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Chapter:

(p.17) 1 Galen and Mental Illness

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Abstract and Keywords

This chapter aims to describe and to explain the development of the medical notion of insanity in Greek medicine, primarily the 2nd-century writings of Galen. Before the Islamic era, Hippocratic medicine had been considerably augmented by the works of Galen in the 2nd century ad. Although the Hippocratic corpus was always highly esteemed in the Middle Ages, it was overshadowed by Galen because of the extent and nature of his writings. When Galen came to explain psychic disorders, he relied on humoral theory which stated that mental disturbances resulted mainly from humoral imbalances in the brain that damaged its functioning. Medical treatment aimed at re-establishing the balance of the bodily humours, primarily on the principle of contraries, or at removing or moderating the effect of physical causes, especially by evacuations and drugs.

Keywords: Galen, mental illness, Greek medicine, psychic disorder, humoral theory, mental disturbances

Before the Islamic era, Hippocratic medicine had been considerably augmented by the works of Galen in the second century AD. Although the Hippocratic corpus was always highly esteemed in the Middle Ages, it was overshadowed by Galen because of the extent and nature of his writings. Galen was extremely prolific, leaving perhaps the largest volume of extant works by a single classical author, with the possible exception of Augustine. In his writings, Galen idealized Hippocrates, frequently invoking his authority in support of his own point of view, even where there was clear disagreement with Hippocrates; nevertheless, he explained and enlarged upon the difficult Hippocratic works.¹ He also sought to promote the scientific value of Hippocratic medicine and the professional status of its practitioners. A contentious writer, Galen frequently argued against other physicians and their medical philosophies in favour of his own eclectic medical system. His strident voice was successful in drowning out most opposition—which was similar, in a curious way, to the contemporary elimination of religious pluralism in the Graeco-Roman world by Christianity. In any case, Galen reconciled the conflicting approaches in medical thought down to his own lifetime, and he added significantly to medical knowledge by his anatomical studies. The eleventh-century Egyptian doctor Ibn Riḍwān stated succinctly: ‘Galen refined the teaching of Hippocrates and made the art of medicine easy and comprehensible for talented people who desire it’.²

Galen appears to have had an important impact on medicine even during his own time. After his death, the wide dissemination of his works is indicated by the survival of a papyrus codex of one of his books, *De placitis*, that circulated in Egypt in the first half of the third century.³ (p.18) Largely as a

result of his promotion by the medical school of Alexandria, Galen's system of medicine came to dominate the field in late antiquity. The eminent medical historian Owsei Temkin has aptly called this intellectual hegemony 'Galenism'.⁴ The study primarily of selected works of Galen and the implementation of his theory of medicine, centring on the notion of humoral pathology, became the core of professional medicine for centuries in the Middle East. Through Syriac and, then, Arabic translations of Galen's texts, as well as through summaries and commentaries, doctors in Islamic society had available to them by the tenth century AD every work of Galen that was still being read in the Greek centres of learning.⁵

The key concept of Galenism was the humoral theory. It had only been suggested as a possible explanation of human physiology in the Hippocratic corpus, but it had a number of advantages. The humoral theory was closely related to the earlier development of Greek natural philosophy. The Hippocratic doctors borrowed the concept of the four elements of nature—air, earth, fire, and water—and considered them to be the essential elements of the human body. These elements corresponded, in theory, to the four humours that were believed to be produced in various organs of the body: blood, black bile, yellow bile, and phlegm. In time, the humours became associated with the seasons of the year, the stages in a person's life, and people's temperaments. Each humour was itself made up of two qualities; blood was moist and hot, black bile was dry and cold, yellow bile was hot and dry, and phlegm was cold and moist. The doctor, in various ways, was supposed to manipulate these humours by their qualities in order to maintain a humoral equilibrium, which was the meaning of health, or rectify their disequilibrium, which was illness. The humoral imbalance was caused by natural factors within or outside the body, which produced an excess or deficiency of a humour or its qualitative change in the entire body or one of its parts. The nature of the illness was directly related to the affected humour. In its ethical implications—derived from the notion of balance or moderation in all things—the humoral theory was more than a medical principle; it was part of a pervasive world-view.

Concerning mental disturbances, black bile was believed to be the aetiological source. The Greek *melaina chole* or Latin *atra bilis* might mean a mental disorder, involving fear and sadness, but it usually meant a state of black-bileness or biliousness in the body. As such, black bile, being cold and dry, represented the notion of malignancy, which was (p.19) opposed to the qualities of heat and moisture that all living things needed for survival. Excessive black bile was believed to be the cause of a wide variety of serious infirmities besides insanity, such as leprosy, cancer, and rabies. In the Hippocratic *Nature of Man* black bile was understood to be one of the four cardinal humours, while retaining its sinister status as a pathogenic agent. Natural black bile or black humour was produced mainly from a cool, dry regimen. 'The spleen attracts the coarsest parts of this humour and nourishes itself with the best of it. It directs the rest to the mouth of the stomach (that is, the upper end of the stomach, Greek: *kardia*) so as to stimulate the appetite. The less coarse components of the black humour reach the whole body with the blood in the veins so as to nourish those organs that need coarse, cold food, for example, the bones and cartilage.'⁶ The toxic form of this humour was usually the result of its excess or a change in its quality by the putrefaction of other healthy substances in the body, particularly the blood, by chilling, or alternatively by burning of the natural black bile. Burnt black bile could also be caused by the burning of yellow bile, which was even hotter and sharper. In general, Galen developed the notion that melancholia was either the excess of natural black bile or the presence in the body of this unnatural, i.e. burnt, black bile, which was known as *melancholia adusta* to medieval Latin doctors. With the gradual elaboration of the humoral theory, there developed a kind of incinerator principle based on the transformation of the humours that was unidirectional; cooking or maturation could transform the bodily humours from one to another: phlegm could become blood, blood could become yellow bile, and yellow bile, black bile.⁷ All the humours could logically end up as overcooked black bile, which could produce mental disorders.

With this medical theory in hand, it is disconcerting to find that Galen says so little about insanity and psychic disorders. This omission was recognized by Islamic medical writers.⁸ Yet, in Galen's time, a number of psychic illnesses, such as mania, melancholia, epilepsy, and phrenitis, were conventionally understood to involve serious mental disorder and were individually discussed in the medical literature. Rufus of Ephesus, who lived in the late first century BC to the mid-first century AD, had written an influential monograph on the issue of melancholia.⁹ Cornelius Celsus in the early first century AD appears to have been the first to treat (p.20) mental disturbances collectively in his medical textbook.¹⁰ Nevertheless, Galen did not discuss them systematically. Rudolph Siegel has suggested that Galen's relative disinterest in mental disturbances was due to the fact that *paraphrosyne*, or mental derangement, represented 'only temporary symptoms or individual variations of an underlying humoral or structural damage of the brain'.¹¹ Although this is true, it seems an insufficient explanation. Why did most ancient physicians, and Galen in particular, avoid this thorny area of insanity despite the fact that most of the modern forms of mental derangement are recognizable in the classical sources?¹²

It is likely that mental incapacities generally were not as prevalent in antiquity as in modern times for a number of reasons, especially the high mortality of mentally impaired children.¹³ A priori, death would have resulted naturally from congenital illnesses that are associated with mental retardation in childhood. In addition, serious mental and physical anomalies would have been recognized in infants and young children and may often have led to their destruction by their parents. Infanticide was legitimate in ancient Greece and Rome until the fourth century; even then, despite the change in the official attitude of the state to infanticide and the exhortations of the Church, the recurrence of legislation against it suggests that the practice was not eliminated.

(p.21) With regard to infanticide in Islamic culture, the destruction of infants was a common practice among the inhabitants of pre-Islamic Arabia. The Qur'an describes infanticide as a prevalent practice among non-believers and prohibits it, thus becoming one of the major regulations of Islam. The reasons for infanticide among the pagan Arabs had been the inability of parents to support additional children, the undesirability of daughters, and religious sacrifice. It is arguable that infanticide did not disappear, however, with the advent of Islam; it seems that it persisted illegally as a form of contraception, as a means of dealing with illegitimate births, and as a consequence of dire economic distress.¹⁴ It is possible that infanticide was also committed against infants and children who were seriously ill or mentally defective. For example, the eleventh-century geographer al-Bakrī says that the people in northern Morocco did not allow the physically defective (*dhā 'āha*) to dwell in their country because it corrupted their progeny.¹⁵ Thus, aside from the natural attrition of the physically impaired, the purposeful destruction of the mentally deficient may have limited their numbers and, therefore, have lessened their demands on society.

Still, there were mentally disturbed individuals in antiquity, and the responsibility for them rested on the family of the afflicted, as it did for those stricken by other illnesses. This familial obligation was very strong indeed, and despite the advent of hospitals in the medieval period, it remained a constant feature of healing from antiquity to modern times in the Mediterranean world.¹⁶ Thus, the common expectation was that the mentally disabled would be provided for in the home. For example, Plato had stipulated that madmen should be kept at home by every (p.22) possible means: 'A madman is not to go about at large in the city, but is to be taken care of by his relatives. Neglect on their part is to be punished in the first class by a fine of a hundred drachmas, and proportionally in the others.'¹⁷ Naturally, familial care could vary enormously, being dependent on wealth, education, and social expectations as well as the condition itself. A wealthy family could afford a physician who might attempt a diagnosis and treatment, especially with hellebore, the standard treatment for insanity in

antiquity.¹⁸ On the other hand, if modern studies of the distribution of mental illnesses are correct, psychic disorders and the most serious forms of such disorders are predominant among the poor, who are the least able to afford expensive medical care, and the state in antiquity assumed no responsibility for the sick poor.

Moreover, neither a doctor nor the family of the seriously disturbed was probably predisposed to medical treatment. Because of the difficulties in the treatment of the insane, it seems improbable that the enterprising doctor of antiquity would undertake such a lengthy, demanding, and unpromising responsibility. If a prognosis were normally expected at the outset of an illness—as it appears to have been—nothing could have been more risky for a doctor's career than a prediction of the course of most chronic mental disturbances. For less serious mental disorders, particularly depression, medical treatment was apparently predictable and profitable for the ancient doctor. The relatively full discussion of depression or melancholia in the Greek medical texts, and subsequently in the Arabic texts, may be explained by the fact that it was probably the most common mental disturbance in the ancient and medieval worlds and the most commonly treated.¹⁹ On the other hand, most people probably did not consider disturbed behaviour as a medical issue at all.²⁰

(p.23) When Galen came to explain psychic disorders, he relied on the humoral theory; mental disturbances resulted mainly from humoral imbalances in the brain that damaged its functioning. Medical treatment aimed at re-establishing the balance of the bodily humours, primarily on the principle of contraries, or at removing or moderating the effect of physical causes, especially by evacuations and drugs. The psychic causation of such maladies was well recognized in some pre-Galenic texts, such as Rufus' treatise on melancholia, but psychotherapy, in the modern sense, was rudimentary. Psychic causation was largely eclipsed by the humoral theory and psychic treatment was interpreted somatically in Galenic medicine. The inadequacy of such an interpretation must have been evident to Galen himself and helps to explain his reluctance to deal thoroughly with mental illnesses. In terms of the modern 'nature/nutrition' controversy over the origins of mental illness—which has actually been a perennial socio-medical question—Galen came down strongly on the side of nature.

Galen's psychology was naturally a part of his physiology, and it was also closely related to his notion of the soul. Galen believed that there were three powers or faculties that were located in the three main organs of the body; the interplay of these powers governed the whole physiological process. The concupiscible or appetitive power of the soul was located in the liver and was responsible for conception, growth, and nourishment; the irascible power in the heart generated the emotions, such as courage, anger, and joy; and the rational power in the brain was unique to human beings and was corporeal. This last power was responsible for three functions: the senses, voluntary movement, and autonomous intellectual activity. Following Hippocrates and Plato, Galen held that the centre of sensation and consciousness was in the brain, whereas Aristotle and the Stoics had given primacy over all the (p.24) organs to the heart. And to explain the functioning of the heart and the brain, Galen posited the existence of two spirits, or *pneumata*, in the body: the vital pneuma in the heart and the psychic pneuma in the brain.²¹

Galen's views on physiology were developed considerably in late antiquity and became the backbone of medico-philosophical psychology during the Middle Ages. In Islamic medicine the three bodily powers were generally known respectively as the natural powers (*al-quwā t-ṭabī'īya*), the animal powers (*al-quwā l-ḥayāwānīya*) and the psychic powers (*al-quwā n-naḥsānīya*).²² Related to these faculties were the three corresponding pneumata, which were essential to the functioning of the body. The natural spirit (*ar-rūḥ aṭ-ṭabī'ī*), about which Galen had said very little, originated in the purest blood in the liver and was transmitted through the veins to the organs, and it supported the workings

of the natural faculties.²³ The animal spirit (*ar-rūḥ al-ḥayāwānī*) originated in the heart from the mixture of pure vapour of the blood and the inhaled air; it reached the organs through the arteries and supported the functioning of the animal faculties. And the psychic spirit (*ar-rūḥ an-nāfsānī*) originated in the animal spirit that rose up to the brain through the two carotid arteries and was transformed into the psychic spirit in the back of the brain. The pneuma in the posterior ventricle of the brain facilitated memory and bodily movement through the nerves; in the front of the brain it influenced sense perception, conception, and fantasy; and in the central ventricle it supported cognition. According to Galen, as with the Islamic writers, the three rational functions could be damaged either all together or separately by an humoral excess arising from the rest of the body or by an excess in the brain's innate qualities.²⁴

The combination of qualities (hot, cold, dry, and moist) that characterized all living things was known as temperament or complexion (p.25) in Galen's physiology, and the notion was also fully developed in the Middle Ages.²⁵ The temperament (Gr. *krasis*, Arab, *mizāj*) of an individual was the blending or mixing of the four humoral qualities in the body. Unlike Hippocrates, Galen argued that there was not just one ideal form of health, in which the qualities were in perfect balance, and conversely only one form of illness. There were nine possible conditions of health: one in which there was an exact balance of the qualities, four in which one of the qualities predominated, and four others in which the predominant qualities appeared in pairs of hot and moist, hot and dry, cold and dry, and cold and moist. Galen understood the temperaments to be physical predispositions; an individual's temperament or constitution determined his susceptibility to certain illnesses and governed his behaviour. All the principal organs of the body had their own temperament and could serve as the site of disease. Numerous external factors influenced a person's temperament, such as climate, age, sex, and habitual behaviour, which could be manipulated by a doctor to improve a patient's well-being. In Galen's 'physiological psychology' the temperaments were crucial because mental powers were dependent on the bodily temperaments.²⁶

From the time of Hippocrates to Galen a scheme of classification for psychic disturbances was gradually developed that comprised primary acute forms of mental disorder that were associated with fever, which were called phrenitis and lethargy because of their symptoms of excitement and depression respectively, and primary chronic forms without fever, which were called mania and melancholia because the first was generally characterized by excitement and the second by depression.²⁷ This nosological outline, which by its terminology betrays its popular origins, was inadequate, but it was the framework within which mental disturbances were observed and discussed. It was also the point of departure for Galen.²⁸

Galen's accounts of melancholia, epilepsy, mania, and phrenitis demonstrate his interpretation of the nature of mental disturbances. Galen relied heavily on Rufus of Ephesus for his interpretation of melancholia, and he acknowledges this debt.²⁹ Rufus had composed a (p.26) two-volume work on the causes, symptoms, and treatment of melancholia, which was extremely influential on later writers; the work is now lost and is known only from citations to it in other works, but it was known in an Arabic translation in the Middle Ages. Rufus appears to have established the long-lived aetiology of melancholia: the condition originated in the brain or it rose to the brain from the epigastrium or from the whole body.³⁰ Rufus appears to have distinguished carefully between the symptoms of early and advanced melancholia because the malady must be combated before the black bile became too strongly established in the body and while the patient was still amenable to treatment. In the initial stages, the doctor would be able to talk to the patient, learning his medical history and influencing his behaviour. Furthermore, Rufus says that melancholia is more frequent among men, the old, and during the autumn. The symptoms of the advanced form of melancholia were the same as in the initial

stages, but they were stronger and more pronounced. The basic cause was the blackening of the bodily humours.

Rufus' description of the physical and psychic signs of melancholia was detailed, and elements of his description would reappear verbatim in Arabic accounts of melancholia. In this context, Rufus dealt with one issue regarding melancholia that has attracted considerable Western scholarly interest, mainly because of the rehabilitation of Aristotelian 'melancholia' during the Renaissance. In the pseudo-Aristotelian *Proble-mata*, which was probably written by Theophrastus, there appears the notion that melancholia was a particular characteristic of creative or talented men. The subject is posed in this way: 'Why is it that all those who have become eminent in philosophy or politics or poetry or the arts are clearly of an atrabilious temperament, and some of them to such an extent as to be affected by diseases of black bile?'³¹ Thus, gifted persons usually had a melancholic temperament and were often predisposed to black-bile illnesses. It has been suggested that this idea was a quasi-medical version or secular interpretation of Plato's divine madness; the divine talent of the poet, lover, mystic, or prophet was reduced to a melancholic temperament.³² Clearly, it was a reassertion of the (p.27) physiological approach. From mantic to manic, the afflicted individual slowly lost his aura of divinity in the medieval medical texts. Divinity was replaced by ascriptions of delusions. Rufus was mainly responsible for this decline of melancholia from its hallowed place. He said that melancholia was simply the result of too much thinking and sadness, rather than the cause of intellectual pre-eminence.³³ Although the *Problemata* was translated into Arabic,³⁴ the idea of the melancholic genius never appears to have been resurrected in the Arabic medical literature. For example, in the ninth-century treatise on the subject by Ishāq ibn 'Imrān, melancholia is the plight of the holy man, the lover, and the scholar: 'as bodily fatigue leads to severe illnesses of which weariness is the least, so mental fatigue leads to the most difficult and worst illness, which is the illness of melancholia'.³⁵ Ar-Rāzī asserts simply that delusion and melancholia are the result of too much rational activity.³⁶ The same idea is still to be found in a seventeenth-century medical text, which cites Rufus as 'an Arab physician', where a common type of insanity (*murrāe soudā*) 'attacks men who devote their lives to science and art'.³⁷

For therapy, Rufus gave many remedies, as well as advice on suitable food and drink; he also recommended bleeding and vomiting, but strong emetics were dangerous. Many of these treatments would also reappear in medical works of late antiquity and the Middle Ages. Aside from the healing qualities of nature, he emphasized the healing qualities of sexual intercourse and wine. He clearly established the distinction between initial and advanced stages of the condition, which was essentially one illness with numerous symptoms. Altogether, Rufus created the framework for understanding and treating melancholia in late antique and Islamic medicine.

Ar-Rāzī commented at the end of his excerpts from Rufus' work that 'this man', presumably Rufus, did not mention anything except his observations.³⁸ Indeed, Rufus was well known for the exceptional richness of his clinical descriptions. The application of Rufus' theory of melancholia can be seen in the cases that are reproduced in the textbook (AD 873) of Sarābiyūn ibn Ibrāhīm.³⁹ The textbook contains twenty-one (p.28) cases; the first five concern melancholia primarily. Sarābiyūn says that they are from Rufus and other 'ancient and contemporary doctors'. The first case is clearly from Rufus; moreover, Manfred Ullmann has argued persuasively that all twenty-one are from Rufus.⁴⁰ In the first two cases melancholia may be said to have been the result of physical illnesses; in the following three cases, it is mainly psychological. The second, third, and fourth cases are representative and illustrate well his view of melancholia and his therapeutic method. (See Appendix 1.)

Galen added very little to Rufus' interpretation of melancholia except for a tighter arrangement of the three forms of melancholia (cerebral, epigastric, or bodily) and the inclusion of the melancholic as one of the non-pathological temperaments, a theory that would be fully developed only later. Thus, melancholia could refer to a chronic, non-febrile mental condition or to a temperament that predisposed an individual to different forms of mental disturbances.⁴¹ Galen was emphatic that the mental faculties followed the state of the body, and his work on this topic, *That the Powers of the Soul Follow the Temperament of the Body*, was known to Islamic physicians.⁴² The effect of the excess of black bile in the brain was usually fear and anxiety, sadness and misanthropy; the essence of melancholia was the fear of death. 'Although each melancholic patient acts quite differently than the others, all of them exhibit fear and despondency. They find fault with life and hate people; but not all want to die. For some the fear of death is of principal concern during melancholia. Others again will appear to you quite bizarre because they dread death and desire to die at the same time.'⁴⁴ In addition, Galen describes a number of delusions: one patient believes that he has been turned into a kind of snail and, therefore, runs away from everyone he meets, so that he would not be crushed; another patient sees some crowing cocks flapping their wings to their song, so he beats his own arms against his ribs and imitates the voice of the animals.⁴⁴

Melancholia could be an aspect of any disease or the result of a bodily injury, and the treatment should be directed to the damaged part of the (p.29) body. At the beginning of treatment for melancholia itself, Galen says, it is important to determine whether the condition arises from atrabilious blood in the whole body or only in the head; in the former case, the patient is to be bled, in the latter case he should not be. He recommended appropriate diet, exercise, and medication; numerous forms of bodily evacuation were prescribed in order to remove the black bile. Galen reminds the reader that his pupils had seen him bring about a complete cure of melancholia by advising frequent bathing and a proper regimen.⁴⁵

Second, epilepsy was not commonly considered in antiquity to be a mental disorder, but Galen emphasized the physical involvement of the brain. Stagnation or deposits of the cold thick humours, i.e. black bile and phlegm, caused epilepsy by obstructing the free passage of pneuma through the cerebral ventricles. Galen agrees with the statement in the Hippocratic *Epidemics VI* that the melancholic may become epileptic and vice versa. Like melancholia, this disorder could arise in three ways. It originated principally in the brain, where a viscous humour obstructed the outlets of the pneuma in the cerebral cavities, causing convulsions; there was a temporary loss of reasoning power and sensory perception. It might also originate secondarily in the impairment of the cardia, or in any part of the body.⁴⁶ Similar to epilepsy, apoplexy and vertigo were due to the impaired flow of the cerebral pneuma because of the accumulation of the cold humours.⁴⁷

Third, mania was a chronic non-febrile disorder of the brain; this condition was caused by an excess of yellow bile or heat in the head. Reason is lost along with memory, and the patient's behaviour is characterized by pathological excitement and hallucinations. A violent pulse at the bend of the elbow was a symptom of maniacal and irascible individuals. As in melancholia, it could arise in the brain; it could be a sympathetic affection; or it could occur as a consequence of another ailment.⁴⁸ Galen has very little to say, however, about this condition. Moreover, he says nothing about the Socratic categories of 'divine madness' (i.e. prophetic, telestic, poetic, and amatory madnnesses); like the 'melancholic genius', divine madnnesses are not discussed in the later Arabic medical texts.

(p.30) And fourth, phrenitis was a common term in ancient medicine, and Galen had a good deal to say about it. His discussion of the topic is important for the later development of the whole subject of

mental illness.⁴⁹ Phrenitis was an acute illness with delirium and fever, in which the delirium persisted after the fever had subsided:

a specific and exceptional feature of phrenitis is that the delirium does not subside after the peak of the fever, because the brain is not involved by sympathy during the disease but by *idiopatheia* [intrinsic disease] or *protopatheia* [primary seat of disease]. Therefore, this disease (paraphrosyne) develops gradually and the patients do not become deranged suddenly and all at once as [in disease of] other organs, as just explained.⁵⁰

Galen tried to distinguish phrenitis from common fever delirium although this appears to have been unsuccessful. He clearly dissented, however, from the traditional Greek view that the soul and its disorders were located in the *phrenes*, or the diaphragm;⁵¹ he considered the *phrenes* as an organ of respiration.⁵² According to Galen, phrenitis was a primary condition of the brain or meninges, affecting sense perception and judgement. The condition was caused by abnormal dryness and heat, i.e. yellow bile,⁵³ or a deficiency of the animal spirit. This caused the dysfunction of the brain, so that the afflicted might receive impressions from the outside correctly but misinterpret them, might act foolishly, or both.

Galen mentions the prodromal symptoms that earlier writers had also mentioned: insomnia or sleep disturbed by frightening dreams that are accompanied by violent movements; periods of forgetfulness so that the afflicted call for the chamber-pot but forget to urinate, or urinate without first preparing the chamber-pot; or they give unnecessarily vehement or brusque replies, especially when the questioner has adopted a mild tone—an interesting example perhaps of a doctor's attempt to interrogate his patient. All such victims drink little, draw long but infrequent breaths, and have particularly feeble and nervous heartbeats; frequently, they also suffer pain in the occiput. When a phrenitic attack occurs, the eyes are very dry, or they become watery alternately; subsequently, they become infected and bleary. These symptoms may be (p.31) accompanied by bleeding from the nostrils. When the patient is delirious, his hands pick involuntarily at the bedclothes, and he is generally unable to respond to any stimuli.⁵⁴

Another type of phrenitis arose from the diaphragm and affected the brain only secondarily; this category seems to have been a compromise with the older medical as well as non-medical belief. In this case, the delirium was almost continuous, but the eye and nose symptoms were lacking and the respiration was more like that of fever delirium. Galen describes other symptoms of phrenitis, such as severe head, neck, and backache, stiffness of the neck, convulsions and violent delirium, and diarrhoea.⁵⁵ This description has confused the clinical picture of the illness and has given rise to numerous theories about its identity. Phrenitis does not correspond, however, to any single modern disease entity and appears to have been an omnibus term. In modern terminology it may, perhaps, have included delirium as a secondary feature of a wide range of fevers such as malaria or typhoid, delirium as a consequence of infections of the central nervous system such as encephalitis, meningitis,⁵⁶ cerebral malaria, and psychoses that today might be subsumed under the heading of schizophrenia and are distinct from manic-depressive psychosis. Galen's remark that delirium persists after the fever has abated suggests that it is necessary to include psychiatric conditions as well as secondary causes of delirium (delirium due to fever) in the blanket term 'phrenitis'. Galen's therapy for phrenitis was directed primarily to the head although some remedies were to be applied to the diaphragmatic region. The remedies were naturally aimed at opposing the qualities of the damaging humour; opium and theriac were specifically recommended as sedatives.⁵⁷

(p.32) A large array of conditions were related to these illnesses because of a nosology based on humoral pathology that would today not be considered mental disturbances.⁵⁸ For example, severe

delirium was considered to be the result of the toxic effect of excessive black bile in the central nervous system.⁵⁹ Lethargy was an acute state of the brain without fever; it was a stuporous condition, with loss of reason and memory, caused by the excessive coldness of the humours that numbed the mental functions.⁶⁰ Yet, it could also be accompanied by fever and was related to phrenitis; the conditions, according to Galen, tended to change into one another. The prognosis was good where phrenitis followed lethargy but poor in the opposite case. Associated with lethargy were stupor, coma, and excessive sleep because they were believed to be cold illnesses. Naturally, the qualities of these conditions were important for therapy. Hysteria was not a traditional form of mental disturbance in the ancient world. Galen himself did not consider it a mental disorder. The condition was thought to be caused by the retention of menstrual flow or of semen.⁶¹ Subsequently, Ibn Sīnā follows Galen in the *Qānīn*, where the term for hysteria is *ikhtināq ar-raham*, constriction or suffocation of the womb.⁶² Generally, hysteria is not found among the maladies of the head in Arabic compendia. Furthermore, *dementia* or *morosis* was a condition where reason and memory are both lost.⁶³ They seem to mean a permanent deterioration of mental activity. *Anoia* was a complete loss of reason that might result from severe phrenitis, lethargy, or melancholia. Galen was also sensitive to the debilitating effect of drugs that altered the humours and, consequently, the brain.⁶⁴

From this brief review of mental disorders in Galen's works, it is apparent that a major feature is his strong emphasis on the brain as the site of mental activity and the nervous system,⁶⁵ as opposed to the Aristotelian notion that mental activity was located in the heart. Galen (p.33) clearly states: 'It appears reasonable to us [to assume], since we follow the evidence obtained by dissection, that the soul itself resides in the substance of the brain where the thought process takes place and where the memory of sensory impressions is deposited.'⁶⁶ His teaching on brain anatomy in relation to mental disturbances is a recurrent theme that was utilized in later medical descriptions. Furthermore, he is insistent on the distinction between idiopathic and sympathetic, i.e. primary and secondary, affections of the brain.⁶⁷ Galen's interpretations of mental disturbances are also quite significant for later medical writers because of his unification of doctrine. On the one hand, he disregarded much earlier work on the subject, especially regarding psychic treatments; on the other hand, he tied mental illness closely to his theories of the humours and their qualities, the pneumata and the temperaments, even when this proved awkward, as in the case of phrenitis.⁶⁸ Thus, '[Galen] seems to have repeatedly insisted that mental states—whether conceived of as cause or effect, whether normal or abnormal—were reflections of physiological states.'⁶⁹

If Galen's point of view about mental disturbances was so strongly somatic, what does he say about the psychic causation of illness?⁷⁰ Apart from his recognition of the psychic aspect of most illnesses, he admits the possibility that psychic disturbances may lead to physical illness. In his commentary on *Epidemics VI*, Galen discusses this matter.⁷¹ The Hippocratic text states that health depends on a proper way of life; according to Galen, it includes a suitable regimen (food, drink, and daily activity), living conditions (home and clothing), exercise, sleep, sexual intercourse, and psychic activity. These were the famous six 'non-naturals' of classical and medieval medicine, which could be manipulated by anyone, but particularly by a doctor, to ensure or restore good health.⁷² Galen affirms that our health and illness depend on these six factors and that all six should be used with moderation. He clearly (p.34) defines the last category as a mental, not a spiritual, activity and states that it is a significant cause of well-being or ill-health. Those who become passionate and excited, even for the most unimportant reason, frequently become ill, and it is difficult to heal them. The fear of death, particularly, affects many people, so that they become ill and die.

Galen emphasizes the fear engendered by augury and presentiments. He tells the interesting story of Maiandros, who lived in Pergamon. His livelihood was divination, and his skill was well recognized by

others. It was Maiandros' custom on his birthday to ask God for a sign about the coming year. On one birthday he went out to observe the flight of birds as an omen for the future and saw an eagle that flew in a pattern that meant inescapable death. He returned to the city visibly shaken, and he became so depressed that his health collapsed. Following a fever, his mind became confused and he was confined to bed. Two months after his birthday he died, his body having completely withered away. Galen tells a similar story about a man who became seriously distressed because of a financial loss; the man became insane—'judging by what he said'—and remained in that condition until he died. Galen also says that he had recently seen in Rome a grammarian named Kallistos, who had lost his books in a great fire there. Kallistos was so upset by the loss that he could not sleep; subsequently, a fever attacked him, and he became infirm until he died. Galen draws the general conclusion that he had seen many people whose bodies languished because of grief or a bad frame of mind. He, then, tells more stories: one of a woman who died after hearing of a friend's death and another of a man from Cappadocia.

The account of the Cappadocian is particularly informative. Galen says that the man had a senseless notion in his head that caused him to become melancholic. The idea that he had put into his head was frankly laughable, according to Galen. Nevertheless, the deluded man's friends saw him crying and asked him about his trouble. He sighed deeply and answered that he was distraught because the world was coming to an end: Atlas had become weak and could no longer carry the world on his shoulders. The heavens would crash down, and they would all be destroyed. Galen does not tell us what happened to the Cappadocian but recalls his accounts of a woman who imagined that she had swallowed a snake, a man who believed that he heard a corpse calling to him, and a man who literally died of shame because of his breaking wind in public. The point of these narratives, according to Galen, is that the doctor must consider it his duty to enquire about the sick patient's state of mind as well as the other five habits; healing can only be obtained through the elimination of harmful thoughts. The characteristics of a healthy mind (p.35) were patience, perseverance, determination, daring, and magnanimity; opposed to them were cowardice, wickedness, meanness, and indolence. Lack of self-discipline, especially, predisposed men to sickness. Galen says that many people escaped ill-health and enjoyed long life through will-power, steadfastness, patience, and even love.

Further in the commentary, Galen discusses self-control and anxiety. Some people respond to medical treatment with great anxiety, so that the doctor must be sensitive to the injury that the patient suffers from treatment itself, and the doctor should be prepared to give another kind of treatment. Anxiety may also arise from numerous fears as well as lovesickness. In these situations, one must divert the patients' minds away from their anxiety and toward things that are pleasant. Particularly helpful are contests that cause excitement, such as wrestling, boxing, animal fights, and hunting; for others, the best diversion is dancing, singing, or flute-playing. Galen says in conclusion that he has studied the conditions of many who have suffered from mental ailments and have been cured; he had written a book on the prognosis of mental afflictions.

Galen's *On Prognosis* relates a number of case histories that demonstrate his diagnostic and prognostic skill, but only three cases involve psychological distress: Iustus' wife, who was lovesick for the dancer Pylades; the rich man's slave steward who was depressed about an audit; and Boethus' son who was anxious about stealing food.⁷³ While Galen's careful observation and common sense are noteworthy, as well as his self-advertisement, these are not instances of serious mental disturbances. As he admits, they are not cases of physical illness but of passion, fear, and anxiety, respectively, that affected one's well-being. In the case of lovesickness, which assumed a significant role in medieval literature, Galen clearly recognized the psychosomatic effects of love, but like other debilitating

conditions, he divorced it from the mystical or supernatural realm: 'Accordingly, we know that neither epilepsy nor love is a divine disease.'⁷⁴

The relevant parts of *On Prognosis* and the commentary on *Epidemics VI* are consistent with his well-known treatises *On the Passions and Errors of the Soul*, which deal with emotional distress or 'erroneous opinion', but again they do not include serious mental alienation. Intense passions 'increased in the souls of the majority of men to such a point that they are incurable diseases'.⁷⁵ What Galen apparently meant was (p.36) that excessive emotions, especially anger, of most people create a preponderance of bile in their bodies that, in turn, might bring about physical changes.⁷⁶ To free oneself from these passions, one needed the advice of a mature individual; as a philosopher-physician, the doctor was well suited to give such guidance. Subsequently, the ethical guidance of the doctor became well established in late antiquity and was later a normal expectation of the Islamic doctor.⁷⁷ Thus, the 'incurable diseases' should be interpreted metaphorically. Galen is espousing Stoicism, not psychotherapy.⁷⁸

Considerable attention has been focused on this question of psychotherapy in the ancient world, primarily because it has been considered as a precursor of modern psychiatric methods. Laín Entralgo has shown that psychotherapy did not occupy an important place in Hippocratic medicine. 'The Hippocratic texts of psychotherapeutic character aim at excessively general, unspecific goals: winning the confidence of the patient and keeping the tone of his spirit at a good level. The physician of ancient Greece did not go beyond this.' This stance was due to a rejection of magical practices, on the one hand, and, on the other to an 'irrepressible tendency of the Hippocratic to see and understand the twofold nature of man somatically and indeed *only* somatically'.⁷⁹ Galen promoted this view to the point that the moral life of man fell within the purview of the physician, for moral irregularity is regarded 'as but a preternatural (*para physin*) condition of human nature'.⁸⁰ Moreover, the major thrust of ancient and medieval medicine was primarily the preservation of health, and it is within that context that the doctor was to advise his normally healthy patient on his proper regimen. At best, the doctor was a moral tutor.

Galen vividly demonstrates his awareness of the influence of psychic events on the body; like the other 'non-naturals', one's state of mind (p.37) influences one's state of health. It would appear that genuine mental illnesses were understood by Galen to be severe and persistent emotional disturbances that might provoke more serious bodily changes than the 'passions' could produce. What Galen does *not* explain is seriously disturbed behaviour that was not the result of any emotional upheaval. The insane usually went far beyond moral irregularity and possible instruction—how could a doctor counsel the irrational? Nor does Galen give any medical treatment for mania. Madness might be explained physiologically, but there was no effective prognosis or therapy, which was as helpful as having no explanation at all. In his indifference to therapy, Galen seems to come close to the Roman legal view of insanity as incapacity or simply a loss of reason; it was a matter neither of morals nor of medical treatment.

Despite Galen's advocacy of humoral pathology and its later monopoly of medical thought in the Middle Ages, his view of medical science was basically eclectic. Its composite character can be seen especially in his interpretation of mental pathology. The Dogmatic tradition, which took Hippocrates as its originator, became the only significant medical philosophy of the post-classical period; from a highly empirical, inductive approach, it became a system from which the explanation of all mental disorders could theoretically be drawn. The Pneumatist tradition of the Hellenistic period was represented by Galen's emphasis on the psychic pneuma or spirit in the functioning of the brain. The Methodist view of medicine may be seen in Galen's therapeutics—the constant emphasis on the

moistening and the relaxation of the body. And the Empiricist tradition may be seen in Galen's experiments on brain physiology. More importantly, his probable experience with the incurability of the insane appears to have prevented him from drawing any firm conclusions about insanity, its nature and treatment.

Finally, the anecdotal stories of famous physicians, such as Galen, and their insane patients reflect the conundrum posed by madness. The stories are not evidence of psychotherapy, physical therapy, or the recognition of the 'unconscious'. They usually attest simply to the cleverness of the doctor faced with an insoluble dilemma. After all, the physician was equipped with only a patchwork of general principles and specific experiences, in which severe mental illness was a peculiarly intractable problem. Despite the desire for a rational explanation, the unfathomable nature of mental disorders and the lack of adequate means to measure them made it virtually impossible to evaluate critically clinical observations and therapeutic results.⁸¹

Notes:

(¹) See W. D. Smith, *The Hippocratic Tradition* (Ithaca, NY, 1979), Find it in your Library ch. 2: 'Galen's version of Hippocratic science and its tradition is in large part his own, a projection of his concerns onto history. While his medical system was put together out of Hellenistic medical developments, his peculiar Hippocratism was fashioned largely as a rhetorical and ideological patina for it' (p. 175).

(²) Albert Dietrich, ed. and trans., *Alī ibn Ridwān: ('Über den Weg zur Glückseligkeit durch den ärztlichen Beruf')* (Göttingen, 1982, 12–13.

(³) Vivian Nutton, 'Galen in the Eyes of his Contemporaries', *BHM*, 58 (1984), 315–24; Find it in your Library Ann E. Hanson, 'Papyri of Medical Content', *Yale Classical Studies*, 28 (1985), 45. Find it in your Library

(⁴) Owsei Temkin, *Galenism: The Rise and Decline of Medical Philosophy* (Ithaca, NY, 1973). Find it in your Library

(⁵) *EI*2, S.V. 'Djālīnūs' (R. Walzer).

(⁶) *IM*, 59.

(⁷) *Ibid* Find it in your Library.

(⁸) See 'Imrān, p. 2/fo. 90a.

(⁹) *MI*, 71–6; *DSB*, S.V. 'Rufus' (Fridolf Kudlien).

(¹⁰) Hellmut Flashar, *Melancholie und Melancholiker in den medizinischen Theorien der Antike* (Berlin, 1966), 75. Find it in your Library

(¹¹) Rudolph E. Siegel, *Galen on Psychology, Psychopathology and Function and Diseases of the Nervous System* (Basle-New York, 1973), 265. Find it in your Library

(¹²) G. C. Moss, 'Mental Disorder in Antiquity', *Diseases in Antiquity*, ed. D. Brothwell and A. T. Sandison (Springfield, Ill., 1967), 720–2. Find it in your Library Unaccountably, modern accounts of psychopathology in the Greek medical texts largely ignore their historical context. See the following:

Ulysse Trélat, *Recherches historiques sur la folie* (Paris, 1839); Find it in your Library J. L. Heiberg, 'Geisteskrankheiten im klassischen Altertum', *Allgemeinen Zeitschrift für Psychiatrie*, 86 (Berlin-Leipzig, 1927), 1–44; Find it in your Library T. Puschmann's commentary in *Alexander von Tralles*, vol. i (Vienna, 1878); Find it in your Library Francis Adams's commentary in *The Seven Books of Paulus Aegineta*, vol. i (London, 1844); Find it in your Library W. Leibbrand and A. Wettley, *Der Wahnsinn* (Freiburg, 1961); Find it in your Library Oskar Diethelm, *Medical Dissertations of Psychiatric Interest Printed before 1750* (Basle, 1971), 15–22; Find it in your Library J. R. Whitwell, *Historical Notes on Psychiatry* (London, 1936), 84–97, 178–82; Find it in your Library Stanley W. Jackson, *Melancholia and Depression: From Hippocratic Times to Modern Times* (New Haven, Conn., 1987), 29–45; Find it in your Library Jackie Pigeaud, *La Maladie de l'âme: Étude sur la relation de l'âme et du corps dans la tradition médico-philosophique antique* (Paris, 1981); Find it in your Library Bennett Simon, *Mind and Madness in Ancient Greece: The Classical Roots of Modern Psychiatry* (Ithaca, NY, 1978). Find it in your Library A more historical approach is taken to the subject by George Rosen in his *Madness in Society* (New York, 1969), Find it in your Library ch. 3, and A. C. Vaughan in her *Madness in Greek Thought and Custom* (Baltimore, 1919). Find it in your Library

(13) Heiberg ('Geisteskrankheiten im klassischen Altertum', 10) calls attention to the absence of syphilis, the lack of widespread alcoholism, and the high mortality rate of mentally impaired children as reasons for the relative lack of emphasis on mental illness in ancient texts. For medieval Europe, see Michel Mollat, *The Poor in the Middle Ages: An Essay in Social History*, trans. Arthur Goldhammer (New Haven, Conn., 1986), 28. Find it in your Library

(14) I am very grateful to Avner Giladi for discussing his research on this topic with me and showing me his articles that are shortly to be published: 'Some Observations on Infanticide in Medieval Muslim Society' and 'Infants, Children and Death in Medieval Muslim Society: Some Preliminary Observations'. See also the brief discussion of infanticide in the Middle East in John Boswell, *The Kindness of Strangers: The Abandonment of Children in Western Europe from Late Antiquity to the Renaissance* (New York, 1988), 186. Find it in your Library Boswell raises this issue within the context of his inconclusive account of abandonment of children in early Islam. The exposure of children does appear to have been practised at the time of Muhammad and during the medieval period, particularly as a result of the strict prohibition against infanticide. The reasons for abandonment in Islamic society were probably comparable to those in antiquity and in medieval Europe that Boswell describes in detail. Moreover, it is likely that defective children were commonly abandoned in medieval Islamic society as they were in contemporary European society; see *ibid* Find it in your Library. 240–1, 259–60, 298–9, 337–9, 403, 320 n. 89, and illus. no. 12.

(15) Abū 'Ubayd al-Bakrī, *al-Masālik wa l-mamālik*, ed. De Slane, 2nd edn. (Algiers, 1911), p. 102, 11. 17 ff.

(16) *Nile* (New York, 1983), a modern novel by Laurie Devine, portrays well the traditional expectation of familial care. The story chronicles the demise of a rich Jewish family of Alexandria after the Second World War and the loving, attentive care that was given to their mentally retarded son.

(17) Plato, *Laws*, xi. 934, in *The Dialogues of Plato*, trans. B. Jowett, iv (Oxford, 1953), 161. Find it in your Library

(18) Cf. Rosen, *Madness in Society*, 131–2. The evidence from the *Menaechmi* cited by Rosen actually demonstrates the futility of summoning a physician for the treatment of the insane. Furthermore, the writings of doctors in antiquity do not 'clearly indicate that they made clinical observations and

treated patients in sufficient numbers so as to acquire a considerable experience' (p. 132); there is no documentation for this assertion.

(¹⁹) For comparison, a survey of depressive psychoses in urban Lebanon in 1964 may have some value; see H. A. Katchadourian and J. V. Sutherland, 'Affective Psychoses in Lebanon', *Leb. Med. J.*, 28 (1975), 165–6. Find it in your Library

(²⁰) A recent study of attitudes toward mental illness in Turkey appears to support this generalization. Orhan M. Öztürk and Vamik Volkan ('The Theory and Practice of Psychiatry in Turkey', in *Psychological Dimensions of Near Eastern Studies* (Princeton, NJ, 1977), 354) Find it in your Library cite the study of Y. Savaşır ('Ruh hastalıkları ve hastalanna karşı tutum ve inançlar üzerine bir Araştırma' ('A Study on Attitudes and Beliefs Regarding Mental Illness and the Mentally Ill'), diss., Hacettepe University Medical School, 1969): 'Savaşır studied two sociocultural extremes—an isolated traditional village in central Anatolia and a highly modernized section of metropolitan Ankara—and compared the attitudes toward the understanding of mental illness in these two communities. The results of this study show that a good many psychiatric entities are not recognized adequately by the urban or the rural people. For example, fictitious case histories of a simple schizophrenic, of an alcoholic, of a paranoid psychotic, and of a man suffering an anxiety reaction were recognized as mental disorders by only 10 per cent of the adults in the village and about 15 per cent of the modern urban community. Hysterical fainting spells and a case of an immature aggressive person with low frustration tolerance were recognized as mental disorders by about 40 per cent of both urban and rural adults. Whereas a case of obsessive-compulsive neurosis was not at all seen as a disorder by the villagers, 60 per cent of the urban subjects labelled this condition as a mental disorder. Homosexuality and sociopathic conditions were not considered mental disorders by the villagers and only 20 per cent of the urban subjects saw these as illnesses. About 50 per cent of the urban subjects recognized sexual impotence as a illness, whereas most of the villagers considered it a result of magic or of being possessed.'

(²¹) It is not irrelevant to note that Christianity and, then, Islam introduced the concept of the immortal, individual soul into this scheme; the two kinds of pneuma became 'intermediate between the body and the incorporeal human soul, enabling these two extremes to meet and communicate. The relationship between, or the identity of, the soul and reason continued to be a matter of debate among philosophers; the doctors restricted themselves to healing bodily ailments' (E. Ruth Harvey, *The Inward Wits: Psychological Theory in the Middle Ages and the Renaissance* (Warburg Institute Surveys, 6; London, 1975), 6–8). Find it in your Library Although philosophers and theologians might see reason as a subject outside the purview of the physicians, the latter were drawn inevitably into this murky area by the need to treat mental disorders; they could conceive of the pneumata as physical entities and treat the disorders as purely physical functions.

(²²) See H. H. Biesterfeldt, 'Ğālīnūs Quwā n-naḥs', *Der Islam*, 63 (1986), 119–36. Find it in your Library

(²³) See Owsei Temkin, 'On Galen's Pneumatology', *Gesnerus*, 8 (1951), 180–9. Find it in your Library

(²⁴) See Harvey, *The Inward Wits*, for descriptions of damage to the brain by ar-Rāzī (p. 12), al-Majūsī (pp. 19–21), and Ibn Sīnā (p. 26–7).

(²⁵) See *MIM*, 11–14; see below ar-Rāzī's discussion of the temperaments in relation to mental disorders; and Harvey, *The Inward Wits*, 12–13.

(²⁶) *MD*, 370. See the survey of the Galenic system in *IM*, 55–69.

(27) I. E. Drabkin, 'Remarks on Ancient Psychopathology', *Isis*, 46 (1955), 226. Find it in your Library

(28) Ibid. Find it in your Library. 229

(29) *Œuvres de Rufus d'Éphèse*, trans. C. Daremberg and C. Émile Ruelle (Paris, 1879), 291. Although Galen says (*De loc. affec.*, 111. 5) that he could not find any book on the therapy for loss of memory, his discussion (ibid. Find it in your Library. 111. 7) comes close to Rufus' opinion in his work on the subject (*Peri mnemes apololyias*) that cold and moist qualities damage the memory, so that warming and drying remedies should be gradually applied. This work by Rufus as well as his book on melancholia were translated into Arabic and known to Islamic doctors. See *IM*, 36 f.

(30) For the history of the hypochondriac form of melancholia and its eventual dissociation from melancholia in modern Western medicine, see *MD*, 274–310.

(31) *The Works of Aristotle*, translated into English under the editorship of W. D. Ross (Oxford, 1927; repr. 1953), vii. 953^a–955^a.

(32) Raymond Klibansky, Erwin Panofsky, and Fritz Saxl, *Saturn and Melancholy* (New York, 1964), 40–1. Find it in your Library

(33) Klibansky, *Saturn and Melancholy*, 50.

(34) *MI*, 92–7.

(35) 'Imrān, p. 16/fol. 94b.

(36) *Kitāb at-Ṭibb ar-rūḥanī: The Spiritual Physick of Rhazes*, trans. Arthur J. Arberry (London, 1950), 67.

(37) J. G. Balfour, 'An Arab Physician on Insanity', *Journal of Mental Science*, 22 (1876), 244. Find it in your Library

(38) *Al-Hāwī*, i. 79–80; quoted in Flashar, *Melancholie*, 102 n. 37.

(39) *Al-Fusūl al-muhimmah*, Bodl. Hunt. MS 461, ch. 9, fos. 39b–40a; the subsequent cases deal with fever, *sirsām*, *birsām*, lethargy, epilepsy, and angina.

(40) See Manfred Ullmann, ed. and trans., *Rufus von Ephesos: Krankengeschichten* (Wiesbaden, 1978), 68–75; Find it in your Library M. Z. Siddīqī, *Studies in Arabic and Persian Medical Literature* (Calcutta, 1959), 117–20. Find it in your Library

(41) Flashar, *Melancholic*, 84–104.

(42) See Galen's *Traktat 'Dass die Kräfte der Seele den Mischungen des Körpers folgen' in arabischer Übersetzung*, ed. and trans. Hans H. Biesterfeldt (Abhandlungen für die Kunde des Morgenlandes, 40: 4; Wiesbaden, 1973); see also Biesterfeldt, 'Gālīnūs Quwā n-nafs', 123–34.

(43) *De loc. affec.*, 111. 10; Rudolph E. Siegel, trans., *Galen on the Affected Parts* (Basle-New York, 1976), 93. Find it in your Library

(44) Ibid. Find it in your Library. The next example of a man who feared the end of the world is recounted at length in Galen's commentary on *Epidemics VI* (see below).

(⁴⁵) The concept of melancholia has received considerable attention from scholars; see Flashar, *Melancholie*; Klibansky, *Saturn and Melancholy*, Siegel, *Galen on Psychology*, 189–99; Pigeaud, *La Maladie de l'âme*, 122–37.

(⁴⁶) *De loc. affec.*, 111. 10 and 11. See Owsei Temkin, *The Falling Sickness*, 2nd edn. (Baltimore, 1971), 60–4.

(⁴⁷) *De loc. affec.*, 111. 9, 11, 13, and 14.

(⁴⁸) Ibid Find it in your Library. 111. 6 and 7. See the discussion by Pigeaud, *La Maladie de l'âme*, 100–22.

(⁴⁹) See the discussion of Leibbrand and Wettley, *Der Wahnsinn*, 35–7; Pigeaud, *La Maladie de l'âme*, 71–100.

(⁵⁰) Siegel, *Galen on the Affected Parts*, 148.

(⁵¹) Heiberg, 'Geisteskrankheiten', 5–6.

(⁵²) *De loc. affec.*, v. 4.

(⁵³) There were three types of yellow bile (*De loc. affec.*, 111. 9): pale yellow bile caused mild phrenitis; dark yellow bile caused a more violent phrenitis; and burnt dark yellow bile caused bestial and melancholic delirium (*paraphrosyne*).

(⁵⁴) Ibid Find it in your Library. v. 4.

(⁵⁵) S. E. Jelliffe, 'Notes on the History of Psychiatry. VII', *Alienist and Neurologist*, 33 (1912), 310. Find it in your Library

(⁵⁶) In one instance in Islamic medicine this diagnosis of phrenitis (*sirsām*) seems to have been correct; see Max Meyerhof, 'Thirty-three clinical observations by Rhazes (circa 900 A.D.)', *Isis*, 23 (June 1935), 334f., 350, Find it in your Library and Arabic text, pp. 2–4.

(⁵⁷) In *Meth. Med.*, XIII. 21, Galen's discussion of the therapy for phrenitis again brings together his teaching on mental illnesses. He argues that the principal part of the soul is in the head and not in the heart. Therefore, anointing the head initially with rose-oil and vinegar is appropriate for phrenitis as well as for lethargy, even though the two illnesses arise from opposite humoral imbalances in the brain; the fomentation pushes the excessive humour out of the head. If possible, bleeding was desirable at the beginning of both diseases. The subsequent stage of treatment for the two was diametrically opposed. The phrenitis-sufferer should be given soothing remedies, such as ointments made of poppies, that are to be applied to the head, 'for one ought to tranquillize and stupify the principal part, that is to say the overheated brain'. Against the opposite illnesses, one must awaken and heat the thickness of the damaging humour in the brain. If there is no corruption of the humour, it produces deep sleep without fever, which is called apoplexy, torpor, and seizure, and if it does lead to corruption that causes fever, it is called lethargy. In the declining stages of both phrenitis and lethargy, the patient may be treated with cupping and castoreum.

(⁵⁸) See Leibbrand and Wettley, *Der Wahnsinn*, 118–34.

(⁵⁹) *De loc. affec.*, 111. 9.

(⁶⁰) IbidFind it in your Library. iii. 6. Galen discusses in this section the effects of the qualities on mental functions.

(⁶¹) IbidFind it in your Library. vi. 5. See Stanley W. Jackson, 'Galen—On Mental Disorders', *JHBS*, 5 (1969), 371–80.Find it in your Library

(⁶²) Max Meyerhof and D. Joannidès, *La Gynécologie et l'obstétrique chez Avicenna (Ibn Sina) et leurs rapports avec celles des Grecs* (Cairo, 1938), 63–7.Find it in your Library

(⁶³) *De loc. affec.*, 111. 6.

(⁶⁴) Siegel, *Galen on Psychology*, 274f.

(⁶⁵) In both the Greek and Arabic texts, however, the stomach region survived as a source of mental disturbances; the Arabic texts specifically refer to the popular attribution of mental illnesses to the stomach, which may indicate a resilient folk tradition in the Middle East since antiquity.

(⁶⁶) *De loc. affec.*, 111. 9; Siegel, trans., *Galen on the Affected Parts*, 87.

(⁶⁷) IbidFind it in your Library. 16 and 11 10.

(⁶⁸) Flashar, *Melancholie*, 107 ff.

(⁶⁹) Jackson, 'Galen—On Mental Disorders', 371.

(⁷⁰) Drabkin justified a need for a comprehensive study of psychopathology in antiquity and outlined its features: 'Remarks on Ancient Psychopathology', *Isis*, 46 (1955), 223–34.Find it in your Library The envisioned work has not been accomplished, but Drabkin's remarks have been helpful to me in my interpretation of the subject in Islamic medicine.

(⁷¹) Galen, *In Hippocratis epidemiarum*, ed. and trans. E. Wenkebach and F. Pfaff, in *Corpus Medicorum Graecorum*, 10 (2: 2) (Berlin, 1956), 484–95;Find it in your Library E. Littré, ed. and trans., *Œuvres complètes d'Hippocrate* (10 vols.; Amsterdam, 1978 repr.), v. 352f.Find it in your Library I am very grateful to Dr Vivian Nutton for this reference.

(⁷²) See *MIM*, 13–15. The fundamentals of Islamic medicine, including the 'non-naturals', are conveniently set out by Hunayn ibn Ishāq in his *Questions on Medicine for Scholars*, which has been translated by Paul Ghalioungui (Cairo, 1980).

(⁷³) See Galen, *On Prognosis*, ed. and trans. Vivian Nutton (*Corpus Medicorum Graecorum*; Berlin, 1979), 100–5, 110–11.Find it in your Library

(⁷⁴) Kühn, xviii. 2. 18.

(⁷⁵) Galen, *On the Passions and Errors of the Soul*, trans. Paul Harkins (Columbus, Ohio, 1963), 28.Find it in your Library Galen certainly did not mean that most men become mentally disturbed.

(⁷⁶) Jelliffe, 'Notes on the History of Psychiatry. VII', 310.

(⁷⁷) See Siegel, *Galen on Psychology*, 275–8. Cf. Fady Hajal, 'Galen's Ethical Psychotherapy: Its Influence on a Medieval Near Eastern Physician', *JHMAS*, 38 (1983), 320–33.Find it in your Library In a work comparable to that of Galen, ar-Rāzī argues for the suppression of passions that are diseases

of the soul; they can destroy reason and reduce men to the state of wild beasts, children, or lunatics. Moreover, because passions are insatiable, they can well lead to anxiety and agony, and the impassioned may be 'reduced by prolonged insomnia, worry and undernourishment to a state of madness and delusion, of consumption and wasting away'. (Ar-Rāzī, *Kitāb at-Tibb ar-rūhānī: The Spiritual Physick of Rhazes*, 20, 42, 52.)

(⁷⁸) Luis Garcia Ballester, 'Diseases of the Soul (*Nosēmata tēs Psychēs*) in Galen: the Impossibility of a Galenic Psychotherapy', *Clio Medica*, 9 (1974), 35–43. Find it in your Library

(⁷⁹) Pedro Laín Entralgo, *The Therapy of the Word in Classical Antiquity*, trans. L. J. Rather and J. M. Sharp (New Haven, Conn., 1970), 158–69. Find it in your Library See also idem, *Mind and Body, Psychosomatic Pathology: A Short History of the Evolution of Medical Thought*, trans. A. M. Espinosa (London, 1955), 40–62, 105–7. Find it in your Library

(⁸⁰) Laín Entralgo, *Mind and Body*, 66–8.

(⁸¹) Rosen, *Madness in Society*, 134.