanmıştır.

Anahtar Kelimeler: düşünme biçimleri, kadın çalışmaları, Hipokratik Metinler, füsüs, dört sıvı teorisi.

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CHAPTER 1

INTRODUCTION

This study concentrates on the disease and treatment cases of women in the Hippocratic writings, describing the Hippocratic medical style as one that, through its mode of practice, represents a significant departure in making the human body observable, each sex with its distinctive features. The earliest commentators have remarked on this new approach to health and healing. Yet what has eluded notice has been what the inclusive observational gaze, now turning onto women as much as onto men, produced not only in terms of supplying the first lines of a new specialization in medicine (gynecology), but also in terms of a correction to the relative invisibility of women in the ancient world and in commentary on Hippocrates and ancient medicine up to the recent past.

Before Hippocratic times, it can be said that women were “white-armed”—λευκ-ώλενος: from the Homeric epic meaning those who remain indoors—largely invisible certainly in the public domain, but in the medical domain as well. The story of Agnodice,¹ who disguised herself as a man to practice medicine, is an example of the secretiveness of female bodies in the public domain of the pre-Hippocratic period.

¹ According to Hyginus, Agnodice, a famous midwife who disguised herself as a man, studied successfully to become a doctor in a period where women were not allowed to practice medicine (Fab. 274). She became a midwife among Greek women, and told her mystery to pregnant women in order to make them feel secure during childbirth. She shows her underbelly to other women to prove that she is a woman, and her legend was symbolized with a statue illustrating her opening her clothes to show what she hides underneath. She later became famous among Greek women, who sought her assistance during their childbirth. Male doctors, restricted from observing childbirth and assuming she was a man, became jealous. They started a rumor that s/he was having affairs with pregnant women and was very popular as a result. She is finally forced to prove her “womanhood” in public, and in this way became a legend. In *The Idea of Iambos*, Rotstein wrote that Baubo showed her genitals to Demeter in the Homeric epic; this gesture is known as the *anasyrmos* in ancient Greek culture. Demeter, unable to find her daughter Persephone (who had been kidnapped by Ares and was being kept in Hades), became exhausted and stopped to rest. Baubo appears and by performing her gesture made Demeter laugh from her stomach (which is very healing). Demeter recovered from her desparation and was able to continue her search. Rotstein discusses a separate medical cult belonging to Baubo in Hellenistic times (2009, pp. 176-82) and argues that the gesture of *anasyrmos* may be seen as a way of gaining acceptance among women. In any case, it is generally understood that before Hippocrates, there was a medicine of women through cults such as those of Baubo, Demeter, and Persephone, but only among women (to be discussed in the fourth chapter).

In the histories of Herodotus the medical stories of both sexes are conventionally indistinct, limited mostly to gods and goddesses who intervene, often unexpectedly, to cure, curse, or care for depending on personal agendas or emotional states of the moment. In contrast to this way of understanding health, the novelty of the observational style of Hippocrates has been noticed and commented on since ancient times, yet what has not been stressed is how this put not only men's but also women's bodies out into the open in detailed descriptions of their physical states, often carried out in detailed, day by day bed-side observation.

This was, then, something new in the medical practice of the age for both sexes; what is proposed here is to think of how, in the case of women, this drawing back the veil on her opened the way to a focus, a specification of traits and features and various modes of explanation to accompany them, that was to eventually result in its medical professionalization under the name gynecology. This study examines this way or style of observing as this is put into practice in the constitution of a body of knowledge. To put it another way, since the "what" of Hippocratic observation practice has been remarked upon since ancient times, some of the "how" is our question for this research. And this is where repeated themes in the medical practice became apparent: the importance of nature's (*phusis*) processes in understanding and guiding the sick to health, including the primary element, water (*hydor*).

With the Hippocratic style by which women bodies are observable through bedside observations, the ancient Greek women became transparent and in this way an accumulation of details on specifically women's medical issues (*ta gynaikeia*) shifted from meaning only the oral tradition of folk medicine for women, to now include a written record of specialized medical observation and intervention. This is confirmed by the continued professionalization in gynecology following the Hippocratic period, with Aretaeus of Cappadocia, Rufus of Ephesus, and Soranus of Ephesus.

Hippocratic medicine is novel not in the sense that it is rational, as Longrigg (1998) claims, but in the sense that it is observational. The observational attitude was new in the sense that it made its object—the human body—more readable and thus understandable by people other than the limited class of folk healers, gods, goddesses, and priests, previously concerned with healing. Although Edelstein (1967), maintains that both the language and practices of Hippocrates were accessible to only a limited group of his contemporaries (p.106), here what is important is the women becoming

visible if to later practitioners and students of ancient culture, in contrast to the “temple medicine” whose practices, a metaphorical “black box,” made any details forever inaccessible.

These women stories matters in viewing Hippocratic medical practice since they do offer a kind of anti-thesis to the “black-box” or “temple” style of medicine that prevailed up to that time—the capricious interventions of priests, heroes, gods and goddesses —and continued, in spite of the popularity of its Hippocratic “competitor.” Stories of miraculous healing or making ill were mostly fanciful, not concerned with observation of the body. An example from Herodotus, *The Histories* 1.130 recounts how the Scythian people became infertile: after destroying a temple Venus, the goddess of childbirth and fertility herself punished the Scythians by making them unable to bear children. Hippocrates, as we will see, took up the same example and discovered another diagnosis for infertility altogether, this one located in the actual life circumstances and environmental conditions of the Scythians as a group.

While repetition in the content of the medical case histories can be called one of many characteristics that detracts from their scientific value, the thoroughness of the descriptive style with its many details on both the body and the mental state of the patient including various influential factors—in the case below, genetic—is what creates new standards for medical practice:

The maiden daughter of Euryana was seized with fever. Throughout the illness she suffered no thirst and had no inclination for food. Slight alvine discharges; urine thin, scanty, and not of a good colour. At the beginning of the fever suffered pain in the seat. On the sixth day did not sweat, being without fever; a crisis. The sore near the seat suppurated slightly, and burst at the crisis. After the crisis, on the seventh day, she had a rigor; grew slightly hot; sweated. Afterwards the extremities were always cold. About the tenth day, after the sweating that occurred, she grew delirious, but was soon rational again. They said that the trouble was due to eating grapes. After an intermission, on the twelfth day she again wandered a great deal; the bowels were disturbed, with bilious, uncompounded, scanty, thin, irritating stools, which frequently made her get up. She died the seventh day from the second attack of delirium. This patient at the beginning of the illness had pain in the throat, which was red throughout. The uvula was drawn back. Many fluxes, scanty and acrid. She had a cough with signs of coction, but brought up nothing. No appetite for any food the whole time, nor did she desire anything. No thirst, and she drank nothing worth mentioning. She was silent, and did not converse at all. Depression, the patient despairing of herself. There was also some inherited tendency to consumption (Hp. *Epd.* 3.6).

Again, it is not that both male and female bodies are not submitted to this new intensification of observational interest, it is that by this method details on specifically female bodies may begin to accumulate towards becoming a new body of knowledge. Through the case histories which will be examined here from mainly *On the Nature of Women*, *On the Diseases of Women*, and *Epidemics*, the bodies of sick and healthy women in ancient Greek period were “unveiled” as objects of observation, leaving nothing—even female sexual response (in this area, building on the ideas of his contemporary, Democritus)—outside the scope of observation because of convention or morality.

The case histories of women’s illness and treatment reveals that the observational method is carried out in reference to two principles; the first of these is perceiving the process of sickness and health as resembling processes of nature (*phusis*) with its inherent dynamism in favor of healing. In addition, nature offers a key insight on the multiplicity of determinants on outcomes, leading to a holistic way of perceiving the object of observation. The second is the principle of water or moisture (*hydor/hydrops*), a concept whose explanatory support in understanding physiology both supplements and parallels its more formalistic presence as the “analogy” of the watery humor (Jones, 1923; Edelstein, 1967). While these “principles” or motifs may appear to stand in a relation of formalism or pure analogy to the direct perception and communication of a particular reality through the observational method (and its recording), we will see that both nature and water serve in a variety of roles, including as examples of ways of thinking about the body that can lead to insights of diagnostic and therapeutic value.

The gynecological writings to be examined in this study, and which Grensemann (1975) holds to genuinely belong to Hippocrates, are *On the Nature of Women* (Nat. Mul.), and *On the Diseases of Women I-III*² (Mul. 1-3). *On Generation* (Genit.), *Superfetation* (Sprft.), *The Excision of the Fetus* (Foet. Exc.), *On the Seven Month-Old Child* (Septim.), *On the Eight Month-Old Child* (Oct.), and *On the Diseases of Virgins* (Virg.) makes up the remainder of the gynecological writings. The text *Diseases IV*, since it is generally seen as a supplementary to the text *On Generation*, can also be regarded as one of the gynecological texts. The seven texts

² The third and last book of *On the Diseases of Women* (Mul. 1-3) is known by some as *On Sterile Women* (Steril.) or sometimes as *The Barren Women*.

of *Epidemics* will also be viewed in this study, mainly in the examples of bedside observation and healing procedure stories. The first three books of the *Epidemics* series have been said to be genuine while the others may have been written by other Hippocratic practitioners.³

No doubt the Hippocratic style of medicine as an innovation in regard to the “temple” style can be seen as a breakthrough, away from the view of women as obscure and veiled, whether in mythology or anonymity. Yet the significance of the observational method for a future branch of medicine may be more fully grasped with reference to insights from theoreticians of the history of science. For example, Hippocrates’s practice has been long seen as a break or radical departure from the traditional classical medicine paradigm in a Kuhnian sense (for example in [Longrigg, 1998] as a “paradigm of rationality”). However, although Kuhn’s (1962) paradigm shift denotes an unbridgeable gap between two ways of understanding, from ancient times both styles of medicine continued to be practiced side by side for centuries, and the shift away from the temple style in favor of a more empirical approach—perhaps partly with thanks to nature’s processes as a way of thinking about illness and health—could only more fully emerge around the Enlightenment period, almost two millennia after Hippocrates. The important thing is the idea itself, born of a method or practice (whose characteristics we are examining here) of a *sui generis* branch of medicine which would in later years establish itself as an independent field known as gynecology. In the pre-Hippocratic period medicine was not compartmentalized according to gender; with the Hippocratic writings, we can speak of the idea for a new branch emerging, which reserved for women.

This approach of Hippocratics can best be seen in the practice itself as highlighted by the concept of Crombian “styles of thinking” (1994). It is argued here that this concept is useful for grasping the transition toward a new visibility of women in Hippocratic period, with its emphasis on practical observation and

³ In his early forties, Hippocrates travelled to other parts of Greece such as Thessaly and Thassos. *Epidemics* was probably written during these travels. Thassos was mentioned in many bedside stories, and the archeological findings in Thassos do reflect the names and places described in the *Epidemics*. This fact may suggest a higher level of credibility of the other details in the *Epidemics* as well. On the other hand, Hippocrates probably travelled with a group of physicians. The rest of the texts, from the third book up to the seventh may belong to these writers (Grensemann, 1975; Jouanna, 1999, pp. 25-30). Nancy Demand wrote that *Epidemics* can be grouped under three categories: volumes I and III are in the first, II and IV the second, and V and VI are in the last of the groups and were written by at least three different authors (Demand, 1995).

“process,” often informed by dynamics or understandings seen in nature—if not in place of, certainly alongside—philosophical claims such as the humoral theory. Thus if not a totalizing paradigm shift in medicine, this was a new way of highlighting the distinctness of women’s bodies, and according to some key similarities with nature itself, including nature as a complex web of life, each part influencing the other in many ways, leading to the habit of seeing illness within a holistic framework that draws on information in many forms.

By the 1960s, the history of science was understood as an unproblematic linear flow of accumulated knowledge. With Popper (1945), Kuhn (1962), Lakatos (1970), and Feyerabend (1975), the paradigmatic or revolutionary aspect of the history of science came under investigation. With his notion of “paradigm,” Kuhn described interruptions in this flow of knowledge accumulation. Popper proposed that only a falsified scientific claim can be meaningful. Feyerabend discussed a “proliferation,” a multiplicity of paradigms, co-existing at the same time. Meanwhile, as a middle way between Kuhn and Feyerabend, Lakatos proposed what he called the scientific research programs (SRP) in place of paradigms; here, there is generally a “hard core” of assumptions and/or a knowledge base which is more or less unchanging while peripheral phenomena may be mutable (1978).

In his *Styles of Scientific Thinking in the European Tradition* (1994), Crombie brings a new way of thinking, outside the structure-bound, essentially paradigmatic approach that may be seen in all these conceptions. He offers the idea of “styles of thinking,” whose advantage is in allowing a focus on practices as the essence of an understanding of knowledge. Crombie’s styles are not determinative like paradigms or research programs, but only assume specific shared thinking methods for specific scientific practices, which are essentially practical. The classical period of ancient Greece can be considered as a scene of changing “styles of thinking” in human ways of understanding and reflecting upon nature (Kwa, 2011).

Crombie lists six exemplary styles of thinking, of which Hippocratic medical practice mainly uses four (Crombie, 1994): hypothetical modeling, experimental method, taxonomy, and historical derivation. These styles will be useful in the textual analysis chapter of this study. In addition to these styles, it is argued here as a finding of the research project as a whole that another style, that of observation, had yet to be fully taken into account insofar as the results of these for a Hippocratic practice of women’s medicine. As will be seen here, the style of observation leads to

accumulated knowledge and experience of the practitioners through multiple observations informed by what nature can teach about how to approach the object of healing; this paves the way to a professionalization (in the sense of *arête*- excellence) in gynecology that emerged in the Roman period.

With its emphasis on the applied method or practice of science, the concept of styles let us, in this survey, capture various aspects of the new visibility of women. Following this introduction, we will seek to provide a history of ancient medicine as backdrop for Hippocrates's novel practice, first in reflecting on the period from 770 B.C., with the first Olympic Games, to 200 A.D., almost the end of the Greco-Roman period (fig. 1, p. 18). This chapter will also present theoretical background for the issues presented by Hippocratic method and his treatment of women, a general historical examination of ancient Greek medical practices. While there were many approaches to medicine in the period such as the temple medicine of various medical cults of Baubo, Apollo, and Venus, the attitude towards women and women's bodies as objects of observation began with the Hippocratic practice. The backdrop for Hippocrates then must include an investigation of principal ancient medical theories, not only in Hippocratic women's medicine but as a whole, starting from the pre-Socratics, mainly Democritus and Empedocles, up to Galen. The Hippocratic tradition in the Roman period, with Areteaus, Rufus and Soranus would, it will be argued, show a specialization and professionalization within the practice of women's medicine, which in this period can be properly identified with the word gynecology. The main aim of this dissertation is not to make general historical claims but rather only to examine the new view of women in ancient medicine.

As a secondary issue with links to some lines of the research project as outlined above, the use of an original humor, that of water, will be given special attention as a little noticed originality in the Hippocratic writings on women (Hp. Genit. 3.1; Hp. Morb. IV.32.1). Some commentators's interpretations see this as a culturally conditioned reductivism that leaves women narrowly restricted within pre-ordained social roles. In conditions such as menstruation, pregnancy, and lactation, good health involves some sort of fluid balances. Thus making use of this humor as an "analytical metaphor" (Edelstein's "analogy" [1967]), the Hippocratic style of medical practice was able to take account of a certain range of physical traits and conditions in women.

No claims shall be made regarding the empirical accuracy of the water or any other analytical component beyond generally known, “common” knowledge; rather, the focus is on the details that use of the metaphor aids in making present to awareness. The water humor is not argued as being categorically different from the other humors such as yellow bile, blood, and phlegm on the level of empirical physiology, yet as can be seen in many details, it appears to have been helpful in capturing the disease and health conditions of women more effectively than the black bile humor could be said to do, in the sense of producing more visible details of women’s physical conditions. For example, the theory of *urgatos* (that women are moister than men) argues that the water humor has a special place in women’s bodies. Regarding women’s disease and health conditions where the concern is primarily on menstruation and pregnancy, the utility of this descriptive metaphor can be said to have an advantage over the more complex and opaque notion of black bile. On the other hand, throughout the investigations of the gynecological writings, black bile was used theoretically (or metaphorically) and mostly in relation to mental states, thus less, one could argue, in accordance with the observational style of Hippocrates since it is hardly an observational entity. It cannot be observed in the body even to the limited degree in diseases related to malaria noticed by many commentators, since what is at issue here is the death of blood cells in malaria producing black residues in the body, that is, not bile itself but something resembling it. Black bile has no role whatsoever, in any case, in the areas of menstruation and pregnancy, while water does extensively.

It should be noted that in only three places in the whole of *the corpus* could “humoral theory” as such be said to have appeared under the names of the humors themselves, and only in one of them (*On the Nature of Man*) did this appear in the form of the humor black bile; yet this is the version of the theory that is known in the literature. However in the two gynecological writings, namely *On Generation* and *Diseases IV*—generally considered a supplement to *On Generation* though related to diseases in general, not just those of women—the humoral theory was presented in reference to the humor water and not to that of black bile; in sum, the water version thus appears to provide more material for a discussion of women bodies.

In the third chapter, then, the main Hippocratic medical texts will be presented with limited explanation or interpretation; the purpose of this chapter is to bring together the cases and explanations in a wide enough range so as to have a

more complete notion of the main material. This chapter will also serve as the source material for the more analytical discussions of the fourth chapter. The fourth chapter is devoted to discussion of the principles and concepts involved, following the third chapter. Attention shall be paid to the water humor motif and the function of nature in its various forms. The findings will be examined through focusing on on the practice itself inspired, as noted above, by Crombie's "styles of thinking" (1994).

In summary, while observation based medicine is a novelty in ancient Greek medicine to the extent that Hippocrates is popularly considered the "father" of modern medicine, for us here, while he importantly opened the way for the observational basis for women's diseases beyond divine intervention and ritual or "temple" thinking, the Hippocratic tradition also aligned this approach to nature's processes under the aegis of a largely healing nature and a doctor who vehicles this process.

While an observer as early as Soranus credited him as "father of gynecology" in his renown works,⁴ this major development has been underestimated in the literature, where Hippocrates is associated with the practice of medicine in general, or of participating in a culture of misogyny, thus blurring the epistemological consequences of his approach towards women, that is, of making her nature an object of observation.

⁴ *Gynecology and The Life of Hippocrates*. For a good interpretation of the former, see Owsei Temkin's *Soranus' Gynecology* (1956).

CHAPTER 2

HISTORICAL AND THEORETICAL BACKGROUND

This chapter has three parts. The first part briefly brings forward the concept of “styles of thinking”, and reflects on general approaches to the philosophy and history of science. The second part concentrates on the medical histories of ancient Greece; where first Hippocrates of Cos will be examined in his historical context, second the times before and after the Hippocratic Period. Third part is concerned with the main theories of ancient Greek medicine.

2. 1. Approaches to History and Philosophy of Science

In this part the main philosophical approaches to the history of scientific thought will be summarized to bring the concept of “styles of thinking” to the fore, rather than the established concept “paradigm” (Kuhn, 1962). The concept of “paradigm” as a tool to interpret the history of science was introduced and popularised in 1962 by Thomas Kuhn in his groundbreaking book *The Structure of Scientific Revolutions*. In this work Kuhn asserts that “paradigm” is the unit of analysis in describing the development of scientific thought. Traditionally scientific development is considered to be an accumulative, continuous, and uninterrupted straight linear form. Kuhn questions this approach and posits that scientific process is formed in an algorithm of raptures, gaps, and revolutions. Using the concept of paradigm, he tries to capture the dominant view in a scientific discipline or in a research area in all its aspects of methods and techniques.

Karl Popper (1945) in his *Open Society and its Enemies* asserts that in a normal scientific research and knowledge production period, data are collected in the limits of the theory, where the hypothesis produced from the theory is tried to be “falsified”. However, as Kuhn assumes as well, theories cannot be disproved by several falsifications, rather/instead, data that does not fit the theory are kept outside

the margins of conclusion. When an increase in such marginalized findings becomes unwarranted, as Kuhn puts it, “anomalies”, a need for an alternative theory or paradigm arises. After a new theory or paradigm is formed, scientists working in the previous field begin doing research around the new body of information, leaving the old one behind. The transition from the mainstream paradigm to the new one is not regarded by Kuhn as an evolution but a revolution. Since the two paradigms are “incommensurable” the change is radical.

Such a change will be reflected upon in the present study. The transition from the temple medicine of the Asclepius¹² cult, exemplified in Herodotus, to the natural medicine of pre-Socratic philosophy, is considered a “paradigm of rationality” in terms of the Kuhnian paradigm shift (Longrigg, 1993; 1998). In the former way of thinking spending a night at the Asclepion was considered necessary for healing, whereas in the latter method, specific medical theories and practices were used. However, as it will be argued, this transition did not take place as Kuhn asserted, like an incommensurable and radical breakdown, nor as an accumulative straight line in the traditional sense. In contrast, it was a change in the method of the Greek medical practice, namely through observation, which made the human bodies come into view as objects of observation. At the same time, Hippocrates himself was a son of an Asclepiad, and for more than centuries the two ways of medicine were practiced together within the same¹³ regions.

If one is to go back to the Popper’s falsificationist approach, which is dichotomous with the pre-Popperian verificationist approach, one can observe that it was one of the main epistemological developments of the twentieth century. However, as it was illustrated above, it was not enough to capture the complex scientific relations, such as those in medical practice. When the human body is

¹² Asclepius is the god of healing in ancient Greek mythology. It is said that he is the son of Apollo and learned the art of medicine from a centurion. There were many temples devoted to Asclepius in ancient times, the oldest of which is dated back to 600 B.C., and the most popular of these cults was in Pergamum which is dated to 300 B.C. The Cos Asclepion (the name given to their temples), which is the home of Hippocrates, can be dated to before 500 B.C. It was said that Hippocrates was the ninetieth generation of the Cos Asclepiads, where the priests working in the temples were called the Asclepiads. Besides the Asclepion in Athens, which is the known oldest one, it is said that there were more than 320 Asclepieae in the ancient Greek region (Edelstein, 1945; Kerényi, 1959).

¹³ Hippocratic School was first in Cos, and also there is the Cos Asclepion, furthermore, since Hippocrates is also a Cos Asclepiad (a priest from male descent) he practiced his medicine there in the Cos Asclepion.

involved, there are multiple causes for disease and health conditions; therefore, the notion of falsification is not sufficient in itself to understand these relations since it is not clear how, when and why false instances are sufficient for the falsification of a theory in these complex conditions. For example in Hippocratic medical practice, there is the aphorism that bleeding from the nose is good, in a virgin who cannot menstruate (Hp. Apr. 5. 33); however in case histories, there are examples (i.e. Leonidas's daughter [Hp. Epid. 7.1.123], a virgin, who died after her nose bleed, despite her lack of menstruation). And these instances do not change the general aphorisms. Therefore, in complex relations like medicine, we can argue, falsification is also complex; one cannot determine that this or that thing is simply falsified or not.

Thirteen years after the publication of Kuhn's book, a student of Popper, Paul Feyerabend, published a book in 1975 with the heading *Against Method*, where he argued that the "falsificationist" method of Popper needs modifications (Feyerabend, 1975; 1979; 1989; Lakatos and Musgrave, 1970). In order to drop a theory, or in his words "to abandon a theory", there must be many false instances. Yet it is still not clear when and how many false instances take the theory to a point where it must be abandoned. Gorgias's wife case can be viewed in this context. Gorgias's wife (Hp. Epid. 5.11) stopped menstruating four four years, then she got pregnant, and then pregnant again (this is believed to be superfetation in Hippocratic practice) then she got pains, fever, and such. She aborted a dead fetus, with a hip on the right shoulder, but she still had puffiness in her abdomen. In Hippocratic medicine it was said that if there is a dead fetus in the womb, it must be first manually, second by *pharmakon* (drugs) tried to get out (Hp. Superf. 7). But the doctor(s) in Georgias's case did not do anything but wait, instead of her deep pain and fevers. Finally in the fourteenth day of her fever she (by nature) aborted the dead fetus, and recovered. Here it can be asked (as a modern reader) why this Hippocratic doctor never tried to abort the child manually or by *pharmakon* since it is already said in a Hippocratic text to do so; the answer maybe is that he waited for the nature to do her job, of healing. Therefore, as this case projects, it is not easy to decide when, how, and what is falsification, for especially a life/death situation, both the theory of superfetation (Hp. Superf. 7) and of nature (that nature tends to heal) functions together, and doctor must decide what to do for each specific cases. Feyerabend speaks of the "proliferation of theories" instead of one single paradigm (1989) and argues that there is no one paradigm or

one theory to continue, as it was seen in the example above (the theory of superfetation and of nature worked together, even paradoxically, in scientific practice.

Feyerabend believes that proliferation does not follow specific methods, and any theory can be used in the proliferation of theories (1975; 1989). However, it can be argued that such an approach is likely to fall into the traps of relativism.¹⁴ For example one can speak of a proliferation of theories in pre-Socratic philosophy. In pre-Socratic philosophy there are various elemental theories which attempt to capture reality, albeit in a relative fashion, such as Anaxagoras's *aether* theory or Thales's water theory among many. Yet these diverse theories have been gathered together in Empedocles's four elements theory, which was the basis for the Hippocratic humoral theory. In other words, Empedocles resolved the issues of proliferation and relativity by bringing together individual theories, just as a "scientific research programme" in the Lakatosian sense does (Lakatos and Musgrave, 1970; 1992). Moreover, the Hippocratic humoral theories, in contrast to Feyerabend's viewpoint, changed and proliferated following a historical path structured through the algorithm of wars and famines (fig. 1, p. 18). In addition, as it will be seen throughout this study, these methods were developed through the observations and experiences of Hippocratic practitioners.

Imre Lakatos, who is a colleague and student of Popper, stands in between Kuhn and Feyerabend, both historically and theoretically, and suggests that the concept of "scientific research programmes" should be employed instead of paradigm (Lakatos, 1978). This concept is to demonstrate how scientific theories were transformed while preserving the core of the theories. If the changed theory explains the falsification of the hypothesis and protects the theoretical and empirical progress from rejection and projects new research areas, then that research programme is productive and progressive. If the patching preserves the theory from rejection but presents no new research areas then that programme is beginning to decay (Lakatos, 1978).

¹⁴ Relativity can be viewed from Protagoras (490 B.C.-420 B.C.) to the present as such: Protagoras opened the way for relativism with his aphorism "Man is the measure of all things: of things which are, that they are, and of things which are not, that they are not". Here the ancient Greek word things, *kremata* (κρήματα), meant the things which can be reached by human mind. A tree cannot make a sound when it falls if there is no one to hear it. This hypothesis caused big debates throughout history. It can be said with Protagoras's view that man is the center of all things, concepts like truth or falsehood became problematic because truth is a relative concept that changes from mind to mind (Freeman, 1983).

The productivity of a scientific research programme is determined through its production of inferior theories and models and their corresponding “problem shifts” (Lakatos, 1978). In a scientific research programme, first there is the “hard core theory” which does not change at all. Second, the positive and negative “heuristics” which gives rise to “problem shifts,” and third, the inferior concepts and hypothesis which led to the construction of models. The main aim of all is to explain how scientific research would continue without falling into the gaps of relativism.

However, Lakatos can also be criticized for assuming never changing core theories. The core of these theories, as it can be seen from the use of ὕδωρ (*hydor* - the watery humor) in the four humors theory in the following chapters, was also changeable. At it will be seen in the third and fourth chapters, the four humors theory was used with the humor water in gynecological texts, while probably afterwards another humor, namely black bile¹⁵ μελαγχολία (*melan cholía*) was introduced into the theory. Four humors theory was part of the core of Hippocratic practice and almost all other theories were dependent on that basic principle. The principality of the four humors and the use of the two different versions of them, made determining a never changing hard¹⁶ core for Hippocratic medicine nearly impossible.

Lakatos’s “scientific research programme” approach which overcomes Kuhn’s radical paradigm shifts and Feyerabend’s proliferation and method opposition is an appropriate epistemological perspective to exceed the relativism described above and to account scientific progress rationally. In some respects, however, it is not suitable. There are two main reasons for this. The first problem is the acceptance that there are never changing hard cores in scientific progress which is discussed above. The second point is its claim on rationality.

As it can be seen from ancient medical practices, there can be irrational elements in the practice of science. For example, in the period of Asclepion medicine, the interpretation of the dreams of a patient, which is basically imaginative and irrational, played an important part in the practice of healing (Tick, 2001). This

¹⁵ Which is a theoretical entity known to early Hippocratic gynecology mainly as a psychological agent in the body, though is not one of the four main humors, but only a kind of entity that can be in the body in special occasions. It was “said to be” seen due probably to malaria epidemics in the region, malaria was also called black malaria since it kills the blood cells, and results in black residues. Other than this it was recorded in Hippocratic cases only very few, mainly diseases related to delirium, or over drunkenness.

¹⁶ The word Lakatos originally used for the defining aspect of science (1970).

issue goes hand in hand with natural/observational medicine, such as the Hippocratics.

Crombie (1994) argues on behalf of practice instead of progress, and in investigating the practice of science rationality may not be the main concern most of the time in especially context of discovery.¹⁷ Crombie, who is a contemporary to Popper, advised a narrower but a more historical concept, namely *styles*, which can be argued to maintain the sensitivities of science discussed above. Styles, as it is put forward by Crombie, are not determinative like paradigms or research programmes, but only assume specific shared thinking methods for specific scientific practices, . The classical period of ancient Greece can be considered as a scene of changing “styles of thinking” in human ways of understanding and reflecting upon nature and Crombie’s five of six exemplary styles were cultivated in ancient Greek (Crombie, 1994).

The six different styles in Crombie’s massive book *Styles of Scientific Thinking in the European Tradition: The History of Argument and Explanation especially in the Mathematical and Biomedical Sciences and Arts* are first the method of postulation which is exemplified by the Greek demonstration of the regularities of nature with the power of geometry and arithmetic; the second which is the experimental method is to control and enhance the first, which also took place in ancient Greek period. The third Crombian style is the hypothetical modeling which was introduced to know the unknown by the known and has many examples in ancient medical theories, including the theory of four humors. The fourth is taxonomy, the logic of ordering by comparison and differentiation, where Aristotle is considered as its father. Statistical analysis, the fifth, was the only one which wasn’t rooted in Greek thinking, but historical derivation which is the sixth, exemplified by the Greek practice of medicine. It is explained by Crombie as the diagnosis by using common characteristics of diverse existing things (Crombie, 1994, p. xi-xx).

As it can be seen in Crombie’s book that medicine and mathematics were the two special branches of Greek science which shaped the European thinking during

¹⁷ Hans Reichenbach (1938) introduced the distinction between context of discovery and context of justification in scientific relations. In regarding rationality the former reflects the imaginative side of scientific creation which is hard to trace in rational moods.

the following thousands of years. . In this context the exemplary styles can be seen to operate in terms of both medicine and mathematics. The Crombian styles of historical derivation, hypothetical modeling and experimental method can all be investigated in terms of four humors theory of the Hippocratic medicine. Medical taxonomy, in its peak with Aristotle, was also rooted in Hippocratic practice. Besides, an additional style of observation can be added to this schema with the emphasis on bed-side observations of the Hippocratic practice which made human bodies objects of observation. Through the writings of the *Hippocratic Corpus*, and especially in the series of *Epidemics* it can be seen that observational style was inherent in Hippocratic practice of medicine as it will be discussed in the related chapters and in the conclusion part, in details.

Also, it will be argued that investigating women's diseases in Hippocratic observational style can open novel perspectives in philosophical and historical studies about women and their viewing in the history of science. It can be said that women and their bodies were almost invisible in ancient Greek studies. The observational method of the Hippocrates made the women body visible in the field of medical observation inasmuch as the concept of styles was successfully grasped. It can be argued that this can only be demonstrated by the investigation of the styles of Hippocratic medicine since it is beyond the determinative categories of traditional views in the history of science.

2. 2. Medical Histories of Ancient Greece

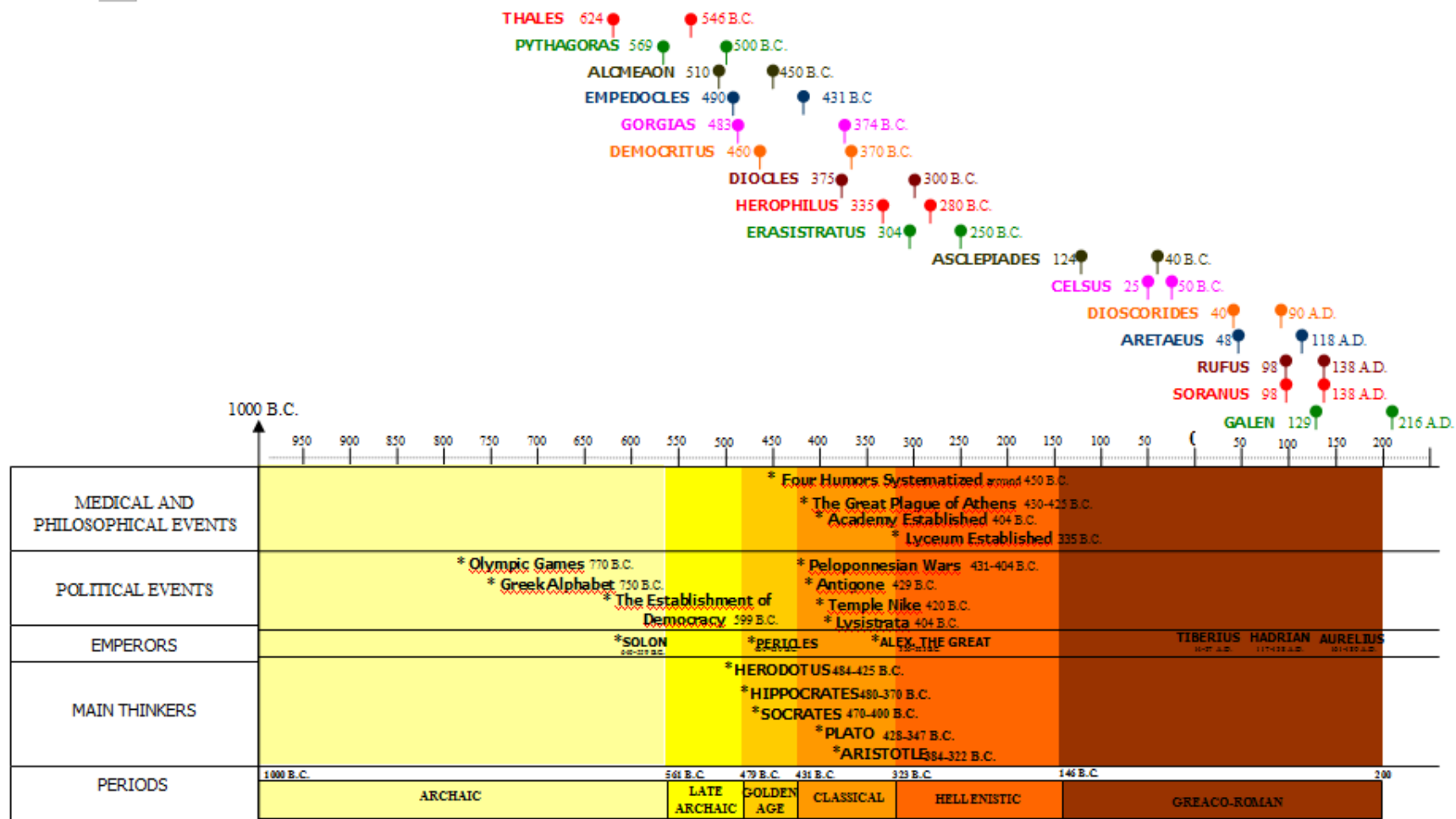
The concept of "styles" emphasizes what may be briefly described as shared methods, mindsets, ways of thinking and reasoning that developed out of the true-and-false categories that these methods constituted during the regions and periods of their usage (Crombie, 1994). Ian Hacking has referred to this as values of "truth-or-falsehood" (Hacking, 2002). Styles embrace, in a modest way, the diversity of scientific practices that were accepted by specific scientific communities. This chapter attempts to provide a brief overview of the Hippocratic scientific community and of the periods preceding and succeeding the Hippocratics as well as a summary of the main medical, political and social events of the Hippocratic era.

A brief attempt will be made to establish connections between the Hippocratic practice of medicine and medical writings from before, during and after the dominance of the Hippocratic school of thought, especially those of the the pre-Hippocratic Democritus and Empedocles, who introduced the main theories used in Hippocratic gynecology; the post-Hippocratic Areteaus of Cappadocia, and his students Rufus and Soranus of Ephesus, with regard to their professionalisation of gynecology; and Galen, as a historical figure who intertwined philosophy and medicine and made Hippocratic texts came up today. Given the wide range of practices with which medicine, with its object the human body, is intertwined, ancient texts such as those of Herodotus that deal with life in general during this period will also be examined.

This part of the chapter aims mainly to clarify the historical periods related to Hippocratic medicine without laying claim to any relationship between Hippocratic circles and any historical medical fact other than that through the Hippocratic method of observation, the human body became an object of science. In the next part of this chapter, the observational style of the Hippocratics will be examined in detail by looking at each of their main medical theories on an individual basis, thereby establishing the historical background mainly by referring to the mainstream literature. The figure below (Fig.1), which represents a brief synthesis of several mainstream texts describing the ancient Greek and Roman period, provides an overview of medical and political events and thinkers with the aim of establishing the historical background for the rise of the observational style and its impact on the view of human bodies as objects of medical practice.

Fig. 1: Ancient Greek and Roman Chronology of Political, Philosophical and Medical Thinkers and Events

(Ref: This figure was developed based on sources including Jouanna, 1999; Longrigg, 1993; Nutton, 2004 and internet resources such as <http://users.ox.ac.uk/~jrlucas/libeqsor/isonomia.pdf>.)



2. 2. 1. Hippocrates, Pre-Hippocratic Temple Medicine and the Pre-Socratics

Hippocrates of Cos, the ‘Father of Medicine’, is said to have been born in 460 B.C. and to have died in 377 or 380 B.C. (Jouanna, 1999; fig. 1, p. 18). His fame in the period can most likely be attributed to the help he provided during the famine that occurred after the Peloponnesian War, which began in 431 B.C., when Hippocrates was in his thirties, and ended in 404 B.C., when he was in his sixties. This period of Persian invasions, war and famine was certainly one in which a successful medical figure like Hippocrates could make his mark as a fine physician who devoted his life to curing the sick. In fact, Hippocrates was an eighteenth-generation member of the Asclepiad family by patrilineal descent (Jouanna, 1999) whose relatives included the medical priestess of the island of Cos and practitioners of Asclepiad medicine in the island’s renowned temple.

Plato mentions in the *Protagoras* that Hippocrates of Cos may himself have been an Asclepiad¹⁸ priest or the son of an Asclepiad priest (Plat. Protag. 311b). Thus, it can be said that Hippocratic medicine was rooted in the cult of Asclepius, who was revered by the ancient Greeks, and that Hippocratic practice in its incommensurability did not differ greatly from the ‘black box’ style of temple medicine, although it can also be said that Hippocrates ‘opened the box’ to make visible the things inside, i.e. the human body.

It is likely that Hippocrates was a renowned physician who traveled throughout northern Greece, mainly in Thessaly and Thasos, during and after the war in order to help and observe people suffering. The famine described by Thucydides in *The History of the Peloponnesian War* (431 B.C) has long been discussed as being some type of malaria or not (Morens and Littman, 1992, p. 297), the disease is

¹⁸ The priests working in the Temples of Asclepius were called the Asclepiads.

common to the Aegean region and one that had an influence on Hippocratic medicine.¹⁹

In his realistic account of the plague that followed the Peloponnesian War, Thucydides, like his contemporary Hippocrates, provided thorough descriptions of ailing human bodies and the symptoms of the disease. It can be argued that Thucydides's detailed descriptions of human bodies form part of a new approach that began during the Hippocratic medical observational period. However, being that his main aim was to describe the war and plague, the disease and descriptions of women's bodies and their gynecological conditions are missing from Thucydides's writings (Crane, 1996).

Among the Pseudo-Hippocratic texts is a letter from the son of Hippocrates, Thessalus, which mentions how Hippocrates predicted the time and place of outbreaks of plague in different regions within Greece by calculating the wind and water conditions (Jouanna, 1999). In line with the general Hippocratic environmental style, Hippocrates attempted to cure sufferers of plague, and while he succeeded in many cases, he was unable to save Pericles the Olympian, the great commander of the Greek Union whose name is often used to describe the period of the Peloponnesian War. The Age of Pericles is considered a 'Golden Age' in Greek history, and it can be argued that it is no coincidence that a figure such as Hippocrates arose during such an age, whose governorance under a great statesman would have provided encouragement to Hippocrates and his followers to travel and spread their ideas on medicine (Samons, 2006).

Longrigg (1993) in *Greek Rational Medicine* describes Hippocratic medicine as 'rational' and opposes it to what is defined here as temple medicine and what Longrigg refers to as the 'irrational' medicine of epic times. Longrigg offers

¹⁹ Malaria is an infectious disease that is transmitted by mosquitoes and causes fever (Concise Medical Dictionary). The course of the disease varies according to the type of malaria and ranges from several hours to several days. The relationship between malaria and the four humors, critical days and Hippocratic medicine in general will be discussed in the following chapters. It is known that malaria is recognized by Hippocrates (Jones, 1909; Morens and Littman, 1992, p. 299).

examples from Homeric epic, for which he then proceeds to offer his own interpretations. Among the tales related is one from the *Odyssey*, of a father who travels with his son to a temple, whose priests he asks to heal the boy's eyes. This example can offer an understanding of both the pre-Hippocratic 'black box' style of temple medicine as well as Longrigg's claim of the Hippocratic rationality. The story describes the journey, during which the father tries to collect money that he has lost and that he needs to pay the temple priests, as well as the boy's time in the temple, during which he is expected, according to the priests, to see visions that will lead him to a cure. It describes the boy's fear at being left alone in the temple, as well as the father's belief in the priest's power to heal his son. However, as money, a night in a temple and dreaming provided enough material for the Homeric stage, the reader is left on her own to imagine how recovery was attained. The outcome is presented – the boy is found the next day to have regained his sight – but no description is provided of the actual practice of healing, which remains in a 'black box' that is accessible only to the priests.

Longrigg describes this story as completely irrational because the healing process is irrationally related with dreams, which are in themselves irrational; however, the only conclusion that can safely be drawn from the story is that the practice was sacred and under the control of the priesthood. While it can be argued that this story illustrates the 'black box' of temple medicine in that the actual details of the practice are veiled, it can also be argued that the priest's actions at the temple could have been regarded as rational if they were to have been observed by others. In fact, not only did the practice of temple medicine continue for centuries after the Hippocratics, as noted above, Hippocratic writings also include a text on dream healing, a practice used by the Hippocratics, despite the fact that in Longrigg's sense, the practice is irrational. Since the practices described in the Hippocratic text *On Dreams* can be viewed, i.e., they are unveiled in the eyes of the reader through Hippocratic observation of these practices, they may be considered observational, regardless of whether they are rational or not.

Between temple medicine and Hippocratic medicine stands another pre-Hippocratic tradition, the pre-Socratics. Longrigg (1998) has published a detailed study of the relationship between Hippocratic medicine and pre-Socratic natural

philosophy, particularly that of Alcmaeon of Croton²⁰, whose natural philosophy assumes rational causes to diseases and whom Longrigg thus connects with Hippocratic medicine. However, as discussed earlier in the Introduction, focusing on the concern on rationality with regard to Hippocratic practice is problematic in that irrational elements often go hand in hand with rational ones in Hippocratic medicine, which, for example, includes the use of dreams and the concept of the ‘wandering womb’ searching for water. Against the claim of rationalist ancient historians, whom Longrigg represents, Kingsley (1999) asserts that in addition to this known tradition of rationality, there is another practice in ancient Greece that, conceptually, can be more properly referred to as mysticism. In suggesting that Asclepius temple medicine and Hippocratic medicine were continually used in the same regions, we prefer Crombie’s (1994) focus on the methods of practice, rather than on whether or not either of these methods were rational.

In addition to the pre-Socratic Alcmaeon, the natural philosopher Democritus is also important in terms of evaluating Hippocrates. Democritus’s theories of pangenesis²¹ and irritation, which argue that the female response is produced by particles in the womb, influenced the Hippocratic way of practicing medicine, especially in terms of explaining women’s diseases and female sexual pleasure (Lonie, 1981, p. 106). Of even greater significance is the natural philosopher, Empedocles, who is said to have developed the famous four humors theory of medicine and to have argued, in line with that theory as well as the theory of balance, that opposites cure opposites. Like Socrates and Hippocrates, Democritus’s birth in 460 B.C. places him in the classical period from 480-323 B.C. (see Fig. 1 above), a period which, as Crombie pointed out in his discussion of exemplary styles (1994), witnessed the development of different styles throughout the Greek region, including

²⁰ Alcmaeon of Croton (510 B.C.- 450 B.C.) was known mainly as a doctor and may be considered the ‘Father of Hippocratic Medicine’. Some (Hatemi and Ülman, 2005) argue that he may be the famous Lokman Hekim, who is still known today in the region of Anatolia. Alcmaeon gained notoriety for his emphasis on the brain as the organ in control of the entire body (Barnes, 1982; Beare, 1906). In Diogenes Laertius’ book *The Life and Opinions of Eminent Philosophers*, he is mentioned as describing nature as consisting of two main elements (Hicks, 1972).

²¹ The theory of pangenesis argues that semen is collected from all over the body and is transmitted through both parents. For a good discussion on this topic, see *The Pangenetic Theory in the Tradition of Greek Medical Science* by Kagakushi Kengyu (Kengyu, 2009).

those of the Empedocleans and the Democriteans. Whereas the ideas of Empedocles will be reviewed briefly below, Democritus's thoughts will be discussed in greater detail in the third chapter on women's diseases in *the corpus*, where the connection will be drawn between Democritus and the *Hippocratic Corpus*, particularly with regard to issues concerning pangenesis and female sexual pleasure.

Diels's *Ancilla to the Pre-Socratic Philosophers* refers to Empedocles as a student of Parmenides from Acragas (Agrigento) in Sicily. Having travelled broadly as both a philosopher and a medical man, Empedocles was influenced by the Pythagorians as well as by the pessimistic cult of Orpheus, in that he advised against the killing and eating of animals (Freeman, 1983, p. 129). Empedocles argued that love is the power (*dunamis*) that brings opposites together, whereas what makes them opposites is strife (Freeman, 1983, p. 130); thus, love can be equated with health and the balance of the four elements – sun, water, soil and air – which move in accordance with their influences – hot, moist, dry and cold, respectively (Freeman, 1983, p.131). Strife, on the other hand, can be equated with disease (Kingsley, 1995). What is most noteworthy in terms of the Empedoclean impact on Hippocratic observational practice is that both their philosophies engendered a love of nature.

Much has been written about the life and death of Empedocles. The most famous account is related to the time of the 84th Olympiad (444-441 B. C.), when he was said to have saved Agrigento from famine and revived from near death a woman whom no other doctor could treat by, according to the sophist Gorgias, singing like a magician. Aristotle reported Empedocles to have died close to the age of sixty; however, Diels refers to Empedocles as travelling for beyond this time (Freeman, 1983, p. 134). Although Empedocles did not mention in any of his known treatises on the four elements a connection between the elements and bodily humors, his elemental theory can be viewed as the basis for the Hippocratic theory of the four humors of the body (Hp. Nat. Hom. 4). In addition to the influence of Empedocles's theory of the four elements, his argument that the embryo is covered in membranes is similar to the embryology of the Hippocratic treatise *On the Nature of the Child*; (Freeman, 1983, p.163; Hp. Nat. Puer. 5, 6,7).

Other pre-Socratic figures to have had an influence on Hippocrates included Thales, who emphasized the principality of water; Pythagoras, with his holistic

attitude towards the world and observational entities (in his case, numbers); and numerous other thinkers in the Greek region (Anaximander, Anaxagoras, etc.) with various attitudes towards observables.

2. 2. 2. The Pre-Hippocratic Period: *The Histories* of Herodotus

Most probably written between 450-420 B.C. (see fig. 1 on p. 18), *The Histories* of Herodotus of Halicarnassus (480-429 B.C.) is a record of the time immediately preceding the Greek Classical Period that provides an overview of life in general – traditions, medicine, politics, philosophy, geography – from the perspective of the day. As such, it presents a dichotomy, with the glorious Greeks on one side, and the ‘Barbarians’ on the other. The text is useful with regard to clarifying the differences between temple style and Hippocratic observational style in terms of the failure of the former to present an object of medical observation. Given that *The Histories* begins by describing the never-ending cycle of Persian invasions, and that war is perforce accompanied by injuries, famines, hunger and death, the first four books of the collection, in particular, include numerous instances relating to medical practices. Among the various accounts is that of a cure for blindness:

On the death of Sesostris, his son Pheron, the priests said, mounted the throne. He undertook no warlike expeditions; being struck with blindness, owing to the following circumstance. The river had swollen to the unusual height of eighteen cubits, and had overflowed all the fields, when, a sudden wind arising, the water rose in great waves. Then the king, in a spirit of impious violence, seized his spear, and hurled it into the strong eddies of the stream. Instantly he was smitten with disease of the eyes, from which after a little while he became blind, continuing without the power of vision for ten years. At last, in the eleventh year, an oracular announcement reached him from the city of Buto, to the effect, that “the time of his punishment had run out, and he should recover his sight by washing his eyes with urine. He must find a woman who had been faithful to her husband, and had never preferred to him another man.” The king, therefore, first of all made trial of his wife, but to no purpose he continued as blind as before. So he made the experiment with other women, until at length he succeeded, and in this way recovered his sight. Hereupon he assembled all the women, except the last, and bringing them to the city which now bears the name of Erythrabolus (Red-soil), he there burnt them all, together with the place itself. The woman to whom he owed his cure, he married, and after his recovery was complete, he presented offerings to all the temples of any note, among which the best worthy of mention are the two stone obelisks which he gave to the temple of the Sun. These are magnificent works; each is made of a single stone, eight cubits broad, and a hundred cubits in height (Hero. Hist. 2.115).

When a comparison is drawn between this story and that of the blind boy of Homer, some similar elements can be observed. In both, recovery required sacrifices – of money in Homeros and offerings in Herodotus. Neither story mentions any cause of the disease – rather, the onset is sudden, with no physical cause – and no mention is made of any of the four elements being involved in either the disease or the cure. In the account from Herodotus, there is some type of gynecological involvement (the disease of the eye will be resolved if the wife’s sexual unfaithfulness is resolved); however, the story fails to give any account of the human body as an object of observational medicine.

Similar features can be observed in Herodotus’s well-known story of the rebuilding of the temple of Minerva, which is the story of the illness of Alyattes (Hero. Hist. 1.21-25). Briefly, the king falls ill shortly after the temple of Minerva burns to the ground in a disastrous event during the 12th year of the war between the Milesians and the Lydians. Either upon the advice of a friend, or on his own initiative, the king conceives of the idea of sending messengers to Delphi to ask the god about his malady. Upon their arrival, the Pythoness declares that they will receive no answer until they have rebuilt the temple of Minerva. It is only after a treaty is agreed between the two nations and not one, but two temples to Minerva are built at Assesus that the king recovers from his malady.

Another example of the relationship between temples and diseases occurs in the Introduction (Hero. Hist. 1.130), where it mentions how Venus, one of the main protectors of fertility in the ancient Greek pantheon, punished the Scythians with infertility for plundering her temple. Herodotus reports that the Scythians themselves believe that this is the reason for their affliction. In the second and the fourth book also, Herodotus writes more about the Scythians in the second and fourth book (Hero. Hist. 4.1), where he tells of Scythian soothsayers who prophecy the future by tying and untying wands in a mode of divination that, according to Herodotus, is peculiar to Scythia²².

²² According to Hippocrates, the Enarees (*Anaries* in Hippocrates), or women-like men, have another method of prophesying that they claim was taught to them by Venus. This consists of winding and unwinding strips of the inner bark of the linden tree around their fingers as they prophesy.

This practice of telling the future, described by Herodotus mainly with reference to the Scythians, is similar to the practices of temple medicine in its lack of observables. Herodotus writes further of Scythian medical practice, relating how whenever the Scythian king fell sick, he sent for three of the most renowned soothsayers of the time, who came and performed their art in the manner described above (Hero. Hist. 4.70), in most cases naming a person who had caused the king to fall ill by swearing a false oath by the royal hearth.

A contrasting medical practice is attributed to the Babylonians, who, according to Herodotus,

(...) have no physicians, but when a man is ill, they lay him in the public square, and the passers-by come up to him, and if they have ever had his disease themselves or have known any one who has suffered from it, they give him advice, recommending him to do whatever they found good in their own case, or in the case known to them; and no one is allowed to pass the sick man in silence without asking him what his ailment is (Hero. Hist. 4.228-9).

This tradition may be important in understanding the roots of the observational style of Hippocratic medicine, for, as the above description shows, the sick body was an object of medical observation for the Babylonians. It may be that this was the basis of a method that was advanced by the Hippocratics, as it will be seen that Babylonian medicine was in accord with that of the Hippocratics in some respects including the observational practice of human bodies.

Herodotus's description of Babylonian medicine reveals other resemblances with Hippocratic medicine. While women are said to have been treated as equals with men in Babylonian culture (Tatlow, 2004), the example below provides an interesting view of the place of women in this ancient culture. Every woman born in the country must once in her life go and sit down in the precinct of Venus (Hero. Hist. 1.230) and there consort with a stranger. A woman who has once taken her seat is not allowed to return home until a stranger has thrown a silver coin into her lap and taken her with him beyond the holy ground. When he throws the coin he says the words, "The goddess Mylitta²³ prosper thee." The silver coin may be of any size and

²³ Mylitta is the name used by the Assyrians, and thus the Babylonians, to refer to Venus.

it cannot be refused. This custom, it can be argued, makes the body of the women observable, at least to her society, and it is in accord with the custom described above whereby sick bodies were presented in the streets by the sick themselves.

The following example highlights the importance of sexual hygiene in Babylonian culture, which is also a feature of Hippocratic medicine (for example in the Hippocratic texts *On the Nature of Women*, or *On the Diseases of Women*). When, Herodotus wrote, a Babylonian has intercourse with his wife, he sits down before a censer of burning incense, and the woman sits opposite him. They wash at dawn, for until they have washed they must not touch any of their common vessels. When it comes to Babylonian funerals, the dead are buried in honey – an ingredient which also appears frequently in Hippocratic recipes – perhaps for its qualities as a preservative.

Certain elements in Egyptian culture may also be viewed as similar to the ancient Greek practice of medicine. Convinced that every disease to which men are liable is occasioned by the substances whereon they feed (Hero. Hist. 2.87), Egyptians, according to Herodotus, use employ emetics to purge themselves for three successive days. This practice – purging by means of emetics – was also frequently utilized in Hippocratic medicine. Egyptian medicine also argued that diseases come with seasonal changes (Hero. Hist. 2.88), an ecological claim that is in direct accord with Hippocratic environmental medicine, as presented mainly in the Hippocratic text *Airs, Waters and Places*, in which seasonal changes and their effects were described as a precondition to health.

Herodotus's writings described the professionalisation of medical practices among the Egyptians, who relied significantly on continuity of practice (Hartog, 2000). According to Herodotus, Egypt was swarming with medical practitioners, each of whom treated a single disorder. For example, Herodotus mentions physicians who treat diseases of the eye, the head, the teeth and the intestines as well as those who address more than localized disease (Hero. Hist. 2.87-9), with information shared among practitioners of a particular discipline; however, he makes no mention of gynecology as a profession in Egyptian medicine.

Although it is clear from Herodotus's writings that Egyptian medicine was much more professionalized than Babylonian medicine, on the other hand, the Babylonians were more inclined towards observation and more sensitive to women's bodies. The Hippocratic observational style and its professionalisation in women's diseases can be read as a middle way between these two ancient cultures. As it is not the aim of this study to investigate the roots of Hippocratic medicine, but to understand the means and methods used in Hippocratic medicine, for the purposes of this study it is sufficient to point out that the Hippocratic novelty of viewing the female body as an object of professional observation was the product of multi-layered historical research in which Babylonian and Egyptian medical practices played crucial roles. Whereas Egyptian medicine's emphasis on seasonal and environmental factors and on medicine as a profession had considerable influence on ancient Greek medical practice, medical customs applicable to women only that form part of ancient Babylonian medicine, although not clearly detailed by Herodotus, are paralleled in the Hippocratic view of women. This will be discussed again in Chapter Four.

Herodotus also mentions other sets of medical practices that bear no resemblance to Hippocratic methods. For example, Herodotus describes how in an unnamed group of Indians (Hero. Hist. 3), when any one of them is attacked with sickness, s/he goes forth into the wilderness and lies down to die; as Herodotus wrote in his treatise, among these people, no one has the least concern for either the sick or the dead. This contrasts starkly with a basic tenet of Hippocratic medicine, that the diseased individual should be cared for, whether by means of observation or of religion.

Finally, Herodotus's reports of one particular physician can be added to the medical studies of *The Histories*. Democedes, a native of Crotona and at the same time an advisor to King Darius of Persia (Hero. Hist. 3.145), is described by Herodotus as the most skillful of all eye doctors of the period. This indicates that like Egyptian medical men, Democedes was professionalized, and from the fact that Herodotus credits their profession and clearly holds physicians in great respect, it can be argued that the specific skills of physicians gave them important roles during the

period, even though Herodotus makes no clear reference as to how medicine is actually practiced or what causes disease.

According to Herodotus, Darius already had at his court certain Egyptian physicians, but after suffering for seven days and seven nights from a foot injury, on the eighth day he called for Democedes, a Greek slave, and asked him if he knew medicine. Though already renown for his skill, Democedes denied any knowledge, fearing that if he were found out, he would lose any chance of returning to Greece. However Darius insisted to put himself under the care of Democedes, who, at the end, replaced the violent treatment of the Egyptians with milder remedies customary among the Greeks – although the exact treatment is not clarified in the text. The new approach enabled Darius to get some sleep and in a very short time restore him altogether. Democedes's medical practice can be said to resemble Hippocratic style, since it began with daily observations upon which remedies were then applied, which was characteristic of the Hippocratic style of practice, which will be seen in the following chapter on the investigation of *the Corpus*. Nevertheless, the Hippocratic style of observational medical practice can only be observed obliquely in Herodotus's writings, given that Herodotus supplies neither the description of the damaged foot, nor the ingredients of the remedies Democedes applied.

2. 2. 3. The Post-Hippocratic Period

Hippocrates became a hero to the people of several cultures, from the Ancient Greeks and Romans to the Medieval Arabs and Europeans and eventually to modern-day Americans, 'Hippocratism' cultivated throughout time and people interpreted his style in their practices through their own knowledge. Thus, as it is quoted below in Smith, each imagined him styled in their own reflection.

..., his interpreters and admirers have emulated, or in some cases one is tempted to say imagined, in him qualities that reflected their own ideals (Smith, 1979).

In a thorough investigation of how the Hippocratic tradition of medicine was constructed after the classical period, Smith (1979) attempted to delineate how and by whom this tradition was shaped. Considering the difficulties encountered in

following the trail of Hippocratic texts, Smith concluded that it was impossible to grasp what was original to Hippocrates, what was contributed by later writers, or how these contributions distorted Hippocrates's original texts. "Hippocrates," Smith wrote, "pointed out the straight road, which all good philosophers and physicians followed (Smith, 1979), but nobody completed, since it is infinite as life.

Some of those following the road opened up by Hippocrates redesigned the shape of its contours, some forged long pathways of their own. Among the main followers of the Hippocratic path are the Empiric, Dogmatic and Methodist schools of medicine; the Roman traditions of Dioscurides, Aretaeus of Cappadocia, Rufus and Soranus of Ephesus and the Pneumatics; Galen of Pergamum, who will be discussed in the sections below in relation to the Hippocratic tradition.

As Eijk highlights, ancient medicine, especially the Hippocratic tradition, has been perceived as displaying a differentiation between various forms of schools or sects (*haireseis* or *sectae*) in a manner similar to that of philosophy, although the evidence varies as to what extent particular schools or sects actually existed and had some form of institutional organisation (Eijk, 1999). Irregardless of these difficulties, the division into schools and the classification of individual thinkers as members of a particular school provides a convenient historiographical pattern that simplifies what must have in reality been a far more complicated and diverse process of intellectual development. This habit of labelling post-Hippocratic individuals and schools has persisted up until today (Eijk, 1999, p. 13). One ancient example is that of Soranus, whose *Lives, Schools and Doctors* provides a sort of genealogy of physicians (*iatrikes genealogias*) (p.14) very similar to the one provided briefly below.

2. 2. 3. 1. Dogmatics, Empirics and Methodists

The literature refers to three main schools that developed after Hippocrates and under the influence of Hippocratic medicine: the Dogmatics, the Empirics and the Methodists. At the head of the Dogmatics was Diocles (375-300 B.C.), an Athenian and contemporary of both Plato and Aristotle. The group, which included Proxagoras, Cyrissipus, Herophilus and Erisistratus, took Hippocrates's words as dogma, hence the name, Dogmatics. Not only was Diocles a practicing physician, he is also known for his translations of medical writings from Ionic Greek, the ancient language of medical writings, into Attic Greek. Diocles is said to have been influenced mainly by Aristotelian thinking, and as a group, the Dogmatics were influenced by the Hippocratic observational style's interest in diseased bodies. Diocles himself wrote mainly on animal dissection and anatomy, two determining characteristics of Dogmatism. Cyrissipus,²⁴ another prominent Dogmatist, was a contemporary of Proxagoras and the mentor of Erisistratus who lived in the fourth century B.C. Cyrissipus hailed from Cnidus, an important island that was home to an ancient medical school. Herophilus, another of the Dogmatics, is said to have been an early practitioner of public dissections who worked on cadavers, for which he is known as the 'Father of Anatomy'. In addition to his works on anatomy, Herophilus is said to have written a biography of Hippocrates as well as a book on midwifery, which, unfortunately, were lost with the destruction of the Alexandrian library.

In contrast to the Dogmatics, the position of the Empirics as followers of Hippocrates is problematic, as is their declaration of themselves as a group. The Empirics were the first to declare themselves as a *hairesis*, a sect, or school, in medicine – whereas the term *logikos* is thought to have been used earlier by physicians in describing their orientation – and their detractors referred to them at *dogmatikoi* as a term of abuse (Smith, 1979, p. 181) the Empirics included two physicians from Antioch named Apollonius who were father and son, most likely Apollonius Empircus and Apollonius Senior, respectively (although this is uncertain,

²⁴ Cyrissipus is usually confused with the stoic philosopher, who lived a century after the physician.

as there were many physicians named Apollonius during this period).

The Methodists may be viewed as a sort of ‘middle way’ between the Dogmatics and The Emprics. They included Themison, a pupil of Asclepiades (124 or 129-40 B.C.), who wrote mainly on periodic diseases, and his follower Eudemus, who lived around 23 A.D. According to Eijk, appreciating the sense of the pejorative use of the term *hupothesis* plays a crucial role in understanding the Hippocratic traditions (Eijk, 2005). A good way of addressing this kind of reading is by examining the different ways of doing medicine that developed out of the dissolution of Hippocratic medicine in the Hellenistic and Roman periods, in particular, Methodism. Methodism may be read as a series of specific methods of doing medicine that were dependant upon theory, while claiming to reflect observed ‘facts’ and cohere with empirical data. In this sense, it can be argued that there are similarities between the Hippocratic and Methodist styles (Eijk, 2005, p. 29). At the same time, the Hippocratic style may be said to be more observational than Methodism, which excludes the unknown from both the theory and practice of medicine. For the Methodists, explanations are used only when the cause is knowable, observable and visible. In contrast, in the four humors theory, although blood, phlegm and even yellow bile are visible, black bile is not; rather, black bile, which is the cause of almost all psychological diseases as well as some physiological ones, is an invisible assumption that can only be understood allegorically.

Given that the subject melancholia (μελαγχολία) signifies an emotional and psychological entity in addition to a physiological one, reliance on allegory may be considered normal. In ancient Greece, the body’s domination by black bile constituted melancholic diseases that led to a depressed and emotional state and – as argued by many, most famous among them Aristotle – sometimes to extraordinary experiences such as the writing of poems or philosophy (Eijk, 2005, p. 145; Arist. Prob. XXX). Aristotle and his views on medicine, as put forward by Eijk, can also be examined in relation to his views on humoral pathology and women’s diseases. In accordance with his cosmological view, Aristotle includes black bile among the humors (Arist. Prob.); women, as well, in the Aristotelian world-view, are for the most part invisible in the public domain—and albeit to a lesser degree in the ancient Greek world. Thus, the question arises as to whether or not there may be a

connection between women's diseases and black bile, both of which were invisible entities in ancient Greek thinking.

In summary, it can be said that the three schools that developed after the Hippocratic period were neither followers nor opponents of the Hippocratic style in a strict sense. Rather, while their writings were largely similar to the works of the *Corpus*, they were themselves creating their own schools and styles of practicing medicine (Smith, 1979, p. 199). Thus, while the library in Alexandria may be considered an important source for reviewing the attributes of each style, in fact, the wholeness of the *corpus* itself may be said to have, in a sense, been put together during Alexandrian times.²⁵

According to Smith, the followers of Hippocrates distorted the *Hippocratic Corpus*, presenting it in light of their own ideals so that rather than relying on Hippocrates's use of theory in conjunction with observation, their styles reflected their own ideals. The "tradition" (Smith, 1979) is to interpret and to "reinvent" (Cantor, 2002) Hippocrates continuously. Smith argues that this is a "distortion" since each interpreter viewed Hippocrates in the way s/he wanted to see him. Moreover, referring to the use of anatomy,²⁶ Smith argued that the Dogmatic physicians in particular, including Hippocrates's own sons and son-in-law, falsified and interpolated his work so that no one can discover what belongs to him (Smith, 1979, p. 27). This view will be examined further in conjunction with the discussion on the feminist reinterpretations in the fourth chapter.

²⁵ The following text by Smith (1979) highlights the trajectory: "(...) the sources tell of confusion even among people who worked at the library in Alexandria as to whence came the books that were piled up there and later catalogued and attributed to Hippocrates. The medical books were collected in haphazard fashion. Many were likely the personal copies that had been made for the private use of the travelers from whom they were snatched. It is not surprising, therefore, that they would be anonymous or that some would be composed of material from more than one source. *The Nature of Man*, so important to Galen, is apparently such a composite work, and Galen elsewhere offers his own fantasy about how that book was composed. Probably people could get a good price by selling books to the library, especially if the books bore the names of famous men" (p. 106).

²⁶ As Sprengel wrote, even anatomy, which could have been the basis of observation of the human body, served only to confirm the speculations and theories of the Dogmatic physicians (Sprengel, 1789).

2. 2. 3. 2. The Roman Tradition: Celsus, Dioscurides, Aretaeus of Cappadocia, Rufus of Ephesus, Soranus of Ephesus and the School of the Pneumatics

Besides the Dogmatics, Empirics and Methodists, the Pneumatics of first century Rome may be considered a fourth way of walking the road (*hodos*) of Hippocrates. The burgeoning use of Hippocratic writings is said to have formed part of a general literary revival in Rome (Smith, 1979, p. 74). The main texts used belonged to Celsus²⁷ and, as Smith argues, represented a revival of a system of medicine (Smith, 1979, pp. 74-5) in which the most important element with regard to health as well as disease was the *pneuma*, which can be translated as either ‘breath’, ‘spirit’ or ‘soul’, and which was considered by the Pneumatics to be an immaterial active force (*dunamis*).

Writing during the time of Tiberius (14-37 A.D.), Celsus argued that medicine had been a part of philosophy until Hippocrates, as a student of Democritus, transformed medicine into an autonomous branch that was then compartmentalized and professionalized by Herophilus and Erisistratus, two of Hippocrates’s followers, thereby advancing the art of medicine. Compartmentalization/professionalization of medicine, he assumes, advanced the art of medicine. Celsus’s interpretation supports the argument put forward here that the Hippocratic style of observation played a key role in the professionalization of medicine in a line extending from Hippocrates’s predecessors Democritus and Empedocles through his successors, including the Romans Celsus and Aretaeus of Cappadocia, known for their skill in removing tumors from the womb, in terms of *arête* (excellence) (which will be discussed in Chapter Four). However, if, as Smith argues, the Pneumatics were aware of *the Corpus* yet did not claim these texts as precursors to their own science of elemental *eucrasia* and *dyscrasia*,²⁸ then it can be argued that their understanding of health as

²⁷ *De Medicina*. Ed. and trans. W. G. Spencer. 3 vols. Loeb Classical Library. London, 1935-1938.

²⁸ Corresponding to the balanced/healthy and unbalanced/diseased situations for the four humors theory.

balance contains an unobservable immaterial element and thus fails to conform to the Hippocratic style – in which hypothetical models were established in accordance with observations – that informed the theory of the balance of four humors.

Although his work on acute and chronic diseases has been preserved, Aretaeus of Cappadocia is a difficult figure to identify. According to Smith, where and when he worked is unclear; however, Dumont places him in the Cappadocia region between 48-118 A.D. (Dumont, 1992). Louis-Hubert Farabeuf (1841-1920) devoted a complete work to the relationship between Aretaeus and Rufus of Ephesus, who along with Soranus of Ephesus is considered to be a disciple of Aretaeus. Aretaeus's proficiency in treating tumors is paradigmatic in terms of the Hippocratic professionalisation in gynecology (Adams, 1856), and as the mentor of Rufus and Soranus, who are accepted as the first gynecologists in the history, Aretaeus of Cappadocia may be put forward as the first gynecologist.

By the time of Hadrian (117-138 A.D.), Rome had become a center for physicians and medicine. Rufus of Ephesus (98-138 A.D.) was a famous gynecologist of the time who probably practiced and wrote in the eastern Mediterranean. Rufus of Ephesus studied humoral pathology and the hot, cold, dry and wet properties of the humors, and while most of his extensive and influential writings have been preserved, unfortunately, his Hippocratic commentaries are lost, with the exception of a few that were noted by Galen. It can be argued that the ones that have been lost were those that were not favored by Galen, who decided which parts of the Hippocratic corpus to preserve.

Along with Rufus, Soranus of Ephesus (98-138 A.D.) was the other great gynecologist of the era. Known mostly for his renewal of gynecological ethics, Soranus has been credited with over 20 works on gynecology and obstetrics as well as a biography of Hippocrates entitled the *Life of Hippocrates*. His most important work, *Gynecology*, translated by Temkin in 1956, had been the main resource on women's diseases for more than two thousand years. As Dunn argues, Soranus's work on gynecology contains many remarkable contributions that might have been written today (Dunn, 1995, p. 51), and it is very likely that he developed new skills in the Hippocratic style of gynecological practice through his ethics (Raju, 1980), particularly with regard to abortion and contraception (the two of which, he argued,

differed, with the latter considered ethical to use). Soranus's ethical studies also addressed the subjects of optimum maternal age and antenatal care. For example, in the *Gynecology*, Soranus wrote that the posture of the laboring woman must be upright sitting on a special chair where a crescent-shaped part has been removed from the front (Dunn, 1995). Such a posture was not mentioned anywhere in the *Hippocratic Corpus*, and it is probable that the chair was a later invention of Soranus himself.

2. 2. 3. 3. Galen of Pergamum

Galen of Pergamum (129-216 A.D.) was a very influential doctor in later antiquity (Hankinson, 2008) whose influence in Rome stems at least in part from his position as the personal physician to the emperor-philosopher, Marcus Aurelius. The great 4th-century medical encyclopedia of Oribasius was highly dependent on Galen's works, which, with the rise of Arabic science, were translated into Arabic to reach the Islamic scientific communities and, with the rise of scientific research in the West, were among the Greek texts that were translated into Latin. By the 13th century, Galen's *Medica* had been translated and was being read in Paris (Smith, 1979), and by the 14th century, he had become a canonical figure of medicine in Europe. Thus, it can be said that the European tradition of medicine is basically Galenic.

Among his many treatises, *Medica*, *On the Therapeutic Method* and *On the Natural Faculties* were the main guiding texts during the Enlightenment. He also wrote *On the Utility of the Parts*, *On the Powers of Simple Drugs* and *On Affected Parts*, along with philosophical treatises *On the Doctrines of Hippocrates and Plato* and the *Best Physician is also a Philosopher*. His texts on the humors include *On the Good and Bad Humors*, in which he argued on behalf of four humors, with black bile considered a 'bad humor', along with *On Hippocrates's On the Nature of Man* and *On Black Bile*, in which Galen presents his idolized version of Hippocrates as the ideal doctor, on whom he projected his own views of the critical days and four humors, which are in line with Hippocratic medicine. The Hippocratic treatise *Ancient Medicine*, which is discussed below in its relation to hypothetical thinking, was to have a large place in later reinterpretations of Hippocrates, especially Galen, who collected and ordered all of the scattered Hippocratic material

Through his authority as the emperor's personal practitioner Galen ensured that Hippocrates was immortalized. Arguing against the Methodists and the Empirics, Galen asserted a specific kind of method, which he labeled the 'Hippocratic Method', which stated that observation of the nature of the patient and the surroundings is the only way to precisely identify the correct method of healing. In the book *Therapeutic Method*, usually referred to '*Methodus Medendi*' in Latin, but sometimes as *Megatechne*, Galen argued that diseases can be divided into three categories; those involving unnatural swellings, those involving separation of tissues and those stemming from humoral imbalance throughout the entire body. For all diseases, he continued, one must distinguish cause from effect and symptoms and treat the cause in order to restore the body to its natural condition. Every individual has his or her own natural temperament, and if the body is healthy and balanced, the tissue will unite; however, if it is unbalanced, purging, diet, bloodletting and medicines that will provide the appropriate opposite condition are required to heal by restoring balance to the body.

2. 3. Medical Theories of Ancient Greece

This section discusses a number of ancient medical theories current during the Hippocratic periods as well as before and after, covering roughly the period from 800 B.C. through the 1800s A.D. Medicine before Hippocrates had roots spreading outwards from Asian, Anatolian and Egyptian civilizations (Sayılı, 1996; Lloyd, 2003) with the so-called 'Greek miracle' in science a product of their long histories. Within the narrower scope of this dissertation, discussions in this area have been limited to the medical history of Herodotus; however, in order to understand how the Hippocratic style of practicing medicine was interpreted in the post-Hippocratic era, a broader view requires referencing both Emilé Littré (1804-1881) and Philip J. van Der Eijk's careful studies on Hippocratic tradition.

The French historian Emile Littré (1801-1881) (whose translations and ordering are used throughout this study) is well known for his spirited translations of almost all of the *Hippocratic Corpus*. According to Littré, the *Corpus* as a whole was first published in Alexandria in the 3rd century B.C. (Smith, 1979), and while some individual texts had been previously published and were known to Hippocrates's contemporaries, most came from a family library to Alexandria, where their

publication secured them for the future. However, the earliest commentators were confused about the authorship of many of the works, and this confusion persisted even after Littré, as historians have tried to answer the Hippocratic Question of the originality of specific texts.

But for some notable exceptions such as Ludwig Edelstein (1902-1965), Owsei Temkin (1902-2002), Sir Geoffrey Ernest Richard Lloyd (1933-) and Peter Kingsley (1953-) the intertwining of the topics of religion, magic, cults and philosophy with ancient medicine has only recently begun to be understood (Edelstein, 1987; Temkin and Temkin, 1967; Kingsley, 1999; Lloyd, 1979). In fact, studying ancient medicine requires studying ancient cults, beliefs, and philosophy as well as the social, cultural, economic and philosophical aspects of daily practices. In contrast to mainstream writers who treat the subjects of ancient Greek history, philosophy and medicine strictly philologically, “paying little attention to social, cultural, economical, institutional, geographical and religious environment” (Eijk, 2005, p. 3), Eijk’s discussion of the so-called ‘Greek miracle’ relies on later interpretations of Hippocrates, mainly those of Aristotle, making it possible to view ancient Greek medicine in relation to these wider fields.

According to Eijk, medicine plays a key role in understanding ancient Greek thinking. The secondary literature tends to refer to the ‘rationality’ of Hippocratic medicine in discussions of the ancient Greek medical transition from the mythical focus of ‘temple medicine’ to more observational practices, where causes of diseases were given through physical elements (Longrigg, 1993; 1998).

In fact, Longrigg embodies a perfect representation of the mainstream view on ancient Greek medicine, whereas Edelstein and G. E. R. Lloyd, both of whom wrote massive studies on the issue (Edelstein, 1967; Lloyd, 1981, 2003), tend to be more questioning, at least in regard to the term ‘rational’. Despite Longrigg’s bias with regard to rationality, his careful studies offer valuable insight into Hippocratic medicine. His examination of the *Hippocratic Corpus* emphasizes the impact of Hippocratic medicine on ancient philosophical issues, especially in terms of early Alexandrian medical sciences such as Hippocratic deontology, human physiology and the Hippocratic division of diseases into epidemic and endemic – a famous Hippocratic distinction still in use today (Longrigg, 1998).

Eijk, on the other hand, emphasizes the study of religion rather than rationality, and argues that the transition that took place in antiquity had roots of were in the passage into natural philosophy from religious beliefs, without questioning their rationality. Although he maintains that the transition was marked by the Aristotelian School, this can be adapted to the Hippocratic era, since it lies in pre-Aristotelian thinking and had a great influence upon it. The Hippocratic practice of medicine, with its basis of the four bodily humors corresponds to the theory of the four natural elements of natural philosophy, and in this respect, religion in its relation to medicine, especially in the transition from ‘temple medicine’ to ‘natural medicine’ is important. Specifically, in the former, healing practices said to be sacred were explained by theories of religion, while in the latter, medical practice was dependent on observations of nature and human body, which were thought to correspondent to one another, and the attempt was made to explain these natural entities by the main theories of medicine which will be briefly described below.

The “four humors theory” was the most important medical theory in ancient Greece. According to this theory, there are four main bodily fluids in an organism: blood, phlegm, yellow bile and black bile. The “balance theory” argues that health is the balance of these bodily fluids; thus, all disease is the result of a corruption of this balance, and the search for plants with properties that may be used to cure an excess of an “opposing” bodily fluid is based on the “theory that opposites cures opposites”. Another important theory, the “critical days theory”, argues that every disease possesses inherent time limits (usually based on triads or tetrads) that determine healing versus dying. With the exception of the “critical days theory”,²⁹ all the above-mentioned theories fall under the main ancient physical theory, the “four elements theory”, which formed the basis for all other theories of cosmology and medicine and structured the concepts of health and disease.

²⁹ The critical days theory differs slightly from the rest of the Hippocratic theories in that it is not dependent upon the four humors theory, but is based on the hypothesis that conditions of health and disease can be read in terms of specific critical days, triads and tetrads. Critical days also include the first, seventh and fortieth day of a period. (Hp. Oct.). The critical days theory will be reflected upon further in the investigation of the gynecological writings, mainly in one of the core texts, *On the Eight Month Child*.

As Eijk argues, the concepts of health, disease and death belong not only to the field of medicine, but to those of philosophy, history and theology as well. Philological studies on the *Hippocratic Corpus* that examine word usage³⁰ may also help to provide an understanding of the different styles of doing medicine, especially temple medicine and Hippocratic natural medicine, as word usage differs among practices (Langholf, 1977, pp. 37-44). For example, the Hippocratic understanding of the word ἰσονομία (*isonomia*) pertains to health as well as balance, referring to the powers of life in natural medicine and symbolizing the equilibrium of bodily humors; thus, *Isonomia* refers to an overall capacity in humans and animals³¹ that gives the body its autonomous character, and Hippocratic doctors, taking their cue from the Empedoclean understanding of the four humors theory, assume that the humors of the body produce a personal balance in each individual. In contrast, it can be argued that *isonomia* is not equated with health in temple medicine, which does not rely on the four humors theory as a condition for health and disease and which conceives of no bodily fluids to be maintained in balance.

Empedocles has been credited as the first to develop the four elements theory³² and its supplemental balance theory (Kranz, 1983). The Hippocratic medical theories of four humors and balance are highly accordant with the theory of four elements. In line with the world as a macro cosmos, which consists of four elements – air, water, fire and earth – the body as a micro cosmos consists of four corresponding bodily humors – blood, phlegm, yellow bile and black bile – which were believed to fill the body and be the source of health and disease. By filling

³⁰ Eijk contains a good debate on *phrenes* (diaphragm) . In Hippocrates' *On the Sacred Disease*, it appeared that the diaphragm was considered to think and possess consciousness, given its etymological connection with the word *phronesis* (consciousness). In the end, however, the Hippocratic author argued that the brain is the source of all consciousness (Eijk, 2005, p.127).

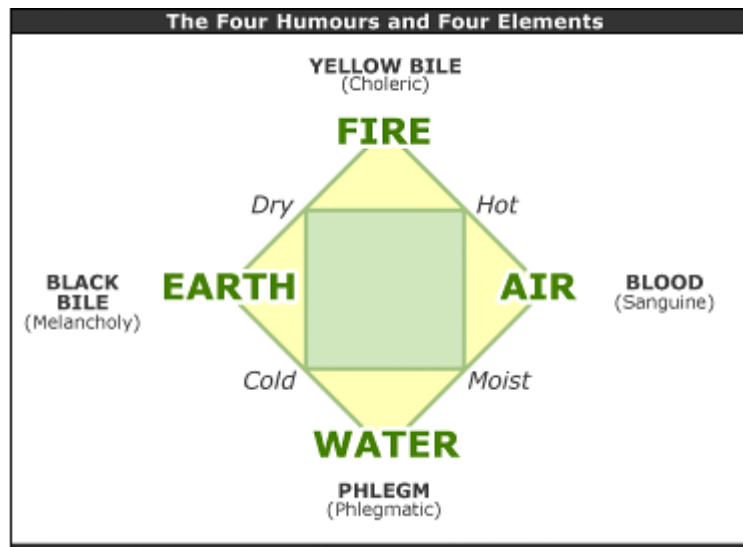
³¹ Ancient veterinary medicine is also important in trying to deal with such concepts. Animals, especially companion animals, were important in ancient Greek life. As highlighted by Haraway, humankind can live without companion animals, but, surely, companion animals cannot live without the company of humankind (Haraway, 2000). Dogs, horses, cows and chickens all had a role in the life of the ancients, and their health conditions were highly dependent upon humans. There is a growing bibliography on ancient veterinary medicine, and its development is highly related with ancient medical practices (Fischer, 1988).

³² In pre-Socratic philosophy, only one element forms the basis of the cosmos – in Thales, water; in Anaximander, *aperion*, and in Anaxagoras, air. Empedocles' view in which the one element multiplied to four was the commonly accepted view in the classical period. (In Indian medicine it is five, and in Chinese, three.)

every part of the body, these elements provide balance to the body as nature is balanced in the cosmic world, *Cosmos* as Nature.

Fig. 2: The Properties of the Four Humors and their corresponding Elements

(Ref: <http://www.virtualmuseum.ca>)



Political correspondence is provided by Alcmeaon of Croton, for whom *ισονομία* (*isonomia*) is democracy, i.e., the balanced condition of a body of people/elements/world. When one of these “bodily fluids” starts to dominate the others, the balance is dissolved and a monarchy arises (Alcmea. Phil. 4.1-5;³³ Lonie, 1981; Vlastos, 1953). Thus, monarchy is seen as a disorder that arises when there is a change in the natural/divine order where each element of the body/order has its own inherent qualities and quantities. The concept of monarchy, rather than anarchy, is used to explain conditions of disorder, since disorder is not viewed as the corruption

³³ Α. τῆς μὲν ὑγείας εἶναι συνεκτικὴν τὴν <ισονομίαν> τῶν δυνάμεων, ὑγροῦ, ξηροῦ, ψυχροῦ, θερμοῦ, πικροῦ, γλυκέος καὶ τῶν λοιπῶν, τὴν δ' ἐν αὐτοῖς <μοναρχίαν> νόσου ποιητικὴν· φθοροποιὸν γὰρ ἑκατέρου μοναρχίαν. καὶ νόσον συμπύπτειν ὡς μὲν ὑφ' οὗ ὑπερβολῆι θερμότητος ἢ ψυχρότητος, ὡς δὲ ἐξ οὗ διὰ πλῆθος τροφῆς ἢ ἔνδειαν, ὡς δ' ἐν οἷς ἢ * αἷμα ἢ μυελὸν ἢ ἐγκέφαλον. ἐγγίνεσθαι δὲ τούτοις ποτὲ κακὰ τῶν ἐξωθεν αἰτιῶν, ὑδάτων ποιῶν (?) ἢ χῶρας ἢ κόπων ἢ ἀνάγκης ἢ τῶν τούτοις παραπλησίων. τὴν δὲ ὑγίαν τὴν σύμμετρον τῶν ποιῶν κρᾶσιν (Alcmea. Phil. 4.1-5). This can be translated as follows: Health is the equality of the right of the functions wet-dry, cold-hot, bitter-sweet and the rest; but single rule among them causes disease; single rule of either pair is deleterious. Disease occurs sometimes from an internal cause, such as excess of heat or cold, sometimes from an external cause, such as excess or deficiency of food, sometimes in a certain part, such as blood, marrow or brain; but these parts are sometimes affected by external causes, such as certain waters, or a particular site, or fatigue, constraints or similar reasons. Health, however, is the harmonious mixture of the qualities (Freeman, 1983, p.40-1).

of the entire bodily/natural/divine order, but dysfunction due to an imbalance of elements within this order.

Thus, disorder, according to the “balance theory”, is the source of pain, suffering, disease, and even death. Such a theory of causality must remain a hypothesis that cannot be proven by observable facts, although both Hippocratic medicine and pre-Socratic philosophy indicate that disorder can be cured by bringing the humors into harmony with nature, thus recreating balance and stability. Since nature itself is accordant, and thus balanced, any disordered situation intends to balance itself. This tendency is reflected in the qualities of the elements – fire intends to go up, earth down, water up towards earth and air down towards fire; thus, at least in theory, all elements tend towards their respective places to create a natural balance.

While remaining hypothetical, the four elements theory was considered by the followers of Hippocrates as having been proven and was thus relied upon in the therapies comprising ancient medical practices. Similarly, other theories of Hippocratic medicine – “the critical days theory”, “the heat theory” that gives a vital role to the element fire, and the theory that the health of citizens of a particular place are determined by the air and water³⁴ of that place – are hypothetical ways of thinking. This conflicts with the text *On Ancient Medicine*, in which the Hippocratic author clearly argues that medicine is based on observation and is not dependant upon *hypothesis* (Hp. Pris. Med. I-V). This view will be discussed further during discussions of this text in the next chapters.

As Edelstein argues in his discussion of the so-called Hippocratic physician³⁵, the theory of disease that presents four humors as the cause of disease can only be

³⁴ In Hippocratic thinking, the ancient Greek word air (ἀέριος) referred to all winds and weather conditions, and the word water (ὕδωρ), similarly, referred to all rivers, seas and rain.

³⁵ Edelstein argued that since Hippocratic medicine is at the same time hypothetical and can be done by the use of rhetoric, it is accessible only to men educated in philosophy and rhetoric and can only be represented by such men in public discussions. Thus, he concludes that the Hippocratic physician, including Hippocrates himself, was merely a businessman and medical science essentially a philosophical pursuit attainable by only a small elite. Edelstein’s book contains an intelligent debate on the difference between the so-called doctor and the physician, arguing that despite the pejorative meaning attached to the term physician in ancient times, the two are almost identical in relation to the concept of production. The doctor is a kind of ideal physician who in his work is interested only in the healing of the patient. Thus, when money and other ‘worldly’ things become involved in such relations, the ideal doctor becomes a businessman, trying to reproduce his own life, becoming interested in the conditions required for him to live and remain human. Edelstein, some have argued,

proven by logical argumentation and dialectics. Any attempt to show how the balance of fluids in a body changes or is disturbed is nearly impossible, especially under ancient conditions. Arguing that ancient medicine was practiced through hypothetical arguments, Edelstein writes:

‘while a modern theory of disease can only be based on experiments and observations, a theory which presents heat and cold, the air or the four fluids as the causes of diseases can only be proved by logical argumentation’ (Edelstein, 1987, p. 105).

Hippocratic medicine, he argues, cannot possibly demonstrate experimentally how the balance of the four bodily fluids in the human body is changed, disturbed and accumulated, or how such changes produce health and disease, although, it can theorize that bodily fluids are balanced in health and unbalanced in disease by means of arguments, postulates and analogies. Thus, Edelstein claims, the real achievement of the ancients is medicine by hypothesis, and ancient medicine of necessity is purely hypothetical (Edelstein, 1987).

2. 4. Conclusion

The word *hypothesis* (ὑπόθεσις) occurs in many places in Hippocratic writings, especially in the treatises *On Breaths* and *On Ancient Medicine*. Although only the latter of these texts is agreed to belong to genuine Hippocratic writings (see, for example, Grensemann, 1975), Edelstein uses the former text in his discussions on the use of the word *hypothesis* in ancient medicine (Edelstein, 1987); therefore, the following discussion of hypothetical thinking in Hippocratic medicine is based on both these texts.

While Edelstein claims that ancient medicine was based on hypothetical arguments and postulates, this does not reflect Hippocratic styles in their full sense. In ancient times, the term hypothesis was usually used to criticize other theories of medicine; for example, in the opening chapter of *On Ancient Medicine*, the Hippocratic author comments that ‘every medical theory uses this or that element as its basis,’ the word “theory” has a pejorative meaning, and the author was intending

“shaved Hippocrates’s beard – with the beard symbolizing the ideal upper-class doctor with social credibility” (1987, p. 106).

the statement as a criticism. Considering the great many similarities in usage among the various Hippocratic texts, a more detailed examination of *On Ancient Medicine* may help shed light on the Hippocratic understanding of what is meant by hypothesis and thus assist in realistically evaluating Edelstein’s perceptions of ancient medicine.

In line with the general Hippocratic point of view, *On Ancient Medicine*³⁶ argues that health is based on ‘coction’, a balance in the amalgamation of the humors. The author’s claim that medical science is founded on observation and reasoning, not on speculation, leads to questions regarding the speculative and hypothetical nature of Hippocratic medical practices. Just how the writer of *On Ancient Medicine*, which may or may not have been Hippocrates himself, could regard humoral pathology and elemental theory as well as the theories of balance and critical days that constituted the basic theories of Hippocratic medicine as something other than hypothesis or speculation must be dealt with, and, far more importantly, the author’s assertion that observation and reasoning (through experience) forms the basis of the Hippocratic style of medical practice must be questioned.

The very first sentence of *On Ancient Medicine* points out that everyone involved in medicine has some type of hypothesis (ὑπόθεσις) regarding the basis of disease, whether heat, cold, moisture or dryness³⁷. In the passages that follow, the author describes some doctors as good, some as bad, but all practicing in a manner that is determined by some type of medical theory. Later, it is argued that empty postulates were no good for craftsman and that anyone attempting to practice the long-established art of medicine without access to the long-established knowledge of this craft would fall victim to deception and failure. However, the writer goes on to

³⁶ The Perseus Digital Library contains a good debate on the use of “*hypothesis*” in *On Ancient Medicine* under the heading *The Hippocratic Question*.

³⁷ Ὅκοσοι ἐπεχείρησαν περὶ ἰητρικῆς λέγειν ἢ γράφειν, ὑπόθεσιν σφίσιν αὐτέοισιν ὑποθέμενοι τῷ λόγῳ, θερμὸν, ἢ ψυχρὸν, ἢ ὑγρὸν, ἢ ξηρὸν, ἢ ἄλλ’ ὅ τι ἂν ἐθέλωσιν, ἐς βραχὺ ἄγοντες, τὴν ἀρχὴν τῆς αἰτίας τοῖσιν ἀνθρώποισι τῶν νούσων τε καὶ τοῦ θανάτου, καὶ πᾶσι τὴν αὐτέην, ἐν ἣ δύο προθέμενοι, ἐν πολλοῖσι μὲν καὶ οἷσι λέγουσι καταφανέες εἰσὶν ἀμαρτάνοντες (Hp. Pr. Med. 1.5): Jones translated the paragraph as follows: ‘All who, on attaining to speak or to write on medicine, have assumed for themselves a postulate as a basis for their discussion — heat, cold, moisture, dryness, or anything else that they may fancy — who narrow down the causal principle of diseases and of death among men, and make it the same in all cases, postulating one thing or two, all these obviously hinder in many points even of their statements, but they are most open to censure because they blunder in what is an art, and one which all men use on the most important occasions, and give the greatest honors to the good craftsmen and practitioners in it’ (Jones, 1923a).

conclude that medicine has no need for postulates when the doctor's craft entails tasks to be addressed through 'simple common knowledge' (γνωστὰ λέγειν τοῖσι δημότησιν³⁸). Thus, it may be concluded that the Hippocratic emphasis on long-established common knowledge refers to the experience of the Hippocratic practitioner, which offers a clue regarding the professionalisation in Hippocratic medicine as a style of thinking, a topic, along with the use of folk in Hippocratic medicine, will be discussed in the fourth chapter.

The writer of *On Ancient Medicine* also argues that knowledge of the regimen and other healing practices of medicine were products of the long history of discovering and elaborating upon the many instances of disease among man. In other words, again, it is argued that medicine is an art that has long been practiced by mankind, with the emphasis here being on observation and excellence through experience. For example, it is argued that in terms of food and nourishment, people learned the benefits of foods and developed an art of healing through numerous instances of observing which foods are good for the health and which are not, which cause disease, and which causes death. Diet, it is noted in the third, fourth and fifth chapters of *On Ancient Medicine*, is different in health and in disease.⁴⁰ The text mentions how men observe the effects of food on the body and act accordingly; foods that have a heavy effect on the body cannot be easily digested when a person is ill, whereas people may crave certain foods when they are sick that they would not want to eat when they are healthy. Similarly, individuals doing gymnastics or athletics may be affected differently by different foods, being made either stronger or weaker. Thus, it is shown that the art of medicine requires observing the effects of regimen, since it differs in health and in disease.

In fact, one of the main arguments of *On Ancient Medicine* is that ways of life in general are not the same in health and sickness; if they were, there would be no need to observe both conditions. The art of medicine, it is argued in the sixth chapter, was constituted through observation of healthy as well as sick individuals, mainly, it appears through the text, in terms of nourishment, although it can be argued that the

³⁸ In Jones' translation, 'ordinary folk' (Jones, 1923).

⁴⁰ It should be noted here that the Hippocratic Corpus contains two different texts on the issue of regimen, one in health, one in acute diseases, namely, *Regimen in Health* (considered the main addendum to the *Nature of Man*, it will be dealt in the following chapters) and *Regimen in Acute Diseases*.

scope of observation extends in many places to broader observations of general conditions in wellness and illness (Hp. Pris. Med. 4-5). Thus, the author of *On Ancient Medicine* continuously shows how the art of medicine developed not from hypotheses, but from common folk knowledge related to illness and wellness over a long period of observing differences in healthy and sick individuals.

Here, as mentioned in the beginning of this chapter, the term ‘hypothesis’ should be taken to mean, as it was in the day, a postulate, i.e. an opinion that is taken for granted, or, as in mathematics⁴¹, an absolute truth that need not be tested. In using the term hypothesis, the Hippocratic author of *On Ancient Medicine* was referring to the non-observational basis of all early medical practice, which it was argued, can be mistaken (Hp. Pris. Med. 1. 5).

Another text, namely, *On Breaths*,⁴² clearly views medicine as an art used by professional medical men⁴³ – an art, it is argued, that cannot be known by laymen (Hp. Vent. I). For instance, it is said that on the matter of surgery, habituation is necessary, although for obscure matters, especially in cases where the cause of a disease cannot simply be learned, healing is more a matter of opinion than of habit (Hp. Vent. I). Here, the writer is arguing that experience always makes a difference when giving an opinion.⁴⁴

After mentioning experience, the text discusses the theory of how opposites cure opposites. Hunger, it is explained, is a type of disease because hunger causes suffering, and anything that makes men suffer is a disease. Food is said to be the cure for hunger, since suffering and hunger end when food is eaten. The author then concludes that the opposite of everything is the cure for its opposite. Thus, it may be argued that the hypothesis that opposites cure opposites was arrived at through observation (of suffering) and experience (of the ending of suffering).

⁴¹ In fact, the concept of ‘hypothesis’ was used mainly by Plato in mathematics (Pl. Meno. 87a).

⁴² *On Breaths* is an interesting text historically. The *Anonymous Londinensis* papyrus has been said to be an ancient study of the Hippocratic text *On Breaths*, probably written by Aristotle’s pupil Menon.

⁴⁴ περὶ δὲ τῶν ἀφανεστάτων καὶ χαλεποτάτων νοσημάτων δόξη μᾶλλον ἢ τέχνη κρίνεται· διαφέρει δὲ ἐν αὐτέοισι πλεῖστον ἢ πείρη τῆς ἀπειρίας (Hp. Vent. 1.15)

In terms of Crombian styles, whereas Crombie regarded the ancient style to be that of postulation, the argumentation described in *On Breaths* fits perfectly into the style of hypothetical modeling, although this may also be said to be grounded in observation and experience. Going back to Edelstein, it is possible to demonstrate that certain diseases are determined by a disturbance in the balance of certain fluids by showing the state of the body after the balance has been disturbed, for example, runny eyes and nose in the case of the flu, which is said to result from an excess of phlegm. However, this, again, is a type of theory confirmation, ‘an attempt to verify the claim by means of arguments, analogies, sophistry’ (Edelstein, 1987, p. 105). Moreover, although the balance theory assumes that an imbalance in the four bodily humours may be corrected, ancient medicine acknowledges that it may not be possible to demonstrate imbalance through experimentation and observation in cases of diseases with obscure causes. Therefore it can be assumed that other mechanisms were used in order for confirmation, which leads us to the use of the notion of nature (*phusis*) in ancient medical thinking, and the use of *hydor* (the watery humor) in the diseases of women. For now, it may be concluded that observation and experience played key roles in the Hippocratic practice of medicine, despite the fact that the theory of four humors, along with the other important Hippocratic theories, can be considered to be products of ‘hypothetical thinking’.

CHAPTER 3

DISEASES OF WOMEN IN THE *HIPPOCRATIC CORPUS*

Here in this chapter, the field of women's health and diseases will be dealt with, in especially *Hippocratic Corpus* which will provide case study as basis to understand the Hippocratic practice of medicine better. Women stories were usually underestimated by our culture and are not much studied, especially in the ancient Greek era. The title does not cover the concept of women's health since as it is correctly highlighted by King in *Women's Health and Recovery in the Hippocratic Corpus*, Hippocratic medicine, when treating women, almost always concentrated on diseased bodies of both men and women (King, 2005) and not health nor healthy women. In other words, although the Hippocratic style is a patient oriented medicine,⁴⁵ the object of attention is almost always the sick female body, and not a healthy one. However, diseases or not, what counts noteworthy for the aims of this thesis is that the women bodies became objects of Hippocratic observational practice through these Hippocratic writings which will be examined in detail below.

The instances of women diseases will be examined by dividing the *Corpus* into two; the former will be the gynecological writings and some texts which have direct references to these gynecological texts and/or texts having some parts related to gynecology and obstetrics; and the second heading will be non-gynecological texts. These are also being viewed in order to understand the general Hippocratic style better.

3. 1. Women in Ancient Greek Medicine

Historically women were taken as a threat to society with their 'natural sexuality' that must be controlled by the order of family (Tsakiropoulou-Summers,

⁴⁵ In the related literature on medicine there is a distinction between disease oriented and patient oriented styles of medicine. In disease oriented medicine, which is the medicine today, the disease is the concern of the medical treatments, and not the overall body health of the patient. On the other hand Hippocratic medicine is considered as a patient oriented medicine since the balance of the body of the patient is the main concern.

1994, p. 284). As Tsakiropoulou-Summers argue as she studied the feminine identity in ancient Greek culture this treat equalizes women with the barbarians whom treated the ancient Greeks with never ending invasions. As Lloyd asserts, in the early Greek thinking polarities were used extensively as argumentation (Lloyd, 1966). The women, therefore, are seen as the other side of the coin (one side having men), as she must be controlled, and must be taken in the limits of the men's house (*oikos*).

Women were labeled as the “white-arms”⁴⁶ in ancient Greek city state culture. In mainstream ancient Greek view women work in their houses which include caring all the members, animals and farm work, and they were also responsible with their children, therefore they do not get involved in any political activity outside their houses. On the other hand, while not the main issue of our research, as an example of women's determination in the face of sequestration from public life, negative attitudes against women serving as physicians did not prevent Agnodice, Phaenarette, and Hecate⁴⁷ from becoming known even in the ancient world (Tasouli and Lymberopoulou, 1994; King, 1998).

In examining women diseases in *Hippocratic Corpus* the place of women in Greek antiquity would have a defining role on how medical styles were developed. Helen King is one of the major thinkers working on the issue of women in ancient Greek medicine, especially in Hippocratic writings, along with Lesley Dean-Jones and Ann Hanson who translated the main gynecological Hippocratic books on the nature of women. Their works provided a good basis for this study (King, 1998; 2005; Hanson, 1990; Dean- Jones, 1994).

3. 2. Women in *Hippocratic Corpus*

There were no strictly professional compartments of medical analysis in Hippocratic writings, and the strictest compartmentalization is in gynecology with its determination of organic differences between two sexes (Dean-Jones, 1994, pp. 120-1). Dean Jones argues that “classification of constitution in ‘general’ medicine”, led

⁴⁶To be white- armed (λευκ-ώλενος) is a characteristic of the ancient women in Homeric epic.

⁴⁷Hecate is a goddess usually pictured in a tripartite way, one signifying healing powers, especially the pharmacological powers of plants. The name also bears a child's name in ancient Greece, therefore here probably the name is not for the goddess herself, but a practicing physician.

to a specific medicine of female anatomy (p. 121). As it is noted in the previous chapter, Hippocratic gynecology, with Rufus and Soranus was maybe the first medical specialization in the Roman period, in contrast to ‘general’ medicine Dean-Jones told about. This maybe is due to the fact that women diseases were mainly believed to be rooted from the watery constitution (*phusis*) of women. Therefore Hippocratic gynecology, it can be argued, would provide a good basis in examining the Hippocratic style of medicine with its early compartmentalization⁴⁸ on women diseases, in an era where other branches were not specified yet.

As it is mentioned in the beginning of this chapter King argues that the Hippocratic gynecological stories focus on the disease rather than the health. This view is common also in Hanson and Dean-Jones (Hanson, 1990; Dean-Jones, 1994, p. 150). Thus they all argue that the concept of female health in Hippocratic corpus was different to that of the male, which will then turn to a compartmentalization. Here it must be mentioned that the diseases male bodies were also taken as objects of observation in Hippocratic medicine, though they are used as examples of ‘general’ medicine. Thus there is no branch reserved for their diseases specifically.

This conception female is different than the Aristotelian conception about gender. In the Aristotelian thought, there is only one sex; the male and the female body is a sort of non-mature men body (Dean-Jones, 1994, p. 6; Arist. HA. 3.510b6-b19). This is a weird conception of the female genitals as male genitals but growing inside the body. According to this view, women genitals are not able to grow outside, and are smaller since they are non-mature. In Aristotle such theory was mainly developed by reference to the resemblance to animal genitals. It is argued after a discussion on the diversity of animal genitals it was said that female genitals were like male genitals, as it can be seen in many animals, since they resemble to humans (Arist. HA. 3.510b19).

On the other hand, in all the *Corpus* it was argued that both female and male seeds play an equal role;⁴⁹ this was due to the acceptance of Democritus’s ‘theory of

⁴⁸ See especially parts on Aretaeus of Cappadocia, Rufus and Soranus in Roman tradition in the history chapter (the second chapter) on the post-Hippocratic period. Thus in the conclusion part the issue on professionaliation of gynecology in ancient medicine will be discussed.

⁴⁹ If it is the female seed from the female dominates the male seed from the male modest women appears, if it is the male from male dominates female from female brave men, male from male dominates male from female brilliant, female from female dominates female from male isn’t mentioned, or just say interestingly ‘female from both’ produces lovely women where no domination occurred. Thus female from male cannot dominate female from female, since both seeds designates

pangenesi's' that women emits like men and what they both emit from all of their body plays a key role in the development of the embryo (Lonie, 1981, p. 106). There are two important points in the theory of pangenesi's. First is that both sexes emit semen, and second the semen is coming not only from the genitals, but from all the parts of the body. As an addition it can be said that the practice of mixing these semen was said to be the activity of the women body, and takes place in the womb (Hp. Superf. 5.1).

In the development of the child both sexes (coming from both parents) play roles in mother's womb (Hp. Nat. Puer. 12). Both can dominate each other, unless seeds coming from both of them are female. When both produce female seeds there are no mastering over each other but only a relation of love, producing female embryos. Interestingly it is viewed as a peace relation between women, no dominance over each other, no mastering, no politics, therefore no 'manly' attitudes. Only in competition with men they said to become 'brazen' or 'modest' or 'bold'. It can be said that these kinds of givens in ancient Greek society are for determining the rules/roles for the people of ancient Greek, women as lovely, caring and not involved in politics.

At the end of the investigation of the instances of female diseases in this chapter, it can be decided whether in ancient Greek society women played only the role of child giving and whether their diseases were considered dependent only upon their watery constitution (watery *phusis*). On the other hand, when we are dealing with Hippocratic 'bed-side' observations of women especially child birth and menstruation stories of the sick women were given in a detailed manner as it will be seen in the case histories of *Epidemics*.

Other than the issues on reproduction and menstruation for example female sexual pleasure, as Dean-Jones suggests was not a favorable topic in Hippocratic gynecological texts (Dean-Jones, 1994). Only rarely, says Dean-Jones, in the *corpus* women were described having sexual pleasure in intercourse, though these instances were said to be a part of a disease (Dean-Jones, 1994, p. 134). Against this view it will be argued in *On the Nature of Women* that the writer wrote that women feel

females, no domination occurs. Correspondingly if male from female dominates female from male, it is believed that hermaphrodites are produced, Finally female from male mastering male from female results in brazen women. Males, inclines to fire and females inclines to water, and they generate offspring that are male or female according to the predominance of the male or female element (Hp. Foet. Exsect. XXVI).

pleasure during intercourse longer than men but not intense like men due to the men's violent separation with his semen (Hp. Nat. Mul. 4). On another occasion the Hippocratic writer claimed that women feel pleasure during the whole intercourse though men's pleasure depend on the semen (Hp. Nat. Mul. 6), where in women's case semen would increase the pleasure but the main dependency is on the uterus itself, with its coming of fluids, and its displacement, and the widening of the channels in the womb.

Thus it can be argued that intercourse is healthy for women, since it makes the body moist, and helps the women body to spend its excessive moisture (Hp. Nat. Mul.). In Hippocratic gynecology women were considered moister than men. Thus their diseases mainly caused by the excessive moist in the body. This view will be discussed in its relation to four humors theory with *hydrops* (or *hydor*) in the following sections and will be called the theory of ὑγρότης (moistness).

In Democritus VS 68 B 127 it was said that female sexual pleasure is due to the particles in the womb, which as a result of intercourse gave the pleasure feeling like of scraping, a kind of irritation (κνησμός) produced by the atoms (Lonie, 1981). Thus irritation and pleasure are the results of the whole process. In Hippocrates, in *On Generation* for example these early views were defended as a part of explaining sexual pleasure (Lonie, 1981, p. 106) thus not as a part of a disease as Dean-Jones suggests. Therefore it can be argued against her through Democritus's theory of pangenesis and atoms that female sexual activity and pleasure as its result was generally favored in Hippocratic gynecology is healthy.

Here the above mentioned topics, on the difference between men and women constitutions, the theory that women were moister than men, and that their watery constitution (*phusis*) plays the essential part in their diseases, the theory of pangenesis, and the Hippocratic views on female sexual pleasure will be viewed in Hippocratic gynecological writings, in order to understand the Hippocratic observational practice on women and Hippocratic gynecology as a special branch.

3. 2. 1. The Gynecological Writings

There are ten main gynecological texts in *Hippocratic Corpus*, namely; *On the Nature of Women* (Nat. Mul.), *On the Disease of Women* 1-2 (Mul. 1-2), *On the Barren (Sterile) Women* (Steril.), *On Generation* (Genit.), *On the Nature of the Child*

(Nat. Puer.), *On the Diseases of Virgins* (Virg.), *Superfeation* (Superf.), *On the Seventh Month Child* (Septim.), *On the Eight Month Child* (Oct.), and *On the Development of Foetus* (Foet. Exsect). In order to do this first, the texts of *On Generation* and *On the Nature of the Child* will be examined along with the related texts *Diseases IV* and *On the Nature of the Man*, where mainly the watery constitution of women was presented.

Then in the second part *Seven Months Child* and *Eight Month Child* will be reflected as a unified text as it is classified by Paul Potter since they were treated as one text in Galen's and Littré's interpretation. Then the related paragraphs of the *Coan Prenotions* will be examined in the part on *Superfetation*, *On the Diseases of Virgins* and *On the Development of the Fetus*. Finally, the core texts on women diseases, namely *On the Nature of Women*, *On the Diseases of Women I, II*, and *On the Barren Women (On the Diseases of Women III)* will be examined lastly, in the third part, after providing the main basis of gynecological writings.

The core gynecological Hippocratic texts are said to be the earliest of the corpus which survived through this day (Grensemann, 1975). Dean-Jones even asserts that in fact these treatises are the earliest connections to Greek everyday style of writing we now have (Dean-Jones 1994, p. 10; Langholf, 1977, p. 37). For Grensemann *On the Nature of Women* was dated earlier than 450 B.C. and thus most of the chapters of it are then used in *On the Diseases of Women I-II* (Dean-Jones, 1994, p. 10). It is stated that one of the oldest texts of the *corpus* is *On the Nature of Women*. Though, interestingly it is not counted historically as one of the basic genuine texts. Nevertheless it can be clearly said that *On the Nature of Women* deserves the attention taken by the *Ancient Medicine* or *Airs Water and Places*.

3. 2. 1. 1. *On Generation, On the Nature of the Child and Diseases IV*

Throughout this part Lonie's (1981) translation of the texts will be used and reviewed along with the ancient Greek source TLG (Thesaurus Linguae Graecae) texts. In his valuable commentary and translation of the three main texts of Hippocratic gynecology, *The Hippocratic Treatises "On Generation", "On the Nature of the Child", Diseases IV": A Commentary*, Lonie, provides many clues for the gynecological style of Hippocratic practice of medicine on the issue of women health. Especially the commentary chapter on the relation of Hippocratic gynecology

to the pre-Socratics, mainly to Democritus, is a noteworthy discussion on the theory of pangensis. He argues that the Democritean theory of pangensis is used in Hippocratic gynecology (Lonie, 1981, p. 106).

It is argued in Littré's edition that these three texts were a single treatise. *Diseases IV* functions as a backup to the humoral theory in *On Generation*, and in the two, there is a different humoral pathology presented than the known one with black bile. The four humors in these texts exclude black bile and instead another humor was presented, which is the *hydrops* (ὑδρωψ⁵⁰). This maybe is one of the most important conclusions of the investigation of these gynecological texts since in the related literature Hippocratic four humors were usually used with black bile (Jones, 1923a). Although Lonie claimed that the difference in these texts were due to the multiplicity of the versions of humoral theories in ancient science, a known definition of Hippocratic four humors in Hippocratic writings were presented only here and in *On the Nature of Man*, where the latter introduces black bile but was said to be written by Polybus, the son-in-law of Hippocrates (Jones, 1923, p. xxviii; Lonie, 1981). However the version of four humors in *On the Nature of Man* with the humor black bile is known as the basic Hippocratic four humors theory.

3. 2. 1. 1. 1. *On Generation*

In the third chapter of the book the Hippocratic author presents the four humors. It was written that sperm is secreted from the whole body and from the total humor and that this humor has four forms. These forms were blood, bile, water (ὑδωρ⁵¹) and phlegm.⁵² Thus, it is argued, these four humors are innate in men and they are the origin of disease.⁵³ Here the author wrote that he already discussed these four humors

⁵⁰ ὑδρωψ, ωπος, ό, (ὑδωρ) **dropsy**, Hp.Aph.3.22 (pl.), IG42(1).122.1, 123.33 (Epid., iv B. C.), Epicur.Fr.190, Sor.2.37, etc.; ὕ. ξηρός Hp.Aph.4.11; he distinguishes two kinds, ό ὑποσαρκίδιος (v.l. ὑπό τῆ σαρκί) and ό μετ' ἐμφουσημάτων, **Acut.(Sp.)** 52.

ὕ, εις ἀμίδα **diabetes**, Gal.7.81. **any watery discharge**, e.g. **discharge before parturition**, Arist.HA587a6, Cleopant. ap. Sor.2.53; cf. πρόφορος 11. **a dropsical person**, Hp.Int.47 (dub. 1.), Epid.2.5.13— in which sense Dsc. ap. Gal.19.148 read ὑδρώψ (oxyt.). one of the four humours, **aqueous humour**, Hp.Morb.4.32, al.

⁵¹ As Lonie argues there is no difference between these uses (1981).

⁵² Εἰσι δὲ τέσσαρες ιδέαι τοῦ ὕγροῦ, αἷμα, χολή, ὕδωρ καὶ φλέγμα (TLG, *On Generation*, 3.1).

⁵³ Τοσαύτας γὰρ ιδέας ἔχει ξυμφυέας ό ἄνθρωπος ἐν ἐωυτῷ, καὶ ἀπὸ τουτέων αἱ νοῦσοι γίνονται (Hp. Genit. 3.5).

and why both diseases and their resolutions came from them. It can be claimed that this reference is to the text *Diseases IV*, since there the author described mainly the diseases caused from these four humors, and how resolution came from them (Lonie, 1991).

In the very beginning of the text, it is said that pleasure both for men and women comes from the (gentle) friction (ὑποτριβῶ) and irritation (κνησμός⁵⁴), which is parallel with Democritus VS 68 B 127 serves the theory that female pleasure comes as a result of a scratching off the irritation that is from the particles/atoms in the womb (Hp. Genit. 1.3). In Hippocrates it is written ‘during intercourse the vagina receives friction and the womb is disturbed, an irritation is set up in the womb which produces pleasure and heat in the rest of the body’⁵⁵ (Lonie, 1981, p.2).

In *On Generation* it is argued that women also emits something from her body⁵⁶, and through irritation she feels pleasure during the whole intercourse until men ejaculates; though if her desire for the intercourse is more she emits before men and then she feels no pleasure for the rest of the intercourse. When men ejaculates the heat produced by the irritation dies, like adding normal water to a boiling water; first the heat and the pleasure reaches their peak like a flame when one pours some wine to it, which first flares up and increases for a short period of time; then it dies away (Hp. Genit. 4.2).

The same happens to the women’s heat when reaching men’s sperm (foam⁵⁷). The women’s pleasure is comparably less than men thus it lasts more, men on the other hand feels more pleasure since in his case the secretion of the humor occurs suddenly, and because of the violent disturbance of his humors he feels more pleasure but shorter. Finally if women have had intercourse with men they will be

⁵⁴ Ἔχει δὲ οὕτω φλέβες καὶ νεῦρα ἀπὸ παντὸς τοῦ σώματος τείνουσιν ἐς τὸ αἰδοῖον, οἷσιν ὑποτριβομένοισι καὶ θερμαινομένοισι καὶ πληρευμένοισιν ὥσπερ κνησμός ἐμπίπτει καὶ τῷ σώματι παντὶ ἡδονὴ καὶ θέρμη ἐκ τούτου παραγίνεται (Hp. Genit. 1.5).

⁵⁵ Τῆσι δὲ γυναιξί φημι ἐν τῇ μίξει τριβομένου τοῦ αἰδοίου καὶ τῶν μητρώων κινευμένων, ὥσπερ κνησμὸν ἐμπίπτειν ἐς αὐτάς καὶ τῷ ἄλλῳ σώματι ἡδονὴν καὶ θέρμην παρέχειν (Hp. Genit. 4.1).

⁵⁶ Μεθίει δὲ καὶ ἡ γυνὴ ἀπὸ τοῦ σώματος ὅτε μὲν ἐς τὰς μήτρας (Hp. Genit. 4.1).

⁵⁷ As Lonie asserts Diogenes of Apollonia called the sperm ἀφρός (*afros*), which meant foam of blood, and which then turned into the word *afrodisia*, the intercourse (Lonie, 1981, p.106) For an excellent discussion of the use of *afrodisia* in ancient Greek culture see Michel Foucault’s *The History of Sexuality*, vol. 1 (1990).

healthier compared to that of having no intercourse⁵⁸ because intercourse prevents their womb to become excessively dry. Dryness is harm for the health and pain for the body since the womb extremely contracts. Thus intercourse by heating the body gives the blood an easier passage from the menses, where if passage is not that easily, the bodies of women get prone to sicknesses (Lonie (tr), Hp. Genit. 4.3). At the end of this chapter, the Hippocratic author gave reference to *Diseases of Women*, which will be examined in this chapter, where the reasons for the sicknesses of dryness were explained.

About the appropriate conceiving time of the child, the writer argues that a woman knows when she will conceive. First if she is not going to conceive, it is her practice to expel the sperm of both parents out of the womb, and she chooses whenever she wishes to do so (Hp. Genit. 5.1). Though, in *On the Nature of Women* the critical days for this practice are given in details and will be discussed below. On the other hand if she is going to conceive, the womb takes the sperm and because of the moist inside it contracts and the semen of both parents mixed inside in the moist. Here the writer advises women to note down the time sperm is retained, and then she can easily know on which day she will conceive (Hp. Genit. 5.1)

Throughout the text, it is argued that the strength/weakness of what women emit in like manner to men's matters in the development of the sex of the child. It was explained above how males and females were formed without mentioning their strength or weakness. Here it is said that both parents alike contain female and male seeds, though male is stronger than female sperm, though, it is not clear why it is so. In the Hippocratic understanding male inclines to fire, and the female to water, and they generate offspring that are male or female according to the predominance of the male or the female element (Hp. Foet. 1.26). Then it is not clear why it is said that males are stronger here since fire and water are opposite elements where each can neutralize each other. For the opposite cures opposites theory, only equal quantities of opposing elements/humors can neutralize each other, therefore they must be equal; what should matter is quantity since only in quantity one can be stronger than the other.

About the development of the embryo it is said there, if both partners (a) produce a stronger sperm, male is the result, whereas if (b) they both produce a weak sperm,

⁵⁸· Ἐχει δὲ καὶ τόδε οὕτω τῆσι γυναιξίν· ἤν μὲν μίσιγονται ἀνδράσι, μᾶλλον ὑγαίνουσιν· ἤν δὲ μὴ, ἧςσον (Hp. Genit. 4.20).

then a female is the result. But if (c) one partner produces one kind of sperm and the other kind, the resultant sex is determined whichever sperm prevails in quantity. Therefore it is said if the weak sperm is much in quantity then the strong one, then it results in female, if on the contrary, the result is male(Hp. Foet. 6.2). Therefore, this view is accordant with the opposites cures/neutralize opposites theory. Then it can be said that unlike Aristotelian theory (Arist. Hist. An. 3.510b6-b19) that women is immature men, in Hippocratic theory women and men semen were considered as opposites.

It is said that both male and female offspring exist in both partners. The proof of such thesis is given by presenting that a woman or a man can have children with different sexes with different partners (Hp. Foet. 7). Women, which give birth to daughters for example with their first husbands, can gave birth to sons with their second. Semen was considered as a construction of the whole the body.⁵⁹ Resemblance to parents were also explained by this theory, that if seed from one parent's one part of body is much in quantity than the weak seed from the other parents that part of the body, for example eyes; the eyes of the children would resemble the first parents eyes. Therefore is argued that following three occasions will never happen, that (a) The child resembles the mother all but the father none, (b) the child resembles the father in all respects but the mother none and (c) the child not resembles both parents. The child, therefore, must resemble inevitably to each parent in some respect since both emit seed. This is accordant with Democritus's theory of pangenesis. Therefore it can be said that in this Hippocratic writing, both women and men were considered to have seeds and the theory of pangenesis was used instead of genesis through single parent. Therefore it can be argued through the text *On Generation* that men and women were considered in an egalitarian vision and that the watery humor (hydrops) is counted as one of the four humors.

⁵⁹ This view is in contrast with the traditional view that semen only comes from male (or female) genitals.

3. 2. 1. 1. 2. *On the Nature of the Child*

In the beginning of the text *On the Nature of the Child* the issues of the embryo's breathing were considered. There are two sources of taking air into the embryo. One is from mother and one from itself. It produces passages outside and from these passages it takes breath for itself. Thus this fact, it is argued, is due first to the heat and second moist in the womb. The author then asserts that he saw an embryo which is aborted. It is an interesting story of a slave singer, who was known to the Hippocratic writer, probably Hippocrates himself, who was owned by one of his akin (Lonie (tr) Hp. Nat. Puer. 13). Thus because of her value (as a singer) she must not get pregnant, so when she feels so,⁶⁰ Hippocrates advised her to jump up until she touches her buttocks with her toes; like seven times after she felt that something is expelling from her womb, they found out that it was the egg-like embryo which is, the author asserts six days old (Hp. Nat. Puer. 13.1). Then the author describes that human seed is like chicken egg (Hp. Nat. Puer. 13.2-20). On the description of the human seed it is written, it nutriment from the mother, like in the same manner with the plants and the animals. The description of the production of the plants took whole more than four parts and it is argued, that the human foetus formation is as the same as the formation of plants (Hp. Nat. Puer. 22-27), or to development of a chicken egg (Hp. Nat. Puer. 29) and also the failures are alike (Hp. Nat. Puer. 30.7). Here, we can say that the womb was taken as a kind of environment (ecology) for the child to grow.

In explaining this theory, that human foetus is like to plants and eggs, first how menstruation affects the growth and nutriment of the foetus is described; then it was said that menstruation (the blood) is the nutriment of the human child (Hp. Nat. Puer. 15.2-16.1). Then it was argued that respiration can also be the cause of nutriment of the child (Hp. Nat. Puer. 16.1), and also the milk, after the embryo starts to move (Hp. Nat. Puer. 21.2). It can be argued that the argumentation resembles what water is to plants; thus it is parallel with the main theory.

On the growing of the extremities, hair and nails are explained through the hypothesis that hair and nails need fatty substance in skin and skin gets fatty

⁶⁰ It is written that she heard the Hippocratic theory that women expels sperm if they not going to conceive (Hp. Nat. Puer. 13).

substance only when it is developed large vessels enough to move that substance. So for hair and nail to grow, first all the body (of the embryo) must be formed. Thus this also was proven by the fact of puberty hair. The writer argued that puberty hair grows only when the boy/girl grows enough for his/her vessels to transport the fatty substance to skin, and this happens not before they become adolescence. This was is parallel with the chicken egg since the hair and nails of the chicken not before the egg reaches its biggest form.

Then, right after describing the anomalies of foetus in like manner to the problems of eggs, the writer argues that once the membranes are ruptured the infant tries to escape the womb (Hp. Nat. Puer. 30). It happens normally in the tenth month,⁶¹ since the membranes became so large that they start to rupture; and thus it is argued that there can be no child birth after the tenth month since it is impossible for them to stay with the rupture (Hp. Nat. Puer. 30). Then it is argued, since it is heavier, the head comes first, in the normal child birth coming with the rupture of the membranes. What is explained is again parallel with the general view that human fetus is like chicken egg in form, and like plants in nutriment. Therefore, through the text *On the Nature of the Child* such theory was established.

Here it can be noted as an addition, in the last part of the text, the formation of twins were mentioned, arguing that the sperm sometimes do not come once but in three or two times. Therefore twins were said to be developed through the collection of these in the womb respectively in different parts of the womb (Hp. Nat. Puer. 31.1-3). This theory is also explained in the text *Superfetation* which will be reflected below in the following parts with reference to this text. For now it can only be said that unlike the theory of multiple pregnancies presented in the text *On Superfetation*, here the sperm was argued to come from a single father in different intervals whereas in the former text it can assumed to come from multiple fathers in different times (Hp. Superf.).

⁶¹ Here interestingly the Hippocratic author argued that he heard more than once that some pregnancies claimed to be longer than ten months, but he asserted that this is incorrect.

3. 2. 1. 1. 3. *Disease IV, On the Nature of Man, and the Problem with the Black Bile*

The *Diseases IV* text is not counted in gynecological texts since it is not specifically on women diseases but it is on diseases overall caused and resolved by the four humors. Therefore it is the main reference to four humors theory in *corpus* other than the text *On the Nature of Man*. On the other hand it is treated as a single disease with the other two gynecological texts of *On Generation* and *On the Nature of the Child* confirming they all were written through the same style of practicing medicine. Therefore it will be reflected upon with these two gynecological texts under this heading.

Diseases IV starts with the following paragraph which is reviewed in *On Generation* about the four humors:

The sperm, coming from all parts of the body both of the man and the woman to produce a human being, and falling into the uterus of the woman, coagulates; and after a time a humanoid form develops from it. Both women, and man contain in their bodies four varieties of humour; it is from these that diseases originate, except for those diseases which are the result of violence. These varieties are phlegm, blood, bile and water: they contribute to the sperm neither its smallest nor its weakest part, and when the animal is born it contains as many varieties of humour, both health and unhealthy, as its parents has. 2. I shall show how in the case of each of these varieties an access or deficiency occurs in the body, and this is the cause of disease; furthermore, that the crises of diseases occur an odd days; and what the initial cause of diseases are, and how each of these acts upon the body to produce disease; and what is the cause of feverish shivering, and why this is followed by fever (Hp. Morb. 4.3).⁶²

⁶² Τοῦ ἀνθρώπου ἐς τὴν γένεσιν ἀπὸ πάντων τῶν μελέων τοῦ ἀνδρὸς καὶ τῆς γυναικὸς ἐλθὼν τὸ σπέρμα καὶ ἐς τὰς μήτρας τῆς γυναικὸς πεσὼν ἐπάγει χρόνον δὲ γενομένου φύσις ἀνθρωποειδῆς ἐγένετο ἐξ αὐτέου. Ἔχει δὲ καὶ ἡ γυνὴ καὶ ὁ ἀνὴρ τέσσαρας ιδέας ὑγροῦ ἐν τῷ σώματι, ἀφ' ὧν αἱ νοῦσοι γίνονται, ὅκοσα μὴ ἀπὸ βίης νοσήματα γίνονται· αὗται δὲ αἱ ιδέαι εἰσὶ φλέγμα, αἷμα, χολή, καὶ ὕδρωψ, καὶ ἀπὸ τούτων ἐς τὸ σπέρμα οὐκ ἐλάχιστον οὐδὲ ἀσθενέστατον συνέρχεται, καὶ ἐπειδὴ τὸ ζῶον ἐγένετο, κατὰ τοὺς τοκῆας τοσαύτας ιδέας ὑγροῦ ὑγιεροῦ τε καὶ νοσηροῦ ἔχει ἐν ἑωυτῷ. Αποφανέω δὲ ὅκως ἐν ἐκάστη τούτων τῶν ιδεῶν καὶ πλείω καὶ ἐλάσσω ἐν τῷ σώματι γίνονται, καὶ ὑπὸ τούτου νοσέουσι, καὶ ὅτι αἱ νοῦσοι κρίνονται ἐν τῆσι περισσῆσιν ἡμέρησι, καὶ τίνες ἀρχαὶ τῶν νοσῶν εἰσὶ, καὶ ὅκοῖα αὐτέων ἐκάστη ἐν τῷ σώματι ἐργασμένη τὴν νοῦσον ἐπάγει, καὶ ὑπὸ τὸ αὐτὸ ῥίγος πυρετῶδες γίνονται, καὶ διὰ τί τὸ πῦρ ἐπιπίπτει μετ' αὐτὸ (Hp. Morb. 4. 32).

First of all it can be argued that the egalitarian vision between men and women was given in the very first sentence. Secondly the traces of the Hippocratic style of observation can also be seen, since it is argued that even violence is constructed as something whose effects can be observed. The author of the text separated the diseases originated from the humors from those of the diseases which are resulted of violence. One can assume that the effects caused by violence were observable at least to the author of the text.

What counts noteworthy also is that the author did not count the *black bile* in the bodily humors of, instead the writer counted the humor water (*hydrops*); other humors were the same: bile, blood and phlegm. Four humors were given as the following in the first paragraph of *On Generation*: phlegm, blood, bile and water,⁶³ which correspond to those given in *Diseases IV*. Only in the second text the word ὕδρωψ is used, while in the former the word is ὕδωρ, and also the order of humors was different, phlegm was at the end which probably does not change anything in the theory. The difference of the word uses and the order of humors will be dealt with later, after investigating all gynecological writings.

In Loeb Classics the four humors were given as phlegm, blood, yellow bile, black bile in accord with almost all other related mainstream literature which is mentioned in the second chapter of this dissertation (fig. 2, on p. 41). On the other hand there are only these three texts known today where Hippocratic authors mentioned four humors theory:⁶⁴ *On Generation*, *Disease IV* and *On the Nature of Man*. Only in the *On the Nature of Man* it is stated that one of the humors is *black bile* and there is no mention of the humor *hydrops*. However it is not that clear in the structure of the sentence⁶⁵ in *On the Nature of Man* that if there is a separate humor of black bile, but bile, it is said, in both yellow and black. Plus they are not constituted as if they were the humors of Hippocratic medicine but rather as constituents of the body; in other words it is said that men possess in his body blood,

⁶³ Εἰσὶ δὲ τέσσαρες ἰδέαι τοῦ ὑγροῦ, αἷμα, χολή, ὕδωρ καὶ φλέγμα (Hr. Genit. 3.1).

⁶⁴ In the rest of the texts which survived today, as causes of diseases, or as the disease itself, references to these humors was present. Though, the instances of the theory that human is made of four basic fluids/humors is not meant. There may have been some lost texts, though they are beyond the scope of this dissertation.

⁶⁵ Τὸ δὲ σῶμα τοῦ ἀνθρώπου ἔχει ἐν ἑαυτῷ αἷμα καὶ φλέγμα καὶ χολήν ξανθὴν τε καὶ μέλαιναν (Hr. Nat. Hom. 4.1)

phlegm and bile, both yellow and black. Thus nowhere in the text reference to another text of humoral theory was provided by the writer (Hp. Nat. Hom. 4).

Therefore, it can be said that, the humor black bile was introduced to the Hippocratic Corpus in the place of water in *On the Nature of Man*⁶⁶ and the reasons for such choice will be discussed below. It is argued both in Smith and Hankinson that it is one of the main texts discussed through the famous Hippocratic Question (Smith, 1979; Hankinson, 2008). As it is argued in the second chapter Littré did not put this text inside the so called genuine texts. Smith argued definitely that it is not (Smith, 1979). Hankinson on the other hand is not that sure, since it is almost impossible to know (Hankinson, 2008). Thus as Jones argues, this text is written after the gynecological texts, probably between 440 B.C. and 400 B.C. where gynecological ones, as Grensemann argues are before 450 B.C. (Jones, 1959; Grensemann, 1975).

As it is discussed above in the second chapter, after the classical period, the interpreting views of Hippocrates, favored this or that part of Hippocratic practice and theory of medicine, according to each of their corresponding views (Smith, 1979; Hankinson, 2008). Galen was the peak of this idolization of Hippocrates. Thus it is very probable that some of the Hippocratic texts were neither written by the same person, nor in the same period. It is asserted that in the times of Alexandria, some texts were added under the name of Hippocrates to the Hippocratic Corpus as if they were written in the same period with the other Hippocratic texts in order to support this or that view. In this case, the four humor theory in the *On the Nature of Man*, which contains the black bile version of the four elements, was favored first by Aristotle then kept and saved mainly by Galen. Thus this latter version of

⁶⁶ It can be seen from the Loeb volume four that the word *melanchole* was used ten times in *On the Nature of Man*; the first two instances were used to describe the humor in the theory which is structured as an antithesis to philosophical arguments of the age, the elemental theories (Hp. Nat. Hom. iv.v). In these instances it is said by the author that some philosophers argued blood is the only humor, some bile, and some phlegm, though body consists of four of them at the same time. Then in the rest eight instances the qualities of black bile was described, with mapping humors with seasons, where black is autumn (Hp. Nat. Hom. vii,viii), and that it is the strongest and vicious of the elements(xv). Accordingly it is the only text where the theory of four elements was mentioned, with reference to the above argument that some say cosmos consists of only air, some said, water, some said earth and some fire, though it consists of all, it was argued. On the other hand there was no reference to the humor *hydrops* in the whole text as if the theory of four humors not with black bile but with water in *On Generation* and *Diseases IV* was not known to the author; the only three instances where the word water used are the ones to explain elements and not the humors. Then, in the fourth and the seventh book of *Aphorisms* the humor black bile was used in explaining diseases, and no where before in any of the so called genuine writings (Jones, 1923a; 1923b; 1931).

Hippocratic four humors perfectly fits with the cosmological four elements theory of fire, water, air and earth.

Four humors according to Hippocratic gynecological texts were water, bile, blood and phlegm. Nevertheless their corresponding elements would be questionable since phlegm is also a moist and cold element like water, and it is a hard job to decide which one corresponds to the element water, and more importantly which corresponds to the missing element black bile. The main problem is that neither of the humors in the four humors theory with water symbolizes the earth in the four elements theory, four humors and four elements do not fit in the texts *Diseases IV* and *On Generation*. Neither water nor phlegm would map with the element earth, since they are both moist. On the other hand neither blood, nor bile would correspond to the schema since the former represents air and the latter fire in the mainstream schema of four humors theory in chapter two (Fig. 2, on page 41). Thus we can assume that what are represented here would be both yellow and black bile with the word bile, and it would capture black bile only if it is present in the body; but then again it would only be an assumption.

Their correspondences would be questionable for it is not clear when the black bile captures earth, and when fire. Thus there is again no reference to a correspondence to four elements theory. The writer only wrote about the correspondences of these humors to related organs in the body, and do not even asserted a relation between them and the four elements. Nevertheless in that period probably there were many competing theories of various elements, and therefore it is probable for the writer not to prefer this or that but develop his own conclusions through the observational practice of medicine itself, without any reference to a philosophical hypothesis, as it is mentioned in the part *On Ancient Medicine* in chapter two.

Black bile as a theoretical entity perfectly fits into the four element schema for humors (Fig. 2. p. 41). Without black bile there is no corresponding humor for the element earth. In the gynecological style of four humors, the humor *hydrops* cannot map with the element earth, since it is not dry. On the other hand, when other humors were tried to place black bile in its properties of dryness and coldness, phlegm and blood at first diminishes, since they are moist, and bile, if it is the yellow bile, corresponds to fire, with its dry but hot qualities. If it is assumed that bile both

corresponds to yellow and, if there is any, black bile in the body, then it will not seem a perfect balance, since not each humor corresponds to one elemental property.

Thus, the element water is questionable since two humors correspond to it; namely the *hydrops*, and the *phlegm* with their properties of being moist and cold. Then, just for speculation, it can be said that, one of them would be warm, and this would be the phlegm since water (*hydrops*) is naturally cold, but phlegm can be warm. If this would be the situation, then *hydrops* must be the water element, and phlegm with its properties of wetness and hotness corresponds to air. But then blood seems irrelevant, having the same qualities. It is definitely not dry, so it cannot get the role of fire. As a result it can be said that the four humor theory of medicine with the humor *hydrops* and not black bile does not in any respect correspond to four element theory of ancient Aristotelian thinking.

On the other hand, it can be said, that such correspondence was not a goal for Hippocratic medicine. In both *On Ancient Medicine* and *On the Nature of Man* it is said by the writers that what counts as medical knowledge is the practice of medicine. In *Ancient Medicine*, hypothetical thinking, as it is discussed in the second chapter, was used in its pejorative sense of thinking only through opinions/postulates and not through the practice itself and said to be a wrong way of doing medicine. Though, such pejorative use of *hypothesis* in *On the Nature of Man* was a more debatable issue.

Lonie (1981) highlights such use in *On the Nature of Man*. The general claim of *On the Nature of Man* is that philosophical assumptions must not be intervened with medical issues; and that medical practice is prior to philosophical theorizing (Hp. Nat. Hom. 1). It is clearly stated in its famous first sentence that the nature of men can only be understood through medicine, where in the rest of the text it is argued that philosophical theorizing -that hypothesizing this or that element is the nature of men, cannot capture it⁶⁷ (Hp. Nat. Hom., 1.5).

On the Nature of Man was dated to 400 B. C. though it can be argued that such dating is for the purposes of safety and thus can be incorrect. Jones argued that the style of writing, namely the strong effect of sophistic rhetoric, references to Melissus

⁶⁷Ὅστις μὲν εἴωθεν ἀκούειν λεγόντων ἀμφὶ τῆς φύσιος τῆς ἀνθρωπίνης προσωτέρω ἢ ὀκόσον αὐτέης ἐς ἱητρικὴν ἐφήκει, τουτέω μὲν οὐκ ἐπιτήδειος ὄδε ὁ λόγος ἀκούειν· οὔτε γὰρ τὸ πάμπαν ἡέρα λέγω τὸν ἀνθρώπον εἶναι, οὔτε πῦρ, οὔτε ὕδωρ, οὔτε γῆν, οὔτ' ἄλλο οὐδὲν, ὃ τι μὴ φανερόν ἐστιν ἐνεδὸν ἐν τῷ ἀνθρώπῳ· ἀλλὰ τοῖσι βουλομένοισι ταῦτα λέγειν παρήμι (Hp. Nat. Hom. 1.5).

the Eleatic, the resemblance to Empedocles's theory of four elements -although they are not completely the same,⁶⁸ and the similarities to the text *Ancient Medicine* states that the text is written between 440 B. C. and 400 B.C.; though the issues on dates are debatable, here examining briefly these three topics would be appropriate.

In the use of Melissus's arguments, the author of *On the Nature of Man* argued that instead of equating one element with whole body, the philosophers whom the author criticizes with stupidity, must establish the theory of Melissus.⁶⁹ This statement is not clear though it can be understood that Melissus argued that there are difficulties equating men with only one element. Melissus was most popular in the 84. Olympiad, near 440 B.C.; though it can only be a later reference to his teachings that being, or nature in his equation, cannot always be the same –since if it were it cannot feel neither pain nor health (Freeman, 1983).

Empedocles's impact on the text, on the other hand, is more obvious according to Jones (Jones, 1931). Though as it was said Lonie argues there are many elemental theories at the period and this version may not be directly borrowed from Empedocles. The relation between them is a whole new point of investigation and thus scope of another thesis though it must be briefly handled here in order to understand the structure of the introduction of black bile into the Hippocratic style.

Empedocles was a contemporary to Melissus (Freeman, 1983). As it is described in the second chapter he was born in Sicily Agrigento city and traveled much; therefore he may have met the author of *On the Nature of Man* in his travels; though it is hard to prove. His beliefs were very similar to Pythagoras especially in his regard for vegetarianism and refusal of kingship. He was known of his atomism, like Democritus, and his four element theory of nature. Like Alcmeaon he argued that love between these elements produce health, and strife disease. Here, love can be valued as balance. However there were many philosophers having similar views in the era, in addition to Empedocles, Alcmeaon, Democritus and Pythagoras.

It is known that from the times of Thales,⁷⁰ at least, some element was favored as the only constituent of nature in natural philosophy of causing life through natural

⁶⁸ Empedocles's four elements were sun, water, air and earth, where in *On the Nature of Man* instead of sun, fire was used which is an Aristotelean invention later perhaps.

⁶⁹ Ἀλλ' ἐμοί γε δοκέουσιν οἱ τοιοῦτοι ἄνθρωποι αὐτοὶ ἑωυτοῦς καταβάλλειν ἐν τοῖσιν ὀνόμασι τῶν λόγων αὐτέων ὑπὸ ἄσυνεσίης, τὸν δὲ Μελίσσου λόγον ὀρθοῦν (Hp. Nat. Hom. 1.25).

and not divine entities. In this search for the causal entities/elements, Thales favored water, Anaximenes air and Anaximander *apeiron*, the indefinite as the cause of other elements. According to Anaximander the hot, the cold, the dry and the moist are the basic elemental properties which were all derived from the *aperion* which corresponds to the elements fire as the combination of hot and dry, air as the combination of hot and moist, earth, cold and dry and water composed of cold and moist. This is basically the four elements/humors theory which is used by the author of *On the Nature of Man*, which is at the same time adopted from Empedocles's a century later than Anaximander with a mapping between the world (*cosmos*) and the man (*microcosmos*). Then it is adopted by both Plato and Aristotle; but just before them *On the Nature of the Man* arrived having the similar manner of nature and man with constituting four basic humors. After all Galen adopted and favored the theory. It was the Periclean Athens the theory of identifying nature and man was first theorized and health was constructed as the political healthiness of state (Alcmea. Phil. 4.1-5). Therefore the use of black bile fitting the formula of Aristotelian four elements would probably be a political move to unite the views of medicine with philosophy, cosmology, physics and thus politics. *On the Nature of Man* is the only known⁷¹ text where black bile was introduced to Hippocratic medical humeral theory but with the emphasis that medicine is prior to all philosophizing. It can be said that such emphasis is due to the fact that this choice over the humoral theory with black bile to the one with hydrops, was a move towards the general claim of ancient philosophical theory of four elements.

It is argued that *On the Nature of Man* and *On Regimen in Health* are treated as a unified text and Galen was responsible for their division (Jones, 1931, p. xiv). The latter is an unfinished text having complete seven chapters, additional two chapters which were beginnings of other two texts. The eightieth from *Diseases II*, and ninth

⁷⁰ For the dates of Thales and other below mentioned figures see fig. 1 in p. 18.

⁷¹ There can of course be other texts which do not survive up today, though if such texts were present first in the times of Galen, he must have been mentioned them, since they were in accord with his understanding of Hippocratism and would strengthen his views and second, if there are other Hippocratic texts black bile was mentioned as one of the humors, there usually be a reference to that texts as it is in *On Generation* and *Diseases*. There are many examples to that style of referencing in Hippocratic texts; usually the writer told in the related place that he discussed this problem in another text with giving its name. Nevertheless one can never be sure. On the other hand the issue here is not the exactness of the four humors theory in Hippocratic style of medicine, whether it is used with black bile or hydrops and when but the investigation of the relation between their use in Hippocratic medicine and philosophical theories of the period in order to understand the concept of 'styles' through them.

from *Affections* gives the expression that a later editor added these parts (Jones, 1931, p. xv). The *Nature of Man* is similar, though its added parts are longer where *Regimen in Health* is itself the main additional part.

The instances of the use of the black bile throughout the unified text are interesting since it was treated just like yellow bile as if black and yellow bile are the same humor, the bile in general. As it is explained the first two uses are on the description of the four humor theory with black bile. Though in the rest, there are eight more usages in the text *Nature of Man*. Firstly it was said if a purgative of bile is given, bile (yellow) will be vomited, it is written in the fifth chapter, similarly if a purgative of black bile is given, the black bile will purge away (Hp. Nat. Hom. 5.15); though in the case of bile (yellow) it can be observed in the vomit where black bile cannot be observed; it is said it simply draws away (ἄγει).⁷² The word ἐμέω (to vomit) is not used for black bile while it is used both for phlegm and bile. However in the following chapter, the author declares that black bile can be vomited only in situations near death⁷³ for example in an over drunk person just before death a black vomit comes.

Accordingly on seventh chapter as a proof in the causation that phlegm represents winter, the author states that black bile, as matter of hard force of its evacuation, is hot; the word here⁷⁴ is ἄγει (draw away) again, and not the ἐμέω (to vomit), so they are not observed in the vomit but it is not clear where the black bile is seen and how it purges away. Thus in the rest of this chapter it is described that black bile is more dominant in autumn, since blood -its opposite, is in its weakest in autumn. And just at the end it is stated that in winter the vomit is most black.⁷⁵ It can

⁷² ἦν γάρ τινι διδῶς ἀνθρώπῳ φάρμακον ὃ τι φλέγμα ἄγει, ἐμέεται σοι φλέγμα, καὶ ἦν διδῶς φάρμακον ὃ τι χολὴν ἄγει, ἐμέεται σοι χολή. Κατὰ ταῦτα δὲ καὶ χολὴ μέλαινα καθαίρεται, ἦν διδῶς φάρμακον ὃ τι χολὴν μέλαιναν ἄγει (Hp. Nat. Hom. 5.15)

⁷³ ἔπειτα δὲ ἐπὶ τούτοισιν ἐμέουσι χολὴν μέλαιναν ἀναγκαζόμενοι, τελευτῶντες δὲ καὶ αἷμα ἐμέουσι καθαρὸν. Τὰ αὐτὰ δὲ πάσχουσι καὶ ὑπὸ τῶν φαρμάκων τῶν τὸ φλέγμα ἀγόντων· πρῶτον μὲν γὰρ φλέγμα ἐμέουσιν, ἔπειτα χολὴν ξανθὴν, ἔπειτα μέλαιναν, τελευτῶντες δὲ αἷμα καθαρὸν, καὶ ἐν τῷδε ἀποθνήσκουσιν.
(Hp. Nat. Hom. 6.15)

⁷⁴ Τεκμήριον δὲ τουτέου, ὅτι τὸ μὲν φλέγμα ψυχρότατον, εἰ ἐθέλεις ψαῦσαι φλέγματος καὶ χολῆς καὶ αἵματος, τὸ φλέγμα εὐρήσεις ψυχρότατον ἐόν· καίτοι γλισχρότατόν ἐστι καὶ βίη μάλιστα ἄγεται μετὰ χολὴν μέλαιναν· ὁκόσα δὲ βίη ἔρχεται, θερμότερα γίνεται, ἀναγκαζόμενα ὑπὸ τῆς βίης· ἀλλ' ὅμως καὶ πρὸς πάντα ταῦτα ψυχρότατον ἐόν τὸ φλέγμα φαίνεται ὑπὸ τῆς φύσιος τῆς ἐωυτοῦ. Ὅτι δὲ ὁ χειμῶν πληροῖ τὸ σῶμα φλέγματος, γνοίης ἂν τοῖσδε· (Hp. Nat. Hom. 7.5, 7.10)

be said that black bile cannot be observed frequently, and treated in the text observable only in special occasions like near death and in the season autumn. This can be due to the fact that blood, when dries turn into black, thus a black entity became observable, though it is not the black bile but the dead blood cells. It is known that near death blood cells turn into black.

In the fifteenth chapter it is stated that most fevers (diseases in Jones's translation) came from bile. Fevers are classified in four kinds; the continued (ξύνοχος) which has no paroxysms, the quotidian (ἀμφοημερινός) where fever comes in one of the two days, the tertian (τριταῖος) in three days, and the quartan (τεταρταῖος) in four. They can be discussed, as Jones argues with reference to the disease malaria and its relation to black bile. For Jones there is a strong connection between the disease malaria and the humor melancholia in ancient Greek period (Jones, 1931). Demand argues that the theory of critical days and perfect crises can be due to an observation of malaria, which is very common in ancient times, and which follow cyclical patterns (Demand, 1994). For Jones these four types of fevers are those which are mentioned today recognized as malarial (Jones, 1931, p. 39). It must be reminded that the disease malaria attacks the blood cells, and the blood turn into black residues.⁷⁶

As it is said in Loeb second book, the disease malaria was one of the most often diseases in the Hippocratic era (Jones, 1931, p. xii). Since the disease was not recognized by the practitioners that it was caused by mosquitoes due to the parasites, the fevers and blackish vomits were probably seen as caused by black bile, though it is not clear how a humor like black bile was first 'invented'. Though, as Jones argues, in a malarious country most diseases are modified or "colored" by malarial symptoms, where the color is black.

Here in the development statements it is argued that excessive obstinacy arises from the black bile and that it is the most brutal of all the humors and that it is the master of the quadrants which usually occur in autumn, and between the ages of twenty five and forty five. The examination of other texts where black bile is used can be useful to understand the place of it in the Hippocratic four humors theory

⁷⁵ Μαρτύριον δὲ σαφέστατον, εἰ ἐθέλεις τῷ αὐτέῳ ἀνθρώπῳ δοῦναι τὸ αὐτὸ φάρμακον τετράκις τοῦ ἔνιαυτοῦ, ἐμέεται σοι τοῦ μὲν χειμῶνος φλεγματοδέστατα, τοῦ δὲ ἥρος ὑγρότατα, τοῦ δὲ θέρεος χολωδέστατα, τοῦ δὲ φθινοπώρου μελάντατα. (Hr. Nat. Hom. 7.50).

⁷⁶ As it is written in Concise Medical Dictionary, malaria is caused by parasitic protozoans transferred by mosquitoes to human bloodstream where they destroy red blood cells and the blackness is the residue of these red blood cells.

since the attributions to this humor were not that clear. In *Regimen on Health* which is said to be a unified text with *On the Nature of Man* there is no mention of the black bile. It can then be said that these treatises may not be unified, or that there is no black bile related issues in a healthy diet since black bile is mostly related with fatal periods. Though it is not clear why a treatise on the humors of man was ended with seven chapters considering regime in health. It can only be assumed that the author first introduced to the theory an entity like black bile, and through similar argumentation with *On Ancient Medicine*, argued that regime in disease and in health must be different, and then described regimen in health. This view was first expressed in *Ancient Medicine* and was dealt in the second chapter. This can be considered as a second similarity between *Ancient Medicine* and *On the Nature of Man*. Thus it can be said that *On the Nature of Man* was written in a period where fatal diseases occur often and in a manner similar to *On Ancient Medicine*. As it is known that the latter text was written before 450 B.C. and considered the first genuine text. It can be said that the author of the former knows about the latter and used a similar style when introducing a new humoral theory.

From the investigation of the instances of black bile in *Nature of Man*, for now, it can be said that rarely, and in only the situations near death it is observed in the human body even in the text which it was first introduced. Though, it can be argued that the text while criticizing theorizing, did introduced to the theory a new entity/humor. It is said that near death a black vomit can come from the body but it is due to dry blood and not to a kind of bile.⁷⁷

On the other hand, as Jones suggests the disease malaria was one of the most often diseases in the Hippocratic era (Jones, 1931). Maybe fevers and black vomits were increased in the region for that period (after 440 B.C., see fig.1, p. 18), due to malaria, which is caused by parasites and since parasites were not recognized in Hippocratic medicine, a humor like black bile was used which fits into the observations of periodic fevers and black vomits and also to four elements with its mapping to the element earth. Though for the former case, it is still not clear how a humor like black bile was first ‘invented’.

⁷⁷ Bile can only be yellow or green, and when these two are mixed, brown, according to Concise Medical Dictionary, due to the bile pigments present in the proportion. It is secreted by the liver and stored in the gall bladder.

In considering the concept of ‘styles’ the choice of the writer of *On the Nature of Man* for the black bile is significant. In Kuhnian viewing of science with the concept of paradigm, the problem of the absence of the element earth in the medical theory of humors can be seen as an anomaly. Though as it was discussed in Lonie that there were many competing elemental theories in the period, and thus malaria epidemics were seen in the region often and the humor black bile was also served to save the phenomena (Lonie, 1981). Though black bile was used for many centuries in order to save the phenomena, in accord with the general accepted theories of the era, was said to be Hippocratic and thus known for centuries as Hippocratic as if it was the only Hippocratic four humors theory.

As a conclusion of *On Generation* and its review text *Diseases IV* it can be said that the humor black bile was not one of the constituent humors in these Hippocratic writings. These two texts were the only known Hippocratic texts where four humors theory was presented other than *On the Nature of Man*. Thus this last text, as it is discussed above was probably written after the two former texts and probably by another author. In the rest of the texts, as it will be seen, black bile was present but often not as a constituting humor. The constituting humor was generally water (*hydrops*) as it was presented in these two core gynecological writings.

Thus, as it is discussed in the beginning of the second chapter, the four humors theory was in the hard core of Hippocratic medicine in Lakatosian sense since it was used as a basis for the rest of the theories and practices. Though as it was seen this hard core theory was also changeable, and was changed in *On the Nature of Man*. Though, at least it can be claimed that the black bile is absent in women’s diseases according to main Hippocratic gynecological texts since they assume a humoral theory without black bile and instead used another humor which is water. As it is mentioned in the second chapter, its absence does not produce an imbalance in the overall balance of humors, though the problem was its excess⁷⁸. For now it can be

⁷⁸ In Aristotle’s version (Arist. Prob.) of the excess of black bile, corresponds to the melancholic behavior, though it shows itself also in productive people especially in arts and politics. Therefore he argued that melancholic type of people are good politicians and philosophers. Though it is paradoxical to attribute black bile these properties, since it is also known as a women character to be melancholic, while women were relating to philosophic and political issues very rarely in ancient Greek.

said that it cannot be excessive in women diseases since it is absent in the humoral schema at least in the gynecological writings.

3. 2. 1. 2. *Eight Months Child and Seven Months Child reviewed and Superfetation, On the Nature of Virgins, Excision of the Fetus and related parts of Coan Prenotions*

As it is argued in Loeb's ninth edition by Paul Potter that the edition of the text *Eight Months Child* (Oct.) contains the *Seven Months Child* (Septim.) in itself, since the first nine chapters of this thirteen chaptered text is also on seven months children (Potter, 1988). Though, there is no general consensus on the subject. Littré's chaptering on the issue was adopted by Paul Potter, and here the examination of the texts will be done accordingly (Littré, 1853). Chapter nine is itself a kind of summary of the whole claim of the treatise which will provide a basis for the 'critical days theory' of Hippocratic gynecological style; therefore here only the ninth chapter will be analyzed.

The ninth part is as follows: all diseases occur, both in children and in women according to certain number of days, or of months, or of forty-day periods, or of a year. All these time periods determine the factors favorable to each disease, and many others unfavorable. Thus if these time periods are used correctly, they can provide health and growth and if wrongly the outcome will be disease and death (Hp. Septim. 9.1).

The most significant days are the first and the seventh. As it is argued that miscarriages occur usually on those days, though rather these days are beneficent for the fetus. The other significance is on the forty-day periods. Months are also significant since the menses of a healthy woman appear in one month basis. Thus this is also the case in the seventh month where the fetus reaches its perfection, whereas other significant changes also appear in seventh month in children like the appearance of the teeth and such.

Additionally, in order to investigate a patient and understand the health and disease conditions odd days must be examined, and also the even ones to fourteenth, the twenty-eight, and the forty-second. This, as the writer argued is due to the principle of harmony. Everything can be examined by the means of triads and

tetrads⁷⁹ which are the cores of critical days theory. For the period basis of a year similar things were also said in the text. Seven years period is distinctive, children teeth fall out, and thus one year period is also significant for many diseases to pass or to arise. In this treatise there is no mention of humors black bile or *hydrops*. Though it can be argued that its absence is significant since the treatise gives clear descriptions of the adaptation of ‘critical days theory’ and it is known that the disease malaria is a periodic disease and its crises come in paroxysms of two days period. Therefore it can be claimed that critical days theory was not related to the disease malaria.

Thus forty-day periods have a special place in critical days theory as it is written in *On Eighth Month Child*. This maybe is due to the observations that for the stabilization of balance this amount of time is needed. For example an embryo which survives the first forty day period, escapes from miscarriage. After that time fetuses get stronger, since it gets balanced and thus stabilized⁸⁰ (Hp. Oct.). The thing with forty days can be the observations of such fetuses. Another forty day period in pregnancy is what corresponds to the eightieth month, it is known through observation that eight month children usually are either sick or die in the first forty-day period after birth. At that time the fetus is already perfected in the seventh month, so since it is still in the uterus, it become prone to get ill, and only after the end of the forty-day period after the seventh month it becomes balanced. That is the reason why usually eight month children does not survive either in birth giving or afterwards; thus the second part of this treatise is devoted to such children. In the first part children’s perfection up to seventh month is described. Another forty day period is the forty day period after the child is born. When the child passes this period outside the mother’s womb, it becomes strong. Therefore forty days are very critical in a newly state, both in the creation of the fetus inside the uterus and outside the uterus in the first time. If the child survives for forty days, it becomes used to the environment which it is in. In addition to the abortion of the fetuses, the observations of the new born children may also be the reason for the theory on eight months

⁷⁹ As it is mentioned by Potter, triads are the three day units where the first and the last days are significant; they all conjunct with each other, like 1-3, 3-5, 5-7 etc... and construct series of critical days 1, 3, 5, 7, 9, ...etc.. Tetrads, like triads, are four day units and the first and the fourth days are critical. Succeeding pairs of tetrads conjunct internally with each other, like 1-4, 4-7 and 8-11, 11-14, but disjunct externally with the preceding and following pairs of tetrads, like 1-7, 8-14, 15-21; and so the even numbers critical days have special attention 14, 28, and 42.

⁸⁰ See the part on the main theories of ancient medicine and fig.2. in p. 41.

children. It can be said that the importance of certain days and periods which is basically a Hippocratic practice rooted from experience through many observations of women and children since only in these texts on seven and eight months children, it was presented though it was used in many other diseases and cases especially in the Hippocratic text *Epidemics III*.

The author of the text said that everything has a nature that suffers from changes until enough time passes for them to get used to the change (Hp. Oct. 3). Here it can be added that the forty day period after someone's death is also a tradition to accept such change, this it can be argued, can also be regarded as a tradition of ancient Greek thinking where psychological conditions are similar to physiological ones. In order to psychologically accept a lost forty days are considered to be needed for the stabilization of the psychological balance.

Superfetation is a text on multiple pregnancies. It means to have more than one embryo in the uterus. According to Hippocratic gynecology these happen to be the products of several intercourses which resulted as several fetuses, at different times and in different places of the womb. Many chapters in the texts are also present in the book *On the Diseases of Women III*, which is called *Barren Women (Steril.)* in the related literature. Lienau's study concludes that *Superfetation* is borrowed from *Barren Women*⁸¹, where the latter is probably the genuine one (Lineau, 1973; Potter 2010).

The first three chapters in addition to fifteenth are on labor. It is said, the place of the added fetus in *superfetation* determines if labor will be easy or difficult. It is argued that the delivery will be difficult if the second baby does not come after the first, or the membrane is torn apart. On the contrary the labor will be easy if they are both in the center of the uterus, or the membranes do not thorn apart (Hp. Superf. 1.2). Thus it is argued if the added child born prematurely, since it is conceived after the first, it won't have nails. In the fourth one to the ninth, the ways of the delivery of the children were described; the ninth, the tenth, the seventeenth are about dead babies, and what to do if fetus dies in the womb, the eleventh, twelfth, sixteenth are on the signs of uterus about the condition of delivery, and the thirteenth is the statement that during pregnancy intercourse is not good for the labor of women. Here it can be mentioned that the disadvantage of intercourse for women is limited to the

⁸¹ *Barren Women (Steril.)* is also known as the third book of *On the Diseases of Women* which will be investigated in the following part.

period of pregnancy. Thus as it is asserted in the beginning of this chapter with Dean-Jones, the view that intercourse is beneficial for the women through the argument on the theory of ὑγρότης (that women is moister than men) is still valid and will be reflected upon in the conclusion part.

In the fourteenth chapter of the text *Superfetation*, the birth of twins are described, and declared they will be labored in the same day. It is argued in the eighteenth that if a woman wants to eat earth or coal, then the baby would have a mark on the head, and that a woman has the baby on the side which her breast is bigger along with her eye on the same side where the eye becomes brighter and bigger with pregnancy.

In the twenty first it argued that unnaturally fat women does not become pregnant which is in accord with the thesis on *Airs, Waters and Places* about the Scythian women, and here it is argued accordingly that excessive phlegm in their body prevents healthy pregnancy, which is also argued in twenty third, and twenty ninth. The similarities with the text *Airs, Waters and Places* shows that this text can also be considered as genuine. Additionally in both texts, it can be argued, the theory of ὑγρότης was presented since in both texts moisture in women bodies and their disease and health conditions were related. Women bodies, were said to be more dependent to moist (ὑγρότης) in comparison to men.

In few places advises for men were present in this text. Spring, for example it is said, is the right time to get pregnant; thus it is advised for the men to take care of their bodies in spring and be strong (Hp. Superf. 30-31). If he wishes to have a male child, it was advised to bind the left testicle, and for the female the right since, as it is parallel with the theory of Hippocratic gynecology.

The text *Superfetation* ends with medications, potions and recipes advised for women and will be described below. The medications in this text were usually in relation to changing the size of the uterus since the text describes multiple pregnancies. For example a medication for whose uterus is not big enough to carry the embryo(s) after three or four months (Hp. Superf. 27), or whose uterus is suppurating after birth giving (Hp. Superf. 28) were given in the text.

These specific medications, potions and recipes for women diseases usually are prepared with common vegetables or plants such as cumin, cucumber, white wine. These three were almost in every medication. Raisin, green leaves of catmint, rose oil, bitter almond oil, cyclamen, copper flower, myrrh, wormwood flower, fig,

frankincense, onion, garlic were used for several recipes, last two especially for cleansing the uterus. Honey and wax were also used inside recipes as mixture factors, soda used rather than water, thus frequently advised unmixed with water elements in the potions. Besides strong ingredients like serpent skin, male ass excrement or bull's gall were also mentioned in some recipes. Goat fat is used as additive fat in some potions⁸².

On the Diseases of Girls is another short gynecological text on mainly the period just before the time of menstruation. Potter, who is the editor and translator of the ninth series of Loeb editions, where this short text is available argued that although in the *Diseases of Women I* there is a part on the diseases of girls and virgins, this text does not have correspondences with them (Potter, 2010). Therefore it can be treated separately; the only reference between them is on Galen's *Glossary*.

In the text it is argued that nightmares or numbness of girls who are just before the time of menstruation is due to the accumulation of blood in the hearth and diaphragm, this makes the girl frightened and suicidal. It is like the person who sits too much and after standing straight does not feel his/her feet, since the blood did not flow freely in the body. Though in this case blood quickly turns back to its usual condition and symptoms of its accumulation disappears quickly. On the other hand the hearth and the diaphragm does not turn to their usual condition that quickly, so the girl to return to normal life needs time after the blood starts to flow out. It is recommended for these girls to get pregnant as soon as it is possible, though pregnancy will prevent them from delirium. If not, it is argued she will be seized either by this disease, or by another one because of her mental situation. It is argued in this treatise that among married women, some barren ones suffer these things. It can be inferred from this short text that women without children were seen mentally not normal and suicidal than men without children. This will be due to the construction of the role of women in ancient society naturally as mother and of a birth giving agent, or maybe the beneficence of giving birth is psychologically relevant. It must be reminded that in ancient medicine psychological and physical problems were seen completely the same (Koziak⁸³, 1999).

⁸² For other recipes and ingredients see the part on *Diseases of Women* 74th chapter.

⁸³ There is a good debate on the mental faculties of organs in Koziak (1999). She argued that in the early development of gender roles in especially greek culture, the mental role of organs played an important role. With a discussion on *thumos*, which can be translated as both the emotion anger and

On the Excision of the Fetus is a treatise similar to the first part of *Superfetation*. As it is argued in Potter the text has never been a subject of special study although it appears in almost all Hippocratic collections (Potter, 2010). Here it can be claimed that the Hippocratic gynecological texts altogether were not that favorable like the other texts in the Corpus. Thinkers like Hanson, Dean-Jones or King study them, though they are in the beginning of the work on women issues in Hippocratic medicine.

The treatise *On the Excision of the Fetus* is on abnormal labor, first due to the death or due to a problem of the child/fetus. In the second chapter, the ways to get a death child out of the womb is described by using hands and fingers in special positions or with special tools like fish skin. For example the fish skin is used to cover two fingers so that the fetus does not slip out of the fingers of the physician during the labor. Thus special ways of relieving the laboring women were also described during these abnormal births. It is advised three times to cover either the head of the women or the worked area with clean wool or linen cloth so that the women cannot see what is going on and not get afraid (Hp. Exc. Foet.). This, it can be argued, because of the belief in the labor of the patient herself in the practice of healing. As it is discussed in the second chapter, the patience has a special active role in Hippocratic medicine, a participant agent in her betterment; therefore her thoughts were important along with her positive participation in the practice.⁸⁴

It is advised to examine the labor waters of the women before delivery, if the water comes much before delivery, it was said will not be good since maybe coming of the labor waters helps the fetus to move downwards. Shaking is advised during difficult labors, forcibly ten times, so that the fetus is shaken into an open place, where it is made ready to pass forward into its natural way. In the situations where uterus falls out, it will be argued; incisions must be made in the membrane of the

the organ heart, she gave a through study on what can be called as ‘will of organs’. Parallely it can be argued that the organ womb has a will of giving birth and so by giving birth its will confirmed and otherwise it can cause delirium and such. See also text on seven and eight months children and the debate on the forty day period after death.

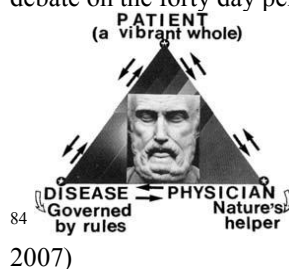


Fig. 3. Nature's role in Hippocratic Practice (Katsambas and Marketos, 2007)

uterus, straight and crosswise. Then it should be rubbed with soft linen and anoint with seal oil, applying a plaster with pomegranate flowers. It is argued to give moderate food to hard labored women, thus suppositories of white wine sprinkled soft sponges would also be good for the hard labors.

As a conclusion to the gynecological writings on normal and abnormal labors and on girlhood, the belief in the active participant of the patient to healing is noteworthy (fig. 3 on page 76). As it is highlighted in mainly on the issues of hard labors, the women must not be stressed and her will to the birth is needed for the practitioner to help the labor (Hp. Foet. 4). Additionally the recipes and medications in the text *Superfetation* gives a clear insight to practices of medicine in antiquity. As it was seen mostly common plants and vegetables were used in treatments which are easy to prepare and can be done by common people other than specialized professionals. It can be said that one hand there was the professionalization of Hippocrates on women diseases, and on the other, a set of practices that are open to the public.

3. 2. 1. 3. The Core Hippocratic Gynecological Writings

Here in this chapter the three books on the diseases of women, namely *On the Diseases of Women I-III* in Hippocratic collection along with the book *On the Nature of Women* will be examined in details. These four books are the core of the Hippocratic gynecology (Hanson; 2005). The first three books will be reflected as a union as it is in TLG or other sources, as also in Littré, though as Hanson argues there is no general dispute on the union of these texts. The last book is on sterile women, others concern mainly about either the problems in pregnancy or the problems preventing pregnancy. The recipes⁸⁵ in the texts are very similar to that of *On Superfetation* and as it is argued above, the text, it can be argued is the basis of *Superfetation* (Lineau, 1973).

Here two main translations will be used; Hanson's (1975) and Whiteley's⁸⁶(2009) along with the original texts in TLG. The book one is constituted of hundred and

⁸⁵ For example in both texts for purification and washing, white wine was advised.

nine paragraphs which are mapping with the text in TLG. In TLG after these hundred and nine chapters, an additional part comes, which as a whole covers two hundred forty nine chapters under the heading *Diseases of Women* (Mul. I-III). Though in Littré the additional part starts from the two hundred and thirteenth chapter, then the so called *Sterile (Barren) Women* starts (Mul. III). Therefore the part between 109 and 213 is the *Diseases of Women II*.

3. 2. 1. 3. 1. *Diseases of Women I-III*

The Diseases of Women begins with the idea that a women who gave birth is ‘broken down’ (καταρραγή). This breaking down of the women body let the discharges and all other fluids flow more easily, especially in menstruation. Such breaking down, the writer argues, is due to the looser texture of women to men. She is moister than men;⁸⁷ therefore she is warmer and softer. And the blood can fulfill her which as a result gave her pain. Being less moist is good for men since they can work harder and moisture cannot take advantage of his body. Especially in women who did not gave birth, the vessels for the accumulation of the moist in the body is not ready and it is more hard and painful to work for them than men.

In the second chapter it is discussed that not having intercourse has the same treats for the women’s body. It can make the womb shut into itself and it is dangerous since blood and moisture cannot enter and pass freely from the womb which will result in disease. For women who do not have intercourse the belly will empty itself and displaces.⁸⁸ If a womb is moist it cannot easily displace. This also occurs if a woman does not menstruate for three months. The urine becomes thick and copious. Though, if she is treated accordingly she will be healthy. These were no deadly diseases according to the Hippocratic writer. After menses will cease down she will be cured. However if she is not treated right and does not menstruate till the sixth month she will already be incurable and thus sterile. If she comes to the point

⁸⁶ Which is a master thesis in ancient languages and cultures of University of South Africa, available online.

⁸⁷ This thesis is called the theory of ὑγρότης in Lonie (1981), and will be used through out this thesis accordingly.

⁸⁸ This is called ‘the wandering womb’ in the related literature of Hippocratic gynecology (Phillips, 2006).

where the womb is swollen, the urine becomes red and she vomits bile⁸⁹ (Hp. Mul. 1.2).

There at that point tumors in the womb were described. When a woman could not menstruate for two or three months, the menstrual flow would fall into the womb and the excess of menses cause red and big tumors. It is mentioned that many doctors have tried to cut the tumor and have put the patient in danger.⁹⁰ Here to be acquainted with such tumors are said to be important in their removal. The criticized doctors were the ones who are not acquainted with such kind of tumors.⁹¹ Therefore it can be inferred that the practice of cutting the tumors in the womb is known to Hippocratic style, though it is not advised since it is very dangerous for the patient and that the doctor must be knowledgeable of the practice.⁹² This statement is noteworthy, since it directs a professionalization in specific practice of cutting the tumors in the womb.

Here in this part there is also a reference to the *Disease of Virgins*; therefore it can be inferred that the authors at least knows the text. Though since the Hippocratic author directly said that he himself mentioned it there; that in virgins whom cannot menstruate the menses can flow from the anus⁹³ it was probably the same author. The

⁸⁹ Here it must be mentioned that generally black bile is not used in the treatise *On the Diseases of Women I*, though there are instances in the second and the third book. Therefore whenever bile is mentioned it is the yellow bile in this book and the four elements theory with water is assumed to have used; this will be examined in the last part of this chapter.

⁹⁰ Καὶ τῶν ἰητρῶν πολλοὶ ἤδη οὐκ εἰδότες τοῦτο ὀκοῖόν τί ἐστιν ἔταμον καὶ ἐς κίνδυνον ἤγαγον οὕτως (Hp. Mul. 2.75).

⁹¹ These kinds of tumors were said to be produced like this: the flesh takes advantage of the blood, since the mouth of the womb lies near the flank, and is filled by the blood and forms a projection; the flesh is now full of blood. Sometimes the distended part recedes down along the flank-if the mouth of the womb changes its position and extends down into the vagina and the menses run through the vagina. Then the menses pass over to the womb and the womb releases them outside. If the mouth of the womb is not turned back down the vagina, suppuration forms down along the woman's flank and then a path exists for the exit of the menses. The dangers are the same for this woman as those which have been mentioned above. In addition, she has recourse to vomiting (Hanson, 1975). In today's medicine ovary cysts and polycystic ovary syndrome were described almost the same with this statement of Hippocratic gynecology.

⁹² Here a later Hippocratic, Aretaeus of Cappadocia (48-118 A.D.) who lived and practiced around the region of Cappadocia can be remembered. That he is famous of removing successfully a tumor from the womb, therefore it can be added that he was professionalized in this practice. That he was praised of such removal, thus as he is a Hippocratic he was aware of its dangers. He must have been an expertise as it is mentioned in Dumont (1992), who followed the gynecology of Hippocrates, and maybe this chapter of Mul. where the need for expertise in these very gentle issues was reminded by the Hippocratic author, and knowledge of these kinds of tumors was given.

women, it was written, were less keen to such effect since they already ‘broke down’, so their vessels are more open, and the menses can flow more easily. For the coming of the menses from the anus is common in virgins since they are not broken down and their vessels are narrow and menses can only find the way from the anus. This is a theory explained in the *Diseases of Virgins*. Thus it is in accord with the theory of breaking down since virgins were said to be not broken down, they were subject to such passage of the blood. The two hypothesis and thus the two texts are in accord.

Then in the later parts menses and especially the excess of menses were described. Precautions were given, most importantly washing and cleaning the womb, with crethmon (*Crithmon maritimum*) and wine. Ulcers were discussed to be the main cause of lack in menstruation if it was not because of pregnancy.⁹⁴ In fourth and fifth chapters the minimum then the maximum amount of menses and their reasons were discussed. Here it can be added that since ulceration in the womb area and channels were recognized to Hippocratic gynecology, it can be said that there were consultation methods in Hippocratic gynecology. Probably it was manual, and it was learned through child labor experiences. The wounds in these areas were probably seen by the practitioners during labors, and a method of investigation of the area was probably developed through experience. The wound, like other internal wounds were accepted like as a disease, and was said to be the cause of the problems of menstruation.

The structure of a normal menstruation (καταμήνιος) was also described in the text (Hp. Mul. 1.6). There it is said that a normal amount is two Attic cups, which is as discussed above is much more than the excepted amount today. Hanson argues that such difference may be due to the incorrect ways of measurement, though if this is so, then there must have been other wrong measurements (Hanson, 1990).

As a conclusion it can be argued that καταρραγή (breaking down of the women body) is comparable to the loss of virginity in today’s understanding of becoming women. In today’s understanding a girl becomes a woman in the coming of a certain amount of blood from the vagina after the first intercourse. The membrane protecting

⁹³ This statement will be used in the discussion of Leonidas’s daughter in the last part of this chapter with referance to *Epidemics VII*.

⁹⁴ See also the part on *Diseases of Women* 182, in its relation to the ulceration as a cause for the blackness of menses. It will be argued that since blood becomes black when dead, the blackness of the menses can be due to the ulcers in the womb.

the inner part of the uterus ‘breaks down’ with such experience, and in a way this is accepted as a *κατάρραγη*, a collapse of the women body. Though, in Hippocratic gynecology such collapse is not due to the first intercourse but to the first child labor. Thus the latter is not only a collapse of a single membrane in the womb, but a total collapse of the vessels and sort. Here it must be reminded that vessel, in ancient Greek language and practice does not only mean the passages for blood in the body, but there are many different kinds of vessels in the body, for the passing of not only blood but also of all humors. Therefore vessels in Hippocratic medicine were all the passages in the body for airs, waters and all sorts of substances in the body to pass. If the blood of virginity is compared to the breaking down of the vessels in women body, it can be assumed that the latter includes the former. Thus nowhere in the Hippocratic texts blood of virginity was described. The theory of ‘wandering womb’ is also important when regarding Hippocratic gynecology. As it was mentioned above it was argued that the womb changes its place in the body. If the womb gets too dry, it moves towards the liver, and attaches to it, and so they together start to move towards the abdomen (Hp. Mul. 1.7). The lack of moisture is the reason for the move of the organ womb. Therefore the theory of ‘wandering womb’ is connected with the theory that women are moister than men. Since women body needs moisture the organs do such movements in the body. Thus movement can cause a very serious thing which is called in the passage, the Heracles disease⁹⁵ (Hp. Mul. 1.7), the eyes of the woman gets upside down and the whites of the eyes can be seen. It is argued that she is near to death. Sometimes if a womb is empty, dry and in lack of moisture and if the women do heavy work in such condition, the womb turns upside down, because of its lightness, and falls in the neck of her bladder. It usually happens in the older ages of women. This was not a serious disease and the women will not suffer from such condition, and sometimes the recovery is even spontaneous.

Here, in these passages of the text, the word *usteria* was used. As King argues, in her study on the Freudian reinvention of hysteria by using Hippocratic concepts ‘wrongly’ (King, 1993; 1998), the use of the word mainly reflects physiological movements and not the psychological attachments which are basically later inventions. It can be said that in Hippocratic medicine psychological diseases are related with the physiological ones, though they are not in a cause-effect relation, but

⁹⁵ Here, as Hanson reminds this Heracles disease have been commented by Galen as epilepsy (Hanson, 1990).

they are almost the same disease (Koziak, 1999). In other words, *usteria* is a physiological disease rooted from the movement of the womb in the body in order to find moisture. On the other hand, as it is believed the organ itself has a kind of psychological power that its dryness (the problem) upsets it. And since the organ is upset, the person also feels it. Though, this does not mean that it is mainly a psychological disease. The disease is its dryness. Thus the physiological effect of this disease roots from its movement in the body. Therefore both the physiological and psychological effects are caused from its dryness and treated in ancient medicine as if the same thing. However in Hippocratic gynecology mainly the physiological side was considered, probably since it is observable. Thus the physiological effects were tried to be cured either manually, like putting back the organ in its place, and with drugs to make the organ moist again. King argued that Freud underestimated this in Hippocrates, and invented psychological disease hysteria through his own reading of Hippocrates (King, 1993).

In the text there were places where black residues were mentioned, though it can be said that these were not in the use of black bile as a humor. These cases of blackness of the residues and of bile, as an addition to the case that was examined above, will be examined here. When the women have an ailing body (σῶμα φλαύρωσ), it is written, the menses become bilious (χολώδεα τὰ καταμήνια) it is easily been seen (εὐγνωστος), and they are black which is very dark and black which is brilliant (μέλανά ἐστι κάρτα, ἔστι δ' ὅτε μέλανα λαμπρά⁹⁶). Though there is no mention of black bile as a humor; only it is said that the menses, in other words the menstrual blood is black and bilious.

Similarly, in the next chapter phlegmatic menses were discussed and it is reminded to treat them occasionally. They are not dangerous in the beginning; and their symptoms were spider web like menses; but if they are not treated rightly in the beginning they will even make the woman die. Purging is advised for the treatment, and bilious vomiting. Vomiting if not excessive is said to be positive for the health of the diseased woman since by vomiting excessive humors were said to be balanced by putting them out of the body (Hp. Mul. 9.1-20). It can be assumed that this passage is following the chapter on bilious menses, and was an addition to it. Therefore they were both on the problems of menstrual blood and since there was no mention of the

⁹⁶ Ἦν δὲ γυνὴ τὸ σῶμα φλαύρωσ ἔχη καὶ ἦη χολώδεα τὰ καταμήνια, εὐγνωστά ἐστι τῶδε· μέλανά ἐστι κάρτα, ἔστι δ' ὅτε μέλανα λαμπρά (Hp. Mul. 8.1).

black bile as a humor in the menstrual blood, it can be inferred that bile and phlegm was considered as humors and examined (in the menstrual blood) accordingly. Hence if the theory of four humors with black bile was used then, there must have been two kinds of bile examined in the problem cases of menses, the yellow and the black. Though in these chapters only the bilious menses were mentioned (therefore it can be said that there was only one kind of bile as a humor) and it becomes black. Therefore there is no specific humor mentioned as black bile but only that bilious menses can be seen as black.

Here it must be noted; as it was discussed above, blood becomes black when the blood cells are dead. Therefore blackness can easily be observed in the blood related diseases, like malaria, as it is mentioned above, or in problems of menstruation. This blackness of blood can be one of the reasons of the development of four humors theory with black bile⁹⁷ in later texts. As it was repeatedly mentioned continuous observations and experience of the Hippocratic practitioners gained through these observations prepared the ways and methods of healing in Hippocratic practice of medicine. Though, at least for these gynecological texts, black bile was not used as a humor.

On the issues concerning menstrual problems, women who cannot get pregnant were advised to investigate their menses. It is argued that such condition would be due to the position or the structure of the womb, it can be too narrow or it can be in a wrong position. In the eleventh chapter it is advised for the women to observe their menses. It is advised to put a cloth when they are menstruating and therefore can observe their menses with putting the cloth after their menses occur, under the sun. It is advised to use separate cloths for day and night and it is advised to wash them after observation. If after drying under the sun, the cloths are reddish or blackish, it is said that the body is full of blood, and therefore must be treated accordingly. If they are bilious then the body is such so, or if they are phlegmatic, then the necessary precautions must be taken. It is said that the whole body can be observed by such experiment. Thus their quality, it is reminded can vary with the season and with the

⁹⁷ Here it can also be noted that, according to the ‘opposites cure opposites theory’ the diseases of black bile was cured with blood increasing drugs, like hellebore. As it was mentioned the diseases of black bile arise only from the excess of black bile and the absence or lack of the humor was not seen as a cause for a disease. For the point of view from the relation between black bile and blood these two points can be explained. If the observed blackness is due to the dead blood cells, either from malaria, or the problems of menstruation (like the ulceration in the womb), first it is expected for the betterment to use blood enhancing drugs since the main problem is with blood, and second the absence of black bile was not a problem, since it means that the blood cells is not dead.

aging of the women and such. Such call for observation of women's own menses can be commented as a part of the effort of getting the patient involved in the practice of healing. Both The observations of the women alive in the period and the active participation of the patient, it can be argued, highly used in Hippocratic medicine.

The words corresponding to experiment and observation which are used in the text are; ἐσιδών, γνώμη σκεθρῆ βασανίσας, ἀθρέειν and ἀποσκεψάμενος. Ταῦτ' οὖν ἐσιδών καὶ γνώμη σκεθρῆ βασανίσας, ὅλον τὸ σῶμα ἀθρέειν, ἦν τε πολλῆς καθάρσιος δοκέη δεῖσθαι, ἦν τε μὴ, ἀποσκεψάμενος ἐς τὴν χροίην καὶ τὴν ἡλικίην καὶ ῥώμην καὶ ὄρην καὶ οἷη διαίτη χρέονται· ἰητρείη δὲ καὶ τοῦ σώματος παντὸς προνοεῖσθαι, καὶ τὰς ὑστέρας καὶ τὸ στόμα ἰῆσθαι· καὶ ἦν μὲν μεμυκὸς ἦ, ἀναστομῶσαι⁹⁸ (Hp. Mul. 11.5-15). The words ἐσιδών, γνώμη σκεθρῆ βασανίσας, ἀθρέειν and ἀποσκεψάμενος give the scientific sense of observation in its peak with regard to other texts. Thus it is advised to observe all the body (ὅλον τὸ σῶμα), and do it with certainly looking all the events which really took place (οὖν ἐσιδών).

Then the discussion is on women who cannot become pregnant was presented. There are advices for the appropriate times to approach their husbands. Interestingly it is explained that the end period of menstruation is the most fruitful time (Hp. Mul. 11.1). It is best, moreover, at the moment when the menses are tapering off and when an additional amount is coming rather than when they have totally disappeared (Hanson, 1975). Therefore it can be inferred that in Hippocratic medicine the period just between two menstruations are not known as the right time for ovulation (see also the following parts on chapter 221 in *On the Diseases Of Women* and 27.20 in *Regimen I*).

The *lochia* (λοχείων⁹⁹) and other postpartum complications were also dealt in the text. There are many instances the element *hydrops* is used in relation to them. The

⁹⁸ At any rate, looking at these things, and testing the facts with accurate judgment, one must examine the entire body to see whether or not it seems to need frequent purgation, while one takes into consideration a woman's coloring, her age and strength, the season of the year, and what kind of a regimen she follows. Healing, then, involves both a concern for the entire body and the healing of the cervix, and, if it is closed, opening it (Hanson, 1975). By coloring, it is meant the constitution, and here it can be noted that the color of the skin and hair was seen by the Hippocratic gynecology as indicators for the problems that can take place in the body and accordingly they were the indicators of proper treatments. It is argued that basically two main constitutions are present, which are the dark and the bright (Hp. Nat. Mul. 1.1).

⁹⁹ Lochial discharge (λοχεῖα χωρήσει) is the discharge that comes after giving birth; for female children it was assumed to last longer, which was forty-two days, and for males it was assumed to last thirty days. It can be argued that this Hippocratic tradition is still in use in the Anatolian region for

first instance is, that sometimes menstrual fluid is like water (ὕδρωπ), and similarly discharges, and especially lochial discharges can be watery which is described in the thirtieth chapter of *On the Diseases of Women*: “Ἦν δὲ γυνὴ ἐν γαστρὶ ἔχουσα σπληνώδης ἢ ὑπὸ παθημάτων ὧν εἴρηται ἐν τῇ νούσῳ τῇ τὰ καταμήνια¹⁰⁰ τὰ ὑδρωποειδέα καὶ φλεγματοειδέα ἀφείσῃ, τὰ λοχεῖα χωρήσει ὑδρωποειδέα, καὶ ἐλεύσεται ὅτε μὲν πολλὰ, ὅτε δὲ ὀλίγα, καὶ γίνεται ὅτε μὲν ὥσπερ ἀπὸ κρεῶν ὕδωρ, ὡς εἴ τις κρέα αἱματώδεα ἀποπλύνει, ὅτε δὲ ὀλίγω παχύτερα, καὶ οὐ πήγνυται. Καὶ πείσεται ταῦτά πάντα καὶ ἢ τὰ καταμήνια τὰ ὕδατοειδέα ἐχώρει, καὶ κινδύνους τοὺς αὐτοὺς ἢ νοῦσος ἔξει καὶ μεταλλαγῶς· ξυμβήσεται γάρ οἱ ῥόον γενέσθαι ὕδατώδεα, ἢ κρυφθῆναι τὴν κάθαρσιν καὶ τραπέσθαι περὶ τὴν κοιλίην καὶ τὰ σκέλεα ἢ ἐς τὸ στέρνον ἢ τι τούτων, καὶ κίνδυνοι ἔσονται οἱ αὐτοὶ, οἳ καὶ πρόσθεν εἴρηται (Hp. Mul. 30.5-30.10) that if the discharges, including lochial ones, are watery, sometimes mixed with phlegm¹⁰¹, and at first too much, then little, when asked to a women who has pain in the belly, like waters coming from meat, it is a sort of disease condition¹⁰².

Also a watery phlegm was mentioned in chapter 36.10 of *On the Diseases of Women* that Εἰ δὲ ἢ κάθαρσις τῇ γυναικὶ ὀλίγη χωρέει, πόνος λάζυται ἰσχυρὸς ἰξῦας τε καὶ τὸν ἀμφὶ τὰ αἰδοῖα πάντα χῶρον, καὶ οἰδέει, καὶ οἱ μηροὶ πύμπρανται, καὶ ἐκ τοῦ στόματος καὶ ἐκ τῶν ῥινέων ῥέει φλέγμα ὕδαρῆς¹⁰³, and in 58.10 it is argued that fig juice can be used to drain excess water from the body accordingly; Ταύτην κλύσαι τῶ ἀπὸ τῶν ὀλύνθων καὶ ὑφ' ὧν ὕδωρ καθαίρεται, καὶ δις καὶ τρίς· ἐπὴν δὲ καθαρθῆ, στρυφνοῖσι τὸ λοιπὸν χρήσθω·. Then in chapter 60.1 of *On the Diseases of*

women who just gave birth with the same name; the ‘loğusa’. λοχεῖα meaning the appreciation of a safe delivery, and also the place where the child was given birth.

¹⁰⁰ It is argued in Lonie that the preference of the word καταμήνια is significant in relating the text with mainly *On the Nature of the Child*, and accordingly to *On Generation* and *Diseases IV* since they are a unified text (Lonie, 1981) as it is argued in the introduction part of this chapter.

¹⁰¹ Phlegm (φλέγμα) as it is discussed above is also a watery humor, thus in four humors with black bile phlegm is the corresponding humor to the element water.

¹⁰² A much better translation is in Whiteley that; if a pregnant woman has a diseased spleen which is caused from suffering, which is discussed in the disease which discharges water and pituitous (phlegmatic) menses, the lochial discharge will flow like water, and sometimes a lot will come and sometimes a little, and it occurs when it is like water which runs from meat, as if someone has washed away bloody meat, but then it is a little thicker and does not coagulate. She will suffer all the same symptoms of the women whose menses flow watery, and the disease will have the same dangers and changes. For it will happen that the menstrual flow becomes watery, or conceals the discharge and it turns around the belly and the legs, or goes into the chest or any of these, and the same dangers will be present for her, which have also been discussed earlier.

¹⁰³ But if the woman’s catharsis should flow less, severe pain seizes the loins and the whole area around the genitals, and she becomes swollen and the thighs burn and watery phlegm runs from the mouth and nostrils... (Whiteley (tr) Hp. Mul. I., 36).

Women dropsy is explained "Ἦν ὕδρωψ γένηται ἐν τῆσι μήτρησι, τὰ ἐπιμήνια ἐλάσσω γίνεται καὶ κακίω καὶ διὰ πλέονος χρόνου", and that the woman will do a miscarriage and water will fall down in 60.5 διαφθείρει καὶ ἐκβάλλει, καὶ ὕδωρ ζὺν αὐτῷ ἐκχέεται, καὶ ἡ γυνὴ θνήσκει ὡς ἐπὶ τὸ πούλυ· τὸ δὲ αἷμα φθείρεται, καὶ ὑδεροῦνται in this condition.

Dropsy is caused, as it is explained in chapter 61.1 because the spleen gets large. Dropsy in *Concise Medical Dictionary* is explained just in the same manner accumulation of fluid in the body tissues which caused, in general, from kidney or heart failure but not the spleen. Though spleen is a near organ to kidney and could have been mixed in Hippocratic practice. In women dropsy usually occurs before menstruation, therefore dropsy is related with gynecology. In Hippocratic gynecology it is argued that the hyper watering of the spleen caused women an excessive thirst which make her drink too much water, and the excessive water since it cannot pass, accumulates in the spleen and causes disease as it is explained flowingly: "Ἦν δὲ γυνὴ ὑδρωπιήση, οἷα τοῦ σπληνὸς ὑδατώδους καὶ μεγάλου ἐόντος, γίνεται δὲ ὁ σπλὴν ὑδατώδης ἀπὸ τοῦδε τοῦ παθήματος.

At the end of chapter 61 of *On the Diseases of Women*, the accumulation of water in the womb is explained as a part of the disease dropsy: ἄτε τῶν μητρώων ὕδατος πλέων ἐουσέων καὶ τοῦ ὕδατος κινεομένου, ἄλλοτε γὰρ καὶ ἄλλοτε κλυδάζεται αὐ-τῆσι τὸ ὕδωρ ὡς ἐν ἀσκῷ· καὶ ἀλγεῖ ψαυομένη τὸ κάτω τοῦ ὀμφαλοῦ, καὶ αἱ κληῖδες καὶ ὁ θώρηξ καὶ τὸ πρόσωπον καὶ τὰ ὄμματα καταλεπτύνεται, καὶ αἱ θηλαὶ ἀείρονται¹⁰⁴. Thus if this dropsy is both in the legs and in the bowel the women cannot be survived, though if it is one another she may; but still it will be chronic¹⁰⁵ which is explained in 61.40 as following; "Ἔστι δὲ ἧσι μὲν ἢ τε κοιλίη καὶ τὰ σκέλεα πλήθει ὕδατος, ἧσι δὲ ἐς θάτερον τουτέων· καὶ ἦν μὲν ἄμφω πλησθῆ, οὐδεμία ἐλπίς περιγενέσθαι τὴν ἄνθρωπὸν ἐστίν· ἦν δὲ θάτερον τούτων, ἐλπίδες ὀλίγαι, ἦν μελεδαίνηται καὶ μὴ λίην τετρυχωμένη ἦ. Χρονίη δὲ αὕτη ἡ νοῦσος¹⁰⁶.

¹⁰⁴ This is because there is more water in the womb and it is the water that moves, for occasionally the water moves to and fro in the womb as in a wineskin. When she is touched there is pain around the navel, the collar-bones and the chest and the face and the eyes become very thin, and the nipples become swollen.

¹⁰⁵ Chronic (χρόνιος) diseases were said to be firstly mentioned and categorized in Hippocratic style which is still in its same use.

¹⁰⁶ In some cases, the bowel and the legs are full of water, while in other cases it is one or the other. If both are filled there is no hope of the woman surviving. But if it is one or the other, there is a little hope if she is treated and is not very emaciated. This disease is chronic.

There are also interesting recipes which helped to clear away the accumulated water in the body. For example hellebore, which is also used for cleaning the so called black bile in the body in other writings, was an ingredient for such purpose, as it is mentioned above and in the in the first part. Though it was specifically black hellebore which was used for cleansing, in addition leaves of mercury was said to cleanse the water, and also the alum and the pine resin will have argued to do the same effect as it is described in 74th chapter. In this chapter of Mul I. also the following recipe was given to clear away the excessive water: take the small alkanet (*Anchusa tinctoria*), mastich (*Pistacia Lentiscus*¹⁰⁷), cumin, galingale, colocynth (*Citrullus Colocynthis*), red sodium carbonate, Egyptian salt and the large alkanet, make these entire items smooth, filter through a linen cloth. Take honey, boiling it over a gentle heat, when it boils mix with beeswax and pine resin. Then mix everything together, pour over oil, warm, roll up in a woolen roll, and apply to the uterus until it is purged. The rest of the text is full of prescriptions.¹⁰⁸

¹⁰⁷ It is added in Whiteley that this ingredient (σχινοϋς) is a form of squill, thus it is argued that the dried bulbs may be used for cleaning the excessive water, though how is not clear.

¹⁰⁸ Another purgative was given in 84 to rinse the water away from the women body in order to make her healthy in serious discharges: myrrh, salt, cumin and bull's gall, mix these together; after mixing with honey and putting into a rag, apply. Keep in for a whole day then, when she has washed herself and removed the suppository, she must wash thoroughly in fragrant water.

Or laserwort (*Ferula tingitana*) mixed with a fig and applied, then wash out thoroughly with rose perfume. Or boil shelled grains and make a pessary, and when it is removed, she must apply rose oil. Or garlic and red sodium carbonate and a fig, each of these mixed equally with honey: give to her to apply and, when it is removed, apply deer fat, melted in wine. Or five pepper grains mixed with a little squirting cucumber, drip breast milk on to wool, after dipping into perfume; apply in the same way when the pessary is removed. Or the fleshiest part of a fig with a draught of squirting cucumber and an equal amount of red sodium carbonate and of honey, in the same way. Or bull's gall and red sodium carbonate, oil of bitter almonds and of cyclamen, as much as a castor-oil berry, in honey. Or bull's gall, after dipping it in Egyptian oil, let her apply, and when it is removed, wash with rose oil. Or the inside of the large bottle gourd, the seed removed, with breast milk from a nursing mother, and pure myrrh, a little honey and Egyptian perfume, pound and apply. Or dry the inside of the bottle gourd, chop it up without the seed and throw in honey, boil up and make a long pessary and dip in white oil. Or the colocynth in the same way (Whiteley (tr); Hp. Mul., 46-84).

An emollient ointment which brings down water, mucous and skin, brings down lochial discharges and does not cause ulcers: a half measure of the best myrrh and the same amount of coarse salt; after grinding seasoned pitch and mixing smooth, and there must be the half of myrrh, of salt and of pitch, throw into a rag of large, crushed pitch the size of a large castor-oil berry. There must be two rags, so as to have one for the day and one for the night, using until the rag dissolves. She must wash in warm water then, when she has removed the rag she must wash out the vagina thoroughly with fragrant water. When the water runs off, she must apply black pessaries like an emollient and must sleep with her husband. If the cervix should be closed, she must apply fig juice until it opens up and immediately wash herself with water. When water flows from the uterus and there are ulcers which are stinging, smear goose fat and egg all over. Or fat from a sheep or a pig, and a lentil in wine, boil after mixing with an equal amount of water, rinse out with this (Whiteley (tr); Hp. Mul., 88-89).

All other instances were on the uses of water, especially warm water, in recipes. Therefore the element water in the form of ὕδωρ,¹⁰⁹ ὕδατος, ὑδρωποειδέα, γυνή ὑδρωπιήση, ὑδαρῆς (all in the sense of warm water) was used many times in the core of this gynecological text, where Lonie does not mention a difference between their uses (Lonie, 1981). He argues that, on the other hand, the use of ὑδρωψ (*hydrops*) is obscure, its most common use is to signify the disease, but it must refer to the watery substance associated with the disease. At that time, the disease was extremely common among women, and ὑδρωψ was the name of the disease, and the humor associated with it is simply ὕδωρ (*hydor*) where it is argued that the humor water is present in the body and is regarded as one of the four humors.

Though, in some instances ὑδρωψ was used as the humor itself like it is in Mul. 60 above, it can be translated both as if there is dropsy in the womb, and as if there is water in the womb. Hence it can be argued that such uses both signify an excess, and water is already a present humor in the womb. It must be reminded here that, in Hippocratic gynecology the use of the humors, whether they were signifying the humor itself or the disease caused by that humor is problematic (Lonie, 1981), as it is mentioned in the second chapter. It can be concluded that ὑδρωψ signifies the humor and the disease at varying times; and that the word ὕδωρ signifies water, sometimes as the humor and sometimes simply water, like it is used in recipes. Therefore it can be said that both words can be used for defining the humor water depending on the context.

In the rest of the core gynecological text *On the Diseases of Women I, lochia*, it can be argued has a special place. Lochia, as it was mentioned in the beginning of this part, is the condition of the women after birth. Although, it has critical days depending on the sex of the children it was considered both physiologically and psychologically important in women diseases. Parallel with the theory of καταρραγή (breaking down of the women body) the period of lochia constructs one root of the twofold schema of women diseases in Hippocratic gynecology. As it is continuously said above, pregnancy and menstruation were the two basic issues. Basically women were examined in two periods, before and after their first birth giving. The first birth

¹⁰⁹ The Perseus Analysis is as following: ὑδερ-ος, ό, (ὕδωρ) = ὑδρωψ, dropsy, Id.Int.22, Arist. EN1150b33, etc.; ὑδέρω νοσήματι Id.Fr.486. ὕ. εις ἀμίδα diabetes, Gal.8.394; cf. ὑδεροῦν (= τὸν ὑδερον), which is cited from Hp. by Erot. (but = τὸ ὑδρηλὸν χωρίον acc. to Epicles ap. eund.), prob. with ref. to ὑδρωπες in Aër.4.

along with the theory of *urgatos* (that women are moister than men) constructs the main difference with men and women in the medical issues. As it was said throughout this thesis, women medical issues -of pregnancy and menstruation, were regarded mostly through the first birth and moisture conditions.

In the rest of the text, the loss of milk from the breasts is on chapter 44, the lochia and expulsion of the afterbirth are in chapters 45-49. The next nine chapters are also on postpartum complications. In the sixty second it is explained that women diseases are different then men's, and that if they do not mention their diseases in the exact occasions the diseases can take the control of the body and cause even death or at least a bad older hood. Therefore it is advised to ask accurate questions about the cause (Hp. Mul. 62). It is not clear that this advice is given to the women or to the practitioners though it can be said from this chapter that questioning was an important method of observation in Hippocratic medicine either for the practitioner or for the diseased.¹¹⁰

Next six chapters are on lacerations in the uterus and their effects on pregnancy and delivery, then five discussions of postpartum problems again. The treatise closes with lists of recipes and therapies which are similar to those discussed in *Superfetation* and some of them are reflected above in their relation to the humor water. The first book ends here.

In the beginning of the second book, the vaginal discharges were written; the white and the red. The red, it is said, are more in young women. Then, about constitution, it is said that black constitutional women are drier than white constitution women. Young women are moister, and old, less moisture. This part of the book is parallel with the view that women are moister than men and their diseases are mainly rooted from the lack or excess of moisture. *On the Diseases of Women II* is like an introduction to women diseases through the classifications of age, constitution and such. Then, problems of menstruation were discussed in general. It can be said that the second book is mainly on the diseases caused by the abnormal menses; these include abnormal bleedings by abortion, long interval abnormal bleedings, lack of menstruation, and ulceration in the uterus. Recipes were also mentioned in order to treat these problems.

¹¹⁰ Here it can be said that in Hippocratic medicine, the patient has also an active role in the process of healing. The Hippocratic practitioner is the medium of nature and patient. It is argued that all are active for the betterment (see fig. 3, on p. 76).

In chapter 114 of *On the Diseases of Women*, the ways to discriminate the bloods coming from uterus and from menstruation are described. Then in 116-9 the abnormalities in discharge are described, and some recipes are given for their betterment. In chapters 120 and 121 of *On the Diseases of Women*, metritis, the inflammation of the womb is described in the abnormalities of the lochial period. It is important to note that in chapter 122, the same passage is given with 120, though the missing part is added about the treatment. In chapter 123 hysteria¹¹¹ is described as an anomaly of the position of the uterus. Hysteria, in *On the Disease of Women* first regarded as a disease structured from disposition of the womb; the position can be towards the head; towards the heart (124); and in 125-6 if it turns to flank was described. In 127, if the womb is turned to liver. Here, it is important to note that the word womb used differently in 126 than the words used in 124, 125, and 127. Usually, in the text, the word for the womb is either ὕστερα or μήτρα, though in 126 the word προΐστημι was used, meaning both pejorative senses of explicating something publicly.

In chapter 128 the ways are described to understand if the disposition of the womb is real or imaginary (δοκέω). Then in the following chapters the dispositions are considered, according to positions, obliquity and some other pathologies, like fistula or pains in the mind, former easy and latter difficult to heal (νοῦσος δυσαπάλλακτος), in lochial (139-140) period specifically and in 137 generally. In 144 the womb is described being wholly outwards the genital area; in 146 the slipping of the mouth of the uterus, when womb is in such condition (being outwards the genital area).

Then in 150 the dispositions of the womb which are not from hysteria but from other problems are given; like from the problems of legs and such. In 151 the loss of voice is described as a symptom of hysteria, though this is a kind of hysteria, it is argued, caused by cold. In the first group warming problems were described, while in

¹¹¹In Hippocratic medicine the word ὕστερος both used determining the womb sometimes, and also determining the disease of the womb, now we today know as hysteria. Though as it was discussed above in its relation to the hypothesis of the 'wandering of the womb', the disease hysteria in Hippocratic gynecology is the disposition of the womb. King devoted a whole treatise on the subject on how the disease as we know it today was 'invented' by Freud distorting Hippocratic texts. Although it is a subject of a whole new investigation, in *Hysteria Beyond Freud*, she argued that in Hippocratic medicine hysteria mainly caused by physical problems (1993).

this chapter cooling problems were also described, with treatments. Then with 154 more advanced types of problems of the womb are described, like chronic diseases (χρόνιος). In 156-164 indurations (σκιρτάω) are described; and in 159 cancer of the uterus depending on the indurations were the subject.

In 164 the overall closeness of the womb is described. In 165 clotting (of blood) both in the mouth of the uterus and general regions of womb and in 166-7 the occasions were discussed when the mouth or the general regions of the womb are over open by nature or over smooth; interestingly the same symptoms appear in the occasions in which menstruation does not take place, and the women cannot get pregnant because of these. 169-172 is again on metritis, symptoms were odorous discharges and abnormalities of menstruation and pains. Then the proper treatments were given.

In 175, it is important to note that the humor water (ὔδερως)¹¹² and the diseases caused by the excess of it were explained. The two chapters before were on the phlegmatic conditions of the womb. Then in 175-6 the conditions due to over dropsy (ὑδ τώδης) were given with their treatments. It is explained that if the water is excessive in the body, menstruation become lesser, abdominal puffiness occurs; the color of the nipples change, and discharges become excessive, and more importantly pregnancy cannot take place. But then in chapters 177 and 179, no other humor was described, but the disposition of the abdomen through the womb, and some recipes were given. Therefore this chapter cannot be a place where Hippocratic four humors were given at least with their properties, but 173-176 can be considered as a part where only phlegm and water, the two moist humors, therefore the excess of moist was described. As it was described before, women were considered moister than man in Hippocratic gynecology. Thus excess of moist can cause problems in women, since they are already moister.

In chapter 180 of the text *On the Diseases of Women*, fatness, it is argued, must be melted away from the womb. This chapter is in relation with the thesis given in the text *Airs, Waters and Places* on the discussion of Scythian women that since they are argued to be fat, they are sterile (see also chapter 229 in *Mul.*). Though it can be argued that such fatness, at least which is considered here, was not the fatness of the

¹¹² Ὑδερως δὲ γίνεται ἐν τῆσι μήτρῃσι (Hp. *Mul.*175.1).

overall body, but the fatness of the womb, which are different from each other. Here in this chapter what is considered unhealthy for pregnancy is the fat inside the womb.

The chapter 182 is all about black bile (μέλαινα χολή) inside the womb. It is said that if there are pains in the head, throat and neck, and vertigo in the eyes, and the feeling of terror, sorrow and discouragement; if the urine and discharges are black and odorous, it is argued, that there is black bile in the womb.¹¹³ In chapter 183, yellow bile is described; and in chapters 181, then 185, phlegm in the womb and then some treatments for the problems in the mouth, the teeth and odor were described. There was no mention of the humor blood. Here it can be said that interestingly aforementioned four humors here, were phlegm, water, black bile and yellow bile. The black bile was used as a humor, though the humors are not treated as the constituent parts of the body, since blood, the most observable humor is missing here, and in the other parts of the treatise it can be seen as a humor; thus these cannot be the whole four humors. Therefore it can be said that here it is not a description of the four humors theory, but only a method of Hippocratic writing considering the problems in the womb.

This is the only place in the whole collection, the chapters of *On the Diseases of Women I-III*, where black bile was used and presented in the womb, though here again it can also be a metaphorical use, since psychological elements were also involved in the occasion. As it is argued by Jones in the introduction of the Loeb collection, metaphorical use of the black bile is very common in ancient thinking (Jones, 1923).

In 186 problems with the nipples were described, in the unbalanced situations of humors. 187 is the place where worms are described in the genitals and the anus. Then 188-96 the cosmetic recipes for face and hair are given. In 197 recipes are for the excess of water (ὑδωρ¹¹⁴). Then to 206 other recipes were given. From 206-9, treatment methods like injections and fumigations are described. 209-212 were on the specific manual treatments for the displacement of the womb. From 213 to

¹¹³ Ὅταν γυνὴ τὴν κεφαλὴν ἀλγέῃ τὸ βρέγμα τε καὶ τὸν τράχηλον καὶ ἰλιγγιᾶ πρὸ τῶν ὀμμάτων καὶ φοβῆται καὶ στυγνὴ ἦ, καὶ οὖρα μέλαινα καὶ δι' ὑστέρης ὅμοια, καὶ ἄση ἔχη καὶ δυσθυμίη, μέλαινα χολὴ ἐν τῆσι μήτρῃσιν ἐνι. Θεραπευέσθω δέ· ἐντεριῶνην παλαιὴν ἐνιαυσίην, ταύρου χολὴν, ἄνθος χαλκοῦ τρίβειν ξὺν βακκάρει, καὶ προσθετὰ ποιέειν, καὶ φάρμακον πιπίσκειν, καὶ λούειν (Hr. Mul. 182.5).

¹¹⁴ Here since an excess was described it is expected to use the word *hydrops*, though the word is ὑδωρ.

chapter 259, is the third book of the *Diseases of Women*, which is called the *Sterile Women*.

In chapter 213, the reasons of sterility are described; the obliquity, closeness, over smoothness, dispositions, openness,¹¹⁵ abnormal menstruation and lack of menstruation. Chapters 214 to 216 describe the symptoms in women who will get pregnant, and the clues for how to get pregnant. Chapter 217 describes the treatments to make a sterile women conceive a children. In 218, the proper season, which is similar with the rest of the writings (for example see Hp. Superf. 30-31), is given as spring. In accordance with the nature (*phusis*) inspiration in Hippocratic style here it can be seen that spring is considered as the most fruitful time of the year for human bodies. As Açıık reminds (2008) the use of the word *phusis* includes a power (*dunamis*) to grow,¹¹⁶ where in spring such power is in its peak, getting pregnant, it was assumed, is easier.

In chapter 219 of the text *On the Diseases of Women* is on the ways of confirmation of these mentioned ways of getting pregnant. In chapter 220 some precautions for women in order to prevent sterility are given. In the beginning, it is advised in the first night to prevent the sperm from falling outside. Then in chapter 221 it is said that the period between the two menstruations is the right time to get pregnant. In other places (Hp. Mul. 15.15-21) the period of menstruation was given as a period for conception though here the middle period was correctly considered as a good period for ovulation.

Chapter 222 describes how a woman who can get pregnant before, cannot get pregnant after, spontaneously; that this can happen only through a copious puss that kills the sperm inside the women's body. Chapter 223 of *On the Diseases of Women* describes a remedy, a kind of amulet, which helps the women to get pregnant. In 224 again the period between two menstruations is described day by day, given treatments for the women. It is important that the period for ovulation was recognized in these texts, though there is no mention of the ovulation process itself.

In Chapter 226 the difference between the piteous and bilious menses is described as a method to prevent sterility. The first step for the practitioner, it is

¹¹⁵ Here as it can be seen the womb was characterized like an environment.

¹¹⁶ The clue for such use of the ancient Greek Word *phusis*, as Açıık argues, can be seen in the Turkish word *fidan* (2008) which carries the same root with *phusis*.

argues, is to discriminate these kinds of menses. In 227 the sterility caused by the general condition of the body was given. In 228 lesions caused by abortions and lochial period were described that sometimes the womb closes because of such lesions. Chapter 229, then, is on the kinds of sterility caused by over fatness of the body, this view is presented also the discussions on Scythian women, in *Airs, Waters and Places* and the first book of the *Diseases of Women*; that in this occasion the omentum¹¹⁷ closes the mouth of womb and prevents the sperm to enter into the womb. In 230 the hardness of the womb is described, and its effect of sterility. There are four different treatments for this problem and they are given.

Some recipes then were given in chapters 232 for conception, but in 232 again the problems preventing pregnancy, in this case from bloody discharges, are explained. In 233 the mole¹¹⁸ was described. The writer argues that if *lochial* discharges do not flow or some other problems occur during that period, some specific treatments should be used like recipes containing white wine, castor and pine. Then the ulcerated (236) and the closed (235) womb are described, and the women which cannot carry the fetus because of weakness in 237. In 238 women who continuously abort the child and 239 the ways to produce air in the womb are examined, in order to continue the development of the fetus and prevent abortion.

In 241 the treatments for over open mouth of the womb are described, then in 242 recipes for preventing abortion, 243 recipes for the wombs that do not accept sperm are given respectively. In 244 the reasons for the callosity¹¹⁹ of the womb are given. In 245 menstruations in wombs where fatness occurred, and 246 the pains in the womb are explained and the treatments are given. 247 is on the over fluid condition; 248 the fall of the womb and extraction of the fetus, and in 249 abortion in *superfetation* were described.

3. 2. 1. 3. 2. *On the Nature of Women*

In the beginning of the text, general conditions were provided in almost the same way with *On the Diseases of Women I* that white conditioned women were keener for

¹¹⁷ It means the membranes of the intestines.

¹¹⁸ It means breakwater.

¹¹⁹ It means the thickening or hardening of parts.

fluid (ὕγρός) and black conditioned were drier.¹²⁰ Age is an important indicator, in youth it was said, women were humidior and old women are drier, and the middle is middle in constitution. A woman must be considered for her age, constitution, season and places. In places that are cold, women are moister, and vice versa. This chapter is again in accord with the theory of ὕγρός. They argued to be signified by the element water, while men were fire, as it will be discussed in *Regimen I* in the following section on Hippocratic writings.

In the second chapter dropsy (ὑδρεος¹²¹) was considered. If, it is argued, it occurs, menstruation problems will begin, nipples will be dry and the woman thinks she is getting fatter. And thus this usually happens after an abortion. The women must take baths with warm water. The subject of the third is excessive hysteria; the womb turns to liver, voice disappears, teeth fall down and the general constitution becomes darker. In the fourth and fifth chapters the fall of the womb is described in the above mentioned occasions, the latter in a detailed manner; then the suppuration in the upper leg caused by the deviation of the womb is explained. In the seventh the dislocation of the mouth of the uterus and the lack of menstruation and pain through such disease were discussed; then in the next the obliquity of the womb is described.

The ninth was on the bad odorous type of lochial discharges, and in the tenth the irritation of the womb, in the eleventh the same, and also the puffiness of the abdomen were given. In the twenty phlegmatic conditions of the uterus and then in thirteenth the open mouth of the uterus; the next is on the displacement, and irritation in the fifteenth, the sixteenth is on the discharges after labor, in the seventeenth the humidity (ὕγρός) and the abortions caused by the over humidity were given. Humidity here, can be regarded the same as moisture and was again parallel with the theory that women are moister (more humid) than men.

The eighteenth chapter was on the suppression of the menses, nineteenth the abortion and the ways to prevent abortion were given and in the twentieth chapter fatness causing pregnancy prevention, in the next the hardness of the uterus, in the twenty second the ways to understand if a women is bilious or piteous, in the next the

¹²⁰ αἱ μὲν γὰρ ὑπέρλευκοι, ὑγρότεραί τε καὶ ῥοωδέστεραι, αἱ δὲ μέλαιναί τε σκληρότεραί τε καὶ στρυφνότεραι, αἱ δὲ οἰνωπαὶ μέσον τι ἀμφοτέρων ἔχουσιν (Hp. Nat.Mul. 1.5.).

¹²¹ ὑδρεος, in Perseus Digital Library, said to be equal to *hydrops*.

lack of menses, in the twenty fourth, over humid (ὕγρως) or over dryness of the mouth of the uterus are discussed.

In the twenty fifth chapter, the womb deviation in the newly labored women and in the twenty sixth, *usteria* was described. The twenty seventh was on the inflammation in the *lochial* period but the *lochia* mostly. In the twenty eight the affections of the uterus, the twenty ninth is on the inflammation happening just after the labor and the thirtieth, was on the dry womb and the treatment for such bodies. Then the next is on the cancer of the womb. In thirty two the provocation of the displacement of the membrane of the fetus and the ways of pharmacies are given in order to make the newly labored women menstruate again.

Then some manual ways/treatments are described such as injections (in chapter thirty three) and fumigations (in chapter thirty four). In chapter thirty five the waters (ὕδωρ) in the womb were described that causes abortion and inflammation and abnormalities in the menses. The body of these women/womb, it is discussed, produces too much water. In the next two chapters dilatation and bumpiness of the womb were described. Thirty eighth the displacement of the uterus through the hips and thirty ninth the closed mouth of the uterus, and forty the obliquity of the womb are described. Next two are on the displacement to the abdomen and the clotting of blood, and forty third the deviation of the womb and forty forth the displacement of the womb is the subject. Here displacement is used as a disease by itself meaning that the womb usually displaces itself in the body.

Then in forty fifth and forty sixth several occasions preventing pregnancy because of the displacements generally are described, and then the two next chapters are on hysteria and the displacements from hysteria. The fifty is on feverish womb diseases, the next is on continual lochial discharges and next the blood vomiting after labor in the period of lochia. Fifty three is on the methods to prevent the sperm falling from the women's body, and then in the next three chapters inflammation, ulceration and some versions of displacement in this period as the reasons for vomiting blood and fever were described.

From fifty fifth to sixty forth remedies are given for hysteria, inflammation and ulceration. In sixty fifth the tumors in the womb are described, sixty sixth and seventh are on their remedies. And from sixty eight to seventy seven remedies for the problems of menstruation are given. From seventy eighth the remedies for the uterus and its displacement, seventy ninth to ninety remedies for discharges were given.

Then in ninety one purification remedies, ninth two, remedies are for pains, ninety three remedies for increasing milk production were given.

From ninety four especially the diets of women in order to prevent abortion and increase conception were given. Ninety five the remedies for aborting fetus were given. It is not clear if the baby is dead or not, and again it is a debatable chapter if here the Hippocratic was giving remedies for abortion or not. These issues will be reflected upon in the related part on the legality of abortion.

In ninety six ways to understand and check if the woman is pregnant or not were given, these are manual methods taught by the Hippocratic author. Then some dietary pessaries are given. Then some contraceptive pessaries were given. It is an interesting chapter that is contrary with the general aims of ancient thinking to prevent women to be pregnant. There is an interesting pessary that even prevents the women for one year without pregnancy.

Then in hundredth children's genital health was considered, and in hundredth and one the young women were examined accordingly. Hundred and two is on cataplasms and hundred and three fumigations, hundredth and four injections and hundred and five fomentation (warm compress). And there in the rest are some clues for making a woman get pregnant and to understand if she is bilious or piteous, the hardness, the ulceration, abnormality of menstruation which is the general important themes in the overall text.

It is here important to note that always the bodies and not the disease itself were explained. As it is said before the Hippocratic medicine is a patient oriented medicine as it can be seen from these descriptions *On the Nature of Women* is accordant with the general Hippocratic style and very similar to *On the Diseases of Women I-III*. It can be said that the author of the texts *On the Nature of Women I-III* and *On the Nature of Women* first, was probably the same with *On the Nature of the Child* and the *Diseases of Virgins* since there are reciprocal references in the texts. Thus their writing style was identical, for example in the usage of the words *καταμήνια* (monthly menses of women) or the preference of *τὰς μήτρας* (Lonie; 1981, p.5). *On the Nature of the Child*, is known to be a treatise as a union with *On Generation* and *Diseases IV*, therefore it can be said that the author of all was the same person. Therefore since the four humors theory was given in these latter treatises with water, the same humoral pathology can be assumed to be used in this text either.

Nevertheless, there are some few occasions in the text where black bile was mentioned. In the 82nd chapter, the menses were argued to be black, and when the women have an ailing body, it is argued the menses become bilious. Though, in this case there is no mention of black bile as a humor. Here it can be argued that if there is the concept of black bile already known to the author of this text, it will perfectly fit here and since it was not used, it can be inferred that the author has no theory of humors with the black bile. It was said that the absence of black bile even in such chapter gave a clue that black bile was introduced to Hippocratic four humors, at least after these writings. Though it could have been known as a concept, a mythos in Greek thinking, as the deadly cause of diseases, especially malaria, where only its presence matters. Therefore, since its absence is normal, it can be argued, that it was not counted as a humor, since bodily humors both causes diseases with their imbalance but were all present in the body as constituents of it.

182th chapter is all about black bile (μέλαινα χολή) in the womb. It is said that if there are pains in the head, throat and neck, and vertigo in the eyes, and the feeling of terror, sorrow and discouragement; if the urine and discharges are black and odorous, it is argued, that there is black bile in the womb. Here the black bile was present, though it is not treated as a constituent part of the four main humors of the body but as a problem. Therefore it can be assumed that an entity like black bile was known to early Hippocratic gynecology mainly as a psychological agent in the body, though is not one of the four main humors, but only a kind of entity that can be in the body in special occasions. As it was said, in this example the presence of black bile was the cause of a psychological disease, and not its absence since it can be absent from the body.

This was the only place in the whole collection, the chapters of *On the Diseases of Women I-III*, and *On the Nature of Women* where black bile was present in the womb, though here again it can also be a metaphorical use, since psychological elements were also involved in the occasion. As it is argued by Jones in the introduction of the Loeb collection, metaphorical use of the black bile is very common in ancient thinking (Jones, 1923a).

It is discussed in the beginning of this chapter that not having intercourse has treats for the women's body. Therefore it can be inferred that in Hippocratic medicine having intercourse is a healthy thing for women. Thus it will be argued against Dean-Jones's argument that female sexual pleasure was not considered

unhealthy. On the other hand, as it can be seen from the whole treatise pregnancy and menstruation are the two main themes as it was assumed in the beginning of this study when regarding women diseases. Women's place in Hippocratic gynecology was almost always determined with the women's reproductive powers. This will be discussed in the Chapter Four, and also in the conclusion chapter.

Few more points can be highlighted from the texts. The first is the timing for pregnancy, that the period between two menstruations was determined correctly. For example in *On Superfetation* it was given as the last days of menstruation. And the second is that the practice of cutting the tumors in the womb was described in the text. It was not advised since it is very dangerous for the patient and as a kind of profession, acquaintance for the practice was advised. Therefore it can be argued that in Hippocratic medicine gynecology was practiced as proficiency not only in the Roman period with Rufus and Soranus but also in Hippocratic writings. In these core texts of Hippocratic gynecology professionalization in gynecology was continuously advised. Areteaus¹²² of Cappadoccia (A.D. 40-118) may be the first of such advanced practitioners. He was also the mentor of Rufus and Soranus of Ephesus whom known as the two Greek doctors who thought Greek medicine to Rome (Fig. 1 on p. 18). However it must be reminded that they were also professionalized gynecologists. The third important point is on the issue of lochial period. It can be said that the critical period after the birth was recognized by Hippocratic medicine, and it has a special place¹²³ in the practice. In addition it can be said that ulceration in the womb causes serious problems in lochia and menstruation. The observation of black menses was probably due to these ulcers since blood cells become black when dead.

Finally, the disease hysteria can be investigated from these main Hippocratic gynecological texts; since the disease as it is known today was 'invented' in King's words mainly from these two Hippocratic texts in the eighteenth century. It can be said that in the texts it was used mainly as a physical disease of the womb, caused by the dislocation of the organ, in the related literature it is called the wandering womb.

¹²² Here it can be reminded again that the word *arête* (ἀρετή) is used for proficiency in ancient Greek language. Therefore, probably this name was given to him because of his professionalisation in the tumors of womb.

¹²³ See chapters 120-1 its relation to metritis, 139-40, the fistulae and pain in iochia, 228 the lesions caused by the abortions in lochial period, 233 for the lochial discharges and their abnormal flow and its relation to ulceration in *On the Diseases of Women*. In *On the Nature of Women*, ninth chapter was on odorous lochial discharges, twenty seventh, metritis in lochial period and fiftieth continuous discharges and blood vomiting in lochia which may be due to ulceration.

Though, the word can also mean generally all sufferings from things to do with the womb (King, 1998, p. 207). Since the word ὕστερος is one of the words determining the womb.

3. 2. 2. The Non-gynecological Writings

Here, in this section the non-gynecological texts of the *Hippocratic Corpus* will be viewed in order to understand and reflect on the Hippocratic practice of ‘general’ medicine. First the famous genuine writings of *the corpus* will be viewed below, and then in the final part the rest of the writings will be observed.

3. 2. 2. 1. The Hippocratic Genuine Writings

The genuine works in the *Corpus* will be examined below in order to understand the general Hippocratic style better in its relation to gynecology. It will be interesting to see how women’s diseases were reflected in the genuine texts in relation to Hippocratic gynecological style, and thus they are important in viewing the theories of Hippocratic practice of medicine in general. Here in the below study in addition to related texts, mainly the Loeb Classical Library’s ongoing edition of Hippocrates’s texts were used, sometimes TLG (Thesaurus Linguae Graecae) texts are also used as a supplement. There in the first volume of Loeb series, *On Ancient Medicine, The Airs, Waters and Places, Epidemic I and III, The Oath, Precepts and Nutriment*, where in *Precepts* there is no mention of women issues; in the second volume *Prognostics, Regimen in Acute Diseases, On the Sacred Disease, The Art, The Law, Decorium, On Breaths, Physician, and On Dentition* is present, where only *Regimen* and *Sacred Disease* has reference to women diseases and in *Physician* there are some ethical codes given to assumed male doctors regarding women houses in which he enters. In the third volume *On the Wounds in the Head, In the Surgery, Mochlicon, On Fractures, On Joints* –is the only text where a women physician is said to be needed, and *Instruments of Reduction*; and finally in the fourth volume the noteworthy texts of *Nature of Man, Regimen in Health, Humors, Aphorisms, Regimen I, II, III* and *Dreams* are available.

The text *Epidemics I and III* will be treated in this section with a special attention, which will then be compared with the rest of the epidemic series which are not said to be genuine. In the second book of Loeb only the first three and the *Physician* are accepted as genuine in Littré's classification, so will be treated accordingly, the third captures only *On Fractures*, and the fourth covers *Regimen in Health*,¹²⁴ *Humors* and *Aphorisms* where the thirteen genuine texts of Hippocrates will all be presented.

The thirteen case histories in *Epidemics I and III* will be examined finally since they would provide a basis for comparison with the following section on the other texts which are not labeled genuine. The book *Epidemics* is a collection of works which are created in the visits and travels¹²⁵ of the physicians to patient's houses. As a word it means to visit, and this practice, it will be argued, can be thought in relation with the bed side observations since visits were actually to the resting place of the patient. The case histories will be chosen from the patients, who are women, and it can be argued that they may lead us to understand the style of bed side observation,¹²⁶ which is one of the main practices of Hippocratic medicine, towards women and women's bodies; thus they will demonstrate disease and health conceptions of women in Hippocratic medicine. Then after the cases from the *Epidemics I and III*, which are called genuine, other writings of *Epidemics* will also be examined in the last part of this section in their relation both to gynecological writings and to genuine epidemic case histories.

In the study of these texts there will be a special attention on some key words, in order to inspect the texts more easily. They are chosen in accord with the general aim of the study, that they are related with women's health and diseases. The words are of following: women, womb, female, childbirth, child, maiden, nursing, nurse,

¹²⁴ Interestingly, this text, although it was regarded as an additional text to *Nature of Man*, was classified genuine in Littré. Jones's argument in the introduction of Loeb book one that *Nature of Man* has some parts belonging to Hippocrates is due to such classification.

¹²⁵ It is not always necessary for the physician to travel, though in order to increase their observation histories, knowledge of the practice, and surely for economical, political and social reasons, it is known that physicians traveled much. It can be said that Hippocrates traveled in the period of famine after the Peloponnesian war. Traveling was also a way of practicing medicine.

¹²⁶ Bedside observations, as it is called, were the common characteristic of Hippocratic practice of medicine. The physician enters the houses of the patients and observes the patient, who usually is in bed. This practice lasts for some critical days, each day the physician goes to the patient and notes down both the condition of the patient and the symptoms properly. Probably this feature is one of the most important features of Hippocratic medicine both in its observational dimension and its dependence not on temples but on the physicians travels as the basis for health giving practice.

mother, menstruation, pregnancy, menopause, girl, nature,¹²⁷ black bile, water in all its uses.

The first text of almost all Hippocratic collections was *Ancient Medicine* which is investigated briefly in this chapter in its relation to hypothetical thinking. In *Ancient Medicine* xxii, womb is described as full of fluid (ὕγρότης), and thus this condition is explained 'because of the nature of its structure'. Here the discussion is on whether the diseased states arose from the power or the structure when attracting fluid from the womb. The best adapted structure is described as the broad hallow, like it is in injections or water machines used attracting water from underground. And this, it was argued in the text, is because of the nature of the structure.¹²⁸ Here, it can be said that the theory that women are moister than men was confirmed. In *Ancient Medicine* this use was the only occurrence of women diseases.

When delivery time comes, fullness of the womb disappears, as it is described similarly in *Airs Waters Places* vii, and this is caused by the dropsy of the womb, since it is the most humid (ὕγρότης) organ. Here it will be sure that this passage must be examined in a detailed manner with regard to the inquisition of the humor water since the dropsy that occur, as the Hippocratic author mentions can be very fatal and they vary very much.¹²⁹ They occur among women in winter, because of the excess of water. Such occurrence causes phlegmatic diseases and the women conceive hardly. The babies on the other hand, it is argued would be big and swollen, and when they are nursed they will be miserable.¹³⁰ Women who are with a child, draws

¹²⁷ Notice always in feminine form in ancient texts. In Perseus analysis of φύσιες, it is fem nom/voc pl (epic doric ionic aeolic).

¹²⁸ Τῶν δ' ἔσω τοῦ ἀνθρώπου φύσις καὶ σχῆμα τοιοῦτον· κύστις τε καὶ κεφαλὴ, καὶ ὑστέρα γυναιξί· καὶ φανερώς ταῦτα μάλιστα ἔλκει, καὶ πλήρᾳ ἐστὶν ἐπάκτου ὑγρότητος αἰεὶ. Τὰ δὲ κοῖλα καὶ ἐκπεπταμένα ἐπιρρῦεισαν μὲν ἂν ὑγρότητα μάλιστα δέξαιτο πάντων, ἐπισπάσαιτο δ' ἂν οὐχ ὁμοίως (Hr. Pris. Med. 22.20). ἂ δέ γε στερεὰ καὶ στρογγύλα οὐτ' ἂν ἐπισπάσαιτο οὐτ' ἂν ἐπιρρῦεισαν δέξαιτο· περιολισθάνοι τε γὰρ ἂν, καὶ οὐκ ἔχει ἔδρην ἐφ' ἧς μένοι. Τὰ δὲ σπογγοειδέα τε καὶ ἀραιὰ, οἷον σπλῆν, πλεύμων καὶ μαζοὶ, προσκαθεζόμενα μάλιστα ἀναπίοι καὶ σκληρυνθεῖη καὶ αὐξηθεῖη, ὑγρότητος προσγενομένης, ταῦτα μάλιστα. Οὐ γὰρ ἂν ἐν σπλῆνι, ὥσπερ ἐν κοιλίῃ ἐν ἧ τὸ ὑγρὸν, ἔξω τε περιέχῃ αὐτὴ ἢ κοιλίῃ καὶ ἐξαλίζοιτ' ἂν καθ' ἑκάστην ἡμέρην· ἀλλ' ὅταν πῆ καὶ δέξηται αὐτὸς ἐς ἑωυτὸν τὸ ὑγρὸν, τὰ κενὰ καὶ ἀραιὰ ἐπληρώθη, καὶ τὰ σμικρὰ πάντα, καὶ ἀντὶ ἀραιοῦ τε καὶ μαλθακοῦ σκληρὸς τε καὶ πυκνὸς ἐγένετο, καὶ οὐτ' ἐκπέσσει οὐτ' ἀφήσει· ταῦτα δὲ πάσχει διὰ τὴν φύσιν τοῦ σχήματος. Ὅσα δὲ φύσιν τε καὶ ἀνελήματα ἐνεργάζονται ἐν τῷ σώματι, προσήκει ἐν μὲν τοῖσι κοίλοισι τε καὶ εὐρυχώροισιν, οἷον κοιλίῃ τε καὶ θώρηκι, ψόφον τε καὶ πάταγον ἐμποιεῖν (Hr. Pris. Med. 22.25-22.35).

¹²⁹ Πρὸς δὲ τουτέοισιν οἱ ὕδρωπες πλεῖστοί τε γίνονται καὶ θανατωδέστατοι (Hr. Aer. 7.15).

down their fluids,¹³¹ and the fullness of the womb disappear because of the bad waters¹³² after the time of delivery.

There are many bad and many good water sources. The best are the sweetest, and which has had their face to the summer sun rising. The worst are the ones which are mixed through the rocks by soda and other chemicals and the ones which face the north rising since the sweet ones make the human belly softer and digestion well, and vice versa. Though, in special disease occasions the described bad waters for general health conditions can also be beneficial for increasing the opposite effect which is stated in the theory that opposites cures opposites in Hippocratic style of practicing medicine.

In *Airs, Waters and Places* then, the cities are described which are exposed to some special air and water structures. The hot winds described in chapter iii, then it is pointed out that in such cities women are unhealthy, abortions took place not by nature but because of the excessive fluxes that occurred by such winds. On the other hand in the cities which are tempered the delivering of babies is easy. Similarly in intemperate cities, phlegm oriented diseases occur, conceiving would be hard and delivering difficult. Babies will be miserable. At the rising of the Dog Star,¹³³ if stormy rain occurs, on the other hand, and Etesian wind¹³⁴ blows, there is hope that the autumn will be healthy. In chapter x of *Airs, Waters and Places* it is said if the winter be southerly, rainy and mild, and the spring be northerly, dry and wintry, in the first place women with child whose delivery is due by spring suffer abortion; and if they do bring forth their children, they will be weak and sickly, so that they either they die at once, or live puny, weak and sickly. This argument which was also repeated by the Hippocratic authors in the *Aphorisms III*, xi, and can be considered as an indirect recommendation for abortion. As it will be discussed in the section on *The Oath*, where abortion is forbidden, such references are really rare in Hippocratic gynecology.

¹³⁰ Τῆσι δὲ γυναιξίν οἰδήματα ἐγγίγνεται καὶ φλέγμα λευκόν· καὶ ἐν γαστρὶ ἴσχουσι μόλις, καὶ τίκτουσι χαλεπῶς· μεγάλα τε τὰ ἔμβρυα καὶ οἰδέοντα (Hp. Aer. 7.25).

¹³¹ ἢ τε κάθαρσις τῆσι γυναιξίν οὐκ ἐπιγίγνεται χρηστὴ μετὰ τὸν τόκον (Hp. Aer. 7.25).

¹³² Ἔτι δὲ αἱ γυναῖκες δοκέουσιν ἔχειν ἐν γαστρὶ, καὶ ὀκόταν ὁ τόκος, ἢ, ἀφανίζεται τὸ πλήρωμα τῆς γαστροῦ· τοῦτο δὲ γίγνεται ὀκόταν ὑδροπιήσωσιν αἱ ὑστέραι (Hp. Aer. 7.30).

¹³³ Dog Star is either the bright star Sirius, in Canis Major, or the bright star Procyon, in Canis Minor.

¹³⁴ Etesian winds are the periodic winds, especially those blowing from north-west during the summer.

Such is the fate of these women who live in intemperate cities. The others have dysenteries¹³⁵ and dry ophthalmia¹³⁶, and in some cases catarrhs descend from the head to the lungs. Phlegmatic are liable to dysenteries, and women are by nature phlegmatic as it is discussed above, phlegm runs down from the brain because of this humidity of their constitution. If the weather be northerly and dry, with no rain either during the Dog Star or at Arcturus,¹³⁷ it is very beneficial to those who have a phlegmatic or humid constitution people and to women in general, but it is very harmful to the bilious.

There are common structures in Hippocratic corpus when regarding women diseases. For example above, in *Ancient Medicine* and *Airs, Waters and Places*, both belonging to old Hippocratic texts, the so called genuine, the health and disease conditions of women were described in the structure above. Women were considered as moister than men, and all their diseases were regarded through this theory. Here an interesting explanation of the Scythians will be examined again from *Airs, Waters and Places* in order to understand the view of the Hippocratic writer on such society, and the role of women in it.

In chapter xvii of *Airs, Waters and Places* it is claimed that in Europe there is a Scythian race, dwelling round Lake Maeotis, a mythical lake, which differs from the other races. Their name is Sauromatae. Their women, so long as they are virgins, ride, shoot, throw the javelin while mounted, and fight with their enemies. They do not lay aside their virginity until they have killed three of their enemies, and they do not marry before they have performed the traditional sacred rites. A woman who takes to herself a husband no longer rides, unless she is compelled to do so by a general expedition. They have no right breast; for while they are yet babies their mothers make cauterize it, so that its growth is arrested, and all its strength and bulk are diverted to the right shoulder and right arm.

In the chapter xviii of *Airs, Waters and Places* the writer continues that the Scythians are called nomads because they have no houses but live in wagons. The smallest have four wheels, others six wheels. They are covered over with felt and are constructed, like houses, sometimes in two compartments and sometimes in three,

¹³⁵ Dysentery is the infection of the intestinal tract causing severe diarrhea with blood and mucus.

¹³⁶ Ophthalmia is the inflammation of the eye.

¹³⁷ Arcturus is a first magnitude star in the constellation Bootes, its name is the bearward. It's rising is in the middle of September.

which are in-off against rain, snow and wind. The wagons are drawn by two or by three yoke of hornless oxen. They have no horns because of the cold. In these wagons live the women, while the men ride alone on horseback, followed by the sheep they have, their cattle and their horses. They remain in the same place just as long as there is sufficient fodder for their animals; when it gives out they migrate.

In the xix the Scythian women were described as sterile through fatness of their flesh, so that the womb cannot absorb the seed.¹³⁸ For neither is their monthly purging as it should be, but scanty and late, while the mouth of the womb is closed by fit and does not admit the seed. Then in the xxi it is explained that the great majority among men also become impotent and do the women's work, live like women and converse accordingly. Such men they call the Anaries (Eneeries in Herodotus). The xxii continues that when the Scythians approach a woman but cannot have intercourse, at first they take no notice and think no more about it. But when two, three or even more attempts are attended with no better success, thinking that they have sinned, and put on women's clothes, holding that they have lost their manhood. So they play the woman, and with the women do the same works as women do.

As we can read from the above passage on the Scythian women, which is parallel with the *Aphorisms III*, xi, the body conditions are considered as depending on the way of life and environment in ancient Greek medicine. This group of people who were living in a nomadic style has different characteristics from, for example, Athenian people since they were horse riding all the time and living in horseback houses. The conditions of their health and reproduction are depending on this kind of life style, as the Hippocratic author argues.

In *Epidemics*, there are also some similarities, when regarding women diseases, with *Ancient Medicine* and *Airs, Waters and Places*. In the chapter xii of *Epidemics* women were described as having fluid structure¹³⁹ in the womb and pains oriented from this condition. But on the other hand in the chapter xvi it is explained that though many women fell ill, they were fewer than the men and less frequently died. Interestingly in the xix, it is explained a general schema for both men and women,

¹³⁸ This view is also present in the core writings that fatness in the womb prevents pregnancy and that Scythian women are sterile due to this condition (Hp. Mul.; Nat. Mul.)

¹³⁹ this view is presented in the core writings as the theory of *urgatos*, that women are moisture than men and will be reflected upon in the conclusion part.

who are young, in their prime, lived recklessly and carelessly, who are black and strait haired, black eyed, fair skinned, smooth, passionate and thin voiced. As it is mentioned it is not only for women but for men either with having these properties could die when become ill. Thus the issue on the differences and the similarities between men and women are important when regarding Hippocratic gynecology, as King argues (King, 2005). This difference, it was argued through the core writings, is first due to the theory that women are moister than men, and that menstruation and pregnancy related conditions (including mostly lochia) determine the women health conditions.

In *Epidemics* xix it is described that women and maidens experience quiet same symptoms overall, but besides, whenever copious menstruation supervened, there was a crisis after which resulted in recovery. The author mentions that he knows of no woman who died when all these symptoms occur properly, including the heavy menstruation accompanied with crises. This he calls the perfect crises which, as it is seen in the case histories below, ends usually with recovery. Therefore the issue on perfect crises will be dealt with in the fourth chapter.

The investigation of the case histories in *Epidemics*, since it is one of the most important works of Hippocratic tradition, it is easy to understand the style of the Hippocratic practice which is built upon observations made by the doctor where patient and nature relationship plays key roles during the course of the visits and travels of the physicians (fig. 3 on p. 76). The importance of the notion of nature (*phusis*) in the circumstances of Hippocratic practice and its consequences in viewing women will also be dealt with in the fourth chapter.

The book consists of seven volumes that were probably written by more than two writers. Nancy Demand, in her article *The Asclepion*, wrote that *Epidemics* can be grouped under three categories: volumes I and III are in the first, II and IV the second, and V and VI are in the last of the groups and were written at least three different authors.

The work presents case stories as well as constitutions and generalizations of the conditions. In the first group of books, the treatments and the symptoms of the diseases were given in details; twenty four case studies are given, thirteen are on female diseases and will be presented here, which were written from the bedside. Most of this work deals with female patients and their diseases.

The first case below was a good example of both a ‘perfect crisis’ as it is called by the Hippocratic practice of medicine and the ‘theory of critical days’. Fourteenth day is a critical day, a tetrad, and as it is explained in the chapter on seven months children, it is a perfect time for a crisis to take place. A perfect crises usually came from passing down of menses, or if the problem is the lack of menstruation itself, from the passing down of blood from somewhere else, it can be from the nose or from the anus. If it is a problem related to pregnancy, like it is in this case, non-excessive bilious vomiting, as it is explained in *Diseases of Women I* in the ninth chapter, brings a perfect crisis. There it is argued, that such conditions of women who cannot menstruate, or had pregnancy problems, for more than three months, either because of pregnancy or of something else, will cause delirium, fever and pain, which is mapping with the case below. Therefore if bilious vomiting occurs, it is a good sign, according to the Hippocratic author. Thus it is verified with this example. Though there are some cases where perfect crises did not work.

A woman lying sick by the shore, who was three months gone with child, was seized with fever, and immediately began to feel pains in the loins.

Third day, pain in the neck and in the head, and in the region of the right collar-bone. Quickly she lost her power of speech, the right arm was paralyzed, with a convulsion, after the manner of a stroke; completely delirious. An uncomfortable night, without sleep; bowels disordered with bilious, unmixed, scanty stools.

Fourth day. Her speech was recovered, but was indistinct; convulsions, pains of the same parts remained, painful swelling in the hypochondria; no sleep; utter delirium; bowels disordered; urine thin, and not of good color.

Fifth day. Acute fever, pain in the hypochondria; utter delirium; bilious stools. At night sweated; was without fever.

Sixth day. Rational; general relief, but pain remained about the left collar-bone; thirst; urine thin; no sleep.

Seventh day. Trembling; some coma; slight delirium, pains in the region of the collar-bone and left upper arm remained; other symptoms relieved; quite rational. For three days there was an intermission of fever.

Eleventh day. Relapse; rigor; attack of fever. But about the fourteenth day the patient vomited bilious; yellow matter fairly frequently; sweated; a crisis took off the fever (Hp. *Epd. I* Case XIII).

Here it must be said that the identification of the women in the case histories were given either by giving a male name related with her, and this relation is mentioned like ‘a woman who was one of the house of Pantimides...’, ‘The woman

who lodged with Tisamenus...’, ‘The woman suffering from angina who lay sick in the house of Aristion..., or as a legitimate relation ‘the wife of Hicetas...’, ‘the maiden daughter of...’, or by giving names of places/cities like ‘In Thasos the woman who lay sick by the Cold Water..’, ‘A woman who lay sick by the Liars' Market...’.

It must be mentioned that the names of the women were not given, the only example which can be found in *Epidemics I-III* is Melidia, who is mentioned with the phrase ‘Melidia, who lay sick by the temple of Hera..’. Thus this case was one of the three cases which ended not by death. It can be assumed that Melidia was one of the priestess working in the temple of Hera so her name was addressed to the goddess Hera, and not to a relative man either because a goddess was stronger than a simple man, or simply since Melidia has no remarkable men relative to her since she is working in a temple. On the other hand she could have only been in the temple, though if this is the case, she must have been mentioned by another name, or it can be asked where the Hippocratic practitioner knew her.

Melidia, who lay sick by the temple of Hera, began to suffer violent pain in the head, neck and chest. Immediately she was attacked by acute fever, and there followed a slight menstrual flow. There were continuous pains in all these parts.

Sixth day. Coma; nausea; shivering; flushed cheeks: slight delirium.

Seventh day. Sweat; intermittence of fever; the pains persisted; relapse; snatches of sleep; urine throughout of good color but thin; stools thin, bilious, irritating, scanty, black and of bad odour; sediment in the urine white and smooth; sweating.

Eleventh day. Perfect crisis (Hp. *Epd. I*, Case XVI).

Below in the second case of a maiden, the perfect crises occurred in the sixth day, which is not a critical day, and did not work. Though, she died in the seventh day which is a very important critical day after the second crises. It must be noted that when it is not on a critical day, and when it is not ended well, the crises is not labeled as perfect. Thus in this case it occurred with sweating in both crises. It is interesting that the author noted that they (perhaps the family, or relatives) said that the trouble is due to eating grapes, though the author did not mention a relation with grapes, nor in any other text such relation occurs.

Also a slight change can be grasped in the style of writing; the author instead of starting with the number of the day to a paragraph, used day reviews in sentences.

There can be more than one Hippocratic authors travelling around the region and practicing Hippocratic medicine. Previously an author began with a general description of the season, the description of the 'airs and waters' in a specific topography, the Thasos. Then an author described the conditions of the people who were sick then in again a general manner and sometimes giving examples of specific people but not detailed like it is in the rest of the books. Like it is in follows where not one maiden who is addressed by a man's name but the conditions of the diseases of all maidens in the region were described by giving only examples:

Though many women fell ill, they were fewer than the men and less frequently died. But the great majority had difficult childbirth, and after giving birth they would fall ill, and these especially died, as did the daughter of Telebulus on the sixth day after delivery. Now menstruation appeared during the fevers in most cases, and with many maidens it occurred then for the first time. Some bled from the nose. Sometimes both epistaxis¹⁴⁰ and menstruation appeared together;¹⁴¹ for example, the maiden daughter of Daitharses had her first menstruation during fever and also a violent discharge from the nose. I know of no woman who died if any of these symptoms showed themselves properly, but all to my knowledge had abortions if they chanced to fall ill when with child (Hp. Epid. I, XVI).

In the below case of Euryana's daughter though, which is in *Epidemics III*, the reader do not know whether this specific girl is living in Thasos, or other maidens had the same fever attacks in the region where she lived.

The maiden daughter of Euryana was seized with fever. Throughout the illness she suffered no thirst and had no inclination for food. Slight alvine discharges; urine thin, scanty, and not of a good colour. At the beginning of the fever suffered pain in the seat. On the sixth day did not sweat, being without fever; a crisis. The sore near the seat suppurated slightly, and burst at the crisis. After the crisis, on the seventh day, she had a rigor; grew slightly hot; sweated. Afterwards the extremities always cold. About the tenth day, after the sweating that occurred, she grew delirious, but was soon rational again. They said that the trouble was due to eating grapes. After an intermission, on the twelfth day she again wandered a great deal; the bowels were disturbed,

¹⁴⁰ It means nosebleed.

¹⁴¹ The issue on the relation between the bleeding of the nose and menstruation was intelligibly investigated in King, *Hippocrates's Women*. There she examined the case histories of *Epidemics* related with women and argued that although nose bleed was usually regarded as a good thing in a women who cannot menstruate, in the case of Leonidas's daughter it was the contrary (King; 1998). Nevertheless the case was not considered as a falsification in Popper's terminology, and the argument on the goodness of nosebleed continued to be used in the Hippocratic gynecology. The issue will be reflected upon with using the concept of 'styles' in the conclusion part of this dissertation.

with bilious, uncompounded, scanty, thin, irritating stools, which frequently made her get up. She died the seventh day from the second attack of delirium. This patient at the beginning of the illness had pain in the throat, which was red throughout. The uvula was drawn back. Many fluxes, scanty and acrid. She had a cough with signs of coction, but brought up nothing. No appetite for any food the whole time, nor did she desire anything. No thirst, and she drank nothing worth mentioning. She was silent, and did not converse at all. Depression, the patient despairing of herself. There was also some inherited tendency to consumption (Hp. *Epd. III Case VI*).

The following two examples are not so common when dealing with the cases of women. Usually the diseases were given in their relation to menstruation or pregnancy as it is discussed above in gynecological writings. Though in the following examples, the first woman was simply suffering, and the second has a bowel disorder. Thus nothing related to their womanhood was given as an explanation or description.

The woman suffering from angina who lay sick in the house of Aristion began her complaint with indistinctness of speech. Tongue red, and grew parched.

First day. Shivered, and grew hot. Third day. Rigor; acute fever; a reddish, hard swelling in the neck, extending to the breast on either side; extremities cold and livid, breathing elevated; drink returned through the nostrils — she could not swallow — stools and urine ceased.

Fourth day. General exacerbation.

Fifth day. Death (Hp. *Epd. III, Case VII*)

The woman who lodged with Tisamenus was in bed with a troublesome attack of inflammation of the upper bowel. Copious vomits; could not retain her drink. Pains in the region of the hypochondria. The pains were also lower, in the region of the bowels. Constant tormina. No thirst. She grew hot, though the extremities were cold all the time. Nausea; sleeplessness. Urine scanty and thin. Excreta crude, thin and scanty. It has no longer possible to do her any good, and she died (Hp. *Epd. III, Case IX*).

Following four examples are of the kind that is common in Hippocratic gynecological determination of women's diseases. Therefore they are directly related with either menstruation or pregnancy and the cases were examined through these issues. The first case when compared to the second case above is similar in manner that they are both bowel disorders, though in the case below the disorder was assumed to be related with a miscarriage. Thus it must be reminded that delirium was attached with the problems of menstruation and pregnancy in women's diseases here

in the first example below. Some of the following cases, it must be mentioned, have an added part, after the cases ended up with death; these are some additional notes, usually about the main disease or the age of the patient and such.

A woman who was one of the house of Pantimides after a miscarriage was seized with fever on the first day. Tongue dry; thirst; nausea; sleeplessness. Bowels disordered, with thin, copious and crude stools.

Second day. Rigor; acute fever; copious stools; no sleep.

Third day. The pains greater.

Fourth day. Delirium.

Seventh day. Death. The bowels were throughout loose, with copious, thin, crude stools. Urine scanty and thin (Hp. Epd. III, Case X).

Another woman, after a miscarriage about the fifth month, the wife of Hicetas, was seized with fever. At the beginning she had alternations of coma and sleeplessness, pain in the loins; heaviness in the head.

Second day. Bowels disordered with scanty, thin stools, which at first were uncompounded.

Third day. Stools more copious and worse; no sleep at night.

Fourth day. Delirium; fears; depression. Squinting of the right eye; slight cold sweat about the head; extremities cold.

Fifth day. General exacerbation; much wandering, with rapid recovery of reason; no thirst; no sleep; stools copious and unfavourable throughout; urine scanty, thin and blackish; extremities cold and rather livid.

Sixth day. Same symptoms.

Seventh day. Death (Hp. Epd. III, Case XI).

A woman who lay sick by the Liars' Market, after giving birth in a first and plainful delivery to a male child, was seized with fever. From the very first there was thirst, nausea, slight pain at the stomach, dry tongue, bowels disordered with thin and scanty discharges, no sleep.

Second day. Slight rigor; acute fever; slight, cold sweating around the head.

Third day. In pain; crude, thin, copious discharges from the bowels.

Fourth day. Rigor; general exacerbation; sleepless.

Fifth day. In pain.

Sixth day. The same symptoms; copious, fluid discharges from the bowels.

Seventh day. Rigor; acute fever; thirst; much tossing; towards evening cold sweat all over; chill; extremities cold, and would not be warmed. At night she again had a rigor; the extremities would not be warmed; no sleep; slight delirium, but quickly was rational again.

Eighth day. About mid-day recovered her lieat; thirst; coma; nausea; vomited bilious, scanty, yellowish matters. An uncomfortable night; no sleep; unconsciously passed a copious discharge of urine.

Ninth day. General abatement of the symptoms; coma. Towards evening slight rigor; vomited scanty, bilious matters.

Tenth day. Rigor; exacerbation of the fever; no sleep whatsoever. In the early morning a copious discharge of urine without sediment; extremities were warmed.

Eleventh day. Vomited bilious matters, of the colour of verdigris. A rigor shortly afterwards, and the extremities became cold again; in the evening sweat, rigor and copious vomiting; a painful night.

Twelfth day. Vomited copious, black, fetid matters; much hiccoughing, painful thirst.

Thirteenth day. Vomited black, fetid, copious matters; rigor. About mid-day lost her speech.

Fourteenth day. Epistaxis; Death. The bowels of this patient were throughout loose, and there were shivering fits. Age about seventeen (Hp. Epd. III, Case XII).

In Thasos the woman who lay sick by the Cold Water on the third day after giving birth to a daughter without lochial discharge, was seized with acute fever accompanied by shivering. For a long time before her delivery she had suffered from fever, being confined to bed and averse to food. After the rigor that took place, the fevers were continuous, acute, and attended with shivering.

Eighth and following days. Much delirium, quickly followed by recovery of reason; bowels disturbed with copious, thin, watery and bilious stools; no thirst.

Eleventh day. Was rational, but comatose. Urine copious, thin and black; no sleep.

Twentieth day. Slight chills, but heat quickly recovered; slight wandering; no sleep; bowels the same; urine watery and copious.

Twenty-seventh day. No fever; bowels constipated; not long afterwards severe pain in the right hip for a long time. Fevers again attended; urine watery.

Fortieth day. Pain in the hip relieved; continuous coughing, with watery, copious sputa; bowels constipated; aversion to food; urine the same. The fevers, without entirely intermitting, were exacerbated irregularly, sometimes increasing and sometimes not doing so.

Sixtieth day. The coughing ceased without any critical sign; there was no coction of the sputa, nor any of the usual abscessions; jaw on the right side convulsed; comatose; wandering, but reason quickly recovered; desperately averse to food; jaw relaxed, passed small, bilious stools; fever grew more acute, with shivering. On the succeeding days she lost power of speech, but would afterwards converse.

Eightieth day. Death. The urine of this patient was throughout black, thin and watery. Coma was present, aversion to food, despondency, sleeplessness, irritability, restlessness, the mind being affected by melancholy (Hp. Epd. III, Case II)

Here in the above case melancholia is mentioned. The urine was black and she is melancholic as a psychologically diseased. She was in her lochial period, thus melancholia can be due to her afterbirth. There was no mention of black bile as a

humor, but only as a condition that she is in. This is one of the very few cases where melancholia is mentioned in epidemics, thus it is not a humoral use.

Other instances of melancholia are the following. In *Epidemics III* xiv it is said that, women with melancholic character were keener to consumptives. In *Airs, Waters and Places* that northerly and dry weather, and no rain either during the Dogstar or the Arcturus is very harmful for the melancholic; though it is also said that it is beneficial for the women and the phlegmatic. These three uses also have nothing to do with the humoral theory but used melancholy as a psychological condition.

In the below case first there is no mention of a menstruation or pregnancy as a possible cause of the disease, though later, at the end menstruation took place, and was noted down by the Hippocratic practitioner. The urine was again black though there is no mention of melancholia. The blackness of the urine presented itself just before the menstruation and with the menstruation a perfect crises took place. Nausea¹⁴² usually happens during the beginning of pregnancy. Though in this case there is no mentioning of a pregnancy.

In Thasos a woman of gloomy temperament, after a grief with a reason for it, without taking to bed lost sleep and appetite, and suffered thirst and nausea. She lived near the place of Pylades on the plain.

First day. As night began there were fears, much rambling, depression and slight feverishness. Early in the morning frequent convulsions; whenever these frequent convulsions intermitted, she wandered and uttered obscenities; many pains, severe and continuous.

Second day. Same symptoms; no sleep; fever more acute.

Third day. The convulsions ceased, but were succeeded by coma and oppression, followed in turn by wakefulness. She would jump up; could not restrain herself; wandered a great deal; fever acute; on this night a copious, hot sweating all over; no fever; slept, was perfectly rational, and had a crisis. About the third day urine black and thin, with particles mostly round floating in it, which did not settle. Near the crisis copious menstruation (Hp. *Epd. III*, Case XI).

Thus in the following case there was a similar disease in a maiden, which again resulted with a perfect crises coming with the first menstrual blood. Though there

¹⁴² Feeling that one is about to vomit.

were no black urine present in her body but an epistaxis is present different from the example above.

In Larisa a maiden was seized with an acute fever of the ardent type. Sleeplessness; thirst; tongue sooty and parched; urine of good colour, but thin.

Second day. In pain; no sleep.

Third day. Copious stools, watery and of a yellowish green; similar stools on the following days, passed without distress.

Fourth day. Scanty, thin urine, with a substance suspended in it which did not settle; delirium at night.

Sixth day. Violent and abundant epistaxis; after a shivering fit followed a hot, copious sweating all over; no fever; a crisis. In the fever and after the crisis menstruation for the first time, for she was a young maiden. Throughout she suffered nausea and shivering; redness of the face, pain in the eyes; heaviness in the head. In this case there was no relapse, but a definite crisis. The pains on the even days (Loeb b1, *Epidemics III*, case XII).

Case xiv from *Epidemics III* is also related with the diseases of child giving. There was no perfect crisis that took place and the woman died by the end of the seventeenth day. Here the bad quality of the lochial discharge was the signifying symptom for such end. As it is argued both in *Disease of Women I* and *On the Nature of the Child* lochial discharge is an important element in determining mother's health. Here it must be said that this case is on twin children, which is not that common in these histories and regarded as superfetation in Hippocratic medicine.

In Cyzicus a woman gave birth with difficult labour to twin daughters, and the lochial discharge was far from good.

First day. Acute fever with shivering, painful heaviness of head and neck. Sleepless from the first, but silent, sulky and refractory. Urine thin and of no colour; thirsty; nausea generally; bowels irregularly disturbed with constipation following.

Sixth day. Much wandering at night; no sleep. About the eleventh day she went out of her mind and then was rational again; urine black, thin, and then, after an interval, oily; copious, thin, disordered stools.

Fourteenth day. Many convulsions; extremities cold; no further recovery of reason; urine suppressed.

Sixteenth day. Speechless

Seventeenth day. Death (Hp. *Epd. III*, Case XIV).

The last case is on a woman whom there is no notice whether she is, menstruating or in a condition where pregnancy was involved. It can be said that neither of the problems related with these issues were present. She was dead at the

end, though there is no sign of it but her delirium which was explained and described in a detailed manner, which is not a common practice of writing in Hippocratic gynecology could be the reason for this. It was mentioned that she was in a grief, which is a common practice in antiquity; though, for example three cases before, a grief is mentioned with the phrasing that the woman had good reasons for it. Here in this case there is no such judgment. Hence, although the recovery for reason took place, the patient herself cannot be recovered.

In Thasos the wife of Delearces, who lay sick on the plain, was seized after a grief with an acute fever with shivering. From the beginning she would wrap herself up, and throughout, without speaking a word, she would fumble, pluck, scratch, pick hairs, weep and then laugh, but she did not sleep; though stimulated, the bowels passed nothing. She drank a little when the attendants suggested it. Urine thin and scanty; fever slight to the touch; coldness of the extremities.

Ninth day. Much wandering followed by return of reason; silent.

Fourteenth day. Respiration rare and large with long intervals, becoming afterwards short.

Seventeenth day. Bowels under a stimulus passed disordered matters, then her very drink passed unchanged; nothing coagulated. The patient noticed nothing; the skin tense and dry.

Twentieth day. Much rambling followed by recovery of reason; speechless; respiration short.

Twenty-first day. Death. The respiration of this patient throughout was rare and large; took no notice of anything; she constantly wrapped herself up; either much rambling or silence throughout (Hp. Epd. III Case XV).

At the end of the epidemic texts it can be said that menstruation and pregnancy were two important issues in regarding women's diseases in these histories. There what is called perfect crises through menstruation or vomiting plays a key role in recovery. After this brief examination of the so called genuine writings of *Epidemics I and III*, the rest of the texts will be investigated in their instances of women diseases in order to understand fully the aspects of Hippocratic gynecology.

In *The Oath* the most important reference to women is the claim on not giving an abortive to a woman.¹⁴³ It is accepted as a harm both to the women and the child and the following passage¹⁴⁴ is on not to do any harm to the people inside the houses in which the Hippocratic practitioner enters. On the other hand, the issue on abortion¹⁴⁵

¹⁴³ I will not give to a woman a pessary to cause abortion.

¹⁴⁴ Into whatsoever houses I enter, I will enter to help the sick, and I will abstain from all intentional wrongdoing and harm, especially from abusing the bodies of man or woman, bond or free.

in the oath needs further investigation of the Hippocratic gynecology since the anti-abortion activists used especially this claim of the Hippocratic Oath in their argumentation against abortion.

The oath may have been developed after the times of Hippocrates like other texts of *Hippocratic Corpus*. The claim of Christianity against abortion may have played a critical role in the development of the Hippocratic claim against abortion. However it is again a later invention of Hippocrates. Several other cultures, cults and beliefs may also change and transferred the oath. Though, in regard to the studies of this dissertation of the gynecological texts, neither in the core gynecological texts of *On the Diseases of Women* and *On the Nature of Women* nor in the other texts, passages of abortion were used. Thus pregnancy and child giving as it is discussed in the previous chapters were favored in the general claim of Hippocratic gynecology. As it is clearly stated in *On the Diseases of Women* which is discussed below, there is a general argument in Hippocratic gynecology that giving birth is good for the health of the women. It is argued that a woman who did not give birth is not 'broken down' and therefore her vessels are not open, and thus passages of fluids are not formed, and therefore cannot cope with diseases which arose from the excess of humors since humors cannot that easily pass from open vessels.

On the other hand abortion is not simply the negation of giving birth. The 'breaking down' of women happens in the first labor and not related with the rest of the labors. Therefore giving more than one birth is not considered that effective. Thus as it is argued in *Disease of Women* diseases can be rooted from the problems of pregnancy; thus the multiplicity of pregnancy increases the risk of such problems. Though, nowhere in these texts an abortive was recommended even in high risk situations. This was explained by Demand that the multiplicity of children (six per women) was due to the patriarchal order of Greek culture (Demand, 1994).

It will be proper for the purposes of this study though, to look in Soranus's interpretation of the practice of abortion. Soranus as it is explained in the second chapter was a devoted Hippocratic and was one of the most important gynecologists of his time who developed the gynecological style of Hippocrates. His main development on the issue is his ethics of abortion. It is argued that before his times

¹⁴⁵ Castration can also be regarded in this text. Thus *the oath* also has a part on not cutting, which is regarded by today's scholars as a reference to castration since in aphorisms there is the sentence that says 'which is not cured by medicine knife will be the cure, which is not cured by knife fire is the cure, and which is not cured by the fire, is incurable (Hp. Aph. 7)'.

no such ethics was developed. Maybe such development is due to the ethical codes of Christianity in the rise of the Roman Empire. Though investigation of such relation is beyond this humble dissertation, it can be said that Soranus's writings in the Roman period on abortion were much more liberal for the choice of women over her own body with respect to Christian ethics on the issue which is similar in manner to Hippocratic gynecological style highlighted in the *Hippocratic Oath*. As a result it can be said that the famous claim of the oath can be viewed in its place in Hippocratic practice of gynecology that women diseases pregnancy related issues play key roles and abortion was one of them. Though, its forbiddance may be a later invention in the development of Hippocratic medicine in the Roman period.

In *Nutriments* mother's humors were regarded to have an important effect on the embryo, and milk -whether of the mother or of another nurse, have the same effect on the child, which varies according to circumstances (Hp. Nutr. XI), since at the proper season the mother produces nutriment for both the child and the embryo (Hp. Nutr. XXXVII). And that the secretions are all in accordance with nature; thus this is an interesting sentence regarding the nutriment that all things have one nature and not one; all things have many natures and one (Hp. Nutr. XVII). Then in chapter xxi of *Nutriments* it is explained that differences in diseases depend on nutriment; all the constituents of body must be regarded both as a whole and severally, since their greatness is great and not that great at the same time.

In *Prognostics* it is explained that black urine is the worst for both men and women, and for the children the watery urine (Hp. Nutr. xii), in the case of women after delivery same rules occur for the crises (Hp. Nutr. xx). Thus here again blackness of the urine was not structured with black bile as a humor. It is said that men and women experience the same symptoms mostly in continued fevers (Hp. Nutr. xxiv). Here again the blackness of malaria can be considered since just after the issue of black urine fevers were discussed in the text. Malaria as it is said before is a disease which causes serious fevers and has the same effect on both sexes. Thus as there is no reference to black bile as a humor, it can be said that black bile was not at least in this text was regarded as a constituent humor.

In *The Sacred Disease* it is claimed that this disease (epilepsy) begins in the womb while the embryo is still in the organ. The brain of the embryo, it is argued, like other parts, can form its impurities that cause the sacred disease while the embryo is still in the womb. Therefore parallel with the rest of the gynecological

texts, the importance of the womb in child development was highlighted in this text. In *Regimen in Acute Diseases* it is argued that women as a whole are more liable than men to hurt by vinegar, since vinegar has an effect of causing pain in the womb (Hp. Diet. Acut. LXI). In *The Physician* second chapter, before all, it is argued that the intimacy between the patient and the physician must be close, since patients are putting themselves in the hands of the physician. Thus at every instance a physician meets a woman or a maiden in the houses he enters, he must be controlled both in body and soul (Hp. Phys. I). Here it can be said that physicians are taken for granted as male, and women and maidens were regarded as people whom self-control is needed.

In *On Joints*, on the other hand, it is argued that women hands, since they are smaller and smoother than men's, are more suitable for nose distortion treatments. Therefore it can be argued here at least for such deformities female physicians are needed. It is written when the nose is distorted literally but in a balanced situation, the best treatment comes from a boy or woman, for the hands should be soft (Hp. Joint. XXXVII-III). It is argued that the Hippocratic author never saw a situation like this which was not recovered by immediate manipulation from a woman's hands.

In *Regimen in Health*, chapter vi, it is discussed that women should use regimen of a rather dry character, for food must be dry since the softness of the flesh of the women makes the women in a watery constitution. Therefore dry food could balance this situation and prevent the diseases which would arise from this condition. Also it is argued that less diluted drinks will be best for the womb during pregnancy. This text is in accord with the rest of the gynecological texts, and as it is discussed in the previous part, it was considered as an additional part to the *Nature of Man*, though nothing related to black bile was seen.

In *Humors* text the affections of the womb are described and that purgation and evacuations must start from above, with the colic type of women since they are greasy, uncompounded and foamy. Coction, it is argued descent from the humors below, rising with the humors above. It is argued that fluxes from the womb become the wax in the ears in this way. Orgasm in some cases opens and empties what is present below by warming or chilling, within. What arises colic to be warm below is its opposite in phlegmatic (Hp. Hr. III). In tenth chapter though, it is argued that what purges the head, which is above in this case, are disturbing conversation and voice.

Then it is argued that breasts, seed and womb vary in constitution in different ages and that choking and coughs makes fluxes to womb.

In *Aphorisms* third book, xi, it is explained that if the winter is dry and northerly and the spring wet and southerly, in summer some acute fevers would occur along with eye diseases and dysenteries especially among women. But if the winter is southerly, rainy and calm and the spring dry and northerly, women would suffer abortion. And if they do bear the children the children will be weak and unhealthy. Here it can be argued that such aphorism can be considered as an indirect improvisation of abortion since it is even said that such children either die at once or have a puny life.

On the other hand, if the autumn be northerly and rainless, it is beneficial for those with moist condition; others would dry, and could have eye diseases and acute fevers, colds and in some cases melancholia (Hp. Apr. III. XIV). This chapter was already given above while discussing melancholia. Though, here it can be mentioned that women, who are considered as moister, are in the opposite case of the melancholic when regarding seasonal properties.

In *Aphorisms IV* in the second chapter it is argued to purge pregnant women if there be an orgasm, from the third to seventh month since the unborn child should be treated cautiously in the first and the last months of pregnancy. In the next book, aromatic vapor baths are considered to promote menstruation and argued that are very useful in women for other purposes i.e. heaviness of the head (Hp. Apr. IV. XXVI-II). Then it is said if the women who is pregnant attacked by an acute disease, it can be fatal; though it is not clear this fatalness is for the mother or for the child (Hp. Apr. V. XXX).

In the next chapter of *Aphorisms* it is said that if a woman with a child bled, then she will miscarry; thus the larger the embryo the greater the risk. Then it is written if a woman vomits blood, menstruation is the cure (Hp. Apr. V. XXXII). In the xxxiii it is argued that when menstruation is suppressed the blood from the nose is a good thing. These two aphorisms will be discussed when relating bleeding and menstruation with regard to the studies of King in her delightful book on the Hippocratic women (King, 1998).

Then in the chapter xxxiv it is claimed that when a women with child has frequent diarrhoea¹⁴⁶ there will be a danger of miscarriage. And in the next it is argued that when a pregnant woman suffers from hysteria the labor will be difficult, and an attack of sneezing will be beneficial (Hp. Apr. V. XXXV). In the next it is argued that if menstrual discharge is not of the proper colour or irregular, purging is necessary. And if the breasts of a pregnant woman suddenly become thin, it is a sign of miscarriage. When a women is pregnant to twins, it was argued in xxxviii, if either breasts become thin, she will lose both children, if only the right brest get thin she will lose the male child, if the left, female. If a women have milk when she neither is with a child nor has had a child, it means that her menstruation is suppressed, and when blood collects in the breasts of a woman, it indicates madness.

As it can be seen from these aphorisms women related diseases are all about two main issues, the menstruation and the pregnancy where the style of thinking on the issue of gynecology is very similar to that of the core gynecological writings of namely the *Disease of women I-III* and the *On the Nature of the Women*, which are itself directly similar to the style in *On Generation* and its related books and the seven and eight months child and finally the *Superfetation*. Madness and delirium were as it is seen both from the *Epidemics I and III* and the gynecological writings are regarded as a result of women diseases. Therefore it can be said that the books of aphorisms along with the books of epidemics, *Ancient Medicine* and the *Airs, Waters and Places* are directly connected with the core of the gynecological Hippocratic style.

For example in xlvi it is stated that when unnaturally fat women cannot conceive, it is because the fat presses the mouth of the womb, and conception is impossible until they grow thinner (Hp. Apr. XLVI). This chapter of *Aphorisms* is directly similar to the discussion on the sterility of Scythian women in *Airs, Waters and Places* discussed above, that is because of their fatness due to their traveling in the wagons sitting all the day. And in xlviiii it is said that the male embryo is usually on the right side, and the female on the left, which is again a common view in Hippocratic gynecological style.

¹⁴⁶ Frequent bowel evacuation or the passage of abnormally soft or liquid faeces (vaginal discharges).

There are many instances¹⁴⁷ very similar to the above mentioned ones in the *Aphorisms* generally on occasions of diseases in pregnancy and the ways to understand and prevent them. They are directly similar to the arguments *On the Diseases of Women* and *On the Nature of Women* and thus all can be viewed under the style of Hippocratic gynecology. Though, they are more like sentences instead of definitions and explanation and they are much shorter and can be viewed in the mind more easily when compared to the writing style of gynecological texts. They are as the heading asserts aphoristic and they are in a writing style which is more for the usual readers and not for the practitioners only.

In the following treatise, namely *Regimen I* there are some very useful issues concerning women especially the usage of the concept of nature in Hippocratic understanding. Thus there are many instances on the theory of pangenesis and the so

¹⁴⁷ The rest of such aphorisms are the following: in *Aphorisms VI*, In XLVII it is explained that if the part of the womb near the hip joint suppurates, tents must be employed: to expel the after-birth: apply something to cause sneezing and compress the nostrils and the mouth. If you wish to check menstruation, apply to the breasts a cupping-glass of the largest size (*Aphorisms*; L). In LI. It is argued when women are with child the mouth of the womb is closed. LII. is when milk flows copiously from the breasts of a woman with child, it shows that the unborn child is sickly; but if the breasts be hard, it shows that the child is healthier. XLI, if one wishes to know that a woman is with a child, one must give her hydromel to drink without supper, when she is going to sleep, and if she has colic in the stomach it means that she is with a child, and if not, not. If a woman has a good complexion she is with a male child, and female, reminds bad complexion. If a woman attacked by erysipelas (infection of the skin and underlying tissues with a special kind of bacteria called *streptococcus pyogenes*) in the womb it is fatal for the unborn child. If moderately well-nourished women miscarry without any obvious cause two or three months after conception, the cotyledons of the womb are full of mucus, and break, being unable to retain the unborn child because of its weight LIII. When women are threatened with miscarriage the breasts become thin. If they become hard again there will be pain, either in the breasts or in the hip joints, eyes, or knees, and there is no miscarriage. LIV. When the mouth of the womb is hard it must of necessity be closed. LV. When women with child catch a fever and become exceedingly thin, without (other) obvious cause, they suffer difficult and dangerous labour, or a dangerous miscarriage. LVI. If convulsions and fainting supervene upon menstrual now, it is a bad sign. LVII. When menstruation is too copious, diseases ensue; when it is suppressed, diseases of the womb occur. LVI 1 1. On inflammation of the rectum and on that of the womb strangury supervenes; on suppuration of the kidneys strangury supervenes; on inflammation of the liver hiccough supervenes. LIX. If a woman does not conceive, and you wish to know if she will conceive, cover her round with wraps and burn perfumes underneath. If the smell seems to pass through the body to the mouth and nostrils, be assured that the woman is not barren through her own physical fault. LX. If a woman with child have menstruation, it is impossible for the embryo to be healthy. LXI. If menstruation be suppressed, and neither shivering nor fever supervenes, but attacks of nausea occur, you may assume the woman to be with child. LXII. Women do not conceive who have the womb dense and cold; those who have the womb watery do not conceive, for the seed is drowned; those who have the womb over dry and very hot do not conceive, for the seed perishes through lack of nourishment. But those whose temperament is a just blend of the two extremes prove able to conceive. LXIX. Rigors in women tend to begin in the loins and pass through the back to the head. In men too they begin more often in the back of the body than in the front; for example, in the forearms or thighs. The skin too is rare, as is shown by the hair. XXIX. A woman does not get gout unless menstruation is suppressed. XXVII. Tenesmus (a sensation of the desire to defecate) in the case of a woman with child causes miscarriage. In *Aphorisms VII*, XLIII, a woman does not become ambidexterous (to use both hands).

called superfetation which are in accordance with the rest of the gynecological Hippocratic writings. Thus the issue on the use of the humor water is concordant with gynecological style, thus there is no mention of the black bile in the text. It is argued in the ninth chapter that males and females are formed by the moist (ὕγρως) and the fire.¹⁴⁸ Being in a movement the fire inflames and draws itself nourishment from the mother. When time passes it dries and solidifies and it hardens and while being imprisoned can no longer find itself nourishment so it consumes all the moisture¹⁴⁹ inside. And as the moisture fails the parts become compact and form the sinews and bones. Meanwhile the fire being moved out of the moisture (ὕγρως) was mixed with it and arranges the body according to nature (φύσις) through necessity (ἀνάγκη).¹⁵⁰

In chapter xxvi of *Regimen I* it is explained that whatever enters a woman grows if it meets the things that suit it; and all the limbs are separated and grow simultaneously by nature.¹⁵¹ And in xxvii, females are inclined more to water grow from foods, drinks and pursuits that are cold, moist and gentle. Males, on the other hand inclined more to fire, and grow from the foods that are dry and warm. Therefore it is argued if a couple wants a daughter they must use a regimen that is watery and vice a versa since they both emit semen. Thus it is argued by the Hippocratic author that on one day in each month it can solidify, and master the advancing parts, and that only if it happen that parts are emitted from both parents together in one place.¹⁵²

Here this sentence is important since it assumes the knowledge that one day in every month there is a day of ovulation. In this study it is suspected that in Hippocratic gynecology no such knowledge is present. This sentence does not directly have a reference to ovulation though it is said it can be accepted for such

¹⁴⁸ ὕγρὸν ἐὼν κινέεται ὑπὸ τοῦ πυρός (Hr. Regmn. I. 9.1).

¹⁴⁹ ἀναλίσκει οὖν τὸ ὑπάρχον ὕγρὸν εἴσω (Hr. Regmn. I. 9.5).

¹⁵⁰ Τὰ μὲν οὖν στερεὰ τὴν φύσιν ἐν τῷ ξυνεστηκότι καὶ ξηρῷ οὐ καταναλίσκεται τῷ πυρὶ ἐς τὴν τροφήν· ἀλλ' ἐγκρατέα γίνεται καὶ ξυνίσταται τοῦ ὕγρου ἐκλείποντος, ἅπερ ὅστέα καὶ νεῦρα ἐπονομάζεται. Τὸ δὲ πῦρ ἐκ τοῦ συμμιγέντος κινουμένου τοῦ ὕγρου διακοσμέεται τὸ σῶμα κατὰ φύσιν διὰ τοιούδε ἀνάγκην (Hr. Regmn. I. 9.10)

¹⁵¹ ὅ τι δὲ ἐς τὴν γυναῖκα, αὖξεται, ἢν τύχη τῶν προσηκόντων. Διακρίνεται δὲ τὰ μέλεα ἅμα πάντα καὶ αὖξεται, καὶ οὔτε πρότερον οὐδὲν ἕτερον ἑτέρου οὔθ' ὕστερον· τὰ δὲ μέζω φύσει πρότερα φαίνεται τῶν ἐλασσόνων, οὐδὲν πρότερα γινόμενα (Hr. Regmn. I.26.1-5).

¹⁵² Ἐν μιῇ δὲ ἡμέρῃ τοῦ μηνὸς ἐκάστου δύναται συστήναι καὶ κρατῆσαι τῶν ἐπιόντων, καὶ ταῦτ' ἢν τύχη ξυνεμπεσόντα παρ' ἀμφοτέρων κατὰ τόπον (Hr. Regmn. I. 27.20).

knowledge. In *Diseases of Women* for example it is said that the last day of menstruation is the suitable day for pregnancy.

The other important parallelism with gynecological writings is in the theory of pangenesis. As it is discussed above Democritus was the one to presume such genetic model assuming that both parents emit the semen in the generation of the fetus. Accordingly in *On Generation* series, namely *On the Nature of the Child* and *Diseases IV* same view is defended by the Hippocratic authors. Therefore it can be said that the *Regimen I* is in accordance with the core gynecological writings since *On Generation* is also in accordance with the so called core texts *On the Nature of Women* and *Diseases of Women I-III*.

Here is another part which is parallel with the theory of pangenesis.

...growth belongs, not only to the man's secretion, but also to that of the woman, for the following reason. Either part alone has not motion enough, owing to the bulk of its moisture and the weakness of its fire, to consume and to solidify the oncoming water. But when it happens that both are emitted together to one place, they conjoin the fire to the fire and the water likewise. Now if the fire fall in a dry place, it is set in motion, if it also master the water emitted with it, and there from it grows, so that it is not quenched by the onrushing flood, but receives the advancing water and solidifies it on to what is there already. But if it fall into a moist place, immediately from the first it is quenched and dissolves into the lesser tank. On one day in each month it can solidify, and master the advancing parts, and that only if it happen that parts are emitted from both parents together in one place (Hp. Regimn. I. 27.20)

And in xxviii there is a corresponding view presented by the Hippocratic author:

Male and female have the power to fuse into one solid, both because both are nourished in both and also because soul is the same thing in all living creatures, although the body of each is different. Now soul is always alike, in a larger creature as in a smaller, for it changes neither through nature nor through force. But the body of no creature is ever the same, either by nature or by force, for it both dissolves into all things and also combines with all things. Now if the bodies secreted from both happen to be male, they grow up to the limit of the available matter, and the babies become men brilliant in soul and strong in body, unless they be harmed by their subsequent diet. If the secretion from the man be male and that of the woman female, should the male gain the mastery, the weaker soul combines with the stronger, since there is nothing more congenial present to which it can go. For the small goes to the greater and the greater to the less, and united they master the available matter. The male body grows, but the female body decreases into another part. And these, while less brilliant than the former, nevertheless, as the male from the man won the mastery, they turn out brave, and have rightly this name. But if male be secreted from the woman but female from the man, and the male get the mastery, it grows just as in the former case, while the female diminishes.

These turn out hermaphrodites (" men-women ") and are correctly so called. These three kinds of men are born, but the degree of manliness depends upon the blending of the parts of water, upon nourishment, education and habits (Hp. Regimn I. 28).

Here, in the above mentioned chapter there are many issues concerning the place of women in Hippocratic medicine. First it is said that both parents have the power, or more properly have been able to produce (δύν μαι) into one¹⁵³, which can be understood, parallel with the other texts discussed above, of producing a newborn. It is argued that such power (*dunamis*) is because they both possess the same soul, which is one in all living creatures. Then this argument is the reason for the acceptance of the theory of pangenesis. The whole passage is again in accordance with the theories observed in the core gynecological writings. The passage continues with the discussion, then on the production of female seed in the next chapter of xxix where also an explanation of the unification of man and women was given by the observation of a lighting coal.

In like manner the female also is generated. If the secretion of both parents be female, the offspring prove female and fair, both to the highest degree. But if the woman's secretion be female and the man's male, and the female gain the mastery, the girls are bolder than the preceding, but nevertheless they too are modest. But if the man's secretion be female, and the woman's male, and the female gain the mastery, growth takes place after the same fashion, but the girls prove more daring than the preceding, and are named "mannish." If anyone doubts that soul combines with soul, let him consider coals. Let him place lighted coals on lighted coals, strong on weak, giving them nourishment. They will all present a like substance, and one will not be distinguished from another, but the whole will be like the body in which they are kindled. And when they have consumed the available nourishment, they dissolve into invisibility. So too it is with the soul of man (Hp. Regimn. I. 29).

In like manner the next chapter, xxx, which is on the so called superfetation, is parallel with the style of Hippocratic gynecology. The twins, as it is argued are born because of the nature (φύσις) of the womb at that time.¹⁵⁴ If the two sides of the womb dry equally after menstruation, and if it opens up equally, and if it grows equally in either sides, and if it conceive the secretion of the man so immediate that it

¹⁵³ Ξυνίστασθαι δὲ δύναται καὶ τὸ θῆλυ καὶ τὸ ἄρσεν πρὸς ἄλληλα, διότι καὶ ἐν ἀμφοτέροις ἀμφοτέρα τρέφεται, καὶ διότι ἡ μὲν ψυχὴ τῶντὸ πᾶσι τοῖσιν ἐμψύχοισι, τὸ δὲ σῶμα διαφέρει ἐκάστου (Hp. Regimn. I. 28.1).

¹⁵⁴ Τὸ μὲν πλεῖστον τῆς γυναικὸς ἡ φύσις αἰτίη τῶν μητρῶων (Hp. Regimn. I. xxx).

divides into two parts equally, and if the seed from both parents are strong, it can grow in both places. Twins are alike for first, the places are alike and second they are secreted together, and they grow by the same nutriment, and at birth they reach together the same light. In superfetation generally the womb must not be moist (ὑδωρ) in order for the semen to divide. And it must be naturally hot, and also the semen of the men, which is usual, must be dry. There must not be any superfluous moisture in the womb to master the seed that enters it. Though it is argued that in superfetation although the seed at first lives, it cannot last and also destroys the embryo which is already there.

In the second and third books on regimen there are no references to women diseases, though the fourth and the final book *Regimen IV* with its aspect on dreams will give a basis to understand the Hippocratic style of practicing medicine. *The Dreams*, or the fourth Regimen, is one of these so-called genuine Hippocratic writings, thus it will be examined as the final text of such. It is the only book which has this special issue of dreams, and as it is argued in the second chapter, the dreams were used as an important part of the Hippocratic medicine as a tool for the practice of healing. Thus it can be argued that they will provide a reflection point for such practice.

The beginning of the manuscript, there is a given logical explanation provided about the intimacy of the interpretation of dreams of a man and his health. The direct quotation of the first item will be useful to understand the point of view of the Hippocratic author.

He who has learnt aright about the signs that come in sleep will find that have an important influence upon all things. For when the body is awake the soul is its servant, and is never her own mistress, but divides her attention among many things, assigning a part of it to each faculty of the body -to hearing, to sight...; but the mind never enjoys independence. But when the body is at rest, the soul, being set in motion and awake, administers her own household, and of herself performs all the acts of the body. For the body when asleep has no perception; but the soul when awake has cognizance of all things- hears, sees...what is audible, visible...In a word, all the functions of the body and of soul are performed by the soul during sleep. Whoever, therefore, knows how to interpret these acts aright knows a great part of wisdom (Hp. Regmn. IV LXXXVI).

The author believes that the dreams are in some sense functions like a mirror of the health for the one who is able to read them. The rest of the regimen describes the things one sees in dreams and what they indicate about the health of the dreamer. The pattern is simple while interpreting the dreams; things that support the everyday, normal life are valued good, and therefore, indicate good and normal health conditions. For example, if a patient sees himself as he is in his everyday life, doing regular activities, walking, talking and the like is a sign of a healthy soul, which is in accord with the everyday condition of the body, approving and supporting it. However, if a dreamer sees things alien to the everyday life habits of the patient, then these indicate that there is something going wrong with both the body and the soul. The soul is not supporting the everyday life of the subject in this sense, thus the body, which is not in accord with the soul, is in an evil condition. For example, if a dreamer sees monstrous living things, it is an evil sign.

On the other hand, there are also some things which are good to be seen in a dream which are not usually seen in everyday life. This category involves especially the heavenly bodies or seeing the universe from another point of view other than from on the Earth, and such. The author interprets such dreams as good if the heavenly bodies or the view is pure, bright and giving a heavenly feeling. On the contrary, if they are dark, scary, or somehow give a threatening feeling, the dream is an indicator of evil and indicates sickness of the body and the soul.

For such occasions, the author suggests a treatment of the body besides prayers to gods. He insists that such prayers are beneficial for the soul and thus for the body: man should himself lend a hand. To do such action, man should take long walks either in the morning or the evening, depending on the occasion; for example, if a man sees heavenly bodies, dark in a dream, he must take morning walks, but if the dream is contrary to the usual habits of the dreamer, he should take the walks in the evening. Diet is another strong treatment for the dreamer. The diet must be continued for at least three, but usually five days, gradually increasing or decreasing. Besides, walking and dietary changes the author advises exercise such as voice-exercises and long runs, vapor baths and some medical herbs which are used as purgatives or emetics which are very similar to the general practices of healing in Hippocratic medicine. However nowhere in the text, the dreams were associated with women's diseases.

As a conclusion to genuine writings, it can be said that the theory that women are moister (ὕγρότης) than men was declared almost in all of the texts. There are some common structures in Hippocratic corpus when regarding women diseases and that the women are moisture than man theory is one of the basics. Menstruation and pregnancy were again two important themes in regarding women's diseases parallel with Hippocratic style of gynecology. Here what is called perfect crises through menstruation or vomiting plays a key role in recovery. Thus pregnancy was considered healthy, and abortion was not recommended anywhere.

There are three cases in the genuine writings where black bile was mentioned. However all of these occurrences are related to melancholia as a mental disease and not as black bile as a constituent humor.

3. 2. 2. Other Hippocratic Writings

Here in this part of this study the rest of the Hippocratic writings which are considered as not genuine will be examined through women's diseases and it related issues. The books of *Epidemics II-IV-V-VI* and *VII* will be discussed and compared with the first and third books of *Epidemics* which are examined in the previous section. Then few other texts where women issues were mentioned will be examined with reflecting the humors of black bile and water as an additional study to understand the usage of four humors theory with hydrops in these texts.

3. 2. 2. 1. *Epidemics II, IV-VII*

The case histories of women of the *Epidemics II, IV-VII* which are less well known and studied than books I and III, since they were judged by Galen and his predecessors to be less genuine, will provide a good basis to compare the so called genuine writing with the rest. As Smith argued, they have been less copied, edited, translated and not remarked as products of Greek science for more than thousands of years (Smith, 1994). Though there are many women cases in these treatises and the writing style is in resemblance with the *Epidemics I* and *III*. There are around thirty cases of women diseases in the seventh, twenty three in the fifth, and fifteen in the fourth book of these books of *Epidemics*. In the second book there are no cases, but

only some advises for the physicians. The texts will be examined first with regard to the uses of black bile and water, then pregnancy, superfetation and menstruation related diseases will be dealt with. The issues on death the semitertian will also be reflected upon since they are assumed to give a scope on the epidemic of malaria in the era. Malaria as it was discussed above is supposed to be in an intimate relation with the use of black bile as a humor after Hippocratic period.

In the fourth book of *Epidemics*, in chapter sixteen, it is mentioned that Eumones's wife vomited black bile (χολήν μέλαιναν). There was an obvious odor, fever, shivering, heartburn; she vomited small quantities where worms were included. She had thin bowel movements throughout. As Smith argues this case has a direct resemblance to the aphorism in *Epidemics* 6.11 that; in autumn there are worms and heartburns, shivering and melancholy (Smith, 1979, intro). One should watch for paroxysms at the onset; also in the whole disease, as the exacerbation in the evening.

In the book two, section five, chapter one, though, it is argued that the *hydropics* (ὕδρωπιώδης) are gray-eyed, ruddy and sharp-nosed which is bad, since just before it is explained that with ruddy complexion sharp nose is a bad sign. Therefore in the epidemics there is also a place for the humor *hydrops*, though along with black bile. Thus they are both not given as humors but as sort of character moods of health. Like some persons are melancholic and some hydropic.

For example in the book six, section six, chapter fourteen, it is argued that the bilious (ἐπίχολος), and the sanguineous body is melancholic when it lacks evacuation. Though here bile maybe referencing to yellow bile as a humor and not the black bile as a humor, it is not clear since the color is not given. In the section 8, chapter 20, it is said that Adamantus who is a melancholic (μελαγχολικός) once vomited black matter (ποτε μέλαινα) after too much onions.

Therefore it can be said that still it is not the humor black bile he vomited but only what he vomited was black. In another reference, it is said that melancholic were keener to epilepsy, and vice versa. Thus again there is no mention of bile which is black and which is a humor in the body, but only as a condition of the body. It is argued there that these diseases are weaknesses of the body -epilepsy in the body, melancholia in the head,¹⁵⁵ and again the cause is not mentioned as an excess of a humor (Hp. Epid. 6.8. 31.1). As it is mentioned in the investigation of melancholia in

¹⁵⁵ ἦν μὲν ἐς τὸ σῶμα, ἐπίληπτοι, ἦν δὲ ἐπὶ τὴν διάνοιαν, μελαγχολικοί (Hp. Epid. 6.8.31.1).

the Epidemics I and III, the uses of melancholia in the rest of the epidemic books were similar to that of the general patterns of Hippocratic style.

People were said to vomit black things, but there are few instances which are mentioned in the previous chapters that these black vomits are simply the observation of the humor black bile. Melancholia and the melancholic are more the issue, and not the *melan chole* as a humor. On the other hand in the case of water, its most common use is in the disease dropsy. Thus the disease is simply the excess of water, the water in all its instances except when it is caused by the failure of the spleen, the organ which attaches more the humor water. On the other hand melancholia is more like a weakness in the head (διάνοι) or in the faculty of thinking, though the head is the organ that attaches the phlegm, and not the black bile, as it is explained by the Hippocratic author in *Diseases IV*. In 33.1 it is clearly stated that the source of the phlegm is the head (κεβλή) but more like the cavity of the head. Therefore it is strange that melancholia was considered to be a mental disease since the mental faculties belongs to the head, and in Hippocratic medicine head is the source of phlegm and not the black bile.

In 6.5 of *Epidemics*, on the other hand, there is the trace of the humor black bile. It is said that the tongue indicates the urine in an aphorismic manner, and with no instance example of a case history.¹⁵⁶ The greenish tongues, it is argued, are bilious and the biliousness, it is written, is from fat. Ruddy ones are from blood, and the black ones are from black bile (μελαίνης χολῆς).¹⁵⁷ Here the humor black bile is referenced with using the four humors theory with black bile, and there is no mention of the humor *hydrops*. This is the second place, along with *On the Nature of Man*, that such use can be seen. Though, it must be remembered that these series of epidemics were not regarded as genuine, and can be dated after the Hippocratic period and can be written after the text *On the Nature of Man*.

When regarding the cases of menstruation and pregnancy the case of Gorgias's wife is interesting where a so called superfetation (ἐπικύημα) occurred. The disease is as following: Gorgias's wife's menses were stopped for four years (Hp. Epd. 5.11).

¹⁵⁶ Γλῶσσα οὔρον σημαίνει· γλωραι γλῶσσαι, χολῶδες, τὸ δὲ χολῶδες, ἀπὸ πίονος· ἐρυθραι δὲ, ἀφ' αἵματος· μέλαιναι δὲ, ἀπὸ μελαίνης χολῆς· αἶται δὲ, ἀπὸ ἐκκαύσιος λιγνῶδους καὶ μητρώου μορίου· λευκαὶ δὲ, ἀπὸ φλέγματος (Hp. Aph. 6.5.8.1).

¹⁵⁷ Dry ones are from smoky burning and from the area of the womb; and the white ones are from phlegm.

In her uterus there was heaviness; she became pregnant and pregnant again, therefore superfetation occurred, and only one child was delivered with an ulcer on her hip. Then on the next day a very heavy menstruation took place, and continued in the third and the fourth days. Fever was held her for ten days; she swelled up for the period in the face, she had no interest in the food, but was very thirsty. She could take water but not wine. After the delivering of the first baby, her belly got little emptied but not entirely collapsed. But there was no pain in the belly. On the fourteenth day second fetus was aborted (ἐξέπεσε) and it was simply flesh. After this some fluxes came. Then she became healthy.¹⁵⁸

The case has some strong connections with the writings of the book *Superfetation*. The second chapter of the book argued that, if the second fetus is not on the same side with the first, it will come later but in an immature way. That is what said to be happened in Gorgias's wife. But in the seventh chapter it was argued that if the fetus dies in the womb before the birth, and if it cannot come out spontaneously (αὐτόμωτος), or through nature (φύσις), first medicine (φάρμακον) should be used. In the case of Gorgias's wife it did come spontaneously, but after serious fever for fourteen days. No medicals were used, and she was left suffering. Next in the text, other than medicine, pulling the baby with the hands is recommended in such occasions; though again in this case no such action is reported by the Hippocratic physician.

In the ninth chapter of the Hippocratic text on superfetation it is argued that if the fetus dies and does not pass out, the dead fetus dries inside the womb, it contracts and its tissues dissolve and flows out. It is written that sometimes a flow comes from the women, if she is not dead already (ἢν μὴ πρότερον ἀποθάνῃ). As a matter of fact Gorgias's wife was lucky¹⁵⁹ and she wasn't dead by that time and the dead fetus

¹⁵⁸ Ἐν Λαρίσσει, γυναικὶ Γοργίου τὰ ἐπιμήνια τεσσάρων ἐτέων ἴσχετο, πλὴν ὀλίγων πάνυ· ἐν δὲ τῇ μήτρῃ, ἐφ' ὀκότερα ἂν κλιθῆ, σφυγμὸν παρεῖχε καὶ βάρος. Αὕτη ἡ γυνὴ ἐκύησε, καὶ ἐπεκύησε, καὶ ἀπελύθη τὸ παιδίον ἐνάτῳ μηνί, ζῶον, θῆλυ, ἔλκος ἔχον ἐν τῷ ἰσχύῳ· καὶ τὰ ὕστερα ἐπόμενα, καὶ αἵματος ῥεῦμα πούλῳ πάνυ ἐπεγένετο καὶ τῇ ὕστεραίῃ καὶ τῇ τρίτῃ καὶ τῇ τετάρτῃ, καὶ θρόμβοι πεπηγότες, καὶ πυρετὸς εἶχε μέχρις ἡμερῶν δέκα τῶν πρώτων· καὶ ὑπεχώρει τὸ λοιπὸν αὐτῇ αἷμα ἐρυθρόν· καὶ ᾧδε τὸ πρόσωπον ἰσχυρῶς, καὶ τὰς κνήμας, καὶ τὴν πόδε, καὶ τὸν ἕτερον μηρόν· καὶ σιτία οὐ προσίετο· δίψος δὲ εἶχεν ἰσχυρόν· καὶ τὸ ψυχρότατον ὕδωρ ξυνέφερον, οἶνος δὲ οὐδαμῶς· ἡ δὲ γαστήρ μετὰ τὸ πρῶτον παιδίον ὀλίγω μὲν τι ἐλαπάχθη, πάνυ δὲ οὐ ξυνέπεσεν, ἀλλὰ σκληροτέρῃ ἦν, ὀδύνη δὲ οὐ προσῆν. Τεσσαρακοστῇ δὲ ἡμέρῃ ἀπὸ τῆς πρώτης, ἐξέπεσε τὸ ἐπικύημα, σὰρξ· καὶ ἡ γαστήρ ξυνέπεσε, καὶ τὰ οἰδήματα πάντα, καὶ τὸ ῥεῦμα τὸ λεπτὸν, καὶ τὸ αἷμα τὸ ὄζον, καὶ ὑγιὲς ἐγένετο (Hp. Epid. 5.1.11).

¹⁵⁹ With reference to King's brilliant discussion on 'pink ravens' in comparison to the black ones in Popper's understanding of the falsification –that only a falsifying instance (a black raven) would

came with the described fluxes afterwards. Thus in eleventh it is argued that there is copious but painless blood fluxes before the abortion of the child. Thus, in the case Gorgias's wife, the fluxes was present, but they were white and it is mentioned that there was no pain. In *Superfetation* text nothing is mentioned in relation with fever though Gorgias's wife have had a period which she experienced fevers.

Then in *Epidemics* book five again another history was given, in twelfth chapter, about a woman who had serious pains in her head. Though, she was freed from these pains when her menses flowed copiously. This is again a very similar story in regard to Hippocratic gynecology. For it is argued in the *Disease of Women* that copious flowing of menses is a kind of perfect crises which ends many sort of diseases in women having them. In the case, then it is claimed, that the women, whenever her pains appeared had positive effect with the usage of pleasant smelling applications to the womb, which are described in almost all gynecological texts. Finally, when she got pregnant, her pains gone forever; which is again a case perfectly matching with the general claim that pregnancy is good for women's health.

In the thirteenth chapter, a woman in Larissa was written, who is pregnant but lost too much blood in the fourteen days in the tenth month, but mostly in the third day before the delivery. Then the child was born dead, with one arm attached to the body. The white flux came after for three days and nights and a fever seized her for two days more. Her whole belly and hips were in pain, the lower abdomen most of all. Here the only thing that can be said about this case is the period of the blood coming. In Hippocratic gynecology, accordant with the critical days theory fevers, menses, pains and sort usually lasts for fourteen days.

In the seventh book of *Epidemics*, the cases between the chapters of 94-102 are all women patients. The first three cases were in the time of a semitertian and will be investigated below, and the last four are on menses and pregnancy. Teripidas's mother, on the other hand, had a problem related with her abortion of twins after a fall in the fifth month. One of the twines was immediately delivered that was in a sort of cloak, and the other forty less or more days after. She later conceives another child, but nine years later she had terrible pains in the belly. The intestines were elevated,

make the claim that all ravens are white meaningful, this instance of Gorgias's wife would be treated as a 'lucky raven', not a 'pink raven' in King's sense, but a case where nature was letted to do her work. She argued that an instance of falsification, like a single observation of a black raven cannot prove the negation of the sentence especially in very complex issues like medicine. In medicine, research programmes in Lakatosian sense does not work with single falsifications (King, 1998).

and when it has stopped –the pain and elevation, there was a trouble of heart burn, with no choking. Chilling of all the body, whilst the pain. Garlic, silphium,¹⁶⁰ acrid did not help, nor sweet, nor acid, nor the wine. Occasionally only red wine and baths helped her some. At the beginning there were vomits in the times of pains, and the menses did not appear. In the text on superfetation it is said that garlic, silphium and wine were good medicines for cleaning the womb in such cases. Though, as it is seen cleansing did not work in this case. Thus the menses did not come, for Hippocratic gynecology this is a problem.

Polemarchus's wife was another instance on such occasion. It is written, in an arthritic condition, had a sudden pain in the hip joint at the time her menses did not appear. Her voice was gone, because of drinking beet juice, but she could hear, and her mind was clear, and she showed the place of pain with her hand. Here again the lack of menstruation was probably the main problem. Though, interestingly no medicines were used for the appearance of the menses, nor the conclusion of the disease was written.

Cleomenes's wife, on the other hand, after nausea and fatigue, had pain in the thorax. It began from the neck and the shoulder. Also there was fever, chills, and sweat; and it intensified. Cough was bloody and yellow, and large in quantity. Excrement was watery; urine bilious. On the fourth night her menstrual flow came, and the pain ceased, the fever became mild. Epicharmus's wife before delivery had dysentery, fatigue, mucous, bloody feces with phlegm. When she had given birth she suddenly became healthy. These two examples are again projecting one of the main arguments of Hippocratic gynecology that either pregnancy or menstruation cleans all the problems in women body generally.

Vomiting is also taken as a good thing especially in diseases caused by foods in maidens. Cleinas's youthful sister, in *Epidemics VII* vomited bloody vomit for fourteen days whenever she eats something. There was no fever. Castor and sessile stopped all symptoms, and pomegranate juice. The pain shifted in a moderate form to her flanks. Onion juice, acrid wine with milk, and small amounts of bread with olive oil was given. Another case in the same book was also interesting. Pausinas's young daughter when she ate a wild mushroom had nausea, and pain in the stomach. Melicrat and vomiting helped, with warm bathing. In the bath she vomited the

¹⁶⁰ Silphium (*perfoliatum*) is a plant.

mushroom and at the time she was about to recover, she sweated. Melicrat and castorium were two main emetics in Hippocratic gynecology; therefore the cases are in accord with the general claimed effects of such substances. Pomegranate juice, especially in women cases was so commonly used, both as a purgative and as a nutriment for the woman patient. It is argued that pomegranate also helps for menses to appear which is wanted, as it is discussed throughout this text, since it is a kind of perfect crises for the menses to fall which eventually lead to recovery. Onion juice has strong purgative effects; acrid wine usually was not preferred but maybe only it was present at that time. Milk, olive oil, and small amounts of bread were considered to be light and good nutriments for the body of the patient which does not have negative effects on the stomach. Therefore almost all cases were in accord with the general Hippocratic style of practice.

The wife of Hermoptolemus, in the winter, had fever and headache. Whenever she drank something she had difficulties of swallowing. She said that her hearth is damaged. Her tongue was livid from the outset. The cause of the disease seems a chill after a bath. She was sleepless. After the first days, she said her head was not hurting anymore but her whole body. She had thirst. On the fifth day and sixth day, up to ninth she was almost delirious. Then she went into a coma, which in the midst she was saying half intelligible things. There was an area in her right eye which is bloodshot and having a tendency to weep. The urine is the sort which is always bad in children –which is the watery urine (Hp. Prog. xii). The stool is yellowish and later very watery and same color. On the ninth day the intestines were upset, passing watery excrement on the tenth day. Sleep after the eleventh day was in the days generally, but towards the night she was sleepless and always in nights she was suffering the most. She was acting like children, weeping, crying and sort whenever she took off from coma. On the fourteenth day whenever anyone tried to hold her she was frightened and shouted, then again she lapsed into coma and was silent. She alternated whole day from silence to roaring. On the fifteenth day, some blood passed from the bowel, but her mania persisted. She heard irregularly, sometimes an almost silent word passes to her ears, sometimes she cannot hear what is said aloud. Her feet was warm until the last days, but on the sixteenth day it was not so. On the seventeenth day a chill came with and the fever increased. Her eyes were bad, the thirst was powerful. Whenever any substance to drink was given, she took it rigorously and drank it violently. It was not enough, she kept wanting more and more.

Her tongue was dry, red and parched; her lips and the whole mouth ulcerated, white. She kept moving both hands to her mouth and chewing them, trembling, whenever someone gave her some other thing to chew. On the third or fourth day before the end, shivers came, she hardly puts her body together, and she breaths very hard. Cramps in the legs; feet cold. Thirst strong as before and mental condition similar. Bowel movements were so thin or nothing at all. On the last, the twenty-third day, her eyes were larger than before, and her vision short. She was quite. In the night there was a strange movement in the right eye, as though she was seeing or seeking for something from the outer corner towards her nose. She showed recognition and answered what was asked. Her voice whispering as if after too much talking, and broken, from the shouting (Smith (tr), Hp. Epd., 7.11).

The scene described above is thought provoking first because of its strong description of almost all small details with a careful observation and a caring attendance to a disease of a woman, the wife of Hermaptolemus. Interestingly just one chapter later, the death of Hermaptolemus himself was also described in the book; though, it was not detailed like his wife's scene. It can be assumed that the husband died just after his wife's such heartbreaking disease. And also it can be inferred the Hippocratic author knew them before, since he witnessed both the couple's death and it is not a coincidence that he was so caring. However it was a part of the Hippocratic practice in general to give such care. The first aphorisms was a proof for such argument that life is short, the art long, opportunity fleeting, experience treacherous, judgment difficult, and continues with the comments about the physician, saying that he must be ready, not only do his duty for himself, but also to secure the co-operation of the patient, of the attendants, and of externals.¹⁶¹ This includes creating a right ecology for treatment, orienting the sick in all their ecology. Such holistic attitude of the Hippocratics will be reflected in the fourth chapter.

Epidemics VII, starting from the ninety fourth case a semitertian¹⁶² is described. First case is Theotimus's wife who had nausea and vomiting; and shivering came with fever which was extraordinary. She drank melicrat¹⁶³ and vomited, and then her

¹⁶¹ Ὁ βίος βραχὺς, ἡ δὲ τέχνη μακρὴ, ὁ δὲ καιρὸς ὀξύς, ἡ δὲ πείρα σφαλερή, ἡ δὲ κρίσις χαλεπή. Δεῖ δὲ οὐ μόνον ἑωυτὸν παρέχειν τὰ δέοντα ποιῶντα, ἀλλὰ καὶ τὸν νοσέοντα, καὶ τοὺς παρεόντας, καὶ τὰ ἔξωθεν (Hp. Aph. 1.1.1).

¹⁶² Semitertian was pernicious remittent malaria with tertian periodicity, which occur every other day, in paroxysms.

nausea and shivering stopped. Then a later solution was found with pomegranate juice. Diopeithes's sister had a terrible heartburn continued all day and there was a pain in the head. At Arcturus's rising, Apomotus's wife had terrible heartburn, vomiting, pains in the back and hysteria. Here it is noted that almost all women were in the same condition in the time of Pleiades's¹⁶⁴ setting. Such symptoms were rarer in men.

Therefore it can be inferred that the semitertian was an epidemic –in its modern sense that as a disease affecting a group of people, among women in this instance. It is noteworthy that the Pleiades in classical mythology refer to a womanly state; they are the daughters of Atlas and placed among the stars -to be saved from Orion for some traditions. There can be a belief in Hippocratic style on the relation between women's diseases and the Pleiades. Thus in these examples, it is reported that in the time of Pleiades's setting the diseases took place, and mainly pain occurred among women. This may be due to such belief systems of the ancient Greeks not only in medical practices but also in women themselves. The women may be affected psychologically by the setting of Pleiades, and thus this affect may show itself with pain. It must not be forgotten that in Greek style of thinking psychology is in a direct relation with medicine. As it is discussed in the beginning of this chapter many names of special organs has also corresponding elements in psychology (Koziak, 1999).

In *Epidemics* Seventh book, forty nine to fifty two, flu like disease was present in the cases of woman, which ended badly, with death. They are reminded by the author with the phrase also to the reader, and the similarities of the symptoms between the three patients were described in details. Through fifty two and fifty six the same symptoms described for men. And in fifty six, a general aphorismic chapter is present arguing that people with pain in the head and fever, if the fever is on the half of the head and the nose, exudes something watery, or if is into ears and throat, it is less danger. And if nausea is present with such flu, and bilious vomiting, or fixity of the eyes, or losing the voice, or delirious talk, it could be fatal. Those who suffer from flux, it was written, from half the head, and have watery discharge from the nose, generally lose fever by fifth to sixth day. Therefore it can be inferred that

¹⁶³ Hyppocras (red wine punch) made with water is called melicrat.

¹⁶⁴ Pleidas is the group of stars in the constellation Taurus. Commonly spoken of seven, but only six are visible.

epidemic in its modern use is known to Hippocratic style, and the similarities between the cases were regarded by the Hippocratic author. Also, the above description is almost a perfect medical description of flu, as we know it today.

Then from chapters fifty six to sixty same symptoms continued, though in these cases general descriptions and some recommendations were also given. “Those who have coughs in winter, especially in south winds, and who cough up much ticker, develop fevers, but the fevers generally cease on the fifth day, while the coughs last until around the fourteenth day, as with Hegesipolis” (Hp. Epd. 7. 56). Or in chapter fifty nine, “Chares, winter. After an epidemic cough an acute fever adding to the cough seized him” (Hp. Epd. 7. 59). Or completely full of indications, like in sixty “in diseases purge the intestines when the diseases are ripe, or in their fifth day; the lower intestines, when you see the disease is settled” (Hp. Epd. 7. 60). Though in chapter sixty one, the author jumps into a completely different issue, on a pierced wound. Then no traces of the flu epidemic can be seen in the text.

It can be argued that the semitertian which affected the women was handled in such manner in the text. First the three cases were given, with the phrase also to indicate their similarities. Then the general description was given by the setting of the Pleiades, after the cases of two young girls which were vomited copiously during that time. Then Polemarchus’s arthritic wife whom lost her voice but in pain, again; and then in 103 and 104 two men cases was given, with minor problems –one including insect bites, by mentioning it was still the setting time of the Pleiades. Then finally in chapter 105 a general description was given; it was said that after Zephyrus winds blow, at the Dog Star, bad heat waves came, and these caused pains and fever with sweats. Many people got swellings in the ear. The old woman, no mention of other reference, had the cough, young girl, mentioning that she was a slave, had her bowels liquidated, around the same time, in Ctesiphon¹⁶⁵, at the rising of the Arcturus. Therefore it can be inferred that the conditions of stars and constellations were argued to have an effect on disease and health conditions of people, and the Pleidas on women, according to the Hippocratic author’s style in Epidemics.

Semitertian malaria was probably caused by the bites of the mosquitoes driven by the changes in the weather conditions. Therefore in this endemic case the

¹⁶⁵ Ctesiphon is a city in Iraq, near Bagdat, on Tigris.

semitertian was not plausibly due to the effect of Pleidas on women, but the disease carried by the mosquitoes at that exact time. Maybe women were less used to the effects of the disease and were observed by the author more frequently. Though there is no mention in the text to attach the semitertian with the mosquito bites, but rather a relation with the time of the setting of Pleiades is recognizable. Maybe the setting of Pleidas in that region is the time for the mosquitoes to multiply.

After the thirteen instances of women diseases in these writings of the *Epidemics II* and *IV-VIII*, as a conclusion, it can be said that first, the style of gynecology in these texts were not that different than the style used in the so called genuine writings. Pregnancy and menstruation were still the most important notions in regarding female diseases. Thus the theory of perfect crises and its complementary theory of critical days were also used in the cases of woman as main methods of healing. Though it can be said that the place of the diseases were different than the place of the diseases that of *Epidemics I* and *III*, which was mainly Thasos. In the writings of the former in general there is no mention of the place Thasos, though only the case of a young man was in Thasos in 6.8.29, and in 6.8.32 Thasos is mentioned in a resemblance to another disease, like ‘the same things were happened to Gorgippus’s wife in Thasos’, likewise in 7.112, it is mentioned that ‘a similar condition was happened in Thasos’. As Smith argues, the documents found on stone in Thasos of its magistrate’s names shows apparent coincidences with the names in the writings of *Epidemics I* and *III*. They were dated nearly 410 B.C., and he argues that the rest of the writings of epidemics can also be dated close to that time.

As King argues in her brilliant book on Hippocrates’s women, a case which does not completely corresponds with the general rules of Hippocratic medicine, as it is for example in the case of Gorgias’s wife, does not simply make the theory false. In other words the falsificationist approach of Popper does not work especially in practices of medicine where everything is so complicated. She questions to call a false instance, the ‘pink raven’ which is simply impossible in this sense, as an alternative to the black ravens¹⁶⁶ of Popper’s approach since she argues that there are many false instances though they do not simply falsify the general rule. In the case of the daughter of Leonidas, in reading the case histories of women in the series of

¹⁶⁶ Popper’s approach was simply suggested by an example of ravens. The argument ‘all ravens are white’ fails in the first instance of a black raven. Though the latter are rare, the former and the usual ones do not make the theory come true.

epidemics, King finds a case where the general gynecological rule that nose bleeding is good while menstruation is suppressed, is not fitting. Leonidas's daughter had died despite her nosebleed, while her main symptom, although not that clear, was the lack of proper menstruation.¹⁶⁷

She used this example not only to show how we read the case histories, but also to present within the traditions of reading the *Epidemics* how 'artificial divisions' set up in the corpus, shaped and influenced our understanding of Hippocratic medical theories and practices; and that there are no such things as 'raw materials' as we see the case histories in epidemics, and the process of observation can only take place in a cultural context (King, 1998). As it will be discussed in the fourth chapter, in the case of the Hippocratics such cultural context can be seen in their holistic (ecological) understanding of the diseased.

In the case of Gorgias's wife, the author of the text did not mention any physical attempt, neither pharmacies nor manual interruptions, which must be done in a case of a dead fetus, according to the Hippocratic text *Superfetation*. In general there is the sense that the author(s) of the *Epidemics* series were already know the core texts of Hippocratic style of medicine since there are many similarities in the theories used and practices advised in the corpus with the cases of the *Epidemics*. Though there are also some slight differences with the corpus, which will be discussed here, mainly in the case of Leonidas's daughter, as King highlighted, and the case of Gorgias's wife.

The cases were observed and noted down, by the author of *Epidemics*, letting the nature do her work. However the healing powers of nature was also a way of healing in the theory and practice of Hippocratic medicine (see fig. 3 on p. 76). Nature (φύσις) in all its uses in the Hippocratic writings was considered to be healing. As it is stated in Jones, in Hippocratic practice giving nature a chance for healing is almost the first practice of Hippocratic doctor (Jones, 1951). Nature was structured as an active force (*dunamis*) through healing. The healing powers of nature, then, could have been used in the case of Gorgias's wife since against the text *Superfetation* it

¹⁶⁷ Τῆς Λεωνίδεω θυγατρὶ ἡ φύσις ὀρμήσασα ἀπεστράφη, ἀποστραφεῖσα, ἐμυκτήρισεν· μυκτηρίσασα διηλλάγη· ὁ ἰατρὸς οὐ ξυνεῖδεν· ἡ παῖς ἀπέθανεν (Hr. Epid. 7.1.123). Here the word φύσις is a reference to her menses; that they are first started and then cease. And then when her nose bleed, a change happened in the girl, but the doctor did not understand it (King, 1998). It is argued in King that Smith wrongly translated the chapter; especially the word διηλλάγη—in Smith it is translated that the girl was relieved. Therefore King's version is used here.

was waited for the fetus to abort itself instead of taking it outside manually or with drugs.

On the other hand the author could have been some other person, another Hippocratic doctor maybe, and the text may have written in an edition of the written observation of the case by another person. And thirdly, the author may not have the knowledge of the Hippocratic gynecological texts, namely *Superfetation* for the case of Gorgias's wife.

It was very hard to determine which was the case really happened though in the case of Gorgias's wife there was the very probability of the death of the mother, and in Leonidas case the child was already dead. In the first case the mother was lucky and she became healthy, though it could have been otherwise. If the present practitioner(s) have had the knowledge written in *Superfetation*, there must have been an interruption, by pharmacies or manual ways, in order not to lose the mother. Though there were not. Maybe the role of the powers attributed to the healing through nature was underestimated by modern reading of the case and its reference to *Superfetation*. There is no proper time was given, actually in the text, to wait for the practitioner for the mother to abort the dead child by herself (nature). And thus the recovery of the mother (Gorgias's wife) can be considered as a proof that the practitioner was right in the waiting period (for the nature to do her work –of healing).

Though here, another case history which is mentioned in *Epidemics VI* would be proper. In the case of Phaethousa, another woman was mentioned by name called Nanno, who is Gorgippos's wife it is said, who lived in Thasos. Though she was not to be able to recover, and died, because of her lack of menstruation (Hp. Epid. 6. 8. 32). Nanno, then, was unfortunate, since first she could not get pregnant, as in the case of Gorgias's wife, and nature did not do her work (of reproduction). The recovery of the Gorgias's wife case, at least from the lack of menstruation, was because of her pregnancy. But then, because of her double pregnancies, she came near to dead, since one of the babies was dead, and she did not aborted it for fourteen days. And after a heavy menstruation, she both aborted the dead child, and continued her life healthy.

The pregnancies and the heavy menstruation worked as a perfect crisis in her case, and opened her ways by breaking down the vessels cleaned all her problems related to her womanhood. Therefore it is a case verifying a general rule, that

menstruation and pregnancy is healthy, though she was simply lucky (since nature did her work –of reproduction), and Gorgippus’s wife, on the other hand, not. The issue concerning the role of nature (*phusis*) will be discussed in detail, in the fourth chapter.

3. 2. 2. 2. 2. Other Writings (*Nature of Bones and Non-gynecological parts of Coan Prenotions*)

In *Nature of Bones* the fifteenth chapter it is explained that there are some vessels (φλέψ) by the nature of the structure (Διὰ ταύτην τὴν φύσιν αὐτῆ) in the female that runs to the uterus (μήτρα), urethra (οὐρήθρα) and bladder (κύστις). Then it goes straight on, in women, suspend around the uterus and these vessels collect most of the seed.¹⁶⁸ Here it must be mentioned that these vessels are structured in Hippocratic philosophy not only for the carrying of blood like it is in today’s understanding, but as it is explained in *The Diseases of Women*, they are used in a much broader sense. They are more like openings or tubes in the body, for example in the ‘breaking down’ of women they are the channels that are opened, and they collect and distribute all the humors, and also food, semen and sort. And also there are smaller vessels which are called φλέβιον and are all structured as important parts of the communication among the body (Potter (tr); Hp. Nat. Bon. 9).

Coan Prenotions, eighty seventh chapter argues that in patients with melancholia, trembling is bad sign and later it is argued that, patients with strong fever whom has ringing in the ears, dullness of vision, sensation of heaviness in the nose become deranged with melancholia, unless they have hemorrhages (Potter (tr); Hp. Coa. Prae. 128). Accordingly in *Crises*, which is a later text probably written by Galen in the second century A.D., as a textbook explaining the main theories of Hippocrates, namely the theory of perfect crises and the theory of critical days, chapter forty-one, it is argued that in people suffering with melancholy, hemorrhoids are good. This can simply be due to the theory of opposites cures opposites, where the opposite humor of black bile is the humor blood.

¹⁶⁸ Τῆσι δὲ θηλείησιν αὐτὴ ζυστείνει ἐς τὰς μήτρας, ἐς τὴν κύστιν καὶ ἐς τὴν οὐρήθρην· ἐντεῦθεν δὲ ἰθυπόρηκε, καὶ τῆσι γυναιξὶ μὲν περὶ τὰς μήτρας ἤρτηται, τοῖσι δὲ ἄρρεσι περὶ τοὺς ὄρχιας ἐσπεύρωται. Διὰ ταύτην τὴν φύσιν αὐτῆ ἢ φλέψ καὶ τὰ γόνιμα πλεῖστα ζυλλαμβάνει (Hp. Nat. Bon. 15.10).

3. 2. 3. Conclusion

The *Hippocratic Corpus* is said to be shaped in the Alexandrian times, centuries after the Hippocratic period. As it was explained in the second chapter *the corpus* was formed on every contributors own ideal and on how they shaped and reshaped the Hippocratic writings (Smith, 1979). There were many schools around the region, and the schools that were cultivated after the Hippocratic period affected the Hippocratic thinking through this day. The people of these schools were not followers of Hippocrates nor were they his opponents. They were themselves creating schools, and creating their own styles of practicing medicine but their writings were in large part similar to the works of the Corpus (Smith, 1979, p. 199). From their understanding and viewing the works, the Hippocratic practice of medicine was known for thousands of years.

In this chapter the corpus was viewed by the topic of gynecology. The gynecological texts, which are viewed in the first section were said to be genuine (Grensemann, 1975). The second section, which is on the non-gynecological parts, is divided into two, former viewing the genuine writings, and the latter, the non-genuine ones. On the other hand the corpus is treated as a single body of knowledge, although there can be multiple authors, varying in different time periods. There are three main investigation points in this Hippocratic body of medical practice. In the investigation of women diseases, it is seen that the notions of nature, and water (or the watery humor) are frequently used. The black bile, on the other is seen to be discussed only in the text *On the Nature of Man* as a humor which causes pathologies like melancholy or black vomiting. However in the rest of the writings there are places where melancholy or black vomits were observed but only seldom.

An important figure in ancient Greek thinking, Aristotle gave the mental disease melancholy a special place in his philosophy hundred years after Hippocrates. Melancholic character he argued belongs to people who are keener to politics and philosophy (Arist. Prob. XXX). On the other hand, as it was discussed in the beginning of the second chapter, it was not expected for women in ancient Greek region to involve in these fields of thinking. There were some women who were said to belong to these circles though they were very few. On the other hand melancholic

character and properties ascribed to black bile, of its blackness and invisibility for example, fits into the consideration of women in ancient Greek region. Women were mostly living in the household having the statue of taking care of the house and the children where they cannot be visible outside their houses. Black bile was examined in order to understand if there is a parallelism with Aristotelian thinking of four elements theory in Hippocratic practice.

Throughout the investigations, it was seen that four humors theory was only given three places in the known Hippocratic writings; elsewhere the theory can only be seen in the practices. The texts where the theory was stated were *On Generation*, *Diseases IV* and *On the Nature of Man*. In the former two texts, it was seen that the theory was provided with the watery humor (*hydrops* or *hydor*). Thus there was no mention of black bile present in these former texts. The four humors theory presented in these texts consists of blood, phlegm, yellow bile and *hydor* (or *hydrops*) as the four constituent humors inside the body.

Hydor can be translated as water. Water in the four elements theory of Aristotle corresponds to the phlegm when the four humors theory is used with black bile. On the other hand in the four humors theory presented in *On Generation* and *Diseases IV*, no mapping with the four elements theory of Empedoclean thinking can be found, since both the humor *hydor* and phlegm corresponds to element water, and there is no humor left for carrying the properties of the element earth. In order to understand the relation between black bile, *hydor* and women diseases in Hippocratic thinking, then this new humor was also investigated in the writings.

First it was seen that the women diseases were usually given in their relation to menstruation or pregnancy. In most of the examples, it was considered as if women can get sick only because of the problems related to their womanhood and as if women do not suffer the same with men. For example in *Diseases of Women I* it was reminded by the author that men and women have different kinds of diseases, where women diseases are related only to these two issues given above. Thus the core gynecological books *Diseases of Women I-III* and *On the Nature of Women* are almost only about the diseases caused from menstruation and pregnancy. It can be reminded here that in most women case histories delirium was attached with the problems of menstruation and pregnancy in for example *Epidemics I*, case XIII, case XVI, and in *Epidemics III* case II, case VI, case X, case XI, case XII. Thus it can be

said that mental disorders were also seen in relation to pregnancy and menstruation problems of women.

Much more importantly, the problems related to pregnancy and menstruation in Hippocratic gynecological writings is seen due to women's condition which is moister (ὕγρότης) than men. Both in core gynecological writings and in the rest of the *Hippocratic Corpus*, this theory can be viewed in *Ancient Medicine and Airs, and Places*. In parallels it can be said that in Hippocratic practice of viewing women, women were signified with the element water, and man, as the opposite, with fire (Hp. Foet. 27). Therefore, it is argued that women were keener to diseases affected by the excess or lack of the element water, since they are naturally watery. Water element then was regarded to have a significant place in Hippocratic gynecology.

There are some other conclusions that can be reached in investigating Hippocratic practice of gynecology. It can be said that the practice of cutting the tumors in the womb is known to Hippocratic style as it is said in *On the Disease of Women III*, though it is not advised since it is very dangerous for the patient and that the doctor, the Hippocratic author argued, must be knowledgeable of the practice. Therefore it can be said that professionalization was recommended in Hippocratic gynecology and that gynecology was maybe one of the first branches of professionalization in the history of medicine. The figures of Rufus, Soranus and their pioneer Areateus can be viewed in this respect. Thus they were said to be the first gynecologists whom were professionalized in the field of women's health. Therefore it can be said that Hippocratic practice of gynecology has a strong place in the Hippocratic practice of medicine and lead the way to compartmentalization in medical fields and gynecology was the first to be advised.

As King argued, in viewing Hippocratic research programme in the Lakatosian sense, problems are faced in regarding the hardcore of the scientific research programmes (King, 1998); as it is seen in the problem of four humors generally, the core of the Hippocratic writings may turn out to be false when regarding the real practices of women diseases. This can also be viewed in the case histories of women, for example of Gorgias's wife (Hp. Epd. 5.11) or Leonidas's daughter (Hp. Epd. 7.1.123), where the practices described in the core gynecological texts were not used. In the core gynecological text *Superfetation*, it was said that a dead fetus must be moved manually or pharmacologically from the mother's womb; however in the case

of Gorgias's wife no such attempt was reported by the Hippocratic author. Similarly in the case of Leonidas's daughter, although it was said in the *Aphorisms* that nosebleed is a good sign in a virgin who cannot menstruate, the girl was dead just after her nose was bled. In addition, such record of this observation did not change the general theory on nose bleed in virgins –at least in the known gynecological writings.

As a conclusion, the Hippocratic gynecological practice is rooted mainly from observation and experience. The theories, the *hupothesis* which were described in the second chapter that were used in Hippocratic gynecology were constructed from the bed-side observations of Hippocratic practitioners. The humor water can be observed in the body, and although it does not fit into the four elements theory of Empedocles, since phlegm also corresponds to the element water, it can be said that at least an elemental theory of the pre-Socratics was used in Hippocratic humoral theory which fits with the bed side observations of the Hippocratics. Therefore it can be said that observational data of gynecological cases determined the Hippocratic practice which wasn't necessarily parallel with generally accepted elemental theory of the ancient physics.

The four humors theory can be regarded as a hardcore in Lakatosian sense. It was related almost with all the other theories used in the Hippocratic gynecology and thus can be said to be the basis of all the medical knowledge. As it was known hardcore of a theory in Lakatos's understanding is unchangeable, though when the Hippocratic four humors were considered a change in the use of the humors was recognized. This, it can be argued, signifies a transition from the style of practice from observation to a more theory based way of doing medicine. Black bile as it cannot be observed frequently other than the extreme epidemic cases like malaria is more a theoretical humor than it was observational. Therefore, as a theoretical entity, black bile does not fit the observational style of the Hippocratic gynecology. In Hippocratic style, as a conclusion, it can be said, observation was the base of the theories used. The observations of the bed side stories were written in a manner where theory does not matter, but the experience of the doctor does.

CHAPTER 4

THE WOMEN *PHUSIS* IN HIPPOCRATIC OBSERVATION AND *ARETE*: BASIC CONCEPTS IN HIPPOCRATIC GYNECOLOGY

In this chapter a conceptual synopsis of the previous chapter will be given. As it is viewed in the second chapter the tradition of “reinterpreting the Hippocratic tradition” (Smith 1979, Cantor 2002) is carried out by means of what Smith calls “distortions.” In this chapter before conclusion we propose our own “distortion” in relation to another “body” of distortions, and at the same time with much help from it—the recent writings of feminist or gender thinkers such as Helen King, Lesley Ann Dean-Jones, Ann Hanson, Cynthia Patterson, John Winkler, David Halperin, and Anne Carson on the ancient world and especially the Hippocratic tradition. These researchers regarded the subject mainly through the lens of the cultural meanings assigned to women’s bodies, health, and disease conditions. In a way it can be said that there is no way to avoid what Smith called distortion (1979), and distortion must be regarded in its period, i.e. in regard to its spirit. With the emergence of feminist ways of thinking in the late twentieth century, with a criticism of the powerful politics over women bodies, Hippocrates too was looked at from a feminist spirited point of view which seems plausible in the Hippocratic tradition of reinterpretation of Hippocrates.

The first point made by the feminist point of view is how the gynecological texts had since ancient times been paid little notice of, only recently becoming an object of academic interest. One of the reasons for this is the issue of authenticity of the texts. Hanson points out that in the Renaissance and in later centuries, Hippocrates’s authorship of the gynecological texts was questioned; cases were made against “the gynecological treatises as writings worthy of the great Hippocrates...gynecological treatises were (...) faulted for lacking the unified argumentation of *Airs, Waters and Places* or *Epidemics I-III*—treatises which earlier scholars often considered worthy of Hippocrates” (1991, p. 75). In other words, “putting a premium on Hippocratic authenticity, had a profound effect on the degree

of serious attention paid to the gynecology of the Corpus...essentially consigning them to oblivion” (Hanson, 1991, p. 75-6). Thus against this more philological point of view, Dean-Jones sees little merit in making too much of a distinction between genuine and non-genuine, as the texts (all from 350-425 BC) are sufficiently consistent among them (p.113).

Beyond the genuineness question, there is also a content problem. Hanson reports that even in late antiquity students were advised to read the gynecological treatises last of the Corpus, as they dealt with “feces, urine, and the like” (citing Stephanus Philosophus, Hanson, p. 75). We can wonder whether this desire to avoid the more frightening or earthy aspects of medicine would have been the same if those details had pertained to men rather than to women, but Hanson continues that this disposition is only finally losing favor recently: only now are these texts becoming more fully exploited academically, especially in regard to their philological analysis in France and in Germany (p. 76). Indeed, Hanson notes that “interest in the gynecological treatises of Greco-Roman antiquity is largely a phenomenon of the last ten to fifteen years” (1990, p. 311).

The feminist approach is, of course, generally marked by the objective of understanding a culture’s conception of women—her nature and her place. This is done by bringing the genders into comparative relation with another and finding one of the terms to operate in the sense of lower social status. Pomeroy (1975) reminds us of this in stark terms with statistics on female mortality, averaging several years younger than for men in the ancient period—when in most times and places, particularly the industrialized modern countries, this figure is reversed. At least Dean-Jones concludes that the Hippocratics considered the woman “a completely different creature and not simply a substandard man” (1991, p. 129), yet she concludes on a note of the ultimate cultural determinism of feminine inferiority that blinded classical science to traits as easily observable as that urine and menstrual blood were voided from separate exit points in the body (p. 126-7).

For example, Dean-Jones makes clear that the purpose of her 1991 essay is to show the inequality of genders from the point of view of Greek science, how the female’s features were evidence of her inferiority, and how this perspective tended to blind Greek scientists to anything that might contradict these assumptions (p. 113).

It is not difficult to find examples of practice that appear to show disregard for or disinterest in female realities. What we want to point out here is the issue of the

feminist literature's natural tendency to couple a kind of cultural interpretation to a variety of phenomena with the result of assessing the two genders differentiated status or valuation. Our attempt here, however, is to bracket the cultural judgment, "theoretically" setting aside the cultural point of view and see what the metaphors do as only observation tools for medical understanding. We may look at many similar processes, and take up many examples to study together with the recent literature, but taking care to focus on the Hippocratic practice itself without drawing conclusions about its consequences for social hierarchy.

4. 1. *Phusis*

While the observational practice of medicine marks Hippocratic doctoring, in the most obvious way, following our curiosity regarding how this is performed according to an epistemological point of view—the traits of a science being born—we noted many details that foregrounded different figures from nature as a stylistic tendency or habit of thought. Thus it is suitable here to have some idea of the background of this concept. As Kingsley pointed out, Hesiod and Homer used the word nature as the subject of all investigation in ancient science and thought. But here the word was used only in fragments and in a very general sense (Açık, 2008). But Hippocrates was the first among four major philosophers to use the term intensively, that is, more than 500 times (the others were Plato, Aristotle, and Galen), and as such could be called a popularization of the concept.

In Hippocrates the term is used in both senses: as the larger "Nature" that we may translate as environment, with an association of "holism" or ecological thinking, which is one of the main points of interest of this thesis. We argue that ecological thinking emerges from his observational style which tends to look at systems within their environments and in regard to analogies between human bodies and processes in Nature.

Hippocrates also uses *phusis* in a much more narrow sense, in the meaning of "the nature of" in English, for man and woman, for example—the nature of man, and of woman. He was not the first to do so; Winkler (1990) notes the use of *phusis* for describing the varied, individual characters of human beings as understood from behavior and appearance. Yet Açık's signaling an intensive Hippocratic dependence on the term leads us to think of a more systematic use of it in his thinking.

Thucydides is a historian who is a contemporary to Hippocrates, mentioned in the second chapter, who wrote the realistical account of the Peloponnesian war and the plague. Although it needs further investigation, Thucydides's dichotomous, almost polarized use of the terms *phusis* and *nomos* (Açık, 2008), can be viewed as a contrast to Hippocrates's usage, which sees *phusis* as less a term for an absolute, than a multi-purpose one. What is unique is Hippocrates's use of the term, beyond its frequency, is a continuous alternation between general and specific uses, encompassing Thucydides's political version, but in a sense unifying them. Therefore it may be argued that there is something changed with Hippocrates in the mid-5th century: with his unification of the general and specific uses of N/nature, he makes this into a more observable entity in the form of the human bodies he tends to. In so doing *phusis* becomes a kind of versatile analytical tool, as can be seen in many examples from the third chapter.

In Hippocrates the general sense of *phusis* is potentiality, a *dunamis*, and on the other hand, it is a kind of differentiation, or *eidōs*, as among men and women each having their own *phusis*. Aristotle brought a relatively precise scheme to describe gender difference, labeling it an *eidōs* difference (with "perishable" and "imperishable" aspects) as compared to the *genos* difference between people and animals, for example (Laurin, 2005, p. 43). This differentiation, which will be expanded on below, is reflected in each gendered *eidōs* having its own medical texts; the general medical texts for men and the gynecological corpus for women (Dean-Jones, 1994, p. 119).

We go further and argue that his differentiating use of *phusis*, the singular use, is not oppositional to but in accord and in a sense unified with the general use of the concept. In other words, the *eidōs* use of the word is in harmony with, in the sense that it is a part of, the general concept. This insight led us to language of the "ecological", at times "holistic" frame of reference or vision Hippocrates brings to medical practice. The part-whole relation and accord which unites the singular and general uses of *phusis*, can be considered in a rhetorical sense, perhaps a maneuver to orient people towards believing in Nature's tendency to heal. That is, on the micro level, a sick person is inclined to believe in a favorable outcome if she is convinced that the process she is undergoing is part of the larger working of Nature which tends, as Hippocrates teaches, to work on behalf of healing.

In for example, *Diseases IV*, 11.1 *phusis* is used as the general physical constitution manifesting the four humors, but this time with water in place of black bile, a topic we went into some detail on in the third chapter.

The originality of seeing the part in the whole in a non-dichotomous harmony is only part of the story. The Hippocratic inspiration in seeing the male-female realities as separate *phusis* in themselves has many consequences. For one thing, in doing this the Hippocratic tradition takes an early step away from the later Aristotelian concept of a subordinate woman typology whose physical traits, as Dean-Jones reminds us (1994, p. 59), are considered to be a smaller and inferior version of their counterparts in men. Although feminist commentators tend to focus on the cultural disadvantage of her separate *phusis*, it can still be said that Hippocrates' "freeing her" to be her own type (*eidos*) or *phusis* had one positive consequence of leading to a specialization in medicine entirely devoted to the female sex. There is another side-effect of this, that of making her visible in her physical reality for the first time.

G.E.R. Lloyd introduced ancient thinking through the use of polarities and analogies (1966). This way of organizing thought in language is also an integral part of medical understanding, as can be seen in many discussions above and below. For example, in the second chapter, *Ancient Medical Theories*, the notion of opposites curing opposites is discussed. The four humors theory may also be seen in terms of polarities and analogies. Health in this framework is seen as an *isonomia* or balance of the polarities within the humoral system influenced by nutrition and exercise—regimen in general. While the male-female polarity is also, of course, a theme in Hippocratic medical understanding, it is an area that extends beyond this thesis. Our goal here is to only foreground some of its salient functions and characteristics.

As it is said above, in contrast to earlier genesis myths and explanations which perceived the woman either as an *a posteriori*, "supplemental" creation or as created simultaneously but as an inferior version of the man, with Hippocrates the woman has become distinct from the man as a separate physiological system outside of any clear temporal or qualitative valuations. This is not an original discovery; the case is quite clear and many have noticed it before. The feminist literature tends to note the distinction among men and women as resulting in cultural constructs (Dean-Jones, 1994) of social status. Pomeroy (1975) calls the Hippocratics "not impartial scientists, but rather reflect[ing] the views about women, sexuality, and reproduction that are pervasive in other genres of ancient literature" (p. xi). She sees no essential

originality in the Hippocratic approach to women, arguing that the gynecological texts did little more than “reinforce traditional ideologies, primarily defining women as creatures who bleed and breed” (Pomeroy, 1975, p. xii). In recent scholarship the evidence for a critique of cultural assumptions in Hippocrates is located in the corpus’s reiterating a cultural system of differentiated social roles common to the ancient tradition. Dean-Jones provides a succinct formulation of how culture can overpower science—beyond merely influencing outcomes, it can take a leading role:

The cultural paradigm of masculinity and femininity had to be supported by demonstrating that typical male or female observable characteristics (...) were evidence of a more perfectly male or female invisible nature (*phusis*). Once the cultural archetype was shown to be grounded in nature, a man or woman who deviated from this norm could be viewed as aberrant—lacking in something essentially masc. or fem.—rather than as a challenge to what it was to be male or female, and the traditional polarization of the sexual roles could claim a scientific foundation. (Dean-Jones, 1994, p. 112).

What we seek to do here, however, is to set aside the cultural evaluation in examining the distinct traits of women in order to concentrate on the style of thinking and what it produces in terms of medical practice.

One example of the kind of difference which can hardly be viewed without a cultural interpretation is the plurality of the male humoral system, consisting in four humors, in contrast to the woman who is influenced by the sole humor water (albeit with the somewhat “uncanny” influence of the uterus, which we cannot fully explore here). In investigating the concept of manhood and its rules in ancient thinking, Winkler’s 1990 study of male physiognomy used the term *phusis* as the theoretical umbrella term used to understand how people fall into types: “The physiognomy is not a completely individualized nature—people fall into types—but it is the “unarguable substratum” that shapes each person’s character...” (p. 200) that can be understood from their physical appearance and behaviors, as noted above. In Winkler’s example of use of “the nature of people” in Aristotle (*Physiognomonics*, Trans. Barnes, 1984), one character gives a detailed description of the physical traits of a typical *kinaidos*, or beloved boy. Pythagoras was the first to write about the physiognomy of character types, as discussed in *Zaphyros*, a work by Socrates’s disciple, *Phaido*. Hippocrates took this use of *phusis* as distinguishing human types to another level in his use of *phusis* to designate distinct physiological systems

determined by gender: the male and the female *phuseis*—arrived at through observation.

Since the ancients understood that *phusis* acts in polarities and dichotomies and by means of the relation between them, having a priori designated the male in its *phusis* as the active element, then the female's *phusis* is necessarily structured as the complementary passive agent. Here, it can be also said that the theory of *urgatos* (that women are wetter than men), and that men were inclined to fire, is again a product of this way of thinking. The rest of these sections will be devoted largely to the consequences of conceiving the woman as having her own—not just place in society or culture—but her own physiological ecology, a separate biological system from that of the male.

The way that males and females are different in the Hippocratic thought—itsself not isolated from, in fact as many have noted, indeed a very part of the prevailing culture and science of its day—the particular way in which this difference is enunciated, and what this difference means as a function within a larger “ecology” that is both medical and social, will be the theme of this chapter.

4. 2. Hydor

As we see in the third chapter's many examples, the first element distinguishing female *phusis* from male is, where males have many constituent characteristics, females have one: the water humor. Dean-Jones (1994) starts with a reminder of the ideal of Hygeia (the goddess of health, her name meaning health) residing in the *isonomia* of constituent parts as a general rule, yet factors in the use of *hydrops/hydor* as a humor in place of black bile, in her key formulation. Here she notes that a first principle in Hippocratic medicine is the essential notion of correct amounts and balance among the constituent parts of the body, and that this principle is valid for both sexes. There follows the classic four humors scheme for males, and its application in medical understanding of the time which relies on adjustments to relative levels within the body: “Most often in the treatises men are characterized by a tendency towards a bilious, phlegmatic, dry, or humid constitution (. . .) but can maintain the various substances in a harmonious balance by modifying their lifestyle according to body type and time of year” (p. 120).

Then, from this general description of health and disease with its varied physiological states and solutions to these states which depend on a plurality of component substances Dean-Jones will mark off the woman: in contrast to the man, she is characterized by her watery nature alone. For this a passage from Dean-Jones is worth citing at length:

As human beings, women contain as many components as men, yet unlike men, they are not classified under varying types of constitution in the general medicine. Time and time again throughout the Hippocratic treatises they are assimilated generally into the humid category. (. . .) *Regimen* II prescribes different regimes for men of different physical builds, saying that those of a fleshy, soft, and red physique should adopt a dry regime for the greater part of the year, ‘for the *phusis* of these types of people is moist.’ Women are treated *en masse* as being of this same physical type: Women do best on a drier diet as dry foods are more suited to the softness of their flesh, and less diluted drinks are better for the womb and for pregnancy’ (Dean-Jones, 1994, p. 120-121).

Here we seem to have a polarity of singularity and complexity, with all its predictable cultural valuations, complexity suggesting a kind of higher intelligence of the male body. Or so it seems at first glance, until the very versatile metaphor of moisture and the many modes and qualities of water are traced in the primary literature and commentary on it, which is one of our aims in this thesis.

Dean-Jones pinpoints in *Air, Water, Places* 10 how this understanding of the feminine typology can be pushed to extremes, excluding all other explanations: “When women suffer from an illness caused by another humour in men, they are still said to suffer because of their humidity” (Dean-Jones, 1994, p. 121). That the fluid aspect of her nature is a disadvantage in a culture valuing the hard and dry qualities as physiology and as figure of thought, there can be no doubt; Carson (1990) speaks of how this can make women unreliable, prone to “liquefying assaults upon her mind and body” (p. 138), and points to a “connection between wantonness and wetness” (p. 139). So far, women’s essential nature even as adopted from the tradition and maintained in Hippocrates seems to prepare a problematic place for her in society. Yet it is worth following the consequences of this approach to women within the larger philosophical project of communal betterment or maintenance of the social order that is the larger Hippocratic ideal within what Patterson has called a warrior culture that is inevitably male-centered (1991).

Carson reminds us that the moisture and dryness opposition in ancient thought is a well-used figure from Homer forward. On dryness, Heraclitus has said, “A dry soul is wisest and best” (B 118 VS, Carson, 1990, p. 137), Diogenes of Apollonia proposed in the 5th century that the conscious element in men consisted of air, and that an individual’s intelligence depended on the dryness of this air: “Understanding is the work of the pure and dry air. For moisture hinders intelligence, wherefore in sleep and in drunkenness and in surfeit understanding is diminished” (A 19 VS). Aristophanes wrote of the need for man to “dry his mind” if he wants to “say anything smart” (Eq. 95-96) (Carson, p. 138).

If women’s essence is watery, we need to know some detail on how this trait manifests itself, how is it understood in within the feminine physiology. The gynecological corpus and recent interest in it presents the elements of a physiognomy; what is challenging is to order any description from this material in a way that makes sense without unjustly prioritizing some elements over others or construing priority through their ordering in the narrative. It seems logical to present the container before the contained; the flesh before its wet content.

The quality of the flesh or constitution of the female in comparison to the male is a matter of primary importance in relation to its watery nature. Yet this aspect cannot be understood except through the striking notion of *καταρραγή*, or the “breaking down” of the tissue of the female first to a limited extent at puberty with the onset of menses, then more completely when she first gives birth.

In *Diseases of Women*, with *καταρραγή*, all the “vessels” or passages within the body are opened so that her flesh takes on its typical “porous” or spongy quality. This “breaking down” of the woman’s body permits discharges and all other fluids to flow more easily, for example in menstruation. Such breaking down is both a cause and a result of the ultimately sparser texture of women compared to that of men: that is, the looser, less compact texture both makes *καταρραγή* possible; and with *καταρραγή* that looser texture takes its final form as more porous and absorbent body tissue.

In ancient Greek language and practice the “vessel” not only means the passages for blood in the body, but also a network of conduits for the collection, circulation and excretion of numerous substances—airs, water, food, humors, semen, etc. There are also smaller vessels which are called *φλέβιον* which are also structured

as important parts of the communication within the body (Potter (tr); Hp. Nat. Bon. 9).

Following a perhaps more local or limited *καταρραγή* with puberty and the start of menstruation, the first pregnancy and birth constitute the most marked and dramatic “breaking down.” Yet Hanson notes that each pregnancy breaks down the vessels further, increasing the overall “sponginess” of the woman and thus her capability for managing her generally moist nature, the “mature woman’s surplus fluidity” (Hanson, 1990, p. 86). Dean-Jones cites an analogy Hippocrates uses to describe this difference between male and female flesh, that of wool and regular cloth: over time, wool absorbs more moisture than its same weight in cloth, as it is more porous (*araia*). “A woman’s spongy, porous flesh is like wool and soaks up more moisture from her belly than a man’s from his” (Mul.). So it is in perhaps first establishing a constitution or tissue or flesh type as spongy and porous that creates the possibility of an overall watery nature in providing that extra moisture of women a hospitable environment in which to reside. With maturity she appears to become so waterlogged that, as Pausanias relates, virgins may swim into deep water without danger while a married woman may drown (10. 19.2; Sissa 1990, 346)!

Also, from this essential watery nature or condition, a number of explanatory schemas emerge. *Diseases of Women* 1. 2 attributes menstruation to the nature of a woman’s flesh, which at puberty when the process of loosening of the tissue begins, this causes her body to soak up excess blood from her stomach where it has been converted from the food she has consumed” (Dean-Jones). Thus while her very flesh absorbs more moisture than does the man’s, this is balanced by monthly excretion of this extra moisture in the form of blood, one factor for the *isonomia* of the female constitution.

Here the uterus’s role in the regulation of spongy tissue and fluid management is part of the story; yet this is a complex organ and figure in itself, difficult to summarize, deserving its own discussion. It can at least be said that on the one hand, debates continue regarding whether or the degree to which the Hippocratic model persists in conceiving of the womb as “a separate animal within the woman,” as Plato famously put it. On the other hand, it seems less controversial, given the general picture of social and married life that “without the intervention of a man (husband or doctor), (the uterus) is in danger of subjugating the woman’s own life force” (*psyche*) (Dean-Jones, 1994, pp. 122-3). We will go into more detail on the critical

intervention of the male in bringing the woman into the order of the domicile and the society, in a later section.

Having briefly reviewed some of the physiological explanation of women's wateriness, now we turn to its more theoretical characteristics. We mentioned above the theme of valuations of moisture and dryness in classical thought and the association of dryness with a generally higher order of existence. We also mentioned that it was associated with masculinity or manifested, if and when it did so, in masculine form; while moisture was associated with that of a feminized, lower order of being. Yet there is more to say about water beyond this simplified view. We are calling the theory of *urgatos* the considerable body of thought concerned with this element's association with the female sex.

In a section entitled *Women Leak*, which is a kind of summon on the topic, Carson (1990) argues that which is "not bounded by any boundary of its own but can readily be bounded"—an observation that already has ramifications for an understanding of feminine nature (p. 153). Carson dwells on this understanding and the "image of woman as a formless content which is expressed explicitly in the philosophers. Plato compares the matter of creation to a mother, in his *Timaios*, for it is "receptacle," which is "shapeless", "viewless", "all-receiving" and which "takes its form and activation from whatever shapes enter it" (50b; Carson, 1990, pp. 153-4). Carson sees this as part of a larger tradition, present in myth, for example, where

Woman's boundaries are pliant, porous, mutable. Her power to control them is inadequate, her concern for them unreliable. Deformation attends her. She swells, she shrinks, she leaks, she is penetrated, she suffers metamorphoses. The woman of mythology regularly lost their form in monstrosity (1990, p. 155)

Among these, Carson mentions Io, Kallisto, Medusa, the Amazons, and such (1990, p. 155). In an extension of this theme of unreliable guards of theirs or other's boundaries or form, women in mythology are also "notorious adopters of the forms and boundaries of others. They are repeatedly open containers which are told not to open (...) and destroy something placed in a container in their keeping (...). They prove unreliable as containers themselves" (p. 155).

This general viewpoint is not just a mythological theme, says Carson, but is reflected broadly across the society in philosophy, law, poetry and social and religious rites and mores:

Women are formless creatures who cannot or will not or do not maintain their own boundaries and who are awfully adept at confounding the boundaries of others. When we begin to search for the aetiology of this conception we encounter deep and abiding distrust of “the wet” in virtue of its ability to transform and deform (1990, p. 155-6).

This, then, is the grounds for the widespread fear of women’s tendency to “let herself go”—Aristotle 8A 572a 30-b4 explains that as with female animals, “once initiated, women revel in sex and do not wish to stop. Being innately moist, they do not *need* to stop. Having no *sophrosyne* they do not *think* to stop” (Carson, 1990, p. 143). Thus, in a direct linkage, her unboundedness is “encouraged by her wet nature and by the liquid or liquefying nature of emotions and appetites themselves” (p. 156). The logic is consistent, seemingly proven again and again in all spheres and thus compelling, especially if backed by medical science claiming a physiological basis as well to these insights. What if she really is largely *water*?

Since we cannot get into the brains or hearts of ancient Athenians we have to make do with educated guesses. The least we can say is that to the extent these ideas were operational, then obviously “since woman does not bound herself, she must be *bounded*” (emphasis Carson’s, p. 157). And since the boundary problem does not appear until she becomes fully watery with *καταρῶαγή* and/or maturity (“initiation”), the quintessential boundary for the mature ancient woman was the marriage domicile. Carson:

Men are habitually leaving the house to confront the outdoors in war, commerce, political life, friendship, the fields, the sea, the *agora*. Man is made for work outside in the open air, and women for things within (. . .) A good woman does not exceed the boundary of her *oikos* (p. 156).

As the *oikos* is the topic of our next discussion there is no need to go further here; yet it would not do to leave the impression that ancient thought places immutable strictures upon people in terms of their natures as described above. Just as health for both sexes had to do with a balance of constituent materials which were

capable of going in and out of balance, so too the sexual personality or gender was seen to be a matter open to “adjustment” by environmental influences. While *regimen* was the medical answer to physiological materials imbalances, there are times when specific conditions bring about an imbalance in gender identity, whether desired or not. The example most frequently given is that of the Scythians mentioned in the Introduction chapter; this is an example of a lifestyle, that of a nomad people, whose men, by virtue of their migratory way of life, assume the work of women and gradually some of their physical traits (Hp. Aer.). Here, Hippocrates argues that men who behave like women will in time become more feminine—that their bodies will become moister and spongier, though they not reach the point of being able to menstruate. Yet, Dean-Jones explains, since becoming feminized is clearly within the capacity of men, yet few wish to do so since they simply lack the most important capacity, that is, to reproduce (1994, p. 59). Women, for their part, if very physically active will cease to menstruate and, according to Soranos, take on masculine traits as they age (Gyn 1. 22-3).

Thus we face a paradox; that while women’s wetness was considered in so many ways as problematic for family and community, given the possibility of at least partial de- and re-sexualization as the other gender present in human nature, the fact that women are not advised to fundamentally change their wet natures but rather to keep the moisture factor in balance implies an ultimately positive valuation of this, their essential nature. Additionally, perhaps the discussion above gives us a way of understanding the otherwise curious aspect of Hippocratic gynecology in its focusing uniquely on the reproductive function. This focus makes more sense if it is with menstruation and giving birth that, through the action of *καταρραγή* she “breaks down” into the sponginess that is her ultimate true nature and body type.

Metaphorically, *καταρραγή* can also be part of understanding the place of women in the society; the virgin was considered to be “conquered” by means of and in the context of the fact of her child bearing property. In this way she is brought into the boundary-setting context of the family and considered to be the environment most conducive to both her good health and social propriety.

4. 3. *Oiko*-logy

The unfailing moisture and sexual drive of women are part of a larger

pattern, part of a larger harmony between women and the elements of nature in general. United by a vital liquidity with the elemental world, woman is able to tap the unexhaustable reservoir of nature's procreative power" (Carson, 1990, p. 143).

As anywhere, for Ancient Greek culture as well, marriage and the founding of the domestic residence was a multi-purpose affair—as Patterson (1991) puts it,

a composite process leading to or having as its goal the establishment of a new household or *oikos*, with the eventual production of children, introduction of children into appropriate civic and religious groups, marriage of children—and eventually the replacement of parents by children in new *oikoi* of their own (p. 60)

For our purposes, the reproductive woman with her moist nature is the point of departure. Thus we will look for evidence of how that woman comes into view in the Hippocratics in regard to her place as reproductive function in the *oikos*, a microcosm of her place in a larger “*oiko-logos*” or human ecology.

Prior to marriage, and the *ergon aphrodisias* (labor of reproductive sex and childbearing), the virgin is “part of the wildness, an untamed animal who given a choice prefers the wild life of Artemis, roaming the woods undomesticated and unloving of men” (Carson, 1990, p. 144). Her days are filled with play. The wedding ceremony triggers a “transition from her “wild” days of play to the civilized work of married life” (Carson, 1990, p. 151). Carson reminds us of the touching ceremony of young brides-to-be leaving the toys of their childhood to Artemis on the day before marriage (1990, p. 151).

Thus from a male-centered warrior cultural perspective, as discussed in Patterson, the unmarried woman is the “undomesticated,” the somewhat wild and unmanageable entity until she comes into the groom's house with marriage, “whose purpose was a productive and reproductive *koinonia*” (1991, p.61). It is only then when she is subject to intervention by the male (Hanson, 1991, p. 87), via the *ergon aphrodisias* of reproductive sexuality that she is transformed into a functioning member of the *oikos*, the domestic ecology, and by extension, of the larger

community or human ecology. Seeing the micro and macro orders as ecologies, in some sense, biological systems, allows us to do this: to observe the integration of the reproductive function within a larger whole without judging it according to winners and losers. There could have been some indifference to this question, and more attention to securing and maintaining order, in a precarious “warrior culture” which we assume to be under some level of constant military threat.

So here we focus on what Carson somewhat disparagingly calls “putting her in her place” (1990), that is, the assimilation of the women through bestial raw nature accompanied by an intervention of the male¹⁶⁹—Halperin calls it the “application of the male pharmacy [by which she] becomes at once orderly and fruitful” (1990, p. 283)—in a word, shaping her as noted above. From a Hippocratic point of view, in this process of maturation, she comes to partake of *ta gynaikeia*, those “things of women” which make her what she is as physical reality and as the knowledge about that reality. For Carson, this process is summarized in the Greek understanding of marriage, by which the man comes to control “the wild *eros* of women and so impose civilized order on the chaos of nature” (1990, p.143). And the successful shaping of the female matter results in a transformation of the bestial in the marriage bed to the conjugal union with its reproductive purpose recovered from chaos and brought into the order of the household and the larger community.

For the woman, then, the dividing line represented by marriage is dramatic and transformative. Carson paints it in harsh terms: “[A] woman’s life has no prime, but rather a season of unripe virginity followed by a season of overripe maturity, with the single occasion of defloration as the dividing line” (p. 144). To be fair, since the sudden over ripeness corresponds with the initiation of her dangerous childbearing years, it could be a reference to that very precariousness of women’s lives as reproducers.

Once the women had been brought into the *oikos* life, the domestic arrangement, that *oikos* can now function as a well ordered part of the larger community or social

¹⁶⁹ This critical moment which subordinates bestial to domestic sexuality (*ergon*) is accomplished through a function of education. The trope of education through and in sexuality is of great importance perhaps universally, often of men by women: Gilgamesh, Daphne and Chloe, Adam and Eve, Diotima & Socrates (Symposium). *Aphrodisia* in Foucault’s *Cinselliğin Tarihi- v.1* (2010), maybe for all the dynamics including the desire, desirability, and pleasure are strongly expressed in the *aphrodisia* (p.150). In this sense in the Hippocratic text, it can be said that there aren’t different concepts for women and men *aphrodisias*.

ecology. This is where the Hippocratic understanding of the female as uniquely the reproductive body may be grasped—in its importance for the harmony of the communal whole. In *Aers phusis* of various societies were described, like the Scythian race; his general approach is to look the environments of different societies. These include the specific conditions of airs, winds, rains, soils and such and their influence on these societies and on the individuals in them. Similarly, there are many examples in the case histories of Hippocrates noting environmental factors that influence disease and health. This holistic/ecological approach of Hippocrates is a kind of concern for the larger of community which has as its basic goal the betterment, or the maintenance of the good order of the society (the Greeks in his case). His emphasis on the reproductive side of women suggests a holistic understanding, given its importance for integration into the *oikos* and from there to the larger community. Therefore the main goal of female *phusis* is also in accord with the general goal of the maintenance of the society.

4. 4. Observation

In this section the observational practice of Hippocrates in his ecological approach will be focused. To do this let us first propose a trajectory for approaching the object, or rather, how the object of medicine comes into the arena of medicine. What can be called the “journey to the doctor” begins with feeling of an illness; there are few doctors wandering around the town in ancient days, and one would be lucky if s/he meets one of them who may have some knowledge of illness. Edelstein described how in the ancient Greek city the doctors were doing business, earning a living by practicing in this itinerate fashion. He explained that anyone can be doctor, if he is calling himself so. In the text *Ancient Medicine* it was said that the doctor’s way is the only way to gain knowledge over *phusis*, since it is dependent on observation (Pris. Med.). As discussed in the second chapter we know from Herodotus that the sick Babylonian became an object of observation by walking into the public square, to become visible in the market place. Here, in the absence of doctors in Babylonia in that era, the sick person only hopes to encounter someone with experience of the illness from which s/he is suffering. While this may seem a primitive approach to healing, it does have the characteristic of transparency and (in the best case) collective participation in the process of diagnosis and cure. Herodotus

also described how the Egyptians, for their part, similarly went out to seek out a practitioner for their particular illness that they were suffering from. The healer in this case is a temple functionary specialized in some aspect of medicine, in contrast to Ancient Greek “temple” medicine, in which the aspect of expertise or specialization cannot be confirmed one way or the other, at least not according to Herodotus. So in the one case, the ill body is exposed to the public in the square or marketplace, while in the other case, the ill are observed by specialists but concealed, untransparently, behind temple walls.

In comparison to the Babylonian model of having recourse to others with experience of an illness in the public square in the absence of the physician, and the Egyptian model of specialized doctors whose healing eye and/or hand remains out of sight, the Hippocratic model (*met/hodos*) may be seen as taking elements of both in its emphasis on the importance of visibility together with a notion of the physician as profession.

Smith (1979) used *hodos* to speak of the Hippocratic tradition as a practice itself, a straight road which every good philosopher and physician seeks to walk but whose end is never reached since it has no end except with the end of life itself. With the idea that Hippocrates shows in his texts what he sees, the object of his seeing, the women, becomes synonymous with Smith’s *hodos*. *Hodos* implies process, trajectory, along an event or series of sub events strung together over time. Hippocratic practice of accumulative experience in the act of observation is thus also trajectory, a voyage on a road that has no end. It is in this sense of infinity that the women’s body as the object of the practice joins nature in its fundamental formlessness and lack of clear boundaries.

Access to an insight of this infinite nature is never an immediate event but requires a graduated approach drawing on and comparing similar intellectual undertakings along the way. Having traced the trajectory of the object of medicine, we now turn into the subject of medical practice that is the practitioner.

King’s vocabulary of the subject of practice is consistently ‘the doctor’, or *iatros*. It is not surprising since her teacher, Edelstein, used the same language. But *iatros* thought in the epistemological dichotomy between the object and the subject is not descriptive in the sense that it denotes a profession and does not specify the doctor openly as the agent of observation. Majno’s “healing hand” figure is useful since it points to the function of repetitive and cumulated expertise (1975). Here,

what matters in ancient practice is the touch of the hand of the doctor who accumulates experience through direct involvement with patients.

While different things maybe said in relation to King's *iatros* and Majno's healing hand as the subjects of Hippocratic practice, we prefer the figure of the observing eye which will evolve into the scrutinizing gaze of advanced scientific observation much later to be honored with the term empirical. Yet Hippocrates's eye, while characterized by many as in some sense "rational" (Longrigg, 1998) for his day, was actually more of a holistic observational function and practice, one that sought the dynamics of the illness by looking at the ill person as a whole within her context or environment.

As it is asserted above, our effort is to leave for now the one side that judgment activity and only see how the practices functioned as bringing the women onto the scene of observation within a holistic frame of thought that allows him to proceed to an open and a inclusive look or understanding of medical knowledge which draws on three separate sources, the natural metaphors of his ecological observational style, the folk medicine which is the accumulated medical knowledge about women (*ta gynaikeia*), and the knowledge, as we discuss below, of particularly experienced contemporary women.

For King, in contrast to the modern medical understanding of "a pill for every ill," Hippocratic care encompassed more than just the illness, but the entire patient—as body, but including its psychology. That means the doctor carefully investigates the patient, especially the patient's life style, what s/he eats usually, if s/he exercises, sleeps well, even the personality features and emotional state of the patient were considered by the doctor; for finding the proper treatment is in direct relationship with this or that distinct individual.

As said above, it is believed that the life style of the patient played a role both in the condition of health and in the treatment proper for the patient. In other words there is no pill for every ill, but a proper treatment for every single patient and his/her every condition of disease. This practice needs observation of the day by day evolving story of the patient. Every day, every hour maybe she must be observed and the findings must be recorded, so that the knowledge can be passed on to others. This explanation is the other side of the coin of observation: it is this which serves to pass the knowledge on to the others in accordance with the *Hippocratic Oath*.

Yet the case history is never more than a short series of snapshots of an organism during a brief segment in time, an organism whose existence extends forward and backward beyond discernible limit, whose illness is conditioned by an unquantifiable multiplicity of causes. It is in this sense that the observed body becomes the unending *hodos* Smith spoke of, the never ending journey of knowledge accumulation through observation.

The infinity analogy of women considered as boundless and limitless like water is the *hodos* which the Hippocratic doctor walks, where he can only accumulate the knowledge of his life span. And these are what we find in the textual production of Hippocrates that we call *ta gynaikeia*. A note on terminology and the historical evolution of *ta gyneceia*: Medical writers call “therapies for the care of women” in general *ta gynaikeia*, while Gynecaia with a capital gamma signifies the Hippocratic genre, the “vast catalogue of uterogenic sufferings, rational (or irrational) explanations, and therapies to alleviate female conditions.”¹⁷⁰ Hanson describes this:

Aline Rouselle has received a pre-Hippocratic and oral medical tradition, visible behind the gynecology of the corpus like Lloyd has emphasizes the ongoing dialogue between folk medical traditions and the professional physicians of gynecology in Rome (Rufus and Soranus, the roman gynecologists) (Hanson, 1991, p.78).

Thus the knowledge of the women flows in a free circulation of ideas and recipes that goes back and forth between folk and medical traditions. The folk recipes that made their way into the corpus were called *ta gynaikeia* since they were the concern to women both as patients and as practitioners (Hanson, 1991, p. 78). Therefore the Hippocratean therapies were “an encapsulation of earlier folk medical theory and practice” (Hanson, 1991, p. 78).

Ta gynaikeia is a widely used term and is open to different interpretations which are likely be trivialized as “the women’s tradition” and “what women say to each other” (Hanson, 1991, p. 309) However Hanson’s point in her three case histories was that the Hippocrates’ relation to the folk tradition is complex and

¹⁷⁰ Yet this genre has its periods beginning with the midst of 5th century down to the first decades of the 4th century is the period for the anonymous Hippocratic *Gynaikeia*, followed by the *Gynaikeia* of Soranos from the end of the first century (Hanson, 1991, p. 311).

cannot be reduced to one methodology¹⁷¹. In one case Hippocratic medicine had consciously sought to break away from “the amateurism of the traditional remedies” (p. 95). In another his gynecology “fostered more mechanical therapeutic and theoretical approaches” (p. 96). In the third case studies she found that Hippocratic practice remained entirely subordinate, in effect repeating the same errors as those of the folk tradition (pp. 95-96). However for Hanson, and for us, the Hippocratic effort “consisted in equipping these remedies for women with a medical sophistication (observation, excellence) that offered a more coherent female anatomy, physiology, and etiology for female diseases (resulting) in a evolution of a new medical genre, the gynecological treatise” (p. 96).

Knowledge of the women of both past folk and observational recording and explaining these through the healing powers of nature was the novelty of this period. Historically this can be seen as a turning point which occurred in the middle of the fifth century unveiling the knowledge handed down in oral tradition and making visible to mankind that which had earlier been visible to only a specific group, in this case women.

Looking at women together with *ta gynaikeia* as a system that worked together, Hippocrates did not separate women from the knowledge about them: as the idea “that which is of women” implies, he was medically interested in this knowledge even while observing their bodies in great detail. Similarly the Hippocratic eye is part of a larger tradition, and takes part in a larger context of knowledge/practice that according to the oath is sworn to practice healing and to do no harm, while also ensuring the continuity of the healing function or experience. Thus since explanation is the other side of the coin, the completion, in a sense, of observation, the ancient culture of doctoring with its direct connection to rhetoric and philosophy is also

¹⁷¹ The issue of the extent to which Hippocrates as the son of a priest of Asclepius continued to use what we called temple medicine needs further investigation. The similarities between the Hippocratic use of temple medicine and folk medicine which both belong to a period/tradition before him, is noteworthy in which both the knowledge of the folk, and the knowledge of the temple was inherent in his way of thinking. As Lloyd references the Hippocratic text *On Dreams*, there were many ingredients in the Hippocratic medicine which can be labeled as temple; and the interrelations between magic, reason and experience of the medical practices of Hippocratic period is intimate being very complex. Therefore in the issue of women diseases, and the knowledge about women, it is not a coincidence that Hippocratic medicine was again hand in hand with folklore and the knowledge of the temple. The Hippocratic eye works in the larger traditions of both folklore and temples.

inherent in the approach, since healing is greatly enhanced and supported by expectations created in the sick by explanations.

As Greeks did not dissect the human body, they could have no idea of how the organs were placed. Dean-Jones argues that their lack of knowledge of hormones and genes meant that they had to rely more on the external characteristics of the sick (1991, p. 112). Explanation in Hippocratic medicine implies a certain understanding of nature in its inclination and power to heal. Through the belief in nature and its healing powers the Hippocratean doctor oriented the sick through explanation and beyond these, through the texts, to later readers within the larger context of a concern for the maintenance of health.

It is not surprising that part of this practice would involve the psychological state of the patient and assume a connection between the mind and body simply put. This would account for the fact that in Hippocratic practice one can observe several mechanisms for reaching/influencing the mental state of the sick person in order to orient it towards healing. One of these mechanisms is the rhetorical aspect of explanation, which is the complement of observation, and serves to create expectation of eventual health in the sick person. This part of the Hippocratic explanation is always conveying/reinforcing the belief that nature works to heal. In addition there was the use of figures or theories such as the “critical days” and “perfect crises,” where cyclical processes or the energy or tension accumulation followed by release occurs as a natural, recurrent mechanism in all organisms, resulting in change that, if the general law of healing nature occurs, shall be restorative. As a third mechanism, this time for reinforcing suggestion, a topic of some debate can be given which is the use of odor therapy.

Whether the Hippocratic perception of the uterus was as an animal within the body cavity as later described by Plato is debated in the recent literature. Here Hippocrates’s use of odors to attract or repel a uterus back into proper position assumes that organ’s animal-like ability to perceive odor. Yet perhaps the use of odors has purposes as well. We may see it as a reinforcing effect to the power of suggestion, as a way of bringing a larger part of the sensing body into the process of healing through expectation creation. Similar to awakening positive expectation through mental suggestion in the critical days theory or perfect crises figures, odor could be applied for a dramatic sense of experience, of “shocking” the system and

thus be of use in reinforcing the creation of positive expectations much more memorably on the affective plane than mere oral explanation.

Another mechanism of orienting the sick toward health as well as of integrating all possible sources of possible knowledge into the practice included bringing in all inherited medical knowledge from the past may have also included elements of the temple tradition. We can think that there was some level of belief in this in the popular mind and Hippocrates may have used it to some extent if only drawing on its popular prestige. Other than the use of all inherited knowledge, of folklore and temple traditions, and rhetorical explanation/observation, Hippocrates used a third source of knowledge in orientating the sick toward health, which is the knowledge of contemporary “experienced women” (Hanson, 1991) who happened to have life experience of themselves or had witnessed other women. The interesting thing about this was in typical ecological Hippocratic approach, the knowledge from this source depended entirely upon the experience of the person having nothing to do with their role in society; she could be a prostitute, a midwife, or simply a caregiver, but her role as a bedside assistant depended solely on her demonstrating experience in women’s illness and health.

It is the various aspects of holistic thinking, the ecological way of looking at medicine that allows us to foreground to the observational aspect of his practice leading to the emergence of gynecology in history. We see this not only in his practice but also in his non-exclusive approach to knowledge which welcomed all the inherited wisdom of the past however “humble” in addition to the individual experiences of women currently alive with special life experience. Brought together with his many case histories, we argue that this inclusive, synthetic approach led to a kind of *arête*, an excellence, as a professional agent assisting the powers of nature for the orientation of the patient toward her own betterment.

Although Pomeroy says the Hippocratics are “not impartial scientists, but rather reflect the views about women, sexuality, and reproduction that are pervasive in other genres of ancient literature” (1975, xi), seeing no essential originality or unique approach to women—that the gynecological texts actually did little more than “reinforce traditional ideologies, primarily defining women as creatures who bleed and breed” (xii)—we see that the novelty in the Hippocratics was the holistic gaze of the observer, recording every detail while professionalizing through *arête*. For us, like Hanson, the Hippocratic effort “consisted in equipping these remedies for

women with a medical sophistication (observation, excellence) that offered a more coherent female anatomy, physiology, and etiology for female diseases (resulting) in a evolution of a new medical genre, the gynecological treatise” (Hanson, 1991, p. 96), with an eye partaking in a larger tradition, orienting the sick to benefit from it while doing no harm.

CHAPTER 5

CONCLUSION

The case histories of women in the Hippocratic corpus plant the seed for a new vision of medicine which makes the woman visible and readable as a first step toward the emergence of her own branch of medicine. While the novelty in Hippocrates's observationist method has been noticed since ancient times, its consequences for a new visibility of women has not been particularly stressed in the literature. Hippocrates himself gave hints of recognizing the uniqueness of his object in his assertion in *On the Diseases of Women* chapter 62 that women's diseases are different than men's in two ways; one, in the need for the *illness to be noticed and mentioned without waiting*; and two, in the need for *accurate questioning regarding causes* (emphasis mine). This particularism attributed to medicine for women highlights yet further the main consequence of the Hippocratic observational method which, we have argued, unveils what was previously hidden about their physical realities, thus opening the way to a specialization within the larger science of medicine.

King (1998) and others have identified and critiqued an anti-feminine attitude in Hippocratic tradition in its tendency to view women's diseases almost entirely in relation to their gynecological selves—women fall ill primarily because of problems related to their womanhood or reproductivity. For example in *Diseases of Women I* we are told that men and women have different kinds of diseases, where women's diseases are related primarily to menstruation and pregnancy. The other core gynecological books *Diseases of Women I-III* and *On the Nature of Women* also focus mostly on these. If there is a bias on behalf of specifically gynecological traits and functions in the women's medical cases, the historical consequence of her physical reality becoming more visible cannot be overlooked. If the outcome of the practice has not been emphasized in the related literature, then the line of research here may be considered as a departure from the mainstream understanding of women in science and, to some extent, in history.

Examination of the cases showed that the observational practice operates in conjunction with two interconnected principles. This is the first and most important conclusion of this study. The water principle manifests in various guises from the moisture level issue in specific physical conditions to water as humor, a novelty in Hippocrates. The next and in a sense more general, umbrella principle is that of *phusis* (N/nature) or environment as an ethical and explanatory tool: ethical in the notion that doctoring should intervene as little as possible and seek no more than to assist Nature in her healing work, thus reducing the possibility of human error and or any human purpose outside the well-being of the patient. Nature's explanatory power, on the other hand, consists in processes detected in the natural environment that may have analogous pathways in human physiology. An exhaustive account of nature or Nature in Hippocrates is beyond the scope of the study here; we are primarily concerned here with practical and conceptual ways in which nature or the environmental serve in descriptions of women's health and disease. One of these has to do with looking holistically at the person beyond the illness alone, to grasp the widest possible range of influencing factors, as an organism within an environment—mental, emotional, nutritional, genetic, climactic, lifestyle-based, etc. Another of these ways is illustrated by moisture or water (*hydor*) as an element that pervades and defines the reality of the female as particular physiology within the context of only her reproductivity and related bodily functions.

Hippocrates may be called unoriginal to the extent that he makes no overt comment on the culturally determined understanding of the reproductive female in Athenian society. Yet when we view that society as the larger human ecology into which all components must find their most suitable place if survival of that system is the goal, then it was for Hippocrates to understand what he must do as physician to ensure its smooth continuity. Thus ecological (*oiko*-logical) aspect of Hippocratic gynecology is the second conclusion of this study, for reasons discussed in the analytical chapter (chapter four), the reproductive female is the main object of anxiety until safely integrated into her married life, the component of the system most in need of management. It is not surprising that in such a system the physician's attention be focused on her reproductive success or failure.

A general illustration of the role of nature or environment as guiding outcomes in place of divine explanations may be found in competing accounts of infertility

among the Scythians. In Herodotus, this nomadic group is described as having been punished with infertility by the goddess Venus after they destroyed one of her temples. In Hippocrates's *Airs, Waters, and Places* we are told that the rise in infertility of the Scythian race may be due to excessive horseback riding among the youth, and then the fatness of their women, who spend much of their lives after marriage riding in the wagons essential to their migratory way of life. The fatness of the womb, as can be seen in *On the Diseases of Women III* (also called the *Sterile Women*), prevents fertility, since it was argued that the mouth of the womb can be closed by the excessive fat within it. Lower fertility rates among the overweight of both sexes has been reconfirmed in modern medicine;¹⁷² the important thing here is Hippocrates's seeking, and finding, an environmental (ecological) explanation in place of supernatural ones.

Perhaps in reaction to the arbitrary interventions of priests, gods and healers of the "temple" medicine that had prevailed up to his time, Hippocratic practice includes a subtle ethics in regard to the notion of intervention. As a third conclusion such ethics is viewed under the concept of *arête* (excellence). Here, Nature is considered as the healer reflecting a kind of dynamism (*dunamis*) within it; the doctor can only be Her assistant. This attitude has been canonized in the first Hippocratic vow to do no harm. Often, this means refusing to perform any intervention, as in the case of Gorgias's wife (Hipp. Epid. 6.1), for whom the abortion of one of two twins (a result of superfetation) was performed, following which the women received no further treatment for fourteen days, when she aborted the other dead child through "natural means" (*phusis*).

It may be that the wariness of intervention itself may have fostered a professionalizing attitude that supported the emergence of the specialized branch of medicine for women. As an example of this logic, in *On the Disease of Women III*, Hippocrates advises against the practice of cutting tumors from the womb as this is dangerous for the patient; any doctor doing so must be particularly knowledgeable of the practice—inexperienced hands should refrain from being involved here. Thus the doctor avoids any accident that may be tied to his own incompetence, and this is a habit of behavior in healing that we argue seeks the expression of *arête*, or

¹⁷² <http://www.nih.gov/news/pr/aug2006/niehs-31.htm>

excellence in the medical profession.

The view of a mostly healing, restorative *phusis* is thus understood as the more effective agent than the physician. Alongside *phusis* the proper attitude of the physician is that of supportive or cooperative but at the same time exercising great caution regarding any human intervention that is not highly knowledgeable. If a refusal to intervene means leaving decisions to nature, the light hand of the Hippocratic physician finds an ideational reflection the relationship of mutual influence among realms such as the physical and emotional, the internal and the environmental. It is the resulting whole that we are calling an ecological strain in the Hippocratic approach. One example of this is various forms of “orienting” the sick toward healing but appealing to the reasoning and emotional human at once. This occurs in many forms, but often with suggestions of processes in Nature that tend to result in positive outcomes that may also be discerned in the human body. Among these are the cyclical nature of life processes mirrored in the “critical days” concept, and the motif of building tension that inevitably leads to local release (“perfect crisis”), thus easing or restoring balance to the organism as a whole.

It is intriguing that the word nature (*phusis*) is also used to describe both menstruation and pregnancy in Hippocratic writings, suggesting that these functions represent a kind of apex of the natural world in the woman’s body—its “true nature.” Yet these are never isolated from emotional states. The fourth and the last aspect of this study is that, in the Hippocratic practice the physical and the emotional were seen together. In the *Corpus* emotional conditions are interwoven with physical states as part of the larger responsibility to observe and record all symptoms faithfully. Almost every case involves grief or delirium occurring at one or another step of the disease’s progression. Here the holistic approach calls forth the empathy of the doctor, which can be considered a positive intervention, but on an emotional plane in response to physical conditions, and always interwoven with Hippocratic close observationism. Plato was the first to recognize a “holistic” aspect in Hippocrates’s practice (Plato, Protagoras, 311b). Holism implies the entire human ecology—physical, intellectual, and emotional.

The emotional aspect is made part of a method for prognosis in one example of environmental events and their possible consequences for health, when a misalignment occurred in the Pleides, the constellation of the seven sisters which was of great symbolic importance to women of the antique age. Hippocrates counseled

extra caution to be taken by women until this planetary phenomenon had passed, out of concern that interpreting this as an evil omen might result in emotional states leading to physiological vulnerability. There are many cases of women falling sick as a result of psychological states, for example Phaetousa, among a certain number of women who stopped menstruating when their husbands died. There are many examples of this kind. Delirium was related with the onset of menstruation and pregnancy in many cases; see *Epidemics I*, case XIII, case XVI, and in *Epidemics III* case II, case VI, case X, case XI, case XII.¹⁷³ The notion of the uterus as the source of madness known as hysteria has enjoyed generations of influence, yet we must distinguish between that form of hysteria which was under treatment as a primary problem for Freud (King, 1998), and the delirium of antique women observed by Hippocrates whose mental states were only one of many other symptoms, and which, we can see from many examples, was viewed as in an interreactive relationship with physical conditions.

Another aspect suggesting an ecological frame of mind takes the form of the uterus as shelter of changeable characteristics starting with the famous or infamous ability to move about in response to conditions (the “wandering womb”) thus causing various health problems, but also including a striking plasticity, taking on a many different shapes and traits with a variety of consequences (especially in *On the Nature of Women*, *On the Diseases of Women II*). The uterus is described as a place, a topography, in the sense that places were described in *Airs, Waters and Places*. Every varying, unique condition of this organ plays a causal role in the analyses. From the standpoint of the uterus’s role as host for conception and the unborn baby, as well as of the interrelations between female reproductive functions and emotional states, it’s changing characteristics active in influencing outcomes points again to a contextual or environmental logic: when a phenomenon is under examination, its home or environmental characteristics must also be taken into consideration. While this may seem obvious, given the originality of the Hippocratic approach emerging from an age of single-principle science it is not clear how new a thing it was to perceive a phenomenon together with its environment and see these as interacting elements of a whole. In any case it can be considered as a habit of the Hippocratic practitioner’s mind to tend to see a larger whole.

¹⁷³ The word for delirium is παραφροσύνην in Hippocratic writings. It was used determining brain disorders, delusions and such.

Water is the second principle, after, or perhaps within, Nature in its broader sense, which serves as an observational platform for women's diseases. Indeed, the theory of *urgatos* (that women are moister than men) appears frequently in many forms throughout the corpus (Lonie, 1981). For example, the analogy between the growth of trees and the implanting of the fetus into the womb and its subsequent growth development in *On Generation* shows the importance of the water humor in the woman's body. What water was to tree, it was also to a woman in the form of her unborn, developing child. Thus this principle serves as the main feature of differentiation between women and men in the Hippocratic texts in that women were more explicable through reference to the humor water and moisture in general, than were men. Hippocratic physicians advised women to monitor their bodies, especially its moist conditions such as the menses in particular, while the doctor also questions and records these.

The water humor was used in both prognosis and diagnosis in the Hippocratic gaze. This is most apparent in extensive discussions of the disease dropsy (edema) in, for example, *On the Diseases of Women I*, chapter 61, and *On the Diseases of Women II*. Here, a tendency to retain water prior to menstruation was identified, a fact whose significance modern medicine would realize with the description of Pre-Menstrual Syndrome (PMS) in the late 20th century (Concise Medical Dictionary). Lack of moisture in the female body, on the other hand, was considered as a factor in hysteria, a term used broadly in Hippocratic practice to identify a wide range of female complaints, including psychological ones. The modern medical advice to drink plenty of water as one of a small number of fundamental health-preserving actions may be a recognition of its general importance for human health.¹⁷⁴ With examples like these confirmed by contemporary wisdom, one may say that the water humor had a dual function, both metaphorical and analytical. It certainly does appear that the water humor theory presented in *On Generation* and *Diseases IV* presents a concept more suitable for discussing women's diseases than do other humors, for example the more obscure humor black bile.

Cycles, introduced above, is another nature-inspired motif applied in the practice of Hippocratic eye on women diseases. Periodicity is at the heart of the frequently mentioned theories of the "critical days" and the "perfect crisis." In the

¹⁷⁴ <http://www.mayoclinic.com/health/water/NU00283>

first of these, specific critical days were identified by the Hippocratics as capable of accounting for the progression of diseases. This theory argues, for example, that tetrads and triads (*The Seven Month-Old Child*) or three and four day cycles, were important signposts in the evolution of disease. This notion may appear formalistic at first, a preference of one number over another. However, the idea of a recurrence of almost any number may have served in creating expectations in the sick regarding the progression of their disease. Modern medicine confirms the therapeutic value of positive attitude and belief in healing.¹⁷⁵ If women are more tuned to the periodicity of their own healthy bodies, it's possible they may be more open to the suggestion that diseases, too, evolve in cyclical ways: in this way, their bodies may benefit from their mind's expectations regarding healing.

The “perfect crisis” is another concept that validates the notion of nature's healing power. The perfect crisis involves a sudden release of a tension or energy that has built up—vomiting, onset of menstruation, or fever are some examples, as is birth itself. In the majority of cases this results in positive outcomes such as recovery or birth (itself considered to be restorative to the birthing woman's overall health). Here the energy or tension accumulation then release occurs as a natural, recurrent mechanism in all organisms, resulting in change that, if the general law of healing nature holds true, shall be restorative. Such crises are indeed considered to be part of the proper functioning of *phusis*; and the physician's role here is as witness to the *dunamis* in *phusis*, literally watching and, where possible, assisting nature in doing its healing work. It was frequently seen in the case histories (especially in *Epidemics I*) that crises tended to take place within the proper periodicity, as the correct functioning of nature.

The cases of death in the medical case histories are, notably, not excluded as failures of the method or the practitioner, but are left in the record as examples of symptoms and disease progressions that ended with death, opportunities to multiply experience toward better prognosis and the possibility of becoming a better “assistant to nature” by having in mind more examples of her processes and outcomes. Generally these cases are presented in the usual succinct style listing changing symptoms over time, but at least one case is colored with an open emotionalism that gives us insight into one plausible aspect of Hippocratic method, and that is a natural

¹⁷⁵ <http://www.newscientist.com/article/mg21128271.700-heal-thyself-think-positive.html>

empathy born of close observation. Hermophtelumus's wife death, for example, is recounted in tones of emotionalism revealing a very human response. This inherent empathy of the Hippocratic, closely observing physician, brings death right up under the eyes of the reader for her to share the process in proximity. We are presented with an unadorned fact of nature but in a context of the empathy inherent in the close observation method.

To sum up, in the spirit of the co-habitation of the metaphorical and empirical in so much of the scientific thought of the ancient age, it can be said that with Hippocratic observation of women the "virgin of the temple was taken outside to be seen." Melidia, associated with a temple to Hera, was identified in the Hippocratic record with her own name instead of being identified through a male relative, the usual way Hippocrates named the women in his cases. This makes it likely she was a priestess employed at the temple. Yet even this figure is on record as having become an object of Hippocratic observational practice. The story draws attention both in its observational aspect and in the historical relation between the two styles of practicing medicine. Even the "white-armed" virgin priestess of Hera has become visible to readers in her physical existence as a woman in the Hippocratic record.

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TURKISH SUMMARY/TÜRKÇE ÖZET

HİPOKRATİK JİNEKOLOJİK METİNLERDE GÖZLEM NESNELERİ OLARAK KADINLARIN DOĞASI (*FÜSİS*) VE HASTALIKLARI:

EPISTEMOLOJİK BİR ÇALIŞMA

Bu çalışmada Hipokratik tıbbın nasıl özellikle kadının antik Yunandan günümüze, bilim ve tarihte görünürlüğünü sağladığı anlaşılmaya ve bunun sağlanması sırasında tümüyle yeni bir tıbbi dal (jinekoloji) ortaya çıkartarak hangi metotlarla, nasıl kullanıldığı açıklanmaya çalışılmıştır. Çalışma bu tür bir gözlem anlayışının, diğer bir deyişle stilinin/tarzının, belli bir bilgi bütünü içinde ortaya çıkan pratiklerini/iş yapma biçimlerini araştırmaktadır. Yani, antik zamanlardan bugüne çalışılan ne ve neden sorularının tersine biz burada nasıl sorusunu sormaya çalıştık. Böylece tekrar eden belli temaların anlamı da ortaya çıkmış oluyor ki bu çalışmada bunlar: Doğa (*phusis*) kavramının hastayı anlamada ve yönlendirmedeki önemi ve su (*hydor/hydrops*) elementinin/beden sıvısının özellikle kadın doğasındaki yeri olarak görülmüştür. Bunların nasıl kullanıldığının anlaşılması için Hipokratik metinlerde özellikle dört sıvı/suyuk teorisi çalışılmış ve bu teorinin kullanımındaki rasyonellik sorgulanmıştır.

Hipokratik dönemden önce, kadınların “beyaz-kollu” (Homerik epikten alınmış, kapalı kalanlar, güneş görmeyenler anlamında kullanılmıştır) oldukları, kamusal alanda ve özellikle tıbbi alanlarda görünmedikleri söylenebilmektedir. Kendisini erkek gibi göstererek hekim Herofilus’un (M.Ö. 332-280) öğrencisi olan Agnidice’in hikâyesi, kadınların Antik Yunan’daki bu görünmezliğine iyi bir örnek oluşturmaktadır.

Herodot’un *Tarih*’lerindeki tıbbi hikâyelerde de yine cinsler arası geleneksel eşitsizliğe rastlanabilmektedir. Hikâyeler neredeyse tümüyle kafalarına göre

iyileştirmeyi ya da iyileştirmemeyi seçen tanrı ve tanrıçalarla doludur. Oysaki Hipokrat'ın insan bedenini apaçık ortaya seren gözlem hikâyeleri (ya da asıl adıyla yatak-başı gözlemleri) buna tam bir karşıtlık oluşturmaktadır. Yine de Hipokrat'ın kadını görünür kılan iş yapma biçimindeki bu yenilik, günümüz yazınında, antik zamanın düşünürleri tarafından bile daha az anlaşılmıştır. Roma döneminde, Efesli Soranus'un *Jinekoloji* adlı, daha iyisinin yazılmadığı söylenen eserinde, en büyük krediyi Hipokrat'a verdiği söylenebilirken, günümüz yazınında bu önemli yenilikten bahsedilmemektedir.

Hipokrat'ın tıbbı, kadın bedenini görünür kıldığı kadar erkek bedenini de görünür kılarak, insan bedenine yeni bir yaklaşımı içeriyordu. Bu fikir Holmes'in çok yeni olan çalışmasından da çıkarılabilmektedir (Holmes, 2010). Hipokratik tıp, Longrigg'in temsil ettiği gibi (1993; 1998) sadece rasyonel olduğu kadarıyla değil, gözlemsel olduğu kadarıyla da yenilikçi idi. Bu gözlemsel davranışın yeniliği, kendisinden önce sağaltma işiyle uğraşan sınıf olan tanrı, tanrıça, rahip ve geleneksel sağaltıcıların aksine, nesnesini, yani insan bedenini, anlaşılabilir ve görünebilir (okunabilir) kılmasında yatmaktadır. Çalışmada incelenen kadın hikâyeleri de, tam da, Hipokratik dönemden sonra bile ve Hipokrates'in popülaritesine rağmen, yüzyıllarca devam eden bu sınıfın "kapalı kutu" olarak tabir edilebilecek tarzdaki kaprisli sağaltma pratiklerine bir tür anti-tez sağlamaları bakımından önem kazanıyor. Bunlardaki mucizevi iyileşme hikâyeleri insan bedeni gözlemleriyle hiçbir zaman uğraşmaz. Mesela Herodot'un *Tarihler*, 1.130 da anlattığı Sintiyalıların Venüs tapınağını yok etmeleriyle bağdaştırılan infertilite hikâyesi, Hipokratik metinlerde Sintiyalıların genel yaşama ve çevre biçimleri ile açıklanmıştır. Hipokrates için Sintiyalı kadınlar, gençliklerinde çok at bindikleri ve evlendikten sonrada sürekli at arabalarında oturup, hiç hareket etmedikleri için kısırdırlar.

Bu ve bunun gibi kadın hasta hikâyelerinden ortaya çıkmaktadır ki Hipokratik tıp pratiği, başta da belirtildiği gibi, iki temel prensip ile hareket etmektedir; bunlardan ilki hastalık ve sağlık kavramlarını, genelde sağlığa meyleden doğa (*phusis*) gözlemleriyle anlamaya çalışmasıdır. Doğa ayrıca sonuçların çoğulluğu hakkında da bütüncül bir görüş açısı için kilit zemin oluşturur. İkinci prensip su elementidir ve kadın bedeninde bolca bulunmaktadır. Erkek bedeninden farklı olarak kadın bedeni "daha sulu" bir varlıktır ve bu neredeyse iki beden arasındaki en temel farktır. Su, kadın bedeninin (doğasının) açıklanmasında öyle bir zemin sağlar ki

analojik olanla (Jones, 1923) analitik olan açıklamalar birbirine karışır. Bu, rasyonel ve irrasyonel olanın, duygusal ve fiziksel olanın bir tür bir arada kullanılış biçimidir ve yetkinlik ister. Yetkinlik (*arete*) ileride “Hipokratik göz” analojisiyle de bahsedileceği gibi gözleme ve sürekli tekrara dayalı bir tür profesyonelleşmedir. Bu iki temel iş yapma dayanağı ya da motifi, doğa ve su, gözleme (ve onun kayıt altına alınmasına) dayalı metot içinde tümüyle metaforik gibi görünseler de, metinlerdeki pratiğin çalışılmasıyla görülmüştür ki her ikisi de birden çok şekilde kullanılmış, bedene dair düşünme ve pratik biçimlerinin oluşturulmasında kilit rol oynamış, tanı koyma ve tedavide de özellikle yararlanılmışlardır.

Bu çalışmada kullanılan jinekolojik metinler, Grenseman’ın 1975’te belirttiği üzere Hipokrat’ın kendisine ait olduğu düşünülen ve diğer metinlere nazaran ilk yazıldıkları savunulan (Dean-Jones, 1994) *Kadının Doğası Üzerine* (Nat. Mul.) ve *Kadın Hastalıkları Üzerine* (Mul.) I- III isimli metinlerdir. Sonuncusu, yani *Kadın Hastalıkları Üzerine III* isimli metin *Steril Kadın* (Steril.) adıyla da anılmaktadır. Bu iki temel metnin yanı sıra, bunlara çok benzeyen paragraflar içeren ve bu ikisi kullanılarak hazırlandıkları söylenen (Smith, 1994; Potter, 2010) diğer metinler de jinekolojik metinlere dâhil edilmiştir. Bunlar dört suyu (sıvı, hılt) teorisinin kara safra yerine su elementiyle kullanıldığı *Jenerasyon Üzerine*, *Çocukların Doğası Üzerine* ve yine, dört suyu teorisinin sulu sıvıyla kullanılması bakımından bunların tamamlayıcısı olan *Hastalıklar IV* isimli metinlerle incelenmeye başlanmış, *Süperfetasyon* (Çoklu Gebelikler) *Üzerine*, *Fetüs’ün Çıkarılması Üzerine* (Foet. Exsect.), *Yedi-aylık Bebek Üzerine* (Septim.), *Sekiz-aylık Bebek Üzerine* (Oct.), ve *Kız Hastalıkları Üzerine* (Virg.) isimli metinlerle tamamlanmıştır. Hipokratik Metinlerin geneli, Hipokrat’ın yazdığı söylenen ve söylenmeyenler ayrı ayrı incelenmiş, kadın, gebelik, annelik, doğum, menstrasyon, safra, kan, balgam, su ve doğa gibi belli kelimelerin kullanımları ayrıntılı çalışılmıştır. Bunların yanı sıra yedi *Epidemik* (Epd.) metni özellikle kadın hasta hikâyelerini isim, yer ve diğer gerçek olduğu varsayılan özellikler içererek vermeleri bağlamında incelenmiş, *İnsanın Doğası Üzerine* (Nat. Hom.) metni de, kara safrayı dört suyuktan biri olarak tanıması ve su sıvısına bedende yer vermemesi bakımından irdelenmiştir.

Yine de gözlemsel metodun ileride, sadece kadınlara özel, yeni bir tıp dalı doğuracak önemi, bu konuda çalışmış tarih ve bilim felsefesi düşünürlerine değinilmeksizin vurgulanamaz. Hipokrat’ın pratiği bir süredir bu çevrelerce

kendisinden önce gelen geleneksel ve ‘irrasyonel’ olan ve bu çalışmada “kapalı kutu” metaforuyla tasvir edilen sağaltma pratiklerinden radikal bir kopuş olarak bir ‘rasyonellik paradigması’ içinde nitelenmektedir (Longrigg, 1998). Oysaki, Kuhn’un (1962) paradigma sıçraması fikri/nosyonu bağdaştırılamaz iki anlayış içeriyor olsa da, antikiteden beri iki tür sağaltma pratiği bir arada yüzyıllar boyunca devam etmiş görünmektedir. Tapınak tıbbından daha ‘ampirik’ yada ‘rasyonel’ olan bir tür sağaltma pratiğine geçişse, yine herhalde doğa kavramının hastalığa ve sağlığa bakışta oynadığı rol sayesinde, ancak iki milenyum sonra, Aydınlanmayla birlikte görülecek, ancak bu dönem de görece Hipokratik sağaltma biçimlerinin kullanımının giderek azaldığı bir dönem olacaktı. Bu çalışmada önemli olan Hipokratik metot ya da pratik olarak adlandırabileceğimiz iş yapma biçimlerinden doğan sadece kadın bedeninin incelendiği *sui generis* bir tıp branşının, yani jinekolojinin, klasik dönemde nasıl ortaya çıktığıdır.

Böylesi bir tıp dalı, Hipokratik dönemden önce, kadınların dışındaki çevrelerde yoktu, ve kadınlara dair bilgiler (*ta gynecaia*) de görülür ve ya kayıt altına alınır değildi. Hipokratik iş yapma biçiminde, tarihsel olarak bir arada kullanılmış olarak, folklorda yahut tapınakta kullanılan kadınlara ait bilgi kapalı kutudan çıkarılmış, ve görünür kılınmıştır. Bu yine de rasyonellikten çok gözlemsellik (ve bu gözlemlerin kayıt altına alınması) adına bir değişim olarak ele alınmıştır ve gözlenemeyenin (kapalı kutuda olanın) geride bırakıldığı öne sürülmemiştir.

Böylesi bir yaklaşım en iyi Crombie’nin 1994 yılında nüvelerini verdiği ‘düşünme biçimleri’ kavramıyla gösterilebilir. Bu çalışmada kadın bedeninin ve doğasının Hipokratik metinlerdeki yeni görünürlüğüne yakalamada Crombie’nin kavramının kullanılabilirliği, onun pratiğe olan vurgusuyla verilmiş ve doğanın dinamiklerinin ancak pratik içinde kullanılabildiği vurgulanmıştır. Elbette dört suyu teori veya kritik günler gibi teoriler pratiğin yerine olmasa da yanı sıra yer almaktadır. Kadın bedeninin bu yeni kendine özgülüğü, pratikte görülerek ve karmaşık bir yaşam ağı içerisindeki doğası ve her bir parçanın bir diğerini etkileme biçimleri, hastayı ve hastalığı bütüncül bir bakış açısıyla görme alışkanlığında olma, kadının sağlığına dair bilgiyi birden çok yerde görme gibi değişik düşünce ve iş yapma biçimlerinin bir arada kullanılması bütüncül bir paradigma çerçevesinde değil çoğulcu düşünme tarzlarının bir arada oluşu yaklaşımı ile anlaşılabilir.

Kuhn (1962), bilimsel gelişmelerin kanıtlanmış bilgilerin birikimle evrimleştiği görüşünün yanlış olduğunu bilimsel gelişmenin devrimci sıçramalar yoluyla oluştuğunu iddia etmiştir. Bir bilim disiplininde bilim insanları topluluğunun kullandığı kuram ve yöntemlerin tümünü içine alan bilim yapma biçimini “paradigma” olarak tanımlamıştır (Kuhn, 1962). Kuhn, normal bilimsel araştırma ve bilimsel bilgi üretme dönemlerinde paradigma içinde kalınarak verilerin toplandığını ve kuramdan üretilen hipotezlerin Popper’in ortaya koyduğu şekilde “yanlışlanma”ya çalışıldığını ancak, teorilerin birkaç yanlışlama ile reddedilemediğini ve teoriye uymayan bulguların bir kenara itilerek bekletildiğini belirtmiştir. Ancak bekletilen bulguların çoğalmasa, bu bulguları da içine alacak alternatif bir teori arayışına yol açmıştır (Kuhn, 1962). Yeni teori önceki teori tarafından açıklanamayan ve bekletilen olguları açıklamakla kalmamış yeni araştırma ufukları açarak genç bilim insanlarının bu yeni paradigma içinde araştırma yapmalarını sağlamıştır.

Feyerabend (1975), *Yönteme Karşı* başlıklı kitabında Popper’in “yanlışlama” yaklaşımını eleştirmiş ve Kuhn’un yaklaşımını çoğulcılaştırmış ve bir araştırmanın birden fazla teori dikkate alınarak yürütüldüğünü ileri sürmüştür. Araştırma yaparken bir teori veya paradigma kullanmak yerine birden fazla teori kullanılmakta ve bir “kuramlar çeşitlenmesi” durumu yaşanmaktadır (Feyerabend, 1975).

Lakatos ise Popper ile Kuhn ve Feyerabend arasında yer almaktadır. “Bilimsel araştırma programları” kavramının bilimsel araştırma pratiğini paradigmadan daha iyi anlattığını ileri sürmektedir (Lakatos, 1978). Bu yaklaşım teorilerin çekirdekleri korunarak değiştirilebidiğini ileri sürmektedir. Eğer bir teori bazı hipotezlerin yanlışlanmasına rağmen reddedilmekten kurtarılabilirse ve ek olarak yeni araştırma ufukları oluşturabilirse o araştırma programı üretkendir. Eğer, teoriye yapılan eklemeler onu reddedilmekten koruyor ama yeni araştırma ufukları açmıyorsa o araştırma programı gerilemeye başlamıştır (Lakatos and Musgrave, 1970). Alt kuramlar veya modeller yoluyla “problem sıçramaları” oluşturabilen bilimsel araştırma programları üretken ve ilerlemecidir. Bie bilimsel araştırma programı pek fazla değişmeyen bir çekirdek kuram, onu destekleyen yardımcı kavram ve önermeler ve sorun sıçramalarına yol açan heuristiklerden oluşmaktadır (Lakatos, 1978).

Böylesi bir sıçrama, burada “kapalı kutu” olarak tabir edilen, Herodot anlatılarında örneklerini bulabileceğimiz, Asklepius tapınak tıbbı ve Hipokratik tıp arasında izlenmeye çalışılmıştır. Bu değişim yukarıda da bahsedildiği gibi Longrigg gibi tarihçiler tarafından bir tür “rasyonellik paradigma”sına geçiş olarak görülmüştür. Önceki dönem tıbbında bir Asklepius tapınağında bir gece geçirmek, hastanın iyileşmesi için gerekli görülüyorken, sonraki Hipokratik tıpta belli bazı teori ve pratikler kullanılmıştır. Yine de savunulabilir ki bu değişim Kuhn’un vurguladığı gibi radikal bir sıçrama, yahut geleneksel tarih algısındaki gibi daima iyiye doğru giden bir birikim şeklinde değil, temelde uygulanan metottaki değişimler ve bunun getirdiği düşünme biçimindeki değişimler şeklinde olduğu söylenebilir. Önceki tıp uygulamasında, ne kadın ne de erkek bedeni üzerine herhangi bir gözlemden bahsedilemezken (Herodot örnekleri), sonraki Hipokratik uygulamalarda Hipokratik metinlerin tamamından görülebileceği gibi, belli beden ve bu bedenin sağlık ve hastalık gözlemleri mevcuttur ve bu gözlemlerle sağaltma pratiği gerçekleştirilmektedir. Yine de Hipokrat’ın kendisinin de on sekizinci (ya da on dokuzuncu) kuşak, hem anne hem de baba soyundan (Jouanna, 1999) Asklepion rahibi olduğu bilinmektedir ve uygulamalarına Cos adasında, Asklepius tapınağının hemen yakınlarında ve tapınak tıbbıyla olabilecek en içli dışlı şekilde devam etmiştir. Hipokrat’ın ölümünden sonra da bu iki farklı tıp uygulaması yüzyıllar boyunca aynı topraklarda ve bir arada süregelmiştir.

İnsan bedeni söz konusu olduğunda, sağlık ve hastalık tanı, tanım ve nedenleri çöktür. Aynı hastalık çoğu zaman birden çok semptomla yol açmakta ve bazen farklı bedenlerde farklı şekilde kendini gösterebilmektedir. Yanı sıra çoğu zaman bir bedende birden çok hastalık birden seyretmekte, bunların semptomları birbirine karışabilmekte, tanı ve tanım koymak zor olabilmektedir. Hangi yanlışlanmanın, ne durumda, nasıl ve neden anlamlı olduğunu söylemek çok karışık ve çoğu zaman neredeyse imkânsız bir iş olabilir. Söz gelimi, Hipokratik medikal pratikte *Aforizmaların* 5. kitabının 33. bölümünde bahsedildiği şekliyle burun kanamasının regl göremeyen kızlarda iyi olduğu kanısı vardır. Buna benzer maddeler, başka metinlerde de karşımıza çıkmakta. Oysa Leonidas’ın kızı örneğinde (Hp. Epd. 7.123), adet göremeyen bir kızın, burnunun kanamasından hemen sonra öldüğü kaydıyla karşılaşıyoruz ve ilginç bir şekilde orada doktorun kızın doğasını anlayamadığı da kaydedilmiş. Yine de bu gibi örnekler genel bir aforizmanın

değişmesine yeterli olmamış. Aynı şekilde daha birçok örnek daha metinlerden çıkarılmıştır.

Elbette Popper'in doğrulamacı (verificationist) yaklaşıma karşı yanlıslamacı (falsificationist) yaklaşımı geliştirmesinin çok önemli bir epistemolojik gelişme olduğu tartışma götürmez. Yine de yanlıslanma ilkesinin bile nerede, ne zaman, kaçınıcıda ya da nasıl işlediği soruları hala belirsizdir. Kuhn'un paradigma sıçramaları yaklaşımı çerçevesinde paradigma sıçraması olup yeni bir paradigmaya geçildiği ve bir önceki paradigma ile yeni paradigmanın bulguları çeliştiği zaman paradigmalardan hangisinin daha bilimsel ve nesnel olduğunu gösterecek bir dışsal bir ölçüt yoktur. Crombie'nin stil kavramı içinde aynı şey söylenebilir, ancak orada önemli olan bilim yapılmasını sağlayan pratiklerdir. Pratiğin kendisi neyin doğru yahut yanlış olduğunu belirler ve başka pratikler için de herhangi bir önermede bulunmaz. Ancak ve ancak her iki pratik veya bu pratiklerden çıkarılan kuram içindeki ortak kavramlar ve yöntemler üzerinden, ikisi karşılaştırılabilir. Sözelimi Hipokratik metinlerden *Rüyalar Üzerine*, Asklepius tıbbıyla ortak bir pratik, rüyaların incelenmesini içermektedir. Ancak ilkinde rüyalar, hastanın yaşam biçimine göre yorumlanır ve basitçe, eğer çelişiyorsa, kişi hasta, eğer uyum içerisindeyse de sağlıklı olarak yorumlanıyorken, ikincinin rüyaları kullanım biçimi bundan çok daha farklıdır. Orada hastanın rüyasında nasıl tedavi olması gerektiğine dair ipuçları göreceği ve bunların rahipler tarafından yorumlanması üzerinden dönen bir tür sağaltma pratiği vardır. Yine de her iki iyileştirme pratiğinin de ortak yönler içerdiği ve rüyaların yorumlanmasının her ikisi içinde önemli olduğu söylenebilir. Yine de Asklepius tıbbı "kapalı kutu"dadır ve pratiğin nasıl kullanıldığını bilmek neredeyse imkânsızdır. Ayrıca Popperci anlamda hangi yorumun nerede, nasıl ve kaçınıcılı yanlısta yanlıslanacağı da hiç de basit değildir.

Burada Hipokratik metinlerdeki birçok hasta hikâyesi ve bunların yanlısladığı aforizmalar içinde bazılarını değinilebilir. Mesela Gorgias'ın karısı örneği (Hp. Epid. 5.11) birden çok teori ve pratiğin bir arada kullanıldığını gösteren ilginç örneklerden biridir. Kısaca değinmek gerekirse, Gorgias'ın karısı dört sene boyunca adet görmemişken üst üste iki kez gebe kaldığı kayıt edilmiştir. Üst üste olan gebeliklere, Hipokratik tıpta *süperfetasyon* denmektedir ve *Epidemikler*'de yaygın olarak rastlanmaktadır. Kadın daha sonra, şiddetli ağrılar çekmiş, ateşi yükselmiş ve sağlığını(dengesini) kaybetmiştir. Birkaç ay sonra sırtında büyükçe bir tümör olan bir

fetüs düşürür. Karnındaki şişkinlik hala geçmemiştir ve düşükten sonraki 14 gün boyunca şiddetli ağrı çeker. *Süperfetasyon* metninde (Hp. Superf. 7) eğer anne karnında ölü bir fetüs olduğundan şüpheleniliyorsa, önce el ile ve ardından çeşitli ilaçlar (*pharmakon*) yardımıyla bu fetüsün bedenden dışarı çıkarılması gerektiği yazılıdır. Oysa Gorgias'ın karısının hikâyesinde, Hipokratik doktor(lar), kadına ne elle, ne de ilaç yardımıyla bir müdahalede bulunmamış, yine de günbegün kadının sağlık durumu kayıt edilmiş ve en ufak değişiklikler bile gözlemlenmiştir. Kadın on dördüncü günün sonunda, doğal olduğu belirtilen (*phusis*) yollarla bir ölü fetüs daha düşürür ve ardından sağlığına kavuşur. Burada, doktorun neden müdahale etmediği sorusu, modern okuyucu açısından anlamlı olsa da belki antik dönem doktorları açısından o kadar da değildir. Metinlerin birçok yerinde, yukarıda da bahsedildiği gibi, doğa kavramının hem özel hem de genel anlamlarıyla Hipokratik tıpta önemli bir düşünme biçimi olduğu bilinmektedir. Doğa'nın, çoğunlukla iyileştirmeye doğru giden gücü (*dunamis*) tıp uygulamalarında önemli bir yer teşkil eder ve bu örnekte de denilebilir ki doktor(lar) Gorgias'ın karısının kendi doğası ile, yahut Doğa'nın genel işleyişi ile iyiye doğru gideceğine kanaat getirmişlerdir. Sonuçta bu örneğin de yansıttığı üzere ne zaman, veya ne kadar yanlış örneğin nasıl bir teorinin ya da pratiğin yanlışlanmasını doğuracağı, yahut kaç teori ve pratiğin bir arada iş gördüğünü söylemek oldukça karmaşık bir problemdir.

Crombie'nin pratiğe odaklı yaklaşımı yine de proliferasyon ve yanlışlamanın zorluğu ve niceliği, çekirdek teorilerin değişmezliği ve belirlenmesi sorunu ve rasyonellik sorunları karşısında, değişen çeşitli iş yapma ve düşünme biçimleri ile metodun ayrıntılı analizine yoğunlaşarak belirlenimci olmayan bir bilim tarih ve felsefesi yaklaşımı sunmaktadır. Antik Yunan'ın klasik dönemi özellikle Doğa'ya yönelik ilgi ile değişen pek çok iş yapma ve düşünme metodunun gözlenebildiği bir dönem. Metodun ayrıntılı tasviriyle, stil kavramı, bu çalışmada, Hipokratik tıbbın özellikle kadın doğasını (bedenini) bir gözlem nesnesi haline getirmesini anlamada etkili olmuştur.

Bu çalışmada geliştirilen bakış açısıyla, Hipokrates'in yeni iş yapma biçimi olan gözlem stili, ilk Olimpiyat oyunlarının başladığı tarih olan M.Ö. 770'den, M.S. 200'e, neredeyse Greko-Roman dönemin sonuna kadar incelenmiş, Hipokrat'ın kadınlara (ve onların doğasına) özgü bakış açısı bin yıllık bir süre içinde ele alınmıştır. Dönemde fazlasıyla değişik tıp anlayışı olması, bu kadar uzun bir

dönemin araştırılmasını gerektirmiştir. Baubo kültü, Apollo ve Venus tapınak tıpları ve yukarıda bahsedilen, Hipokrat'ın da bizzat ferdi olduğu Asklepius kültleri, her ne kadar muazzam inceleme konuları oluştursalar da, böylesi bir çalışma için çok geniş bir inceleme alanı oluşturmaktalar. (Yine de denilebilir ki Feyerabend'in bahsettiği anlamda bir teoriler proliferasyonundan bahsedilebilmektedir, ve tek bir paradigma olduğu söylenen, ve rasyonellik paradigması olarak söz edilen Hipokratik tıp içinde bile Gorgias'ın karısı örneğinde görülebileceği gibi birden, ve hatta çelişen teorilerin bir arada iş yaptıkları görülmektedir.) Hipokratik dönem öncesi, özellikle Herodot'taki tıp hikayeleri incelenmiş, ve pre-Sokratikler içinde tıp ile ilgili teoriler çalışmada yansıtılmaya çalışılmıştır. Pre-Sokratikler içinde özellikle ikisi, Empedokles ve Demokritus Hipokratik tıpla benzer öğeler içermeleri bakımından ilginçtir. Bunlardan ilki dört element teorisini, ikincisiyse pangenesis teorisini, Hipokratik yaklaşıma taşıdığı anlamda, kullanmışlardır. Demokritus'un irritasyon (*kresmos*) üzerine düşüncelerinin de Hipokratik tıpta, kadın cinsel tatminini açıklamakta kullanıldığı yerler vardır. Yine pre-Sokratik dönemde yaşamış ünlü hekim Krotonlu Alkmeon da çalışmada yer bulmuştur. Alkmeon'un ünlü Lokman Hekim olup olmadığı bilinemez, ama dört element arası dengesizliği monarşi olarak tanımlaması ayrıca ilginçtir (Phil. 4.1-5). Hipokratik tıp teorilerinde, hastalık ve sağlık, dört elementin vücuttaki denge ve dengesizliği üzerinden tanımlanmıştır. Alkmeon'da da bu *isonomia* kavramını görmek Hipokratik gözlemsel tıbbın uzun bir döneme yayılan köklerini anlamak açısından önemli olabilir.

Hipokratik dönem sonrası, ondan etkilenecek gelişen Roma tıbbının incelenmesi özellikle ilk jinekologlar olarak bilinen ve Antik Yunan tıbbını Roma'ya geçiren iki hekim, Rufus ve Soranus ile sürdürülmüştür. Efesli bu iki hekimin hocası olarak anılan Kapadokyalı Areteaus özellikle ilginçtir. Areteaus'un hakkında çok az şey bilinse de, *uterus* tümörlerini kesmek ve vücuttan çıkarmak ile ünlendiği söylenmektedir (Dumont, 1991). Kendisine, Yunanca yetkin anlamına gelen isminin bu sayede verildiği söylenebilir. Bu çalışmanın en önemli bulgularından biri olan yetkinlik (*arete*) kavramı Hipokratik tıp ve özellikler kadın hastalıkları açısından, girişte de bahsedildiği gibi, oldukça önemlidir. Hipokratik jinekolojik metinlerden *Kadın Hastalıkları Üzerine* içinde tümörleri tarif ederken yazar, özellikle bunları çıkarmak konusunda dikkatli olunmasını ve ancak yetkinlik kazanmış, yani bu konuda deneyimli hekimlerin bu pratiği uygulamasını savunur. Görülmektedir ki

Hipokratik dönem sonrası gelişen Roma tıbbında, özellikle kadınların tıbbında böylesi bir yetkinleşme ve profesyonelleşmeden bahsedilebilmektedir. Kürtaj konusunda da belli bir etik anlatış yine Soranus'la birlikte anılmaktadır. Jinekoloji ismi de yine bu dönemde belli bir profesyonelleşme ile kullanılmaya başlanmıştır. Yine de elinizdeki bu çalışmada vurgulanan, yukarıdaki felsefi/epistemolojik izlekte anlatıldığı gibi, tarihsel önermelerde bulunmak değil, kadınların bedeninin ve doğasını gözlem nesnesi olarak kullanan yeni Hipokratik stilin nasıl kullanıldığını anlamaya çalışmak olmuştur.

Bu Hipokratik stilin yukarıda da belirtildiği üzere, kullandığı birinci önemli kavram olan doğa (*phusis*) üzerine epeyce söz söyledik. Kullanılan kavramların ikincisi olan, ve kadınların doğası üzerine pratiği belirleyen su ya da sulu sıvıya literatürde pek rastlanmadığı söylenebilir. Bazı yorumcular bu durumu, özellikle Antik Yunan'da, sosyal rollerde benimsenmeyen kadınların böyle bir algısından kaynaklandığını vurguluyorlar. Su sıvısı bedende özellikle gebelik, menstrasyon, veya bu gibi kadınsal durumlarda görülen bir sıvı olması bakımından kadınların tıbbında bir gözlem nesnesi olarak önem kazanmış gibi görünmektedir. Ancak günümüz yorumcuları bu suyuğun sadece bir gözlem nesnesi olarak değil, kadının Antik Yunan'daki yerini de betimleyen bir metafor olarak kullanıldığını düşünüyor. Özellikle dördüncü bölüm bu konunun tartışıldığı yer olarak bu çalışmada yer aldı. Sulu olmak, Heraklitus'un bir aforizmasında söylediği gibi, akıllı ve bilge olmamak anlamında da Antik Yunan düşüncesinde yer bulmuş. Bu düşünceye göre "akıllı ve bilge ruh, en kuru olandır." Oysa kadınlar, antik yunan epiğinde de örneklerini görebileceğimiz gibi, genelde açılmaması gereken kutuları açan, yapılmaması gereken işleri yapan, düşünmeyen hatta düşünmeye ihtiyaç duymayan, durması gerektiği yeri bilmeyen ve hatta duramayan varlıklar olarak, ötekileştirilmiştir (Koziak, 1999). Antik Yunan'ın ideal insanı karşısında kadınlar, barbar olan gibi, kontrol edilmesi gereken ve kendi doğalarına bırakıldığında formsuz olup, su gibi, sadece akan ve içinde tüm formları barındıran ama şekilsiz olandırlar. Bu anlamda onların bilge ideal insan tarafından şekillendirilmeleri ve belli bir düzen içene oturtulmaları gerekir gibi görünmektedir. Bu konu yine dördüncü bölümde "oikoloji" başlığı altında incelenmiştir. *Oikos* ev, hane anlamına gelmektedir, ve bugün bildiğimiz ekoloji kelimesinin kökenini oluşturur. Hipokratik bakış, Platon'un da *Phaedrus* diyalogunda belirttiği gibi bütüncül bir yol izlemiştir. Hastayı sadece belli

bir hastalık açısından değil, tüm beden, ve o bedenin içinde yaşadığı durum açısından incelemiş, bir anlamda ekolojik bir bakış açısı geliştirmiştir. Hipokrat'ın bu metodu için daha sonraları Galen, *metodus medendi*, yahut tedavi metodunu niteleyecek, yalnız daha çok kendi yorumlarıyla sunacaktır.

Galen'le birlikte bin yıllık tarihsel arka planın sonuna geliyoruz. Galen elbette Hipokratik metodun günümüze ulaşmasını sağlayan en önemli hekimlerden biridir. O dönemin Roma imparatorunun doktoru ve bu oldukça güçlü bir pozisyonu; o olmasaydı denilebilir ki Hipokratik metinleri bugün okumamız mümkün olmayabilirdi. Yine de denilebilir ki Hipokratik metinler onun döneminde şekillenmiş ve o dönemin yorumuyla korunmuş, şu ya da bu parçası daha önemli konuma getirilmiştir. Su sıvısı yerine kara safra sıvısının Hipokratik dört sıvı teorisinde yaygın olarak kullanılması da yine bu şekilde bir konumlandırma olabilir. Söylenmelidir ki Hipokratik metinler içerisinde ancak üç yerde dört sıvı teorisi açıklanmıştır, ve bunlardan görece son dönem yazılmış olanında (ki Aristo'ya göre bu metin Hipokrat'ın damadı Polybus tarafından, Hipokrat adıyla, ancak 450 B.C. sonrası kaleme alınmıştır), *İnsan Doğası Üzerine* isimli metinde dört sıvı kara safrayı içerir, ve diğer iki metinde (ki bunlar 450 B.C. öncesi yazılmış, belki bilinen en eski Hipokratik metinlerdir) bulunan sulu sıvı (*hydor/hydrops*) bu açıklamada yoktur.

Hipokrates'in ekolojik bakış açısıyla kadının doğasını açıklamakta kullanılan su sıvısına Galen'de de rastlanmaması ilginçtir, ve Galen'in kara safra üzerine yazdıklarının incelenmesi de bir o kadar ilginç bir çalışma konusu oluşturur. Ancak bu çalışmada Hipokratik metinlere yoğunlaşmış, ve Galenik metinlerde de yine kadın bedeninin ve doğasının görünür olduğu ancak Hipokratik jinekolojide kadın doğasını açıklamakta kullanılan en önemli araçlardan birinin, su sıvısının bulunmadığı gözlemlenmekle yetinilmiştir.

Çalışmanın üçüncü bölümünde Hipokratik metinler sınırlı açıklama ve yorumla aktarılmış, asıl amaç yukarıda adı geçen Hipokratik metinleri bir araya getirmek ve kadınların doğasıyla ilgili kısımları göz önüne getirmek olmuştur. Bu bölümde ana materyali sağlamak açısından neredeyse bütün alakalı bölümler bir arada kullanılmıştır. Ayrıca bu bölüm bir sonraki yorum bölümüm için gerekli zemini oluşturmaktadır. Dördüncü bölüm alakalı temel iş yapma biçimleri ve kavramlarına ayrılmış olup, üçüncü bölümdeki materyalin yorumlanması bu bölüme

bırakılmıştır. Asıl ilgi su ve doğa motifleri üzerinden şekillenip bunların kullanılış biçimlerine odaklanılmıştır. Bulgular pratiğe yoğunlaşarak incelenmiş, yukarıda bahsedilen Crombie'nin "stil" kavramı çerçevesinde bakılmaya çalışılmıştır (1994).

İkinci bölümde anlatılan çeşitli Hipokratik dönem sonrası yorumlar Smith tarafından "gelenek" kavramıyla karşılandı (1979). Ona göre her bir yorum "Hipokratik geleneğin" bir tür "bozulmasıdır", ve Galen'in sözleriyle: Hipokrat düzgün bir yol göstermiş, her iyi düşünür bu yolu yürümeye meyletmiştir... Ancak *yol* (metaforik olarak) yaşamın kendisi gibi sonsuzdur, ve hiç kimse tamamlayamaz. Bu çalışmada iki tür iç içe geçmiş geleneğe bahsetmek mümkündür. İlki Hipokrat'ın göstermiş olduğu yol olan, gözlem stili, ikincisi ise bu stili farklı dönemlerde uygulamaya meyleden ve her biri bir tür "bozulma" olan, ancak geleneğin kendisine de pek çok şey katmış yorumlardır. Bu çalışmada yapılan da elbet bir tür "bozulma" olarak görülebilir. Başka tür bozulmalardan etkilendiğimiz de elbette görülebilir ki bu onlardan oldukça çok yardım aldığımız feminist yazarlardan Helen King, Lesley Ann Dean-Jones, Ann Hanson, Cynthia Patterson, John Winkler, David Halperin, and Anne Carson özellikle Antik Yunan dönemindeki kadınların yeri ve rolü ve cinsiyet, ama daha da özelinde Hipokratik metinler ve gelenek üzerinden oldukça farklı bakış açıları ve bozulmalarıyla, bu çalışmada önemli yer tutmuşlardır. Bu yazarlar konuyu dar bir çerçeveden, yani sadece kadınların kültürel konumundan bakarak değerlendiriyor, kadın bedeni/doğasının sağlık, hastalık durumlarını elinizdeki çalışmada olduğu gibi kendi içinde ele almıyorlar, bu konuları politik/kültürel açılardan okumaya çalışıyorlar.

Elbette Smith'in bahsettiği anlamda "bozulma"lardan kaçınmak çok zor ve bozulma kendi zamanı ve çağın ruhu içinde değerlendirilmeli. Yirminci yüzyılın sonunda, zaman artık kadınların kendi bedenleri üzerinde politik bir güç sahibi olmaları ve bu tür feminist görüşlerin çıkmasıyla Hipokratik gelenek içinde daha önce tekrar edilen yorumlama geleneği bu kez de onların bakış açısıyla yapılmış, Hipokratik metinler bu sefer de tümüyle cinsiyet rolleri üzerinden okunmaya ve bozulmaya başlamıştır. Yine de bu Smith in bahsettiği gelenek anlayışı içinde sık olan bir şeydir ve söz gelimi Galen'in metinleri kendine göre yorumlamasından da çok da farklı görülmeyebilir.

Feminist bakış açısının yaptığı ilk iş, jinekolojik metinlerin nasıl da antik çağdan günümüze en az okunan Hipokratik metin grubu olduğunu göstermek oldu (Hanson, 1990). Geçmişten günümüze, Büyük Hipokrat'ın böyle, sadece akıntılarla uğraşan metinler, yazacağına inanmayanlar vardı. Metinlerin otantik olmadığı söylendi. Hatta yedinci yüzyılda bir hekimin öğrencilerinin bu metinleri en son okuması gerektiğini, çünkü önemli olmadıklarını öğütlediği bir girişle bile karşılaşıyoruz. *Havalar, Sular ve Yerler*, yahut *Aforizmalar* gibi “büyük” kitaplar Hipokrat'a yakıştırılırken, *Kadın Doğası Üzerine* gibi bir metin onun olamayacak kadar “abes” kaçtığı düşünülmüştür. Yine de genel olarak literatürde artık bu tarz otantiklik oyunları neyse ki oynanmıyor ve metinlerin otantikliğini sorgulayan Hipokratik Soru olarak Littré tarafından ortaya atılmış mesele, artık bir tür oyun olarak görülüyor. Yine de belirtilmeli ki oldukça inanırılık kredisi yüksek bazı filologlar tarafından jinekolojik metinlerin en eski Hipokratik yazılar sınıfına sokuldukları da oluyor (Grensemann, 1975; Dean-Jones, 1994), ve bu çalışmanın ikinci bölümünde bu görüşlerin tümüne, otantiklik sorusuyla birlikte yer vermeye çalışılmıştır. Ancak stil kavramı çerçevesinde metinlerin Hipokrat'ın yazıp yazmadığının iş yapma biçimini çok etkilemeyeceği, pratiğin elbette belli bir grup hekim tarafından kullanıldığı ve büyük olasılıkla birden çok yazarın metinleri yazdığı da göz önünde bulundurulmuştur.

Otantiklik probleminin ötesinde bir de içerik problemi vardır. Jinekolojik metinlerin okunmamasının bir parçası da içeriklerinin sadece kadınları ilgilendiren konulardan oluşmasıdır, menstrasyon ve akıntılar gibi. Bu gibi konuların önemli bulunmaması antik dönemden itibaren çok az kadın hekim bulunmasıyla ve kadın hastalıklarıyla ilgili konuların ebelerle bırakılmasıyla da açıklanabilir. Yine de Rufus ve Soranus gibi önemli Hipokratik hekimlerin jinekolog olmasının açıklanması gerekir. Biz burada tam da içerik probleminin kadınları görünür kılan Hipokratik stilin tarih içinde yorumlanış biçiminde etkili olduğunu savunuyor, ve günümüzde artık jinekolojik metinlerin de akademik çevrelerce öneminin anlaşılmasına başlayacağını umuyoruz. Hipokratik jinekolojik metinlere olan akademik ilgi, son on beş yirmi yılda artmış görünüyor ve bu feminist yorumların bir başarısı olarak görülebilir.

Yine de bu çalışmada, sadece kültürel olarak kadının yerini inceleyen feminist odak, bir anlamda parantez içine alınarak, jinekolojik metinler stil kavramı

doğrultusunda anlaşılmaya çalışılmıştır, ve kültürel yahut politik anlamlandırmadan ziyade bilim tarihi ve epistemolojik bir çerçeve içinde kadın doğası ve hastalıkları incelenmiştir. Yine de özellikle belirtmelidir ki Hipokratik iş yapma biçiminde kadın doğası tümüyle ayrı bir varlık olarak ele alınmış, ve kadın, mesela sonraki Aristocu görüşün aksine, erkeğin bir alt türü, yahut olgunlaşmamış erkek olarak değil, kendine has bir varlık olarak algılanmıştır ki burada su ve doğanın kullanılış biçiminin önemli olduğu vurgulanmalıdır. Söylenebilir ki sonradan, Soranus'un jinekolojisinde yine kadın Aristocu görüşte olduğu gibi olgunlaşmamış bir erkek olarak görülmüş, ve Hipokratik gözlemsel anlamda eşitlikçi bakış, giderek tarihe karışmış gibi duruyor. Soranus, *Jinekoloji* metninde kadınların eğer ileriki yaşlara kadar yaşayabilselerdi (ki yaş ortalaması kadınlar için dönemde oldukça düşüktü, 27 civarı, ve çoğu kadın hamilelik ve bunun doğurduğu komplikasyonlar sonucu hayatını kaybediyordu) erkekleşmeye başlayacakları, vücutlarının daha az su içereceği, daha az menstrasyon görecekleri, ve daha sıkı bir bedene sahip olacakları iddiası vardır. Oysa tersine örneğin *Havalar, Sular ve Yerler* metninde, yukarıda bahsedilen Sintiyalı erkeklerin, kadın işleri yapmaya başladıkça kadınlaştıkları da söylenir.

Hipokratik metinlerden *Kadın Hastalıkları Üzerine* içinde kadınların hastalıklarının erkeklerinkinden iki şekilde ayrıldıkları söylenmiştir. İlki onların hastalıklarının aciliyeti açısından, ikincisi ise nedenleri belirlemek için yerinde sorular sormak açısından. Bu özellikler Hipokratik tıp metodunda kadınların aldıkları özel önemi gösterebilir. Kadın doğasının kapalı kalmaması gerekir ki kadın hastalıklarından doğacak kadın ölümleri engellenebilsin ve onlara özel bir sorgulama pratiği geliştirilebilsin. Böylece, kadınların erkeklerden ayrı ele alınmasıyla, jinekolojinin temelleri de atılmış olur.

King ve diğerleri, elbette bu bakış açısını anti-feminist görmüş ve eleştirmişlerdir (King, 1998). Kadınları sadece kendi jinekolojik taraflarıyla açıklamak ve görünür hale getirmek elbette feminist eleştiri açısından pek de doğru sayılmayacak bir harekettir. Hipokratik metin incelemelerinde sıkça görülebilir ki kadınlar sadece üreme fonksiyonları açısından ele alınmışlardır. Söz gelimi yine *Kadın Hastalıkları Üzerine* metninde kadınların erkeklerden farklı hastalıkları olduğu ve bu hastalıkların tümüyle onların üreme fonksiyonlarıyla ilgili olduğu da açıklanmıştır. Ayrıca yine manidardır ki, jinekolojik olmayan Hipokratik

metinlerdeki hastalıklar hep erkek bedeni üzerinden tarif edilmiştir. Yine de belirtilmelidir ki, *Epidemikler* içindeki hasta hikâyelerinin yarısına yakını kadınların hastalık hikâyeleri oluşturmuştur. Eğer jinekolojik metinlerin tümündeki kadın hastalıkları gözlemlerinden ve burada kadınlara atfedilen rolden bahsedilecek olursa, burada kadınların görünürlüğünden bahsetmemek imkansızdır. Gerek kadın hasta hikayelerinde, gerekse *Corpus*'un tamamında sadece üreme fonksiyonlarına da değiniliyor olsa, kadınlar apaçık görünür haldedir ve bu tutum önceki dönemlerdeki yazında görülmeyen bir durumdur. Böylesi bir vurgu literatürde çok yeni kullanılmaya başlamıştır (Holmes, 2010) ve feminist yazarlar arasında sözü henüz geçmemektedir. Holmes'in fiziksel beden kavramının çıkışını anlattığı kitabı, kadın ve erkek bedeni arasında ayırım yapmadan, her ikisinin de Hipokratik metinleri içine alacak şekilde, bu dönemde icat olduğu vurgusu, elinizdeki tezin anlamını artırıyor.

Hipokrat belki de kadının kültürel yeri konusunda çağının diğer düşünürlerinden çok da farklı bir bakışa sahip değildi. Ancak onun tıp pratiğindeki bütüncül bakışı, kadın bedenini sadece üremeye de odaklı olsa, bütündeki diğer bileşenleri tamamlayacak şekilde ve birçok metnin temel konusu olacak şekilde görmeye ve görünür kılmaya itti. Eğer amacınız belli bir topluluğun ki Hipokrat için bu Antik Yunan toplumu, genel sağlığını, verimliliğini ve hayatının devamını sağlamaksa, elbette kadınların önemi görmezden gelinemezdi. Burada, dördüncü bölümde tartışıldığı üzere, üreyebilen kadın bedeni her zaman belli bir tartışmanın konusu olmuştu, ta ki belli bir *oikos*'a, ekolojiye entegrasyonu sağlanana kadar. Böyle bir sistemde, hekimin ilgisinin kadının üreme fonksiyonlarını düzenleme/sağaltma üzerine olması elbette şaşırtıcı değildir.

İşte böylesi bir müdahale durumu, kadınlara özgü bir tıp dalının ortaya çıkmasına yol açmış olabilir. Yanı sıra Hipokratik stil tıp, doğa üstü güçlerin ve rahiplerin keyfi müdahalelerine karşı geliştirilmiş belli bir müdahale etiği de içeriyordu. Doğa'nın anlamı belki burada bulunabilir; doğa kendi içinde bir dinamizm (*dunamis*) barındırır görünmektedir ve genelde iyileşmeye doğru iş görür. Yine de belirtilmelidir ki ölümler de Hipokratik stilden dışlanmamıştır, ve doğanın bir parçası gibi kabul ediliyor görünmektedir. Burada Hipokratik hekim, ya da bizim kullandığımız metaforik anlatımla Hipokratik doktorun gözü, doğanın iyileştirici gücünü (*dunamis*) kanalize ederek ve ona asistanlık yapmaktır. Burada yetkinlik (*arete*) gözlemin tekrarından ve kullanılan yollara alışkın olmaktan geçer. Tümörler

konusunda yukarıda bu tarz bir yetkinlikten Kapadokyalı Areteaus ile ilişkili olarak bahsedilmiştir. Aynı şekilde Doğa'nın iyileştirme gücü de Gorgias'ın karısı örneğinde, yukarıda anlatılmaya çalışılmıştır. Doktor yahut Hipokratik Göz, kendi yetkin olmayan davranışlarından doğabilecek herhangi bir kazayı engellemeye çalışır (ilk kural zarar vermemektir), ve böylece bir tür alışkanlık oluşturarak *arete*'ye ulaşır.

İyileştirmeye çalışan doğa motifi, yine de yetkin olan *Hipokratik Göz*'den daha etkili görünmektedir. Burada doktorun müdahalesinden çok gözlemi önem kazanır ve doktorun doğayla olan iş birliği önemlidir. Bu çalışmada, dördüncü bölümde anlatıldığı şekilde, göz metaforunun tercih edilmesi bu yüzdendir. Gözlem yetkinliğin olmadığı bir alanda müdahale etmemeyi ya da çok dikkatli olmayı gerektirir. Böylesi bir müdahalenin reddiyesi ve kararları doğaya bırakış, Hipokratik doktor için bir tür fiziksel olanla duygusal olanın birleştirilmesi, ikisinin karşılıklı bütünleştirilmesi anlamı taşır. Bu bütünleştirici bakış, yine içsel olanla dışsal olanı, insanla çevreyi bir arada görüş ve buna göre davranış hali olarak da görülebilir. Bu görüş çalışmada ekolojik bir bakış açısı olarak ayrıntılı olarak anlatılmaya çalışılmıştır. Kadınların doğasının da yine bir *oikos*-ekoloji içinde görülmesi bu bakışın önemli bir parçasıdır. Ayrıca özellikle dördüncü bölümde okunabileceği şekilde bu tür bir iş yapma/anlayış biçimi (stil), hastanın da iş birliğini getirir ve hastayı iyileştirmeye doğru bir tür yöneliş olarak görülebilir. Burada yine psikolojik olanla fizyolojik olan bütüncül bir şekilde bir arada anlaşılmıştır. Yine çalışmada gerekli yerlerde bahsedildiği üzere yunan düşüncesinde bu tarz düşünme -psikolojik olanla fizyolojik olanın bir arada düşünülmesi, yaygındır. Böylece elinizdeki bu çalışmada bolca tartışılan rasyonel ve irrasyonel iş yapma biçimlerinin antik yunan tıbbında bir arada yüzyıllarca devam etmesi ve su sıvısının hem analojik hem de analitik anlamda kullanılması da anlaşılır olabilir.

Özetle Antik Yunan biliminde metaforik olanla ampirik olanın beraber yaşaması ruhu içinde söylenebilir ki, Hipokratik kadın hasta gözlemleri “tapınak bakiresini” dışarıya, görünür olanın alanına getirmiştir. *Epidemikler*'de adı geçen ve kocası ya da babası olan bir erkek adıyla anılmayıp, Hera tapınağıyla adı anılan Melidya, büyük ihtimalle tapınakta görevli idi ve onun hasta kaydında da görebileceğimiz gibi, o bile Hipokratik gözlemin nesnesi olabilmişti. Normalde tapınak dışına çıkmalarına bile izin verilmeyen bu “beyaz kollu” kadınların hastalık

hikâyelerinin Hipokrat'ta böylesine açık bir şekilde bulunması, kadınların fiziksel ve duygusal olarak Antik Yunan'dan günümüze bilim, tarih ve felsefede yer bulmalarını sağlıyor gibidir.

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09/2006 – 06/2009 METU, Department of Philosophy, Student Assistant

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History and Philosophy of Science, Medical Humanities, Gender Studies, History and Science in Ancient Greece, Greco-Roman Medicine, Natural Philosophers (Pre-Socratics)

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2008 Maltepe Univ., Philosophical Talks

From Kuhn to Lakatos: The Concept of ‘Scientific Research Programme’

05/2012 III. Women Physicians and Women’s Health Congress,

Health in Ancient Greece: A Study on Women’s Health and Diseases in Hippocratic Writings

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REFERENCES

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Soyadı : AKŞİT

Adı : GÖKÇESU

Bölümü : FELSEFE

TEZİN ADI (İngilizce): WOMEN'S NATURE (*PHUSIS*) AND DISEASES AS OBJECTS OF OBSERVATION IN THE HIPPOCRATIC GYNECOLOGICAL WRITINGS: AN EPISTEMOLOGICAL STUDY

TEZİN TÜRÜ : Yüksek Lisans Doktora

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