

Phrenitis and the Pathology of the Mind in Western Medical Thought

(Fifth Century BCE to
Twentieth Century CE)

Chiara Thumiger



PHRENITIS AND THE PATHOLOGY OF THE MIND IN WESTERN MEDICAL THOUGHT

Phrenitis is ubiquitous in ancient medicine and philosophy. Galen mentions the disease innumerable times, patristic authors take it as a favourite allegory of human flaws, and no ancient doctor fails to diagnose it and attempt its cure. Yet the nature of this once famous disease has not been understood properly by scholars. This book provides the first full history of *phrenitis*. In doing so, it surveys ancient ideas about the interactions between body and soul, both in health and in disease. It also addresses ancient ideas about bodily health, mental soundness and moral 'goodness', and their heritage in contemporary psychiatric ideas. Readers will encounter an exciting narrative about health, illness and care as embedded in ancient 'life', but will also be forced to reflect critically on our contemporary ideas of what it means to be 'insane'. This title is also available as open access on Cambridge Core.

CHIARA THUMIGER is a researcher in the Cluster of Excellence Roots, Christian-Albrechts Universität zu Kiel, Germany. She focuses on ancient Greek and Roman thought and literature, the history of ancient medicine and the history of psychiatry, as well as on comparative approaches to the anthropology of medicine and body history. She is the author of *A History of the Mind and Mental Health in Classical Greek Medical Thought* (Cambridge, 2017).

‘A comprehensive account of the history of the concept of *phrenitis* has long been awaited. This monograph by Chiara Thumiger, a leading expert in the study of the history of mental health and illness, admirably fills this major gap.’

Philip van der Eijk, Humboldt University Berlin

‘Chiara Thumiger’s monumental study of *phrenitis* is not only an astonishingly erudite and refreshingly sophisticated guide to the ancient, post-classical, and even modern evidence for this perplexing, obsolete, but central medical term for mental illness. It never forgets the human patients, in their distress and anxiety, and the human doctors who do their best to understand and help them.’

Glenn Most, Scuola Normale Superiore, Pisa, and University of Chicago

‘Chiara Thumiger’s extraordinary book examines the history of the disease *phrenitis* from the fifth century BCE to its progressive disappearance in the nineteenth and twentieth centuries CE. Its *longue-durée* approach and its breadth bring to mind Owsei Temkin’s *The Falling Sickness: A History of Epilepsy from the Greeks to the Beginnings of Modern Neurology*. The work draws upon a huge array of sources, both medical and non-medical, and deals sympathetically with the suffering of humans and non-human animals.’

Laurence Totelin, Cardiff University

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*Preface and Methodological Issues***Preface**

A good beginning for a history that stretches over 2,500 years is a glance at the debris still visible in our own time. The disease *phrenitis* is no longer seriously discussed by medical handbooks or taught in faculties of medicine, but traces of the notion are still to be found in the medical consciousness. Consider these two examples of widely available current medical information:

Phrénite Phrénitis

Pneumologie, médecine générale – N.f. . . . La phrénite est l'inflammation du diaphragme. Syn.: diaphragmatite. Le phrénitis est l'inflammation simultanée du diaphragme et de la plèvre qui entoure le diaphragme (ou plèvre diaphragmatique). Certains neurologues psychiatres 'anciens' parlaient également de phrénitis pour désigner une inflammation du cerveau, non accompagnée de folie.¹

Phrenitis means an inflammation of the brain, or of the meninges of the brain, attended with acute fever and delirium . . . *Phrenitis* is no longer in scientific use. Nowadays meningitis or encephalitis are diagnosed. Relating to *phrenitis*: suffering from frenzy; delirious; mad; frantic; frenetic.²

In the online medical dictionary cited in the first quote, *phrenitis* appears to fall under the category of 'pneumology'. It is inflammatory in nature; involves 'the diaphragm' and the 'pleura' of the patient; and in its 'ancient history' was taken to involve the brain, although it did not express itself in

¹ Entry *Phrenitis*, attributed to Georges Dolisi, *Dictionnaire médical en ligne* (<https://www.dictionnaire-medical.net/term/t834t1,xhtml>). Accessed May 2023 ('*Phrenitis* is the inflammation of the diaphragm. Syn.: *diaphragmatitis*. *Phrenitis* is the simultaneous inflammation of the diaphragm and the pleura surrounding the diaphragm (or diaphragmatic pleura). Some "ancient" psychiatric neurologists also spoke of *phrenitis* to designate inflammation of the brain, not accompanied by madness').

² <https://en.wikipedia.org/wiki/Phrenitis>. Accessed May 2023.

madness. In the second text, drawn from Wikipedia, the condition is firmly identified with an inflammation of the brain. These short bits of medical reception, with their own imprecisions and simple misunderstandings, are instructive, since they manage to touch on all the features which, in various forms and combinations, constitute the foundations of this disease throughout its history. They do not, however, appropriately depict any individual stage of the history they represent, and the image of the disease *phrenitis* they offer remains full of contradictions. Where is it seated in the body? What causes it? What is its relationship to madness?

This book aims to reconstruct this history, unpacking the construction of *phrenitis*, tracing its various shifts, and assigning each of the apparently incongruous elements in the definitions quoted above its correct place, as far as possible. These definitions can figuratively be understood as the debris of a lost, larger pathological story, which is all that has reached us.

We can begin by defining *phrenitis* as a disease with mental implications first described in the Greek writings of the Hippocratic corpus (fifth and fourth centuries BCE). It is acute and often deadly, and is characterized by a high fever and a variety of behavioural aspects suggesting a form of derangement. The label '*phrenitis*' survived in Western pathology for twenty-four centuries:³ it is included in nosological lists, and is discussed and diagnosed as late as the nineteenth century, having undergone a tortuous series of changes, reshapings and elaborations, only to disappear seemingly forever at the turn of the twentieth century.

I discuss *phrenitis* as a 'label'. No one familiar with the history of medicine, and in particular the difficult anthropology of historical psychiatry, can today accept at face value the idea of a 'history' of a disease as ontologically robust as a 'history of metallurgy', for example, might be.⁴ Diseases are experiences, constructions and representations long before

³ In the title of this book, as throughout, I maintain the label 'Western' for 'Western medicine' and 'Western medical tradition', mindful of this being an 'invention' (Cook 2006, 1), and a much less persuasive one when it comes to its supposed Greek and Roman origins ('origins' too being a flawed object of inquiry). This is the fallacy of a quest for precedents in the history of science, which Canguilhem famously called 'the virus of the precursor' (1994, 49–51, quoting Koyré 1973, 72–77). My territory of inquiry changes shape and form through time, with varying geographies (different centres, or different 'hubs "West"', using Jacyna's expression, 2006, 4) and stratifications of all kinds. Still, it finds its narrative culmination in what we today consider 'Western medicine': with Jacyna again (2006, 4) the medicine of 'Northwestern Europe and North America as the regions in which a certain kind of nation-state, with particular social and economic forms, medical organisations, and intellectual culture first generated the widespread view that science in medicine would benefit not only some individuals but all citizens'. My history of *phrenitis* is framed within this composite and complex course of changes and developments, which I understand neutrally, but at whose (self-styled) peak I am necessarily located.

⁴ For the concept 'ontological robustness', see Berrios (1996) II.

they become epidemiological or biological data. Freud's use of the now long-dismissed nosological concept and label hysteria, for example, has nothing in common with the Hippocratic gynaecological 'hysterical' complaint.⁵ Nor should we think that non-mental disease entities are safer for transhistorical comparison: *typhus* and *tetanus*, for example, are familiar nosological labels to us, but their – merely nominal – continuity with a Greek past does not legitimate any essentialist move.⁶

Three important methodological issues thus pose a challenge to this discussion.

1. First, the distinction if not opposition between mental *health* and mental *illness*. The history and anthropology of medicine have recently been inclined to dismiss this dichotomy and consider the continuum of human health their object instead.⁷ This shift in perspective is especially important for a discussion of ancient medical sources, where a sharp opposition between health and illness is missing, and where we even find Galen explicitly rejecting an abstract, fixed concept 'health'.⁸ The same is true in the realm of mental pathology, and perhaps even more emphatically so: mental life is observed and assessed with an eye to its nuances and changes, but a fixed, permanent category of mentally ill or disabled individuals is difficult to discover.⁹
2. Second, the opposition between *mental* and *bodily* health and illness. As I have argued in more detail elsewhere, with reference to Hippocratic medicine,¹⁰ historians of ancient medicine generally assume that what prevails in the Graeco-Roman context is the idea of soul and body, of the mental and physiological spheres, as continuous and indissolubly linked – although various articulations of this nexus can be identified.¹¹ Against this background, an increasingly precise idea of mental or psychological suffering begins to be delineated after the end of the classical era.¹² Even with respect to this

⁵ King (1998, 2004); Scull (2009) 12–15 on modern doctors' appeals to ancient authorities for their construction of 'hysteria'.

⁶ On this point, cf. Gourevitch (1982). See Dols (1992) 31 on *phrenitis* as disease entity; n. 56 for the meningitic interpretation: 'In modern terminology it may, perhaps, have included delirium as a consequence of infections of the central nervous system such as encephalitis, meningitis, cerebral malaria, and psychoses that today might be subsumed under the heading of schizophrenia and are distinct from manic-depressive psychoses.'

⁷ See Eghigian (2011), Dowbiggin (2011) on approaches to mental health; Wassermann and Hinote (2011), Armstrong (1995) on medical care more generally; Keil *et al.* (2016).

⁸ See the discussion in Lewis *et al.* (2016) 29–34; Singer (2023), preface. ⁹ See Thumiger (2016).

¹⁰ Thumiger (2017); see also Singer (1992), Gundert (2000).

¹¹ See van der Eijk (2015), Singer (2017) on Galen's psychological writings, and Nutton (2013).

¹² See Thumiger and Singer (2018a).

period, however, we are never safe from the fallacy of anachronism when we trace parallels between ancient psychiatric concepts and our own, which are informed by previously unknown and radically different kinds of dualism. The concept of *phrenitis* was accordingly born within a firmly materialistic environment, and its strong physiological roots are of great importance in all stages of its history.

3. Third, the recognition of *disease entities*, the construction of a disease taxonomy. In the field of mental pathology in particular, although disorders and diseases we understand as ‘mental’ were already recognized in the Hippocratic texts, no reliable list of ‘psychiatric entities’ *qua* psychiatric can be found. The label ‘disease of the soul’ was not used in medical texts, and the approach to disturbances of the mental sphere or the physiology of the body was, as noted above, similarly materialistic. As anticipated, *phrenitis* is perhaps the best candidate for the first psychiatric entity of antiquity – a disease in which derangement was constitutive from the beginning. But the question remains open: when and why did the ancients begin to engage with the idea of ‘disease entity’ (a pathological experience characterized by a recognizable pattern of onset, symptomatology, course and outcome) in the mental sphere? In other words: when did this concept emerge not only as a label, but as a mark of an awareness of a conceptualization of ‘mental nosology’ with all its implications and historical significance? The emergence of a classificatory tendency is a shaping aspect of medicine at the beginning of our era: this is evident in the importance Galen attributes to the study of nosological semiotics and definitions, but also in the work of Aulus Cornelius Celsus (first century CE), in nosological treatises of the imperial era such as the one known as *Anonymus Parisinus* (first–second centuries CE), and in the collections on acute and chronic diseases composed by Aretaeus, Soranus and Caelius Aurelianus, or the monographs on individual diseases produced by Rufus (on *melancholy*, and on *satyriasis* and *gonorrhoea*).¹³

The unstable nature of disease concepts is not only evident to the modern scholarly gaze. A sophisticated relevant discussion is preserved by Plutarch (first–second centuries CE) in his *Quaestiones convivales*, where the philosopher addresses a key question, ‘If it is possible that *new diseases* should arise and why’ (*Quaestiones convivales*, 8.9 = 731a–732b):¹⁴

¹³ Cf. the discussion in Thumiger and Singer (2018a), Singer (2020a).

¹⁴ On the topic of ‘new diseases’ in ancient medicine, see Harris (2022).

Philo the physician stoutly affirmed that the disease we call *elephantiasis* was a disease *recognized only a bit earlier* (*ou pro pollou pany chronou gnōrimon*); since none of the ancient physicians speak a word about it, though they often enlarge upon small, frivolous and obscure trifles. And I, to confirm it, cited Athenodorus the philosopher, who in his first book of *Epidemic Diseases* says that not only that disease, but also the *hydrophoba* or water-dread (occasioned by the bite of a mad dog), were first *discovered* in the time of Asclepiades. At this the whole company were amazed, thinking it very strange that new diseases should first take origin and arise at a given time in nature, and no less strange that these occurrences (*symptōmata*) should *not be noticed* (*to lathein*) *for such a long time*. Yet most of them inclined to this last opinion, as being most agreeable to man, not in the least *daring to imagine that Nature created novelties* (*tēn physin . . . philokainon einai*), or would in the body of man, as in a city, create new disturbances and tumults. For diseases and conditions follow their own wonted, familiar path (*nosēmata kai pathē koinēn tina kai patrion hodon badizein*). And Diogenianus added that *even the passions and diseases of the mind go on along the same old road they formerly did*; and yet the *viciousness of our inclination is exceedingly prone to variety, and our mind is mistress of itself, and can, if it pleases, easily change and alter*. Yet all her inordinate motions have some sort of order, and the soul has bounds to her passions, as the sea to her overflowing. And *there is no sort of vice now among us which was not practised by the ancients*. There are a thousand differences of appetites (*pollai . . . epithymiōn diaphorai*) and various motions and types of fear (*myria . . . kinēmata phobou kai schēmata*); the forms of grief and pleasure are impossible to number,

Yet are not they of late or now produced,

And none can tell from whence they first arose.

How then should the body be subject to new diseases, since it has not, like the soul, the principle of its own alteration in itself (*idian . . . hōsper hē psychē kinēseōs archēn oikothēn ouk echonti*), but by common causes is joined to Nature, and receives a temperament (*krasin*) whose infinite variety of alterations *is confined to certain bounds, like a ship rolling and tossing in a circle about its anchor*? Now there can be no disease without some cause, it being against the laws of Nature that anything should lack a cause. Now it will be *very hard to find a new cause*, unless we fancy that some strange air, water or food, never tasted by the ancients, should descend to us out of other worlds or intermundane spaces. For we contract diseases from those very things which preserve our life; since there are no peculiar seeds of diseases, but the disagreement of their juices with our bodies, or our excess in using them, disturbs nature. These disturbances have still the very same differences, although now and then called by new names.¹⁵ For names depend on

¹⁵ Awareness of the names of diseases as a topic is found already in the Hippocratics: see *Progn.* 25,5 (50 Jouanna = 2.190 L.): 'Do not regret the omission from my account of the name of any disease. For it is by the same symptoms in all cases that you will know the diseases that come to a crisis at the times

custom, but the passions on Nature; and these being constant and those variable, this mistake has arisen. . . . *The intensification or increase of a thing makes it more or greater, but does not trespass on the essence of that thing. Thus elephantiasis, being an intense scabbiness, is not a new kind; nor is water-dread distinguished from other melancholic and stomachic affections except by degree.* And I wonder that we did not observe that Homer was acquainted with this disease, for it is evident that he calls a dog rabid from the very same rage with which, when men are possessed, they are said to be mad (my italics).

For Philo, the ancients' silence regarding a disease was an argument for its absence from their world *tout court*. The victorious objection to this is that diseases cannot suddenly come into existence: nature does not capriciously create new things. New pathological causes cannot emerge, since there are key environmental and bodily invariables in the human condition, so that diseases always gravitate around the same points 'like a ship rolling and tossing in a circle about its anchor'. The same diseases thus always existed. Especially in the realm of mental – in Plutarch, moral – life, the same old vices always afflict humanity. The only variation, it is suggested, is one of degree: previously mild diseases can become more intense, and vice versa, but their character remains substantially the same across time.

In this long passage, Plutarch touches all the central nodes for any discussion of nosological taxonomy: the dichotomy between labelling and entity, meaning the difference between the actual *existence* of an object in nature – a disease – and its conceptualization and recognition; a notion of Nature and an unalterable human biological base; and the opposition between kind and degree.¹⁶ These three points show great sophistication, but are also perhaps a reaction to the abundance of disease labels that seem to flourish in the first centuries of our era, as is apparent from a quick glance at the works of the authors listed above. This is one of the most fundamental changes in medicine at the turn of the age and has important consequences for a 'history of a disease' such as this one. Does *phrenitis*, as Plutarch's Diogenianus maintains, exist as a solid fact underlying all its pathological descriptions and conceptualizations? May we practise the essentialist approach defended by Plutarch on the problematic Hippocratic pathological descriptions, for example? Modern readers of ancient texts have indulged in various exercises of retrospective diagnosis,

I have stated'; *Reg. Ac.* 3 (36–37 Jouanna = 2.224–28 L.) on the nonsense of multiplying disease labels to suit the individuality of all possible cases.

¹⁶ For an exemplary recent discussion of these same problems, and an assessment for the history of psychiatry focusing on the case of the concept 'depression', see Sadowsky (2021), esp. 1–22 and 160–67.

offering parallels with malaria, typhoid fever, meningitis and encephalitis.¹⁷ To what extent can we relate *phrenitis* to a medical reality, either in the history of medicine or in our own biological understanding?

Why Look at *phrenitis*?

The case of *phrenitis* is a special one, given the challenges mentioned above. It is in fact the only ancient disease of the mental sphere (and one of the very ancient few diseases generally) that can be discussed in anything approaching a continuous manner. This is true for various reasons, which will be illustrated in the coming chapters, but which we can begin sketching here.

First, *phrenitis* has a strong connotation in its very name, being explicitly associated with the Greek root *phren-* (φρεν-), which points to the mental sphere. Notwithstanding the technical nature of the term in *-itis*, its meaning and implications must have been obvious to Greek ears, as anyone who knows any Greek today can guess. *Phrēn* (φρήν) and *phrenes* (φρένες) are among the oldest, most traditional terms in Greek psychology, variously used to indicate mental life from as early as our evidence goes, in Homer and the lyric poets. The verb *phroneō* (and cognates) is also commonly used to describe thinking and mental performance, and other cognate terms feed into the same semantic group;¹⁸ this is thus an immediately understandable name and sphere. The speaking name of the disease suggests (a) a concrete localization (the diaphragm and the chest) or an abstract one ('the mind', as well as the subject's character and self); (b) a function (the 'mental functions'); (c) an activity ('thinking'). The disease thus displays 'psychiatric' credentials from the very start.

Second, as already noted, *phrenitis* is eminently a technical term. This has to do not only with the name's classic nosological formation (in *-itis/-ιτις*), but also with the minimal employment of it in non-medical literature for a long part of its early history. Until the beginning of our era, *phrenitis*

¹⁷ See McDonald (2009) 5–8 on the same point, and Lane Fox (2020) 236–52 for a recent discussion of retrospective diagnosis and ancient medicine. In the survey of the history of retrospective diagnoses of *phrenitis* in the Hippocratic *Epidemics* in Graumann (2000) 259, for instance, meningitis is proposed by various medical readers (Souques 1937, Corvisier 1985) for the *phrenitic* case at *Epid.* 7, 112, Littré (1840: 2.571), Sémelaigne (1869) 16, and Jones (1909) 68 referred instead to malaria; cf. Stok (1996) 2325–26. Grmek (1983/1991) 359 n. 31 is of course right when he rejects Joly's translation of φρενίτις with 'encephalitis' as an 'anachronism'; see also Pigeaud (1981/2006) 72–73. Chapters 9 and 10 return to and directly address the final stages in the life of *phrenitis* as a medically recognized disease and pathological experience in the modern and contemporary worlds.

¹⁸ See Appendix 2 for a survey.

remained a scientific and philosophical notion and failed to offer material for comic caricature, tragic hyperbole or transfer into metaphor. As a consequence, it was largely protected from the ‘folk’ appropriation of medical categories that makes the study of *mania* or *melancholia*, for instance, so tortuous and scattered despite apparent elements of persistence and the considerable popularity of the two labels.

Third, right from the start – unlike any other mental pathology in ancient medicine – *phrenitis* appears remarkably codified, firmly attached to a strong physiological indicator that made it easily identifiable and even functioned in some authors as a differential factor: acute fever,¹⁹ accompanied by a firm but changing localization. The localization is firm in the sense that most discussions place the locus of the disease at the centre,²⁰ but changing, since the locus oscillates from chest to head, mimicking the key dialectic in the history of Western biology between cardiocentrism and encephalocentrism.

Finally, *phrenitis* somehow establishes itself in the Graeco-Roman medical tradition as a core example of insanity, as its best nosological *exemplum*, therapeutic discussions of which can *inter alia* be seen as instructive on a general level: it is paradigmatic both as mental disease and as disease entity. As we shall see, it is significant that two of the best discussions of the disease, by Celsus and Caelius Aurelianus, place it at the beginning and allocate their most extended efforts to it, and also that Galen returns again and again to *phrenitis* when he discusses what a ‘disease’ is, what the safe indicators and symptoms for the diagnosis of one are, and so forth. These factors allowed *phrenitis* to survive with recognizable, consistent features throughout the history of ancient medicine and to remain relevant to modern medical thinking.²¹

Looking back at the four points made above brings out a major contrast inherent in the conception of *phrenitis*. On the one hand, there is an explicit appeal to traditional vocabulary, and on the other a strong element of novelty. Despite its conventionally popular, vernacular name, this is a ‘new’ disease concept, whose firm physiological

¹⁹ See Pigeaud (1987/2010) 34–35; Drabkin (1955) 226.

²⁰ See Chapter 3 for the counter-tendency to this.

²¹ The only comparable case of the nosological continuity of a disease related to the mind is epilepsy, which also exhibits a strong physiology and a well-defined symptomatology. Unlike *phrenitis*, however, epilepsy is narrowly limited to a clearly defined category of patients, and is chronic and lifelong.

hardware avoids continuity with archaic and classical poetic models of mental life with their corporeal as well as immaterial components. These tensions deserve more attention than they have received. Indeed, I believe that this combination may be key to making sense of the immediate, highly technical presence of *phrenitis* in medical literature and of the cultural viability the concept enjoyed, guaranteeing its relative consistency across the ages (in contrast to the shifting trajectories taken by *mania* or *melancholia* and their literary appeal).²²

This book explores the history of *phrenitis* in part chronologically, from the Hippocratics to the end of the late-antique era (Chapters 2–5), when the foundational discussions of the disease were produced. It then looks, if more briefly, at the post-antique history of the concept, including sources in Latin and Semitic languages, and traces the survival of *phrenitis* in medieval medicine (Chapter 7). Along with establishing this medical landscape, the book offers an in-depth exploration of the parallel history of *phrenitis* and the ‘phrenitic’ as a human type from imperial literature to early modernity (Chapters 6, 8). Finally, it considers the revitalization of the notion within the context of advances in anatomical medicine from the beginning of the fifteenth century up to the final mentions of it in the work of eminent nineteenth-century psychiatrists and clinical practitioners (Chapter 9), and then until its final evaporation and dispersion into a number of pathological, psychiatric and lay concepts in modern times (Chapter 10). The archaeology of the disease is my particular subject and focus, although its modern and premodern afterlife confirm these observations and locate *phrenitis* as an exemplary case for historians of psychiatry.

But this study does not trace a chronological trajectory alone. The history of medical concepts is not a linear sequence but a three-dimensional figure, whose various socio-cultural layers greatly complicate the picture. There is a ‘*phrenitis*’ of scientific narrative, the technical term used by professionals and understood by intellectual elites. But there is also a concept received (or *not* received) in lay contexts and hyperbolically or allegorically employed in non-technical genres beginning at a certain point in its history (Chapters 6, 8). All this belongs to the story of *phrenitis* as well.

²² The formula of ‘anchoring innovation’ partly indicates this mechanism, although I find the image misleading in some ways with reference to ancient science. See [Thumiger \(2021a\)](#) for discussion.

The Traditional Background

The Name, the Body Part, the Damaged Function: phren-itis (φρεν-ῖτις)

I begin with the name. As already noted, mental terms with the root **phrn* form a traditional cluster in Greek.²³ These include the nouns φρήν-φρένες (*phrēn/phrenes*), the verbs *phroneō* and cognates (φρονέω, σωφρονέω, ἄφρονέω, παραφρονέω, ἄλλοφρονέω); the abstract nouns *sōphrosynē*, *paraphrosynē*, *aphrosynē* and *paraphronēsis* (σωφροσύνη, παραφροσύνη, ἀφροσύνη and παραφρόνησις); and the adjectives *phronimos*, *ekphrōn*, *aphrōn* and *emphrōn* (φρόνιμος, ἔκφρων, ἄφρων and ἔμφρων).²⁴ The following points can be made regarding the linguistics of the term *phrenitis*:

- a. Vis-à-vis the semantics of *-itis* (-ῖτις) names, especially disease names in Greek, it is obvious and uncontroversial that *phrenitis* is a denominative from *phrēn/phrenes*. This leaves a key question open, given the double meaning of *phrēn/phrenes*: should we interpret this as ‘a disease localized in/of the *phrēn/phrenes*’ or as ‘a disease which affects the mental sphere (*phrēn/phrenes*)’?
- b. Anatomically speaking, what are the *phrēn/phrenes*, and where are they located? What do they *do*?
- c. Why is *phrenitis* (or the adjective *phrenitikos* and the verbs *phrenetiaō*, *phrenetizō*) almost never found in our evidence outside technical literature until the beginning of our era, unlike other terminology of mental disease (not only the common term *mania*, but also the more technical *melancholia* and their cognates, for example²⁵)?

A search in Kretschmer and Locker’s *Rückläufiges Wörterbuch*²⁶ for words ending with the suffix *-itis* suggests that the majority of these nouns, especially

²³ As for the etymology, Chantraine mentions a link with *phrazō* and cognates (‘to cause to understand, to explain’). Sullivan (1988b) 21 declares it ‘uncertain’ and suggests a possible association with the idea of ‘surrounding’ and ‘enclosing’ (*phrazō*, rejected by Chantraine), or alternatively with ‘to quiver, to shudder’ or ‘to care, to worry’. Stefanelli (2010) emphasizes a concrete, physiological meaning and offers a radical revision, attractively associating *-phren* with a root **bhren*, ‘to burn’: the hot principle of life, ‘il focolare del corpo’, sheltered in the chest. See Mastrelli (1991) for a more detailed survey, and Balles (2002), esp. 5–12, for alternatives.

²⁴ See Stefanelli (2010) 54–74 for more compounds and morphological discussion. She mentions *aphrōn*, *aphrainō*, *euphrōn*, *euphrainō*, *polyphrōn*, *chaliphrōn*, *aesiphrōn* and *meliphrōn*; see Sullivan (1988b) 276–82 for an even longer list. This evidence strongly reinforces the point that the root would be immediately suggestive to Greek speakers. See Thumiger (2013) 73–75, 86–88 for the medical use of cognate terms, with a list and discussion, and the shorter survey in Appendix 2.

²⁵ See Thumiger (2013) 65–73. ²⁶ Kretschmer and Locker (1977).

the technical ones, are formed from nouns; the most obvious denominative genesis is perhaps that of diseases, following the pattern ‘disease of the kidney’ = *nephritis* from *nephros*, or *pleuritis* from *pleura*, and so forth.²⁷ *Phrenitis* can thus reasonably be taken to be denominative;²⁸ the Hippocratic texts provide analogies.²⁹ Morphological discussion of the nature of the compound is not mere pedantry: the denominative origin of the name invites us to think first that localization is core to the original definition of the disease, and second that *phrēn/phrenes* are here anatomical terms (by analogy to similar disease names, but also in consideration of the locative nuance of the psychological term *phrēn* elsewhere in non-medical literature, even where the use is abstract and mental³⁰). In classical medicine, in fact, no disease name in *-itis* is constructed to describe a disorder that affects a faculty (e.g. ‘disturbance of vision’ or ‘sleep disorder’). Most important, no disease is called after the alteration of a psychic aspect considered in the abstract: there is no ‘psychiatric’ category as such. In sum, the etymology suggests that, at the beginning of its history, this mental disorder is strongly localized in the body: in the Hippocratics, it is precisely ‘the disease of the *phrēn/phrenes*’.³¹

What and Where Are the phrēn/phrenes?

But this is only the beginning of the problem, not its solution. What are the *phrēn/phrenes*, in fact? Much has been written on the topic, and this is not the place for more than a brief survey of what is known, particularly since conclusions remain ambiguous in many respects.³²

²⁷ See overview in Chantraine (1933) 339–40; Kudlien (1967) 70, defining the disease as ‘actually inflammation of the diaphragm [a mental disorder]’ (‘eigentlich “Zwerchfellentzündung” [eine Geisteskrankheit]’).

²⁸ There is also ambiguity in the accentuation, with changes from one source to the other: Kretschmer (1977) *ad loc.* shows that trisyllabic nouns in the suffix *-itis* are usually properispomenon (accented with a circumflex on the penult) when possible. I therefore adopt the form φρενίτις (although a handful of paroxytone occurrences (φρενίτις) are attributed to late-antique and Byzantine medical texts).

²⁹ See the list of diseases (among which *phrenitis* features) in the Loeb Hippocrates vol. v1, compiled by Potter (1988) 333–39: these include *arthritis* (‘disease of the *arthra*’, the articulations), *hepatitis* (‘disease of the *hēpar*’, the liver), *nephritis* (‘disease of the *nephroi*’, the kidneys), *pleuritis* (‘disease of the *pleura*’, ribs or side), and *splēnitis* (‘disease of the *splēn*’, spleen).

³⁰ See Sullivan (1979); Thumiger (2007) 72–73.

³¹ Etymology has its limits as an instrument in cultural studies. It should be awarded greater weight, however, in our case than in others, since we are here effectively speaking of the creation of a technical vocabulary by a group of learned physicians. The first occurrences of *phrenitis* are found in the Hippocratic texts.

³² See Thumiger (2013) on medicine, (2007) 60–86 on literary sources; Onians (1951) 13, 23–30, 39–40; Sullivan (1988b) on Homer; Padel (1992) 20–23, 67–68, (1995) 4–5, 25–28, 104–05, 169; Clarke (1999) 74–79, 83–86, 106–10; Salazar (2000) 113–14; Stefanelli (2010) 19–24, 44–51.

Where?

Both the singular and the plural forms of the word indicate a mental event or function with a bodily localization or association. Despite variations in details – always important, as discussed below – we can broadly say that the *phrēn/phrenes* are among the mental organs and functions that form what can be labelled a ‘composite mind pattern’.³³ Recurring elements of this group include *noos*, *phrēn/phrenes*, *psychē*, *thymos* and *kardia*. As Clarke notes, in the Homeric psychological system these tend to be active not in the head but in the torso; this is the case in tragedy and lyric poetry as well.³⁴ Various readers have proposed more precise corporeal identifications for *phrēn/phrenes*. Chantraine, following Ireland and Steel, explored the various hypotheses for localization. In Homer, an identification with the diaphragm, the sheet of muscle situated under the lungs, seems to be suggested.³⁵ But other interpretations point to the pericardium,³⁶ the entrails generally,³⁷ the lungs in particular,³⁸ or generally any organ in the upper torso – what in Figure 1.1 is identified as the epigastric and hypochondrial regions.³⁹ Most recently, Stefanelli rejected this traditional repertoire of interpretations and proposed a physiologically more refined hypothesis of localization, identifying the φρήν with one of the two main cavities found in the torso according to early Greek thought,⁴⁰ the more important upper one (‘la camera per eccellenza’), linked *inter alia* to the physiology and psychology of the *thymos*.⁴¹ This association, together with the use of the terms in Homer and other literary sources, points to an analogy between physical breathing (inhaling the *thymos* into the *phrenes*) and mental facts that locates the *phrēn/phrenes* in the upper part of the torso.

Regarding the identification with the diaphragm (see Figures 1.2, 1.3 for a modern anatomical illustration), which will become central in Greek

³³ Thumiger (2007) 67–74. See Padel (1992); Clarke (1999); Pelliccia (1995).

³⁴ Clarke (1999) 73–74.

³⁵ Chantraine (1968–70) 1227; Cheyns (1980); Biraud (1984); Furley (1956); Ireland and Steel (1975). See also Sullivan (1988) 7–9, 21–31; Clarke (1999) 75–76.

³⁶ Körner (1929).

³⁷ Thus Chantraine (1968–70, *ad loc.*): ‘plus vaguement “entrailles” . . . , “coeur” come siège des passions, “esprit”, siège de la pensée, “volonté”’.

³⁸ Rogge (1927); Onians (1951) 13–83; Sullivan (1988) 7–29, 21–29; Clarke (1999) 74–77. The lungs are not a strange choice for localizing mental phenomena; see Archilochus fr. 13.4–5 West² ‘We have lungs swollen with pain’ (οἰδαλέους δ’ ἄμφ’ ὀδύνης ἔχομεν | πνεύμονας).

³⁹ Below, p. 13; see Onians (1951). This is certainly the case in instances like *Il.* 16.481, ‘he hit him where the *phrenes* contain the unmovable heart’ (*all’ ebal’ enth’ ara te phrenes erchatai amph’ hadinon kēr*).

⁴⁰ As described by Jouanna (1992/1999) 315. ⁴¹ Stefanelli (2010) 21, 44–45 and *passim*.

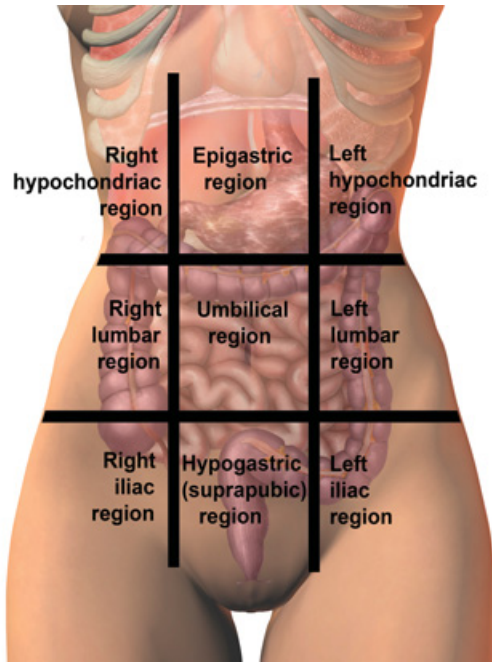


Figure 1.1 Regions of the abdomen, illustration. Getty Images/Carol & Mike Werner/Science Photo Library.

medicine, Galen comments that Plato was the first to replace the traditional (and misleading) term *phrenes* with *diaphragma* to indicate that portion of the body.⁴² The clear identification of *phrēn/phrenes* with this ‘separating wall’⁴³ (at least when the term is used literally) is first found in the Hippocratic, then in the *Timaeus* (as an upper limit for the location of the appetitive soul at 70a3; as pathologically important at 84d7). It is often employed by Aristotle, who speaks of the *phrēn/phrenes* at *HA* 506a7 as a *diazōma*, ‘frame’ or ‘belt’, and elsewhere as a *paroikodomēma kai phragmon*, ‘partition wall and fence’ (*PA* 672b20).⁴⁴ At the same time, *diaphragma*

⁴² *Loc. Aff.* 5.4, 8.327 K.; see also *PHP* 8.9, 534–37 De Lacy = 5.724 K. On Galen’s discussions of wounds to this body part, see Salazar (2000) 16; Fischer-Homberger (1978) for a history of damage to the diaphragm and mental disorder.

⁴³ An identification often accepted by modern scholars; see Snell (1977) 38.

⁴⁴ On this passage, cf. van der Eijk (2015) 224.

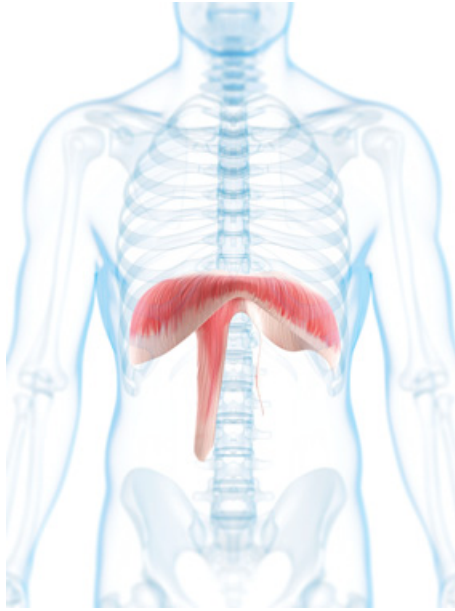


Figure 1.2 Diaphragm, illustration. Getty Images/SCIEPRO/Science Photo Library.

(absent from Homer and the tragedians) also appears as a synonym in technical vocabulary to indicate the muscle sheet below the lungs proper, as well as partitioning cartilages generally.⁴⁵ Finally, *hypochondrion/ta hypochondria* is also a relevant term (see Figures 1.1–1.3 for imaging in current anatomical terms) due to its location in the upper chest as well as its general character, which becomes important in ancient psychopathology.⁴⁶ This term is used by the Hippocratics to identify the “part(s) lying below the cartilage”, i.e. the soft abdominal region below the ribs stretching to both sides of the body,⁴⁷ the epigastric-lung region on the side of the chest.

⁴⁵ E.g. Hipp. *Epid.* 2, 2.24, 42 Smith = 5.98 L., in the palate; Arist. *HA* 492b17, between the nostrils. Cf. Galen, *Comm. Hipp. Epid.* 6, 1.4 (19.21 Wenkebach =17(1).824 K.).

⁴⁶ The story of the connection between ‘hypochondriac disease’ and melancholy is sketched out by van der Eijk (2015); see also the essays in Stracevic and Lipsitt (2001), with particular interest in the connection between ‘*hypochondria*’ and anxiety disorder.

⁴⁷ van der Eijk (2015) 14–15. Only in the post-classical period is the term used to indicate a ‘hypochondriac disease’.



Figure 1.3 Human respiratory system, illustration. Getty Images/PIXOLOGICSTUDIO/Science Photo Library.

What?

The question of localization, important for our medical discussion, is subordinate to the function indicated by *phrēn/phrenes* in non-technical use. What are the pragmatic uses of the terms in regard to mental life?

First, these are the most frequent mental terms used to indicate the individual mind in ancient epic and drama, and especially in tragedy. These two genres, although highly stylized and conventional, and as such far removed from medical texts, are fundamental for the reconstruction of ancient psychology due to their attention to and richness of detail in both descriptions of mind–body interactions and the exploration of ethical questions. The singular *phrēn/φρήν* is found in poetry (Homer, tragedy, lyric) to indicate the mental sphere in a personal sense, with a high degree of abstraction and even, one might say, metaphorically.⁴⁸ It appears to have

⁴⁸ On the problems with ‘metaphors’ of the mental in ancient poetry, see Pelliccia (1995) 22–37; Padel (1992) 9–11; Clarke (1999) 108–10. Specifically regarding φρήν, see Briand (1993) on Pindar; Ireland and Steel (1975) and Cheyins (1980) on Homer; Solmsen (1984) on tragedy; Sullivan (1977a), (1978) on Xenophanes, (1977b) and (1985) on Empedocles, (1987), (1994), (1997) and (1998b) on Homer,

a fundamentally locative and comitative sense,⁴⁹ that is, the *phrēn* acts in cooperation with the self rather than in opposition and dialogue with it (unlike, for example, the *thymos*). Notably, no one ever ‘speaks’ or ‘listens to’ his own *phrēn*,⁵⁰ as in the famous idioms in which a character speaks or listens to his θυμός in epic or lyric poetry; the *phrēn* is rarely presented as an independent active agent in Homer, and even when it develops into an entity separate from the foregrounded subjectivity, it generally entertains a harmonious rather than antagonistic relationship to the self. (To use a modern expression, it tends to be ego-syntonic rather than ego-dystonic.) As a mental term, φρήν has no strong qualitative characteristics; unlike *thymos* or *kardia*, it does not suggest intense emotions such as anger or courage, and it can also identify life and vitality.⁵¹ It is the place where thoughts are ‘slowly pondered’,⁵² and where e.g. artistic creativity operates, as in Democritus 68 B 129 D.–K. [‘The poets] think divine things in their mind (*phreni theia nountai*).’⁵³ *phrēn* can also be qualified by a wide range of adjectives, qualitative aspects and emotions, suggesting that none of them is specific to it.⁵⁴ It accordingly seems to approach the sense ‘character’ or ‘seat of self, a person’s deepest core’;⁵⁵ this is seen most poignantly at Euripides, *Hippolytus* 612, where the hero famously justifies himself for not keeping his promises by saying that ‘My tongue swore, but my *phrēn* did not’ (*hē gloss’ omōmoch’; hē de phrēn anōmotos*). In the singular, *phrēn* appears only once in the Hippocratic texts;⁵⁶ in general, it seems to have

(1988a) on Hesiod (1989a) on Pindar and Bacchylides, (1989b) and (2002, 551–53) on Hesiod; Woodbury (1988) on Aristophanes; Snell (1977).

⁴⁹ Sullivan (1979) 161; Webster (1957) 16. See Thumiger (2007) 72–73.

⁵⁰ Compare the only apparent exception at Pi. *Pae.* 4.50: ἔα, φρήν, ‘let it be, heart . . .’, is how the poetic voice addresses itself. This is a reluctant *phrēn*, but still in harmony with the mood of the subject, and thus different from the antagonistic fury of the θυμός; see Clarke (1999) 312–14, 313 n. 58 on the Pindaric quote; Pelliccia (1995) 115–267.

⁵¹ In part like *psychē*; see Clarke (1999) 193 n. 72, 206, 209. ⁵² Furley (1956) 8.

⁵³ Cf. Empedocles 23 B 9 D.–K. on philosophical reasoning; also 23 B 15, 133 D.–K. on persuasion.

⁵⁴ In tragedy. On the Homeric use, where the meaning is more strictly locative and concrete adjectivizing is minimal, see Combella (1975). See also Kazanskaya (2013) on the range of colour, from black to white, that can be attributed to *phrenes*; Grošelj (1952), Hartmann (1933) and Briand (1993) on the expression ‘white *phrenes*’ (λευκαῖς φρασι) in Pindar (*Pyth.* 4.109); Combella (1975) on ‘Agamemnon’s black heart’ in Homer.

⁵⁵ See Clarke (1999) 305 on this point: ‘*psychē*, *phrenes* and “I” amount to the same emotional agent’ (discussing Archil. fr. 196); Sullivan (1983) on love and *phrenes*.

⁵⁶ At *Coac.* 571 (Potter 250 = 5.716 L.), in a long description of signs deduced from observations of urine. At the beginning, we read that ‘urine unconcocted for a longer time . . . foretells an apostasis and pain, especially in the region below the diaphragm (ὑπὸ φρένα), and in cases where pains are moving about in the loins, or to a hip – this whether fever is present or not’.

a more abstract, mental meaning and perhaps lends itself less well to technical use.⁵⁷

In Homer and tragic poetry, the plural *phrenes* has basically the same semantic range as the singular and the same usage characteristics.⁵⁸ Notably, it appears to refer more stably and clearly to a bodily location than the singular *phrēn*: it is more concrete and localized, and more exposed to affection. (An example is Io's 'distorted mind', *diastrophoi phrenes*, as a result of derangement at [Aeschylus] *Prometheus Bound* 673.)

It is not only the poets who are aware of the mental associations that appear to be traditional to, and perhaps immediately felt in, this part of the body. The fifth-century encephalocentrist author of the *Sacred Disease* takes time to scathingly refute any association between *phrenes* and *phronein*,⁵⁹ as does Aristotle (if more positively, recognizing the participation of this part in mental reactions, in a cardiocentric spirit) when he discusses the *phrēn/phrenes* as the physical diaphragm, but also as a neighbour of the seat of the soul, the heart.⁶⁰ In general, the medical idea of a mental relevance of this body part seems to have been widespread, if controversial.⁶¹ All these suggestions, anatomical and psychological, are active in the name *phrenitis* and will later participate in the richer and more psychologically rounded late-antique elaborations on the disease.

A Fuzzy Label

Returning to the disease label *phrenitis* in light of the history of the *phrēn/phrenes* sketched out above, the lack of unanimity about the latter

⁵⁷ This also had a lasting appeal throughout the history of the Greek language; see Piccardi (2009) for the expression ἀρχέγονος Φρήν, 'primeval Mind', in Nonnus (*Dionysiaka*, 12.68) and its archaizing effects.

⁵⁸ See Stefanelli (2010) 44 with n. 77 on the singular/plural binary. Scholarship has generally considered the plural prior to the singular, possibly in consideration of its larger number of occurrences: cf. Cheyns (1980); Snell (1977) 35–37. Clarke (1999) 77 conflates the two in his discussion. By means of a careful analysis of the pragmatic use of the term, Stefanelli (2010) 46–47 proposes identifying plural *phrenes* with the two cavities in the torso, the gastric and the upper.

⁵⁹ *Sacred Disease* 17 (30, 3–17 Jouanna = 6.392 L.).

⁶⁰ *PA* 3.10 (672b24–673a28); see Chapter 2 for discussion of these biological-medical testimonia.

⁶¹ As the fifth-century CE medical author Caelius Aurelianus summarizes the matter (*Acut. I*, VIII, 52.19–24 Bendz): 'Now some say that the brain is affected, others its fundus or base, which we may translate *session*, others its membranes, others both the brain and its membranes, others the heart, others the apex of the heart, others the membrane which encloses the heart, others the artery which the Greeks call *aortē*, others the thick vein (*phleps pachēia*), others the diaphragm.' No ancient text corresponds precisely to all these theories, but Caelius' overview gives a good idea of the topographics of the disease and of ancient views about the mental faculties (since he continues (52.25–26 Bendz): 'In every case they hold that the part affected in *phrenitis* is that in which they suspect the ruling part of the soul to be situated'); see below, p. 88 on this passage. Cf. Rocca (2003) 18 n. 9; Mansfeld (1990) 3106–08.

necessarily affects how we understand the former. Although *phrenitis* is certainly derived from *phrēn/phrenes*, the nature of the disease cannot, or at least cannot entirely, be accounted for via etymology. The Hippocratics, as we have seen, are uneasy about the traditional associations of *phrenitis* with *phrenes*⁶² and completely ignore *phrenes* as a mental item. These associations, with all their vagueness and contradictions, nonetheless remain active in the reception of the term by classical audiences and maintain their potential precisely through their polysemy and contradictions and the disputes they never fail to engender. In ancient framings of *phrenitis*, we thus encounter denials of its localization in the diaphragm; localization in the diaphragm, but denying any mental quality to this part; and localization in the heart, with *phrenes* interpreted abstractly as ‘mind’. Perhaps we should compare the linguistic concept ‘iconym’⁶³, Silk’s term for a traditional word which

has no circle, no centre. It has only a few scattered connotations: a set of random associations, like ghostly rings, perhaps randomly overlapping, but largely unrelatable, and all in all leading nowhere. The random association will consist partly of earlier literary contexts (from which the knowledge of the word presumably comes), partly, perhaps, of aural associations of the kind that we tend to read as ‘re-etymology’. There is a diffuse reference, then, too diffuse to begin to derive a referent from it.

This description of untranslatable Homeric poetic terms illumines a general principle of pragmatic linguistics relevant to *phrēn* too: the key role played by usage and interconnections, as opposed to neatly defined semantic areas. The label *phrenitis*, despite the controversies regarding its relation to *phrēn/phrenes*, and about where the latter are located and what they do,⁶⁴ functions in a similar way, by performing at least the following functions: it gestures towards mental life, expresses pathology and indicates a location – or rather locations. As a label, it is thus both fuzzy and broad, qualities that are valuable for constituting efficient taxonomic orders: a label or category must constitute a ‘hub’ for medical or epistemological concepts.⁶⁵

⁶² Like other traditional concepts they (partially) use and incorporate; see Thumiger (2017) 419–22.

⁶³ Silk (1983) 312, which Clarke (1999) n. 72 p. 31 usefully applies to the understanding of psychological terms.

⁶⁴ Clarke (1999) takes too much for granted (or falls into a circular argument) when he concludes: ‘What goes on in the φρένες? The activity must be what is represented by the verb φρονέω, which is derived from the noun by way of the compounds in -φρων.’

⁶⁵ Kutschenko’s fitting metaphor (2011).

Technicism

Finally, a survey of non-medical literature shows beyond any doubt that *phrenitis* is eminently a technical term in the initial centuries of its existence. Aristophanic characters can use the verb *melancholaō* ('to be atrabilious', 'to be melancholy-mad') hyperbolically for 'raving';⁶⁶ the common term *mania* is found everywhere in non-medical material to indicate a pathology, but also to mean 'madness' in a generalized or hyperbolic sense;⁶⁷ and the 'sacred disease' is diagnosed as explaining deranged and morally unsound behaviour in Herodotus.⁶⁸ But *phrenitis* seems not to enter the pool of recognized medical commonplaces as either possible material for comic exaggeration or an erudite specification, or as part of intellectual remarks until much later on.⁶⁹

Status quaestionis

The scholarship on the Greek vocabulary for mental life, and on φρήν/φρένες and related terms in particular, is extremely rich. But not one of the many scholars who have devoted attention to this traditional branch of ancient studies has addressed the medical use of *phrēn/phrenes* or the obviously pertinent term *phrenitis* as part of the story. Apart from the seminal discussions by Pigeaud (1981/2006) 71–100 and (1987/2010), the only extensive studies of the disease are an unpublished doctoral thesis by McDonald (2009, 2014), a competent and thorough survey that does not aim, however, to problematize the term in cultural-historical terms; another thesis, by Murphy (2013), which surveys *phrenitis*, together with *mania* and *melancholia*, in Aretaeus and Caelius Aurelianus; and Bornemann's (1988) doctoral study of the Arabic tradition, with a general discussion of the disease. Other, article-length contributions are Byl and Szafran (1996) and Pigeaud (1994) on individual texts (Hippocratic and Caelius Aurelianus, respectively),⁷⁰ and more recently the reconstructions of the Arabic milieu by Carpentieri, Mimura and others, and reflections on the Christian material, with particular reference to the localization in the brain in Wright's dissertation (2016), article (2018) and book (2022). More surprising, no attention has been paid to the disease outside the restricted

⁶⁶ E.g. *Av.* 14; *Ec.* 251; *Pl.* 903. ⁶⁷ E.g. Plato's *Laws* 934c–e. ⁶⁸ E.g. at 3.33.

⁶⁹ For a summary of the issues involved in the traffic between Greek technical prose and non-technical genres, see Langslow (1999) 184–88. For the occurrence of the word in Menander's *Aspis* as a telling exception, see below pp. 59–61.

⁷⁰ Devinant (2020) contains much important discussion of *phrenitis* in Galenic psychopathology; cf. in general 88–89 n. 37, 107–09, 167–68, 175–76, 249–51, 290–91.

field of the history of medicine. As a result, one of the most important pathological categories in ancient medicine, and a highly visible medical concept in Western intellectual life from the beginning of our era to modernity, remains obscure.

Images

Images of objects, whether pictorially or photographically produced, are never a neutral reflection of reality. When it comes to the human body, there is no externality of a 'reality' or 'true image' we can look at from a distance. Most decisively, from an epistemological point of view, the emergence of any image of the body necessitates the intrusive actions of opening, dissecting, contrast colouring, slicing, desiccating, displaying and disposing in perspicuous ways, irradiating with radioactive waves or locating in a magnetic field.⁷¹ The hyper-clear images on pp. 13–15, as products of artificial modern didactic simplification, would perhaps have meant nothing to a Homeric audience. I nonetheless offer them as pragmatic guidance to my use of the main referents, on current anatomical understandings, of the key bodily locations in our discussion of *phrēn/phrenes*: diaphragm, lungs, heart, stomach, *epigastrium* and hypochondriac regions.

⁷¹ See the discussion in [Keßler and Schwarz \(2018\)](#).

*Phrenitis in Classical (Fifth–Fourth Centuries BCE)
and Hellenistic (Third–First Centuries BCE)
Medicine*

As noted earlier, the first appearance of the noun *phrenitis* preserved for us is in the earlier, classical nucleus of texts within the *Hippocratic Corpus*.¹ This does not necessarily imply that the disease concept was a Hippocratic creation – indeed, it is reasonable to think that a disease by this name and with comparable characteristics must have been recognized before the written testimonies by medical communities, given the level of elaboration and codification associated with it in fifth–fourth-century BCE medicine.² It is impossible to reach back to this previous stage or to know anything precise about these earlier medical communities. Nonetheless, a comparative exploration reveals the existence of clusters of symptoms and circumstances that may constitute a precedent to the disease, specifically high fever, heat, derangement and a range of associated symptoms. If one were to adopt greater flexibility than programmatically allowed for in this study, where the focus is on the recognized nosological entity *phrenitis*, and while doing so expand the object of enquiry to other areas of ancient Mediterranean culture, numerous comparable syndromes and cases, if not perfect parallels, could be traced in Babylonian and Egyptian medicine,³ as well as in other Hippocratic cases of fevers with derangement not labelled ‘*phrenitis*’.

The Hippocratics

The medicine of the fifth and fourth centuries BCE displays a strong awareness of *phrenitis* as a well-demarcated illness with clear

¹ ‘La *phrénitis* est un concept hippocratique’ (Pigeaud, 1981/2006). In this chapter, and throughout the book, I use the labels ‘Classical medicine’ and ‘Hippocratic medicine’ to indicate medical texts from the fifth to fourth centuries BCE, the majority of which belong to the *Hippocratic Corpus* (*CH*); when dealing with texts from *CH* considered later than the fourth century BCE, I always specify this. On *phrenitis* in Hippocratic nosology, see also Matentzoglou (2011) 202–04.

² See Jouanna (1992/1999) 142 on this topic: the Hippocratics speak of certain nosological concepts such as *melancholia* as acquired categories well known in their profession.

³ See Appendix 1 for an excursus on such ‘sun disease’.

nomenclature and fixed characteristics. The key Hippocratic evidence is found in a number of texts, which offer elaborate, paragraph-length accounts.⁴ But mentions of the disease are much more numerous and suggest its pathological and doctrinal importance for these physicians and their patients.

As a general impression, in classical medicine *phrenitis* emerges as an acute, severe disease, often deadly, which belongs to a group of affections characterized by a high fever that seem to concentrate in the chest and respiratory tract and occur in winter.⁵ *Aff.* 6 (14.7–11 = 6.214 L.) says expressly that ‘diseases of the cavity . . . pleurisy (*pleuritis*), pneumonia (*peripleumoniē*), ardent fevers and *phrenitis* . . . occur most frequently and violently in winter’;⁶ at *Aff.* 10 (21 Potter = 6.218 L.) *phrenitis* is said to ‘sometimes change into pneumonia (*peripleumoniē*)’, underlining the association with the chest. At *Epid.* 1, 18 (25.8–10 Jouanna = 2.650 L.), in the third constitution, *phrenitis* occurs ‘around the equinox up to the settings of the Pleiades, and during winter’, while at *Nat. Hom.* 5 (212.1–4 Jouanna = 6.78 L.) we read that emetics and clysters – both purging methods – are to be used in the periods of the year that engender more phlegm, such as winter, when ‘diseases that attack the head and this region above the diaphragm (*to chorion touto to hyper tōn phrenōn*) occur’; *phrenitis* is not mentioned explicitly, but the details offered seem to point in that direction. At *Epid.* 7, 53 (84.21 Jouanna = 5.422 L.) the phrenitic (*phrenitikē*) sister of Hippis falls ill *cheimōnos*, ‘in winter’, while another patient, the man from Halicarnassus at *Epid.* 7, 112 (15–20 Jouanna = 5.460 L.), develops *phrenitis* after having fallen ill with earache and headache, again in winter (*en cheimōni*). As a winter ailment affecting the chest, our disease is similar to and often discussed in association with *peripleumoniē*, *pleuritis* and ardent fevers.

⁴ *Affections* 10 (18.14–20.11 Potter = 6.216–18 L.), *Morb.* 1.30 (86.19–88.13 Wittern = 6.200 L.), *Morb.* 1.34 (92.7–18 Wittern = 6.204 L.), *Morb.* 2.72 (326.6–24 Potter = 211.15–212.10 Jouanna = 7.108–10 L.) (with Potter’s reading), *Morb.* 3.9 (76.20–29 Potter = 7.128 L.). To these should be added a number of clinical examples, the patients described at *Epidemics* 3, 17, case 4 (98.1–11 Jouanna = 3.116–18 L.); 7, 53 (84.21–25 Jouanna = 5.422 L.); 7, 112 (112.3–20 Jouanna = 5.460 L.); 7, 79 (95.8–14 Jouanna = 5.434–36 L.); 7, 80 (95.15–96.10 Jouanna = 5.436 L.).

⁵ This region of the body was arguably fundamental for the development of the theoretical notion of *locus affectus* in ancient medicine. See van der Eijk (1998) 351 n. 53 on Grmek’s remark that the developments regarding the anatomy of *pleuritis* and *peripleumoniē* were fundamental in developing topological approaches to pathology.

⁶ See Grmek (1991) 6–7, 307 on the translation of the term *peripl(/n)eumoniē* as ‘pneumonia’.

Symptomatology

In Hippocratic nosology, as much as in the clinical cases, a vast repertoire of manifestations of the disease appears, and a comprehensive reading reveals a clear and consistent picture. What is missing is a comprehensive, consistent aetiology, localization and course of therapeutic action. From the perspective of contemporary diagnostics, it is important that any account of a disease isolate the factors specific to it – for example, those that are not extensible to mental disorder generally – and that as such are necessary and sufficient to identify the disease.⁷ These must be distinguished from symptoms which might be present but are insufficient or weak indicators and common to other conditions. Such precise ranking in cogency among signs was not recognized, at least explicitly, in fifth- and fourth-century medicine. The signs mentioned below thus form a constellation of manifestations, a composite ‘story’ rather than a reliable ‘symptom checker’.

Fever is from the beginning the indicator that qualifies *phrenitis* as a disease, as well as singling it out among mental disorders. The inclusion of the disease in the category of fevers is obvious, due to signs linked with overheating (shivers, chills, thirst, dryness and sweating). *Phrenitis* is deemed acute and fatal from the start:⁸ ‘acute fevers, such as *peripleumoniē* or *phrenitis*’, specifies the author of *Progn.* 4 (13.3–5 Jouanna = 2.122 L.).⁹ *Phrenitis* thus appears, in a sense, to be a possible outcome or development of an ardent fever, a *kausos*, and is treated as exemplary among clear-cut cases of *pyretoi*, fevers. Phrenitic fever can perhaps be milder and more gradual than other *kausoi*. At *Coac.* 223 (158.1–2 Potter = 5.632 L.), in a class of individuals suffering from eye symptoms, moderate heat is a phrenitic sign: ‘Patients who are *not* burning hot to the touch develop *phrenitis* (φρενιτικοὶ γίνονται)’, while at *Morb.* 1.30 (86.19–88.13 Wittern = 6.200 L.) the entire description of the disease is constructed from the heating of the patient’s blood, and of his body as a consequence, producing a formidable fever. In the haematocentric

⁷ This flaw can be found, for instance, in Byl and Szafran (1996), who include traits that are neither necessary nor sufficient elements in the picture of the phrenitic. Galen is by contrast acutely aware of this problem, as Chapter 5 makes clear (see representatively *Comm. Hipp. Prorrh. I*, 1.4, 15.32–20.9 Diels = xv1.515–24 K.).

⁸ Although the distinction between acute and chronic disease is conventionalized only later in Greek medicine; see Roselli (2018) 182–83.

⁹ Cf. *Epid.* 1.6 (10.13 Jouanna = 2.620 L.), 1.22 (32.4–5 Jouanna = 6.666 L.), 3.5 (83.9–10 Jouanna = 3.80 L.) and 3.14 (90.16 Jouanna = 3.98 L.), where *kausos* and *ta phrenitika* are associated and implied to be categorically related.

perspective of this particular treatise, the affection of the blood and the ensuing fever are responsible for mental derangement.

Most succinctly, the patient at *Epid.* 3, 17, case 4 (98.1–11 Jouanna = 116–18 L.) is declared a *phrenitic* from the start. The description, a short case ending with death, is quite expressive:

The patient suffering from *phrenitis* on the first day that he took to bed produced copious thin vomit the colour of verdigris; much fever with shivering; continuous sweating all over; painful heaviness of head and neck; urine thin, with small, scattered substances floating in it, which did not settle. Copious excreta at a single evacuation; delirium; no sleep. *Second day.* In the early morning speechless; acute fever; sweating; no intermission; throbbing all over the body; convulsions at night. *Third day.* General exacerbation. *Fourth Day.* Death.¹⁰

Fever has a wide range of specific manifestations in phrenitic cases. At *Prorrh.* I, 27 (78.2–3 Polack = 5.516 L.) restlessness (*dysphorai*) during a chill in a patient with fever who is perspiring in the upper half of his body is a phrenitic sign (*phrenitikai*): we have here fever with a sense of unrest, as well as a pathological focus on the torso. Likewise, at *Coac.* 69 (120.13–14 Potter = 5.598 L.) *phrenitis* (and death) are foreshadowed by ‘restlessness together with a general cooling that does not end with the fever, in a person who is perspiring over the upper part of the body’. Frequent changes in the signs that typify fever are unfavourable indicators: at *Prorrh.* I, 12 and 13 (76.7–10 Polack = 5.514 L.) we learn that ‘in the early stages of phrenitic cases, signs that are mild, but change frequently, are a bad sign; salivation (*ptyelismos*) is also bad’, and below that ‘in patients with *phrenitis*, a white evacuation (*leukē diachōrēsis*) is bad, as it was for Archecrates. Does torpor follow in these? Chills too are very bad signs in these patients.’ At *Prorrh.* I, 15 (76.13–14 Polack = 5.514 L.) we find a description of the onset of the disease in which pyretic signs are critical: ‘Persons out of their wits (*hoi ekstantes*) who are suddenly attacked by an acute fever and sweating, are phrenitic.’¹¹

The voice of the feverish patient is also mentioned: *Epid.* 3, 3 offers a description of spring illnesses with ‘many malignant cases of erysipelas’. Here various items are listed as signs (80.15–16 Jouanna = 3.70 L.): voices impaired (*phōnai kakoumenai*), phrenitic ardent fevers (*kausoi phrenitikoī*),

¹⁰ In addition, cf. the siglum φ (= φρενίτις) assigned in *Epid.* 3, 17 to case 15 (110.2–4 Jouanna = 3.142 L.), an ancient retrospective diagnosis that confirms the importance of fever: a woman with ‘acute fever and shivering’ and derangement among other problems.

¹¹ See Polack on *Prorrh.* I, 16, 76.14–77.1 Polack = 5.514 L.

‘muffled mouths’ (*stomata aphthōdea*). The inclusion of a disease, *phrenitis*, in a list of signs does not surprise, but expresses the magmatic stage in the thematization of ‘disease entity’ in the sense in which we understand it today. The muffled voice returns as an indicator of *phrenitis* – as well as of consumption and ardent fevers – at *Epid.* 3, 5 (83.7–10 Jouanna = 3.76–80 L.): ‘Many had the symptom of impaired and muffled voices (*phōnai katillousai*), first at the beginning of cases of consumption, but also in ardent fevers and in those with *phrenitis*.’ At *Epid.* 3, 6 (85.3–5 Jouanna = 3.82 L.) ardent fevers and cases of *phrenitis* (*hoi phrenitikoī*) are described together as not being thirsty and displaying a particular kind of derangement, which involves not mad delirium but stupor: ‘None of these phrenitic patients was raving mad, as in the other cases, but they passed away overpowered by a dull oppression of stupor (*tini kataphorēi kakēi, nōthreī, bareōs apollynto*).’ The deaths of these patients are described as similar to what happens with other ardent fevers, ‘varying with the individuals, usually irregular, at the crises, but in some cases after a long loss of speech, and in many with sweating’. At *Epid.* 3.11 (88.1–2 Jouanna = 3.90–92 L.), moreover, phrenitic patients are said to be ‘comatose for most of the time’ (like people suffering from ardent fevers, *kausōdees*, those suffering from ardent fever and most other diseases involving a high fever).

The topic of fever and its massive presence in Hippocratic medicine played an important role in the history and historiography of ancient medicine, especially a few decades ago, when retrospective diagnoses of malaria and other infectious diseases were proposed to make sense of these depictions.¹² Malaria was endemic in ancient Greece,¹³ but this bio-historical datum is irrelevant to the study of the constructed notion of *phrenitis* as a mental disease, and there is little to gain from pursuing the diagnosis.

The quality of urine, an established area of Hippocratic observation, is especially important in cases of *phrenitis*, and will return for centuries in accounts of the disease. The urine of these patients is whitish and thin, and may contain suspended matter. At *Coac.* 571 (250.17–19 Potter = 5.716 L.) ‘colourless urine with dark suspended material in it, in association with

¹² Jones (1909). See van der Eijk (2014) on the historiography of ancient malaria; Craik (2020) for more recent, qualified support for the claim of the importance of malaria; Hamlin (2014) 7–15 on the methodological (linguistic, biological, cultural and philosophical) problems posed by a history of fevers, 17–87 on fevers in classical medicine; Baron and Hamlin (2015). See Appendix 1 on fever, seasonality and *phrenitis*.

¹³ On malaria and the ancient Greek world, see Grmek (1991) 278–82; Nutton (2004) 32–33; Craik (2020); Appendix 1.

sleeplessness and trouble, indicates *phrenitis* (*phrenitika*). At *Aph.* 4.72 (426.7 Magdelaine = 4.528 L.) a particular kind of urine – white and transparent – is bad (*ponera*) and characteristic of *phrenitic* patients.¹⁴ At *Prorrh.* I, 4 (75.8–10 Polack = 5.510–12 L.) it is said that ‘in concomitance with disturbance (*tarachos*) and bad sleep, urine of a bland colour, with dark suspensions, is a sign of derangement (*parakroustika*); with sweating, *phrenitis* . . . in cases of disturbance and insomnia’.¹⁵

With fever come dryness and thirst/lack of thirst¹⁶ as part of the pathological portrait. At *Prorrh.* I, 3 (75.7–8 Polack = 5.510 L.) we learn that ‘muffled tongues’ (*daseiai glössai kai kataxēroi*, i.e. those that are dry and unable to speak clearly) are *phrenitikai*, while at *Coac.* 229 (158.26 Potter = 5.634 L.) ‘rough, very dry tongues indicate *phrenitis* (*phrenitika*)’. Patients with fever, and the phrenitics among them especially, often exhibit *aphasia*, speech impairment and a lack of clarity in verbal expression that can be explained in terms of mental disorder, but that is also plausibly a consequence of overheating. In fact, much of the repertoire of mental disturbance in this period, when considered in this connection, is of a feverish sort.

Along similar lines, spasms and motor disturbance are important signs of the disease in the Hippocratics, and are generally linked to mental health. At *Epid.* 7, 112 (112.3–10 Jouanna = 5.460 L.) Polyphantes of Abdera had a high fever, suffered from continuous headaches and pain in the throat, and ‘was mad in the manner of the *phrenitics* (*tropon phrenitikon*) and then died of intense spasms’. At *Progn.* 23 (76.3–7 Jouanna = 2.186–88 L.) motor disturbances are discussed and their severity placed in relation to the age of patients: older children and adults do not fall prey to these symptoms ‘unless one of the most severe and unfavourable signs appear, as is precisely the case with cases of *phrenitis*’. Likewise at *Prorrh.* I, 28 (78.4 Polack = 5.516 L.) the spasms of phrenitics are said to be not only intense but frequent (*pykna metapiptonta spasmōdea*); in these patients especially, violent trembling is fatal (*Coac.* 96, 126 Potter = 5.604 L.).

Among types of motor disturbance, one in particular is significant for these cases, as is hinted at in the case of Hippis’ sister at *Epid.* 7, 53 (84.21–24

¹⁴ The same concept is confirmed by *Coac.* 568 (238.12–14 Potter = 5.714 L.).

¹⁵ Likewise, at *Coac.* 90 (124.15–16 Potter = 5.602 L.): ‘In cases of *phrenitis*, white excretions accompanied by torpor, bad (κακόν).’

¹⁶ A not unusual, if contradictory pair (cf. Thumiger 2017, 210–19): notwithstanding the heat, these patients may also display *adipsia*, i.e. they do not drink or they refuse to drink. See also *Prorrh.* I, 16 (76.14–77.1 Polack = 5.514 L.): ‘the phrenitics: thirstless, oversensitive to noise, with tremors (*oi phrenitikoī, brachypotai, psophou kathaptomenai, tromōdees*)’ and *Coac.* 95, 125.25–26 Potter = 5.602–04 L.

Jouanna = 5.422 L.), who ‘was phrenitic: . . . very busy with her hands (*tēisi chersi pragmateuomenē*), lacerating herself . . . puffing into her jaws and lips like sleeping people’. This kind of compulsive hand movement is often noticed with the disease. Such behaviour, usually referred to as ‘crocydism’, ‘carphology’ or ‘flocillation’, is a known neurological datum, the compulsive and perhaps hallucinatory movement of the hands that is a consequence of fevers (e.g. in cases of typhus); it is a sign between motoric compulsion and hallucination – perhaps, from the modern point of view, an intersection of cognitive datum and neurological disturbance. At *Progn.* 4 (13.3–14.2 Jouanna = 2.122 L.) the discussion centres on precisely this aspect, and *phrenitis* is mentioned with reference to compulsive movement of the hands, together with other cases involving high fevers (*peripleumoniē* and *kephalgīē*):

About movements of the hands, this is my opinion: in those who suffer from high fevers, in cases of *peripleumoniē*, or *phrenitis*, or *kephalgīē*, to bring them before one’s face and search through the empty air, and try to pick bits of wool from the cover, and peel threads from one’s clothes, and scratch dirt from the wall. All these are bad and anticipate death.

The claim that ‘derangements accompanied by tremors, unclear/confused, with carphology, are eminently indicative of *phrenitis*’ (*tromōdees, asaphees, psēlaphōdees parakrousies, pany phrenitikai*) also appears at *Prorrh.* I, 34 (78.15–79.1 Polack = 5.518 L.).¹⁷ Again, being necessary and/or sufficient is not considered a requirement in these pathological discussions, contradicting the expectations of modern medicine, or even of Galen: many of these signs are extended elsewhere to deranged or feverish patients generally.¹⁸ But the lack of a cogent symptom checklist should not prevent us from inferring patterns from the descriptions.

Last but not least, *phrenitis* always carries the markers of mental disturbance. This can take various forms. Familiar terms and expressions for derangement – delirium, talking nonsense, and other cognitive disturbances, but also unexplained silences, sensory impairment (numbness, deafness) and trouble sleeping (from insomnia and disturbed sleep to comatose states) – all belong to typical portrayals of mental affection.

¹⁷ The concept is repeated in the prognostic text *Coac.* 76 (122.1–3 Potter = 5.600 L.), while again at 78 (122.9–11 Potter = 5.600 L.) ‘derangements with trembling and groping with their hands are signs of *phrenitis*; pains in their calves lead to a disturbance of the mind’.

¹⁸ Compare *Prorrh.* I, 36 (79.2–6 Polack = 5.518 L.): ‘Pains (*ponoi*) about the navel accompanied by trembling may involve some disturbance of the mind (*echousi men ti kai gnōmēs paraphoron*), and at their crisis these patients pass a great quantity of wind and not without pain. Pains (*ponoi*) in the calf of the leg in such cases are also disturbing to the mind (*gnōmēs paraphoroi*).’

Full discussions of *phrenitis* (in nosology as much as in patient cases) necessarily mention mental suffering.¹⁹ ‘He is deranged in the mind’ (*tou nou parakoptei*, *Aff.* 10, 18.19 Potter = 6.217 L.); ‘Patients with *phrenitis* most closely resemble melancholics in their derangement (*kata tēn paranoian*), for melancholics too, when their blood is disordered by bile and phlegm, have this disease and are deranged (*paranooi ginontai*) – some even rage (*mainontai*)’. In *phrenitis* it is the same, only here ‘the raging and the derangement (*hē maniē te kai ē paraphronēsis*)’ are less to the extent that the bile in one case is weaker than that in the other (*Morb.* 1.30, 88.7–13 Wittern = 6.200 L.). Phrenitic patients are ‘out of their mind’, *ekphrones eisi* (*Morb.* 3.9, 76.21–22 Potter = 7.128 L.); they are ‘deranged (*paraphroneousin*) throughout the course of the disease’ at *Morb.* 1.34, 92.7–8 Wittern = 6.204 L.). In the patients at *Epid.* 7, 79, 80, 95–96.10 Jouanna = 5.44–46 L. (in themselves rare examples of individuals who survive the disease) external appearance and neurological manifestations (as we would define them, using our own distinctions) are emphasized at the expense of a report of cognitive alterations, in line with a general tendency in these texts: trembling, a broken although still intelligible voice, a burning fever (7, 79), along with a dreadful disorganization of physical posture, a thin, broken voice, disorientation and sleeplessness (7, 80). Within these signs, sensory disruption is an important symptom of mental suffering in this disease.

This deserves separate discussion both as hallucinatory disorder and as simple sensory alteration, since it characterizes *phrenitis* throughout its history and engenders important theoretical debates. In the earlier, classical sources these impairments are not opposed to or even categorically distinguished from cognitive ones, but belong to the core of the psychopathological portrayal. At *Epid.* 5, 52 (24.6–7 Jouanna = 5.236 L.) (= *Epid.* 7, 71, 92.13–14 Jouanna = 5.432 L.), for example, a patient is introduced as ‘blind due to *phrenitis*’ (*to kōphōma ek phrenitidos*); *kōphōma* in these texts is a less clear-cut experience than our term ‘blind’ suggests,²⁰ but a long-lasting disturbance in vision, caused by our disease, is patently in question. Vision is apparently distorted and its sensitivity intensified, as with floccillation: *Prorrh.* I, 5 (75.10–11 Polack = 5.512 L.) informs us that ‘their dreams are especially vivid’ in phrenitic patients (*enyypnia ta en phrenitidi enargē*).²¹ This sign relates to sight: dreaming and seeing are notoriously contiguous

¹⁹ See Byl and Szafran (1996) 99.

²⁰ See Thumiger (2017) on the degree of sensory impairment and disability in these texts.

²¹ The concept is repeated at *Coac.* 89 (124.14 Potter = 5.602 L.).

in Greek vocabulary and imagination, and feature importantly in Galenic psychology.²²

The discussion of hallucination, which would be the richest in association with *phrenitis* in the Hippocratic texts, at *Morb.* 2.72 (Jouanna 211.15 = 7.110 L.), is philologically problematic. Both manuscripts M and θ , duly followed by Jouanna, offer *phrontis* ($\phi\rho\nu\nu\tau\acute{\iota}\varsigma$), ‘anxiety’, rather than *phrenitis* ($\phi\rho\varepsilon\nu\acute{\iota}\tau\iota\varsigma$) here. Potter, however, in the Loeb text corrects the passage in a forced manner that converts it into an account of our disease, printing $\phi\rho\varepsilon\nu\acute{\iota}\tau\iota\varsigma$.²³ The opening is unique among the surviving descriptions of the disease and resembles other Hippocratic passages depicting derangement: it starts with patients feeling that ‘a thorn (*akantha*) seems to be in the inward parts and to prick them; loathing (*asē*) attacks the patient, he flees light and people, he loves the dark, and he is seized by fear . . . the patient is afraid, and he sees terrible things, frightful dreams, and sometimes the dead’. Nor is vision mentioned in these sources as the only area impaired in phrenitics, although it is the most important of the senses: at *Coac.* 95 (124.25–26 Potter = 5.602–04 L.) the portrait of the phrenitic patient is expanded to include ‘being over-sensitive to noise (*psophou kathaptomenoi*)’ as an indicator for the onset of ‘trembling and convulsion’.

Many of the disparate signs displayed by phrenitic patients are found clustered in *Prorrheticon* 1, a text that offers many aphorisms regarding mental health. These instances are important because they allow us to begin to construct a picture of the disease in which frequent signs appear, signs which might not be exclusive but recur in a meaningful way. In a discussion involving the neck and throat at *Prorrh.* 1, 1, this telling question is posed: ‘Do patients who have been comatose at the beginning, but later lie awake with pains in the head, loins, *hypochondrium* and neck, develop *phrenitis*?’ (75.2–4 Polack = 5.510 L.). Neck and head, as well as the diaphragmatic location, come into play, apparently along with a general link to cold-like ailments: a bit later we read that ‘a running nose in these is a fatal sign, especially if it begins in the fourth day’.²⁴ At *Prorrh.* 1, 2 (76.4–6

²² See Chapter 5 (p. 151).

²³ See below (p. 50) on the interpretation of this as a passage about *phrenitis*. $\phi\rho\nu\nu\tau\acute{\iota}\varsigma$ – here ‘worry, trouble, anxiety’ – moreover, is uncommon as a name for a disease and indeed appears only in a cryptic passage in *Epid.* 6, 5, 5 (110.2 Manetti–Roselli = 5.316 L.). On the other hand, as a description of *phrenitis* this passage would be even more exceptional within classical medicine for the elaboration regarding psychological aspects (fear), the loathing of light, and the hallucinatory quality of the illness, and it is better taken as an instance of retrospective psychologizing on Potter’s part.

²⁴ Moreover, the partly interdependent passage at *Coac.* 175 (144.16–18 Potter = 5.622 L.): ‘Do patients who are comatose at the beginning of their fever, and who lie awake with pain in the head, loins, *hypochondrium* and neck, develop *phrenitis*? That a nostril passes drops of blood in these is a fatal

Polack = 5.512–14 L.) the localization of the affection in the throat is related to our disease. The whole aphorism reads: ‘Slight, suffocating pains in the throat, felt on opening the mouth by a person with an acute disease who cannot close it easily and is feeble, announce derangement (*parakroustikon*); those with *phrenitis* are doomed’.²⁵ Here patients with the disease are in an especially weak position if they suffer from ailments of the neck and throat.

At *Coac.* 223 (156.25–26 Potter = 6.632 L.) *phrenitis* is mentioned as associated with symptoms that are eminently mental: ‘Fixation of the eyes in an acute disease, or a sharp movement of the eyes together with disturbed sleep or sleeplessness, sometimes also provokes a haemorrhage from the nostrils. Such patients who are not burning hot to the touch become *phrenitic*, especially if a haemorrhage occurs’. These shifting clusters or patterns lack the coherence of a consistent nosological account, but details begin to coalesce around a few points that become the backbone of the disease in later nosology. It is important at this stage to note that a localization around the chest and throat, the respiratory process and its bodily parts, seems to dominate.

Aetiology and Additional ‘Co-factors’

References to patient profiles are rare in the Hippocratic sources in all cases. When *phrenitis* is involved, there are only a handful of such references. At *Aph.* 3.30 (408.11–13 Magdelaine = 4.500 L.) we read that *phrenitis* (like many other diseases) tends to occur after age twenty-five, and at *Prorrh.* I, 9 (76.2 Polack = 5.512 L.) that ‘*phrenitic* illnesses in the young end with spasms’. At *Aph.* 7.82 (475.11–13 Magdelaine = 4.606 L.) there is a distinction in the prognosis of the disease between middle-aged and younger subjects: ‘If *phrenitis* attacks those beyond forty years of age, they rarely recover; for the risk is less when the disease (*hē nosos*) belongs to one’s constitution (*oikeiē tēs physios*) and to age’ – which seems a reasonable observation, to be extended to other diseases as well. Otherwise, there is no reference to age and no pattern in terms of gender in cases of this disease.

sign, especially if it is on the fourth day or at the beginning. A very red discharge from the cavity is also bad.’

²⁵ In this connection, cf. also *Coac.* 269 (166.28 Potter = 6.642 L.).

The question of aetiology is also complex and marred by the pitfalls of anachronism. A precise, systematic account of causes as a fundamental chapter in pathology is not necessarily a feature of nosology at this stage in ancient science, when clinical description and collation of signs and symptoms (and, in second place, prognosis and therapeutics) occupy the most space. But there is some consistency in the limited information the Hippocratics give in this regard – or rather a number of fixed explanatory patterns: *phrenitis* ‘arises from bile (*hypo cholēs*) when, having been set in motion, it settles against the inward parts and the diaphragm (*pros ta splanchna kai tas phrenas prosizēi*)’, according to *Aff.* 10 (20.6 Potter = 6.218 L.). At *Aff.* 12 (22.11–16 Potter = 6.220 L.) the conversion from a simple winter fever to acute diseases such as *phrenitis* is better illustrated in terms of cause and consequence: ‘When, with phlegm and bile set in motion, what is beneficial is not administered to the patient’s body, the phlegm and bile collect together and fall upon *some chance part* (*hēi an tychei*) of the body, and *pleuritis* or *phrenitis* or *peripleumoniē* result.’ Bile and phlegm are here the culprits, but the locus afflicted varies.²⁶

Diseases 1.30 (86.19–88.13 Wittern = 6.200 L.), by contrast, presents *phrenitis* in a haematocentric frame. Here as well, however, bile is primarily to blame: ‘When bile that has been set in motion enters the vessels and the blood, it stirs the blood up, heats it and turns it into serum, altering its normal consistency and motion; now the blood heats the rest of the body too’. Derangement and high fever follow. At *Morb.* 1.34 (92.7–18 Wittern = 6.204 L.) the decline towards death in *phrenitis* is explained as mostly caused by lack of nourishment, since the patients, being deranged (*paraphroneontes*), accept no food and waste away. At the origin of the cold, fever and pain is the fact that ‘when the blood in the vessels is cooled by the phlegm, it migrates and contracts into a mass at one time in one part, at another time in another part, and trembles. Finally, everything becomes cold and the person dies.’ Here phlegm is the pathogen.

In sum, the direct cause or pathological picture, when given, seems to be humoral: in most versions it is bile pressing against sensitive body parts, but it can also be phlegm (and bile) stirring the blood up and heating it, or phlegm alone cooling the blood excessively. When we read at *Prorrh.* I 31 (78.7–8 Polack = 5.518 L.) that ‘what is salivated in cases of *phrenitis* with chills is vomited back up dark’, dark humours seem to be implied.

²⁶ On the difficulty in establishing causation in Hippocratic nosology, see Roselli (2018) 185–86.

Therapy and Prognosis

In these earlier sources, therapy for *phrenitis* is not always addressed in our sources as part of the discussion of the disease. One informative passage in this respect, however, is *Aff.* 10 (18.20–21 Potter = 6.216–18 L.), where *phrenitis* is treated as a disease of the central body cavity. The instructions are as follows: ‘For the pain, treat the patient with the same measures as in pleurisy’, that is, with ‘a medication to remove phlegm and bile’ from the painful area; ‘clean the cavity downwards by giving a medication and cooling it with an enema . . . ; administer drink and gruel’ (14.18–16.2 Potter = 6.214 L.). For *phrenitis*,

give a medication for the cavity, and conduct the rest of the treatment along the same lines, except with regard to drink. As drink, give anything you wish except wine; give vinegar, honey and water, or water alone. Wine, however, does not benefit a deranged mind . . . It is of benefit in this disease to wash with copious hot water from the head downwards. For as the body is softened, sweating increases, the cavity discharges, urine passes, and the patient gains more control over himself. (18.20–20.5 Potter = 6.218 L.)

The connections between the therapy for *phrenitis* and that for related winter-chest diseases are evident at *Nat. Hom.* 5 (212.4 Jouanna = 6.78 L.), where we read that emetics and clysters – both purging methods – are to be used in periods when more phlegm is engendered, such as winter, when ‘diseases that attack the head and the region above the diaphragm, *phrenes*’, occur.

A second instructive passage, along similar lines, is *Morb.* 3.9 (76.24–27 Potter = 7.128 L.): ‘Warm this patient with moist fomentations and with drinks other than wine. If he can stand up, cleanse him upwards; he must bring up material by coughing and expectoration just as in *peripleumoniē*. If he fails to do this, prepare the lower cavity in order to evacuate it. Moisten the patient with drink, for that helps.’ Purging and cleansing the body cavities is central, as is the diaphragmatic location.²⁷

The clinical texts do not add much in the way of a clear protocol for *phrenitis*: the phrenitic butcher in Acanthus in *Epid.* 5, 52 (7, 71), 24.6–9 Jouanna = 5.236–38 L. (92.13–17 Jouanna = 5.432 L.), who developed

²⁷ In addition, some of the guidance found in *Regimen in Acute Diseases* obviously applies to *phrenitis*, which is there treated together with pleurisy, pneumonia and ardent fever (*Acut.* 5, 37.21–38.1 Joly = 2.232 L.). One might also compare *Acut.* 23 (46.3–7 Joly = 2.274 L.), where a prescription for a ‘pain under the diaphragm’ (*hypo phrenas* . . . *to algēma*) is offered: ‘Soften the bowel with black hellebore or peplium, mixing it with black hellebore, daucus, *seseli*, cumin, anise or another fragrant herb, and with the *peplum* juice of silphium.’

a hump (*kyphōma*) after *phrenitis*,²⁸ is treated with what appear to be soothing measures: ‘No drugs helped, but red wine and eating bread, refraining from bathing, being massaged with restraint, and being warmed without much fomentation but gently.’ At 7, 71 there are more details about ‘being rubbed with oil, warming the back, not excessively, by means of a small, gentle fire’.

Competing Localizations

Some of the quotes above, which describe therapy to the head and chest alike, nicely illustrate the problematic juxtaposition of chest and head vis-à-vis *phrenitis*, despite its deep-seated connection with the cavities of the torso. This topic is central to the history of the disease and very influential in the development of Western psychiatry. Indeed, it runs through the whole history of *phrenitis* and will emerge as a leading theme in our reconstruction of it in this book.²⁹

The location in the chest is dominant in the Hippocratics, with an obvious association with winter diseases localized in the torso as the affected area. This is evident in the involvement of the respiratory system (as we would define it), as is also the case with *pleuritis* and *peripleumonīē*, and in the general location of the *phrenes* in the chest (whether we interpret them as the diaphragm or identify them more vaguely with the body cavities of the upper chest), here intended in an entirely material sense as ‘body part’. The association of chest, breathing and breathing affections with cognitive implications, which is traditional in Greek medicine from an early date, is also important here.³⁰ This localization explains the link between expectoration full of mucus and derangement found in some texts, most clearly at *Prorrh. I*, 6 (75.11–12 Polack = 5.512 L.): ‘Frequent expectoration, if another sign is present as well, indicates *phrenitis* (*anachrempsis pyknē ge, ēn dē*

²⁸ Jouanna translates ‘gibbosité’. The term alludes to a humpback, or perhaps more generally to an abscess of some kind. This is suggestive of the involvement of the back in cases of *phrenitis* and evokes parallels with the inflammation of the spinal membrane, described by Asclepiades and his followers (see below, p. 66), and of the encephalic tumour/*apostēma* which will become synonymous with *phrenitis* in the post-antique era. This is, however, an isolated instance in the Hippocratic sources.

²⁹ See on this more precisely Thumiger (2021a). Pigeaud (1981/2006) 77–82 already highlights the problem of *siège* in discussions of the disease.

³⁰ In a medical environment, theories of respiration offer relevant testimony in this regard; see Debru (1996) 43–48 on respiration and cardiocentrism, 254–56 on respiratory exercises with a ‘spiritual’ effect; Thumiger (2017) 36–39 on the chest, and 102–07 on respiration; Langholf (1990) 42–48 for a medical and cultural-historical survey of the chest and mental life in Greek thought.

ti kai allo sēmeion prosēi, phrenitika).³¹ It should not be forgotten that *peripleumoniē* too can cause derangement, as described at *Morb.* 3.15 (82.22–25 Potter = 7.136 L.) as part of a picture that shares a great deal with that of *phrenitis*: ‘There is violent fever, and the patient’s breathing is rapid and hot; he is distraught, weak, and restless (*aporiē, kai adynamiē, kai riptasmos*), and beneath his shoulder blade he suffers pain that radiates toward his collarbone and nipple. He has a heaviness in the chest, and he is deranged (*paraphrosynē*).’

Second, the hypochondriac affiliation, as is most evident in *Aff.* 10 (18.14–20.11 Potter = 6.216–18 L.):³² ‘In *phrenitis*, there are at first mild fever and pain over the *hypochondrium* . . . *phrenitis* arises from bile, when, having been set in motion, it settles against the inward parts and the *phrenes*.’ As the name obviously suggests, this area of the body (here *phrenes*, elsewhere *hypochondrion*) most often emerges as the pathological place in the course of this illness, although it is unclear what function would be impaired as a consequence. This point is explored in the next paragraph, but it is obvious that the name and various discussions of the disease point to a central role for the diaphragm and the upper cavity of the torso, where the lungs and the heart are located.

Third, the link with the torso also includes lower, gastric and hypogastric localizations. This appears to be a possibility at *Coac.* 405 (204.26–28 Potter = 5.676 L.): ‘If persons with pain in the side (*meta pleourou algēmata*) who do not have pleurisy evacuate favourably thin stools, they turn out to be phrenitic.’ The liver is also important, although it is never mentioned directly as a body part affected by *phrenitis*. The *phrenes*, in fact, are often described as intersected by the vein that leads to the liver, and the author of *Int.* 48 (230.18–236.20 Potter = 7.284–88 L.), who describes the mental effects of a swollen liver pressing against the diaphragm, is in line with the tradition which makes the liver the seat of the appetitive soul. This tradition runs from Plato to Galen’s re-elaboration³³ and is rooted in

³¹ Cf. *Coac.* 239 (160.24–25 Potter = 5.636 L.) to the same effect. For the ‘cardiocentric’ – or, rather, chest-centred – direction, cf. *Epid.* 6, 3.22 (74.1 Manetti-Roselli = 5.304 L.): ‘globular, thick’ (literally ‘round’) expectoration from the mouth related to insanity (*ta strongyloomena ptyala parakroustika*), and *Epid.* 6, 6.9 (134.7–9 Manetti-Roselli = 5.328 L.): ‘Globular expectorations lead to insanity, as in the case in Plinthius. He had a haemorrhage from the left nostril, and on the fifth day he was cured (*ta strongyloomena ptyala parakroustika, hoion to en Plynthiōi, toutōi hēimorrhagēsen ex aristerou, kai elythē pemptaiōi*).’

³² See van der Eijk (2015) on the history of this body part as *locus affectus*, and of the disease concept ‘hypochondria’.

³³ Plato, *Timaeus* 70a1, 70a4, 70e1, 77b4, repeating the concept of the diaphragm as a lower border of the seat for the appetitive soul separating it from the nutritive – a scheme adopted by Galen in *PHP*, especially Book 3 (168–232 De Lacy = 5.249–87 K.); cf. 422.4 De Lacy = 5.575 K., 534.35 De Lacy =

a vast popular tradition.³⁴ It was not only the whole chest, then, that was a mental centre in Greek culture as important as, or even more important than, the head;³⁵ various parts of the torso, from the upper, cardiac cavity to the gastric area, were also fundamental.

Fourth, the head (as a whole comprising skull, membranes, brain and face, or with particular reference to only one of these parts) or *caput* (by which I mean the uppermost section of the body, as its general termination in an upward direction) is clearly implicated. Headache as a symptom³⁶ is of great interest, since it underlines the anatomical dissonance that constitutes the backbone of the history of our disease: *phrenitis* is localized in the chest, but is also accompanied by head-and-neck symptoms.³⁷ Intriguingly, clinical material – the patient descriptions – rather than doctrinal nosology yields the most information regarding the head as affected in our disease. At *Epid.* 7, 112 (112.3–9 Jouanna = 5.460 L.) Polyphantas of Abdera has an illness characterized by a ‘phrenitic derangement’ which includes ‘continuous headaches’ (112.5–6 Jouanna = 5.460 L., *ou pauomenou de tou algēmatos tēs kephalēs*), as does the next patient, the maidservant of Eualcides, who had headaches (112.10–13 Jouanna = 5.460 L.). She ‘became phrenitic and died with powerful convulsions’. So too at *Epid.* 3, 17, case 4 (98.3–4 Jouanna = 3.118 L.) a phrenitic patient (*ho phrenitikos*) has ‘painful heaviness of the head and neck’.

Headache itself as a pathological entity is thematized in *Coac.* 116 (130.3–4 Potter = 5.608 L.), where headache in acute fevers is said to develop into *phrenitis* (*es to phrenitikon periistatai*) unless there is a haemorrhage through the nostrils. The connection with the head is also reinforced visually: at *Coac.* 210 (154.5–6 Potter = 5.630 L.) ‘contraction of the forehead (*metōpou synagōgē*)’ is *phrenitikon*, a phrenitic sign, in association with the idea that ‘a good colour of the face in association with sullenness in acute disease (*prosōpou euchroia kai skythrōpotēs en oxei*) is a bad sign’.

Finally, in delocalized terms blood can also be seen as a *locus* of the disease. This episodic doctrine is specific to the haematocentric views exposed in *Diseases I*, which discusses aetiology, as we have already seen. In *Morb.* 1.30 (86.19–88.4 Wittern = 6.200 L.), for example,

5.716 K. At *PbP* 6.848–76, 418–25 De Lacy = 5.568–77 K., Galen comments at length on the Hippocratic importance of the diaphragm in descriptions of the veins and liver.

³⁴ See Onians (1951) 84–89, 505–06 for a representative discussion.

³⁵ See the use of bodily terminology (e.g. *phrēn*, *prapides*, *thymon*, *stēthos* and *splanchna*) separate intellectual organs in the pre-Socratics.

³⁶ I use ‘symptom’ here for signs that are subjective in origin as opposed to observable, although all these are filtered through the understanding and presentation of the doctor.

³⁷ Byl and Szafran (1996) 101 also note this.

Phrenitis is as follows: the blood in a human being contributes the greatest part to intelligence . . . (*pleiston xymballetai meros synesios*) . . . Therefore, when bile that has been set in motion enters the vessels and the blood, it stirs the blood up, heats it and turns it into serum . . . Due to the magnitude of his fever, and because his blood has become serous and abnormal in its motion, the person loses his wits and is no longer himself.

Morb. 1.34 (92.7–9 Wittern = 6.204 L.) elaborates on this, basing its explanation on the corruption of blood: ‘Inasmuch as [phrenitics] blood is corrupted and does not move in its normal way (*hate tou haimatos ephtharmenou te kai kekinēmenou ou tēn eōthuian kinēsīn*), they are deranged throughout the disease . . .’ Can this isolated but representative circulatory account be interpreted as a more holistic option?

These should not be seen as contradictory or rival doctrines, or as uncertainties in medical explanations of the disease. As van der Eijk explains with reference to the more theoretical question of the discordant ‘theories of mind’ traceable in the Hippocratic Corpus, these different models are scarcely exclusive³⁸ and can in fact coexist in the same account. Even the simplified dialectic encephalocentrism-cardiocentrism plays a deeper role in our disease.

The Elusive Connection: phrenes, phrenitis and Mental Life

The dominant localization of *phrenitis* points to the region of the body to which the *phrenes* belong, as their name suggests (although *hypochondrion* is sometimes used instead): the ‘diaphragm’, the sheet of muscle which in modern anatomy separates the thoracic cavity that contains the lungs and the heart from the gastric cavity, and which plays a role in respiration by contracting, increasing the lungs’ volume and allowing them to be filled with air. This is a visually detachable part of the body,³⁹ tears or perforations of which can impact the respiratory functions, causing orthopnea (shortness of breath when lying down, and coughing).⁴⁰ As observed in [Chapter 1](#), however, *phrenes* is also synonymous with mental life and mental soundness in classical Greek, and is a very common term which ties in with another fundamental of the disease *phrenitis*, its mental quality.

³⁸ Van der Eijk (1995/2005) 124–25.

³⁹ The claim at *Epid.* 2, 4.1 (64.17–18 Smith = 2.122 L.) that the *phrenes* are ‘not easy to separate’ (*ou rhēdion chōrisai*) – from the liver, or one lobe from the other – confirms their add-on appearance (see Figs. 1.1, 1.2, 1.3 below, pp. 13–15).

⁴⁰ See Broder (2011) for an overview from the point of view of contemporary medicine; Karmy-Jones and Jurkovich (2004) on chest trauma. At *Epidemics* 5, 95 (42 Jouanna = 5.254 L.) and 7.121 (116–17 Jouanna = 5.466 L.) a case of a mortal diaphragm wound is reported.

A combination of the following moves is thus key to explaining and assessing the localization of our disease: first, an association between *phrenes* as body part and *phrenitis*; second, an emphasis on the disease as mental; third, a contextual awareness of the *phrenes* as an organ of mental life or a metaphorical expression to indicate the mind. We shall see that these three points are never combined in early texts, which is surprising, as is the avoidance of (*para*)*phronein* and other cognates of *phren-* to describe the mental import of the illness. Let us consider three points one after the other, in order to explore their overlap: (1) the general notion of *phrenes* as body part in the Hippocratic texts; (2) reference there to a role of the *phrenes* in *phrenitis* in a mere locative sense, unconnected with the mental sphere, particularly in relation to vitality; (3) reference to a role of the *phrenes* in mental pathology, especially in *phrenitis*.

The Notion of phrenes in the Hippocratic Texts

As noted in [Chapter 1](#), the noun *phrēn/phrenes* traditionally had two senses, which are often indistinguishable in archaic literature: a place in the body, with a locative-anatomical and strictly physiological meaning (the diaphragm; either the upper or the gastric cavity in the torso; the chest in general), on the one hand, and the mental faculties and/or a person's character and 'self', on the other. In our texts, in exact countertendency to all other literature of the period, *phrenes* – the singular *phrēn* appears only once – is rarely employed in the second sense, whether in association with *phrenitis* or not.

At first glance, it might appear striking that this otherwise common noun, a stock term for the mind in archaic and classical literature, is not central to discussions of mental pathology in the Hippocratic sources. The datum appears less surprising if we consider that these texts systematically avoid association with traditional concepts and formulations.⁴¹ Indeed, the term *phrenes/φρένες* is mentioned and not avoided: it is the selectiveness of the usage that is significant. Not only do Hippocratic discussions of mental life and its disorders ignore the traditional 'Homeric' sense of *phrenes* as the seat of emotions and thought, as well as a bodily location, but even in descriptions of the disease *phrenitis* itself the *phrenes* appear in indirect, almost reluctant association.⁴²

Non-Mental phrenes in the Hippocratic Texts

Most Hippocratic uses of *phrēn/phrenes* are devoid of any association with the mental – or indeed with *phrenitis* – and clearly refer to an anatomical

⁴¹ See [Thumiger \(2017\)](#) 421.

⁴² For a discussion of this term in the Hippocratic texts, see [Langholf \(1990\)](#) 40–42.

part, the diaphragm. The emphasis is on its ‘partitioning’ function, its position as ‘dia-phragm’ between the upper and lower cavities of the torso and its intermediate location with respect to the main veins flowing from the heart down through the liver. At *Vet. Med.* 24 (152.13–15 Jouanna = 1.634 L.) the nature of the *phrenes* is described as similar to that of other tissues rich in blood, such as the liver, insofar as they are exposed to pain and alterations (e.g. abscesses or tumours): ‘Violent pain, but much less severe, is also felt under the diaphragm (*hypo phrenas*). For the diaphragm is an extended, broad, resistant substance (*diatasis . . . phrenōn plateiē kai antikeimenē*), of a stronger and more sinewy texture, and so there is less pain. But here too pain and tumours occur.’

As might be expected, different treatises and topics reflect different interests in the diaphragm. In *On Joints* the anatomical part under the ribs is in question, as also (one is led to believe) at *Artic.* 41 (164.3 Kühlewein = 4.176 L.; 164.14 Kühlewein = 4.178 L.), where ‘above the *phrenes*’ (*anōterō tōn phrenōn*) indicates the position of a malignant lump in the spinal vertebrae.⁴³ Elsewhere, respiration is emphasized: at *Progn.* 5 (14.4 Jouanna = 2.122 L.) we read that ‘rapid respiration indicates pain or inflammation in the parts above the diaphragm, *hyper tōn phrenōn*’. *Coac.* 255, 164 Potter = 5.638 L. argues that ‘frequent and shallow breathing indicates an inflammation and pain in the parts above the diaphragm (*en toisi hyper tōn phrenōn topoisi*). If breaths are deep and come at long intervals, they indicate a disordering of the mind or convulsions (*paraphrosynēn ē spasmon*); if they are cold, they signal death.’

Anatomically, the gastric and lower cavities are also referenced for the sake of their position relative to the *phrenes*. At *Progn.* 12 (35.2–5 Jouanna = 2.142 L.) persistently thin, crude urine suggests an abscess in the area below the diaphragm (*es ta katō tōn phrenōn chōria*), while at *Aph.* 4.18 (413.3–4 Magdelaine = 4.506 L.) ‘pains above the *phrenes*, *hyper tōn phrenōn*, indicate the need for upward purging’. At *Breaths* 10 (118.8 Jouanna = 6.106 L.) *ho phragmos tōn phrenōn*, ‘the closure of the *phrenes*’, works as a barrier impeding the upward flux of fluids in the body.

The sensitivity of the *phrenes* and the danger represented by pain in this area⁴⁴ – the topic of sensitivity, which already emerged above – are

⁴³ The anatomical indication is used at *Artic.* 41 (165.15 Kühlewein = 4.180 L.) *katōterō tōn phrenōn* (below the diaphragm). Cf. in the same spirit *Mochl.* 1 (4.342 L.) *achri phrenōn* (as far as the diaphragm); *Mochl.* 37 (4.380 L.) *anō phrenōn* (above the diaphragm).

⁴⁴ See also *Acut.* 21 (45.23–24 Joly = 2.272 L.) on pain in the upper chest, including *hyper tōn phrenōn*, as requiring venesection, and *Acut.* 22 (46.3 Joly = 2.274 L.). Phlebotomy is also recommended at *Acut.*

described at *Progn.* 19 (54.6–55.1 Jouanna = 2.164 L.): ‘Pains occurring with fever in the region of the loins and lower parts, if they leave the lower parts and attack the diaphragm (*ēn tōn phrenōn haptontai*), are very deadly’, if other bad symptoms supervene. ‘But if, when the disorder jumps to the diaphragm, the other symptoms that supervene are not bad, confidently expect an *empyēma* (a pocket of pus accumulated inside a body cavity).’ A primary affection moving to the *phrenes*, as opposed to a momentary reaction, is deadly.

In a discussion of barley gruel at *Acut.* 5 (42.14–15 Joly = 2.258 L.) it is said that gruel should not be offered to a stomach that is full: the consequence will be that ‘it dries the lung, besides causing discomfort in the *hypochondria*, the hypogastrium and the diaphragm (*phrenes*)’. At *Aph.* 7.54 (-469.10–470.2 Magdelaine = 4.594 L.) pain is associated with the indication of a space or cavity in cases ‘where phlegm is confined between the midriff and the stomach, causing pain because it has no outlet into either cavity’.

Finally, the *phrenes* are often mentioned in order to identify the relative position of vessels in the torso. In the *Epidemics* (where, interestingly, the traditional term is otherwise avoided), at 2.4.1 (62.12 Smith = 5.120 L.) the liver vein is said to reach the heart through the diaphragm (*dia phrenōn*), while at 2.4.1 (64.17–18 Smith = 2.122 L.) *phrenes* are said to be attached to the liver and difficult to separate from it. Later, at 2.4.1 (64.20–22 Smith = 5.124 L.), *phrenes* are localized ‘at the vertebra below the ribs where the kidney separates from an *artery*’,⁴⁵ and are said to ‘bestride the *artery*’; many branching veins are described as running through the diaphragm (*dia tōn phrenōn*), and so forth, with various similar remarks about position with respect to the liver and spine and the presence of blood vessels. In *Loc. Hom.* 3 (42.7–11 Joly = 6.282 L.) the *phrenes* are also mentioned in order to pin down the position of vessels, here the *vena cava* (*hē . . . koilē phlēps*), which ‘passes over the surface/through (?) the *phrenes* and the heart, between the two halves (?) of the *phrenes*’ (42.8–11 Joly = 6.282 L., *metaxy tōn phrenōn*).⁴⁶ At *Morb. Sacr.* 3 (11.20–21 Jouanna = 6.366 L.) the vein

(*sp.*) 4 (69.19–20 Joly = 2.400 L.) for swelling of the *hypochondria*, tensions (*entusias*) of the *phrenes* from the stoppage of air, and other complaints in the chest and gastric area; *Acut.* (*sp.*) 34 (85.9–10 Joly = 2.466 L.) ‘those who have pain in the diaphragm’, *apo tōn phrenōn*. At *Acut.* (*sp.*) 57 (94.2–6 Joly = 2.510 L.) ‘affection that produces pain in the thorax above the diaphragm (*hyper tōn phrenōn*)’ or ‘in the lower cavity below the diaphragm (*hypo phrenas*)’ is considered.

⁴⁵ For the Greek *artēria* sometimes the translation ‘windpipe’ is to be preferred; here the term indicates however the blood vessel, distinguished from the vein (*phlēps*)

⁴⁶ Cf. later *Loc. Hom.* 3 (42.18 De Lacy = 6.282 L.); *Carn.* 5 (191.25 Joly = 8.590 L.).

running from the liver is also said to ‘stretch upwards toward the *right diaphragm* and lung (*dia tōn phrenōn kai tou pleumonos tōn dexiōn*)’.

The Vitality of the phrenes

The vital relevance of the *phrenes* is also noticeable. At *Coac.* 107 (128.1–4 Potter = 5.604 L.) it is a deadly sign in patients with a fever when ‘pains arising in the loins and the lower parts . . . seize the diaphragm at the same time they resolve through the lower parts (*ekleipousai ta katō*)’: disturbance to this part is definitely fatal. At *Aph.* 6.18 (452.1–2 Magdelaine = 4.566–68 L.) the *phrenes* are one of the body parts where wounds are deadly (along with other organs; repeated at *Coac.* 499, 230.3–15 Potter = 5.698 L.), while *Morb.* 1.3 (6.18–8.1 Wittern = 6.142–144 L.) declares that injuries ‘in the brain, spinal marrow, cavity, liver, *phrenes*, bladder, blood vessel or heart’ are bound to cause death.⁴⁷ *Phrenitis* in pregnant women is also inevitably fatal (*Morb.* 1.3, 8.3–7 Wittern = 6.144 L.).

Sensitivity and vitality obviously indicate the relevance of *phrenes* to mental life, especially in the biological frame of the materialistic concept of the soul in ancient medicine. The strongest indicator of this is, *e contrario*, given by the author of *Sacred Disease* as he forcefully and explicitly refutes the notion that the mental faculties should be located in the *phrenes* (*Morb. Sacr.* 17, 30.3–17 Jouanna = 6.392 L.):

Wherefore, I say that it is the brain which interprets the understanding. But the *phrenes* (= the diaphragm) have obtained their name from *accident and usage* (*tēi tychēi . . . tōi nomōi*), and not from *reality or nature* (*tōi eonti . . . tēi physei*), for I know no power which it possesses, either as to sense or understanding, except that when a man is affected with unexpected joy or sorrow, it *throbs* and produces *palpitations*, owing to its *thinness*, and since it has no belly to receive anything good or bad that may present itself to it, it is thrown into commotion by both of these, due to its natural weakness. It then perceives beforehand none of the things which occur in the body, but *has received its name vaguely and without any proper reason*, like the parts about the heart, which are called auricles, but which contribute nothing towards hearing.

This intriguing passage shows full awareness that the etymology is unreliable, and explicitly attacks the traditional psychological interpretation of

⁴⁷ That the *phrenes* were part of this list of vital or important parts, is confirmed by the mention of them in the (somewhat random) list in *Alim.* 25 (81.13 Heiberg = 9.106.14 L., *phresi*). Cf. the later evidence of Celsus, *Med. Proem.* 42 (24, 8–10 Marx): ‘As soon as the knife penetrates the chest by cutting through the transverse septum, a sort of membrane which divides the upper from the lower parts (the Greeks call it *diaphragma*), the individual loses his life at once (*simul atque vero ferrum ad praecordia accessit et discissum transversum saeptum est, quod membrana quaedam est quae superiores partes ab inferioribus <di>ducit* (ΔΙΑΦΡΑΓΜΑ Graeci vocant) *hominem animam protinus amittere*)’.

the *phrenes*, which are here clearly identified with the membrane of the diaphragm (as the reference to their thinness and throbbing suggest). The author claims that they are *affected* by the individual's emotions and are not their *origin*, hence their apparent reactivity in moments of distress.

In *Morb. Sacr.* 7 the term *phrenes* returns as a simple location that explains the discharge of excrement during epileptic attacks: 'The liver and upper bowel are forced against the *phrenes* (*pros tas phrenas*), and the mouth of the stomach is intercepted' (16.8 Jouanna = 6.374 L.).⁴⁸ So too at *Morb.* 3.14 (82.7 Potter = 7.134 L.), in cases of *ileus* it is recommended that one cleanse the upper cavity and 'cool the region above the *phrenes* (*ta anō tōn phrenōn*)'. *Morb.* 3.16 (86.22–96.12 Potter = 7.142–56 L.) is devoted to forms of *pleuritis*, which are diseases contiguous to *peripleumoniē* and *phrenitis*, as was noted, with similar therapeutic recommendations (as explicitly at 90.9–10 Potter = 7.146 L.). The following therapy, for example, is described: drying the thorax by wrapping it in a plaster soaked in moist Eretrian earth, and then cauterizing or incising 'as close to the *phrenes* as possible, but sparing the *phrenes* themselves' (94.25–28 Potter = 7.154 L.).

This importance of the *phrenes* in regard to vitality and survival,⁴⁹ as well as the importance assigned them by medical (and non-medical) authors generally, I suggest, shows the persistent weight and silent influence of the archaic meaning of the word as the larger upper torso region (lungs, heart, and the area more generally) that serves as the seat of life and consciousness in early literary sources.⁵⁰

Mental phrenes?

Direct or exclusive references to *phrenes* as a mental organ are very rare in the Hippocratic texts, and Langholf is right, at least for the majority of cases, to define such occurrences as 'conventional'.⁵¹ The non-bodily use of *phrenes* as 'mind' or 'mental soundness' appears in *Regimen in Acute Diseases* (*sp.*) 1 (68.11–12 Joly = 2.396 L.) in an expression indicating the

⁴⁸ For more anatomy, see *Anat.* 1 (6.5–6 Potter = 8.540 L.), locating the *phrenes* 'against the backbone behind the liver'; *Oss.* 1 (16.1–18.2 Potter = 9.168 L.), describing the position of the liver; *Oss.* 2 (18.3–9 Potter = 9.168–70 L.) on the vein cutting through the *phrenes*, as well as *Oss.* 7 (22.8 Potter = 9.172–74 L.; 22.23 Potter = 9.174 L.); *Oss.* 10 (28.8–10 Potter = 9.178 L.) on the liver vein cutting through the *phrenes*. This section actually contains a digression on the *phrenes* and the vessels that cut through or envelop them, and on their not being easily separable from the liver (30.8–9 Potter = 9.180 L.). See also *Oss.* 14 (38.8–14 Potter = 9.186 L.), 18 (46.8–11, 18–20 Potter = 9.194.13, 20 L.); Erasistratus (fr. 230.8 Garofalo *ap.* Galen *Loc. Aff.* 5.3, 8.317 K.).

⁴⁹ The later treatise *Seven* 79 (3).5–6 Roscher = 8.672.24 L.) includes a use of *phrenes* that refers to the part of the body through which the heat passes as life departs the body.

⁵⁰ See Onians (1951) 23–31.

⁵¹ Langholf (1990) 40–41. On *phrenes* in these texts, see also Matentzoglou (2011) 46, 153, 213.

patently mental symptom ‘derangements of the mind’, *parallaxies phrenōn*. The disease in question here is less fully specified than *phrenitis*, although it may include it: a burning fever (*kausos*). At *Prorrh. II*, 9 (244.II–27 Potter = 9.28 L.) the *phrenes* are mentioned as a function that can be impaired: in a discussion of the sacred disease, it is said that the physician should ‘take care if his patients are young and active, unless *their mind* has some defect (*phrenes . . . ti kakon echousin*) or the patient is paralysed’.

More ambiguously balanced between a literal and a metaphorical or abstract meaning is *Acut.* 14 (57.19–23 Joly = 2.332 L.), where sweet wine is said to ‘go less to the *phrenes*’ and to be ‘less affecting the *phrenes*’, *hēsson phrenōn haptomenos*, compared to *oinōdea*, the vinous type of wine. This suggests that *phrenes* are here the mental faculties that red wine affects more severely; Jones translates the word as ‘brain’!⁵² A similar mental meaning seems to be implicit a bit below (58.24 Joly = 2.336 L.), where a change from white wine is encouraged in cases of ‘no affection of the mind’ (*mēde phrenōn hapsis*). At *Acut.* 17 (64.12 Joly = 2.360 L.), if *phrenōn hapsis* is suspected, complete abstinence from wine is to be preferred. The same expression, *phrenōn hapsis* – here together with headache – is used to describe a gynaecological pathology at *Mul.* 1.63 (8.128 L.): ‘if she has pain in the head and there is affection of the mind (*ei kephalēn algeoien kai phrenōn eiē hapsis*)’.

In a material sense, the *phrenes* are implicitly the seat of reason and mental functions at *Mul.* 2.200 (8.384 L.): the womb *is perceived* (presumably by the woman) as pressing against the *phrenes* (*hypo tas phrenas dokeosin hizesthai*); she ‘immediately becomes speechless, her *hypochondria* hardens, she suffocates, gnashes her teeth and cannot hear when she is called’. The discussion of the type of epilepsy (*epilepsiē*) that affects young virgins in *Girls* (*Virg.* 2.8, 22.23–24 Lami = 8.468 L.) cites blood flooding into and out of the *kardiē* (located in the chest, if only later identified with the heart) and *phrenes* as causing numbness and derangement. This area (*topos*) of the body, the chest, is said to be ‘critical for madness and *mania* (*epikairos es te paraphrosynēn kai maniēn*)’. Notably, it is in these two gynaecological texts that the *topos* of the triggered *phrenes* most closely approximates the traditional, poetic representations, while in all the others the mediation of an anatomical or physiological grid is inserted. *Girls* as a whole is perhaps the most ‘literary’ text of the Hippocratic collection.

⁵² Jones (1923/1931) 105 *ad loc.*

Pathology of the Diaphragmatic Region

If we decide, in the interest of a medical-historical rather than a merely philological study, to identify *phrenes* with the diaphragm more firmly in the medical material than is possible in the poetic, and explore this body part rather than the specific term, other testimonies become relevant to associating the region with mental affection. At *Progn.* 7 (17.10–18.3 Jouanna = 2.126 L.), for example, throbbing in the *hypochondrium* (*en tōi hypochondriōi*) signals *thorybos*, ‘trouble’, or *paraphrosynē*, ‘delirium’. Galen (*Comm. Hipp. Progn.* I 28, 245.24–246.1 Heeg = 18B.89 K.), commenting on this passage, says that the diaphragm is most prone to madness (*diaphragma paraphrosynēn heteromotata pherei*) and adds – reversing the history of the concept – ‘for which reason the ancients called it *phrenes* (φρένας)’. See also *Epid.* 3, 17, case 16 (112.4 Jouanna = 3.146 L.), where ‘tension of the *hypochondrium*’ (*hypochondriou entasis*) is present in a case of illness involving wild derangement, or the similar case at *Epid.* 7, 25 (66.22–23 Jouanna = 5.394 L.), where the feverish and wildly deranged wife of Theodorus displays a ‘much swollen right *hypochondrium*’. In the nosological passage in *Internal Affections* 48 a ‘thick disease’⁵³ is described, with complex, obviously psychopathological consequences. These arise precisely when the liver swells and presses against the *phrenes* (*anaptyssetai pros tas phrenas*), causing pain to ‘immediately attack the head, especially the temples’, with mental consequences (*Int.* 48, 230.21 Potter = 7.284 L.). The patient’s condition deteriorates as the liver pushes further against this part (232.14–15 Potter = 7.284 L.).

Among the ancient scientists who prioritized the mental function in explanations of the etymology of *phrenes* and, preceding Galen, associated the noun with the verb of reasoning (*phroneō*, *phrenoō*, etc.) is Aristotle, who considered a localization in the chest fundamental in a cardiocentric frame. Discussing the diaphragm at *PA* 672b31, the philosopher writes: ‘For when, because of their proximity, the midriff absorbs the hot, residual moisture, straightaway it manifestly disturbs thought and perception (*tarattei tēn dianoian kai tēn aisthēsin*), which is also why they are called *phrenes*, as if they partake in some way in thinking (*hōs metechousai ti tou phronein*).’

Aristotle always discusses the *phrēn/phrenes* as diaphragm, clearly describing this as the bodily part that functions as a ‘belt’, *diazōma*, in the torso (*HA* 496b11; 506a6; 514a36; *PA* 672b11), a ‘partition’, *phragmon* (*PA* 672b20). To explain the functioning of this bodily part, he returns

⁵³ The Hippocratic texts recognize various kinds of ‘thick diseases’ (those characterized by thick sputum or a thickening of the skin in affected parts): cf. *Int.* 47 (226–31 Potter = 7.281–84 L.).

several times to the topic of laughter as specifically human: ‘They say that it happens also in the case of battle wounds damaging the area around the diaphragm (*peri tas phrenas*) that the person laughs because of the heat deriving from the wound’ (*PA* 673a11).⁵⁴ The pseudo-Aristotelian *Probl.* 35.6 (965a15–17) similarly observes that ‘laughter is a sort of frenzy or deceit’ and poses the question: ‘Is this why people struck in the midriff (*eis tas phrenas*) laugh? For it is not any chance part (*ho tychōn topos*) with which we laugh.’ Here, as in *Sacred Disease*, the reactive, ‘vibrating’ nature of the diaphragm seems to be at issue.⁵⁵ A passage in the *Timaeus* (69e2–70a2) discusses the ‘mortal part of the soul’ as located in the chest and thorax (*en de tois stēthesin kai tōi kaloumenōi thōraki to tēs psychēs thnēton genous enedoun*) and assigns the *phrenes* a key role in separating (70a1–2) the upper part of the torso, the one that contains the soul, from the appetitive part located in the stomach; the *phrenes* themselves are merely an inert fence between the two.

In various ways, then, ancient biology and philosophy, as well as medicine, reworked the heritage of traditional physiology and psychology, variously recognizing the relevance of the *phrenes* to mental life in the body, whether pathologically (the Hippocratics, Aristotle) or within the anatomical schema of their representation of the embodied soul (Aristotle, Plato).

Pathology of the phrenes/Diaphragmatic Region and phrenitis

What happens when not only derangement and fever, but *phrenitis* explicitly is mentioned in association with *phrenes*?⁵⁶ As noted earlier, it is difficult to identify such a precise conceptualization of the *phrenes* as mental centre of phrenitic affection, and the neat account a modern reader

⁵⁴ See discussion, with further examples and comparisons with animals and barbarians, ending at *PA* 673a32. The patient whose fatal diaphragmatic wound is described at *Epid.* 7, 121 (116.19 Jouanna = 5.466 L.) also displays ‘raucous laughter’ (*gelōs* [. . .] *thorybōdēs*; likewise, *Epid.* 5, 95.5 Jouanna = 5.256). For the idea, see later Pliny, *Nat. Hist.* 11.77, on death while laughing in battles and gladiatorial combats. Beard (2014) 25–35 offers a survey of the link between the diaphragm and laughter.

⁵⁵ The vibration of the *phrēn* of the mind is also found in Xenophanes, in a cosmological sense: ‘Without any toil, by the organ of his mind (*noou phreni*) he makes all things tremble (*kradainei*).’ A translation such as ‘by the membrane/diaphragm of its mind’ would maintain the embodied sense of the expression. Vibration for the act of embodied intellection is also found in the spider-image attributed to Heraclitus (22 B 67a D.–K.): ‘As a spider standing in the middle of its web is aware the instant a fly breaks any one of its threads, and runs there swiftly, as though lamenting the breaking of the thread; so a man’s soul, when any part of his body is hurt, hastily goes there as though intolerant of the injury to a body to which it is strongly and harmoniously conjoined.’

⁵⁶ It is fundamentally important that the Hippocratic sources not be approached as a consistent collection of treatises, even when different books of a work with a single name are involved. For the nosological treatises *Diseases* (1, 2, 3, 4), as for the clinical discussions of patients in the *Epidemics* (1, 3; 2, 4, 6; 5, 7), the individual books (or groups of books) should be treated as independent works.

would expect is ultimately missing. At *Morb.* 3.9 (76.20–29 Potter = 7.128 L.), in a section discussing possible onsets of forms of the disease, *phrenitides*, the mental part is treated as very important and reference is made to *phrenes*. This localization is entirely dissociated, however, from the idea that these might be mental organs:

Kinds of *phrenitis* (*phrenitides*) can also develop out of another disease. Patients suffer as follows: they experience such pain in the *phrenes* (*tas phrenas algeousin*) that they will not allow themselves to be touched, there is fever, they are deranged (*ekphrones eisi*), they stare fixedly, and for the rest they resemble patients with pneumonia who are deranged (*toisin en teisi peripleumoniēisi, hotan ekphrones eōsi*).

The connections between *phrenes*, diaphragm, the chest generally and *phren-* as aural semantic sphere mean that they are coexistent and implicit, never clearly defined. Every passage places greater weight on one vertex of this polygonal figure; here, for instance, the *phrenes* are concretely sore to the touch, and the derangement is indicated by the cognate *ekphrones*. One cannot consider only one of these accounts in isolation, as Potter observes in his comment on this passage: ‘Therefore, I tend to understand *phrenitis* in terms of the specific organ, that is, in the literal sense of “disease of the diaphragm”. In fact, the author probably understands the term *phrenitis* to mean both a disease of the diaphragm and insanity.’⁵⁷ The choice between these items – ‘concrete illness of the diaphragm’ vs ‘madness’ – is not presented as such by the classical texts, and the distinction between the different components, physiological and psychological, is entirely our own.

A pain in the area of the chest where the *phrenes* reside is also referred to in the discussion of *phrenitis* in *Aff.* 10 (18.14–19 Potter = 6.216 L.), although another localization in the torso and another term, *hypochondria*, is used there:

In *phrenitis*, at first there are mild fever and pain over the *hypochondria* (the *hypochondrium*), more on the right towards the liver. When the fourth or fifth day arrives, the fever becomes more intense, as do the pains, the colour becomes somewhat bilious, and the patient’s mind becomes deranged (*kai tou nou parakopē*).

Later on in the same passage, the *phrenes* are mentioned in a way that appears to match the locations just indicated: *Aff.* 10 (20.6–11 Potter = 6.218 L.) explains *phrenitis* as an overflow of bile ‘into the internal organs and the

⁵⁷ Potter (1980) 110 *ad loc.*, my translation from the German.

phrenes' (*pros ta splanchna kai tas phrenas*). In contrast to the previous part of this section, however, no mental function is mentioned, and all that seems to be intended is a general localization in the chest. The same could be said about *Morb.* 3.9 (76.20–23 Potter = 7.128 L.), where a secondary *phrenitis* developing from another disease is described. Here too patients 'experience such pain in the diaphragm (*paschousi . . . tas phrenas*) that they will not allow themselves to be touched, there is fever, they are deranged'.

In accounts which foreground blockage of fluids, the pathological picture resembles the makeup of epilepsy as described in *Morb. Sacr.* 7 (15.14–23 Jouanna = 6.372.5–6 L.). At *Flat.* 10 (117.11 Jouanna = 6.106 L.), for example, the *phrenes* are clearly said to constitute an impediment against the extravasated blood in the chest finding an outlet downwards, causing it to accumulate and putrefy. The process of putrefaction of the phlegm accumulated in the upper torso (*epi tōn phrenōn*) is described in detail at *Morb.* 1.15 (36.6–7 Wittern = 6.164 L.), although this disease has no mental implication. At *Morb.* 1.19 (50.16 Wittern = 6.174 L.) the pathology of the tubercles in the lung is described, and the *phrenes* are again the floor that stops or receives a putrid fluid (*epi tas phrenas*). Once again, however, there is no mental involvement.

The *Coan Prenotions* offer the two best approximations of an association between *phrenes* and the mental, and perhaps even the disease *phrenitis*. The first, *Coac.* 255 (164.5–8 Potter = 5.638 L.), is a rare example of *phrenes* as the *locus affectus* of a mental ailment: the passage opens by saying that 'frequent and shallow breathing indicates an inflammation and pain in the parts above the diaphragm. *If the breaths are deep and at long intervals, they indicate a disordering of the mind (paraphrosynē) or convulsions.*' At *Coac.* 571 (250.6–19 Potter = 5.716 L.) '*apostasis* and pain, especially in the region below the diaphragm (*hypo phrena*)', are foretold by a number of signs, 'with or without fever'; among these, 'colourless urine with dark suspended material, in association with restlessness and sleeplessness, indicates *phrenitis*'. In this passage the cognate terms *phrēn* and *phrenitis* are far apart; the affected area of an illness with a possible phrenitic outcome, however, is clearly said to be in the region of the *phrēn*. It is also noteworthy that this is the only occurrence of the singular in the *Hippocratic Corpus*, perhaps with more explicit reference to a mental effect.⁵⁸

⁵⁸ At *Coac.* 571 (250.6–20 Potter = 5.716 L.) the only surviving Hippocratic instance of singular *phrēn* as opposed to *phrenes*, meaning 'diaphragm' (and possibly to be dismissed as a *falsa lectio*), would thus point precisely to a *locus affectus*. In addition, the entire gastric region is involved – this is a wandering pain in the lower torso that is seen as indicative – and the marker of fever, which is key to *phrenitis* and its sibling diseases, is explicitly said not to be decisive.

In sum, throughout the classical material *phrenitis* is characterized by a repertoire of fixed bodily signs, which are accompanied by mental derangement and, in terms of localization, repeatedly involve the chest or the hypochondriac area of the body, often (but not always) indicating this part with the word *phrēn/phrenes*, as well as the head. The aetiology, on the other hand, when indicated, is humoral or blood-related and involves no reference to the state of the *phrenes* or to any phrenocentric or cardiocentric theory of mind. Only in the case of the reference to blood, in fact, is there any direct mention of a place – albeit fluid – as a diseased centre of cognition.

*Conceptualizing the Disease Entity:
Co-morbidity and Affinity to Other Diseases*

A quick survey shows that the ailment called *phrenitis* (*hē phrenitis*, ἡ φρενίτις) as a substantive (as opposed to ‘phrenitic’ as an adjective describing types of patients or manifestations) is mentioned in Hippocratic medicine far more frequently than *melancholia*,⁵⁹ making it a prominent example of a disease label ‘*qua* label’ in which the mental aspect plays an important role. This testifies to a greater conceptualization of *phrenitis* as a disease in the modern sense of the term already in the Hippocratics, a quality also evident to Galen, who repeatedly picks this disease as an ontologically powerful example.⁶⁰ This ‘ontological’ robustness⁶¹ is also reflected in the fact that *phrenitis* and *phrenitics* early on enjoy a fixed set of relations to neighbouring diseases and are clearly placed as regards aspects of co-morbidity and classification. These are all signs of stronger conceptualization, taxonomic reliability and, as we shall see, the productivity of the concept for the development of medical ideas.

At *Morb.* 1.30 (88.7–11 Wittern = 6.200 L.), for example, we are told that ‘patients with *phrenitis* most resemble melancholics in their derangement (*kata tēn paranoian*), for melancholics too, when their blood is disordered by bile and phlegm, have this disease and are deranged (*paranooi ginontai*) – some even rage (*mainontai*)’. At *Judic.* 41 (13.11–12 Preiser = 9.290 L.) the association between *melancholy* and *phrenitis* is again discussed: ‘In persons suffering from melancholic conditions along with phrenitic ones, haemorrhoids are beneficial.’ The *Coan Prenotions* also preserve differential prognostic signs for *phrenitis*, while at 93 (124.21–22 Potter = 5.602 L.) the

⁵⁹ See Thumiger (2013) 62–64. ⁶⁰ See Thumiger and Singer (2018a) 1–2; Chapter 5 in this book.

⁶¹ Thus Berrios (1996) II, 242–43.

treatise mentions salivation (a sign connected to our disease): ‘Patients who become deranged with *melancholia* tremble and salivate: are they given to *phrenitis* (*ēra phrenitikoi*)?’ and so forth.

More concretely, *phrenitis* in the Hippocratic sources is contiguous to other diseases localized in the chest: at *Acut.* 5 (37.21–38.1 Joly = 2.232 L.) it is mentioned alongside *pleuritis*, *peripleumoniē* and burning fevers as examples of ‘acute’ diseases, in which fever is generally continuous;⁶² *Aph.* 3.30 (408.11–13 Magdelaine = 4.500 L.) lists *phrenitis* among the diseases of the young (next to *asthma*, *pleuritis*, ardent fever, *kauson*, etc.); and at *Aph.* 7.12 (462.3 Magdelaine = 4.580 L.) a transformation of *peripleumoniē* into *phrenitis* is said to be a bad development (*kakon*). At *Morb.* 1.3 (8.3–7 Wittern = 6.144 L.), again, high fever, *pleuritis* and *phrenitis* are mentioned close to one another, as also at *Morb.* 1.3 (10.5–6 Wittern = 6.144 L.) and *Morb.* 1.3 (10.7–8 Wittern = 6.146 L.), where possible conversions among diseases located in the chest are surveyed: *pleuritis* into ardent fever, and *phrenitis* into *peripleumoniē*.⁶³ *Aff.* 6 (14.7–13 Potter = 6.214 L.) makes the taxonomic point explicit by speaking of a group of ‘diseases of the cavity’, again including *pleuritis*, *peripleumoniē*, burning fever and *phrenitis* in a common group; these are said to be more dangerous in winter. *Peripleumoniē*, *pleuritis* and *phrenitis* are also mentioned together at *Aff.* 12 (22.7–20 Potter = 6.220 L.), where it is made clear that the same cause, a displacement of phlegm and bile, can engender all of them depending on ‘where [the fluid] happens to fall’ (*ēn an tychēi*).

A therapeutic discussion in *Diseases* 3 reinforces this grouping of chest and winter diseases. Interestingly, this chapter opens with a description of *peripleumoniē* that might also fit an account of *phrenitis* in terms of time-frame and material. The patient suffers from violent fever and breathes rapidly; ‘he is distraught, weak and restless, and beneath his shoulder blade he suffers pain that radiates towards his collar bone and nipple; he has a heaviness in his chest; and he is deranged (*kai paraphrosynē*)’ (*Morb.* 3.15, 82.25 Potter = 7.136 L.). The therapeutic measures too are explicitly said to be identical for *phrenitis* and *pleuritis* (*Morb.* 3.15, 84.26–28 Potter = 7.140 L.).

In the patient cases, finally, although diagnoses are only rarely mentioned, *phrenitis* is one of the few diseases that features more than once. Apart from individual cases, a collective description at *Epid.* 1, 18 is very instructive about the categorization of our disease. Burning fevers (*kausoi*)

⁶² See Pigeaud (1981/2006) 73 on this text.

⁶³ See Pigeaud (1987/2010) 34–35 on *phrenitis* and fever.

'at the equinox and about the setting of the Pleiades' are discussed, and among these, cases of *phrenitis* are noted as frequent and especially dangerous and deadly (25.8–12 Jouanna = 2.650 L.). These *kausoi* have *inter alia* the following signs: 'acute fever with slight rigour, sleeplessness, thirst, nausea, slight sweats about the forehead and the collarbones, much delirium, terrors, depressive states (*poulla parelegon*, *phoboi*, *dysthymiai*), very cold extremities, toes and hands . . . The cases of *phrenitis* had all the above symptoms, but the crises generally occurred on the eleventh day'; these emerge as extreme cases (26.11–27.2 Jouanna = 2.654 L.). In this discussion and those that follow, *phrenitis* is firmly categorized among the *kausoi* typical in winter.

Retrospective Diagnosis

When it comes to diagnosis and nosological conceptualization, it is important to mention a unique cue preserved at *Epidemics* 3: a group of 'characters' or sigla that mark the end of some of the patient cases in this text, as a kind of quick note made by a physician after reading the text and now incorporated into it. These sigla were known to Galen (who considered them spurious) and therefore must have entered the textual tradition earlier than that, and they are present in some manuscripts (most notably V).⁶⁴ The issue and significance of the sigla is not at stake here, but it is useful to look at Galen's discussion and survey at *Comm. Hipp. Epid. III* (81–83 Wenkebach = 17a.610–13 K.). Here Galen interprets some sigla as meaning 'recovery' and 'death', 'miscarriage', 'destruction', 'urine like semen' and so forth – all shorthand markers for what made the case interesting for a reader. Apart from M for *μανία* (*mania*) (also used for *μήτρα/η*, *mētralē* 'womb'), no other siglum corresponds to a clear disease label. Instead, they seem to indicate variable signs or states ('irritation', 'dryness') or concrete items ('sputum', 'urine', 'wheat'). The Φ (F/PH) used for *phrenitis* is thus exceptional and can be taken as corroborating evidence of the importance of the disease from the fifth century BCE to Galen's era.

This Φ (F/PH) indicating an ancient retrospective diagnosis of *phrenitis* is used for three patients in *Epid.* 3, 17: case 14 (110.1 Jouanna = 3.142 L.), case 15 (111.9 Jouanna = 3.146 L.) and case 16 (112.14 Jouanna = 3.148 L.). The first is a woman who had a difficult twin birth. Acute fever with shivering follows, along with a painful head and neck, sleeplessness, colourless urine, thirst, wandering and derangement, and finally convulsions and death.

⁶⁴ See Jones (1923) 213–17; Thumiger (2018d) on the possible meaning of these signs.

The second is a female patient who falls ill ‘from grief’ (*ek lypēs*). She displays acute fever and shivering, and wraps herself up and has richly described crocydism (*epsēlapha, etillen, eglyphen, etrichologeī*). There are also tears and inconsequential laughter, as well as wandering, silence, much talk – a complete picture of insanity – slow breathing, and finally death. The next patient, a young man from Moelibea, falls ill out of drunkenness and sexual indulgence, not uncommon triggers for derangement. There is ‘thin urine, no colour’; slow, deep respiration, with long intervals between breaths; tension; softness beneath the *hypochondrium*; delirium (quiet, then wild); sleeplessness; and death. In addition to these three patients, case II at *Epid.* 3, I (77.6 Jouanna = 3.62 L.) is marked with the label *phrenitis* in some manuscripts (Gall) and φρενιτιαία (*phrenitiaia*) in others (IV), to the same effect: a female patient with fever, a heavy head, comatose state and sleeplessness, delirium, fears and despondency, and no thirst, all ending with death, is identified as phrenitic.

The qualification of all these cases as *phrenitis* indicates that sometime between the fifth century and Galen these portrayals were recognized as clearly pointing to our disease. The significant markers are crocydism, the quality of urine, derangement and psychological distress. To these we may add one final, much later retrospective diagnosis of *phrenitis*, offered by Potter in his Loeb edition of *Diseases* 2, where against both manuscripts he changes the *paradosis* φροντίς (*phrontis*) to φρενίτις (*phrenitis*) at *Morb.* 2.72 (326.6 Potter = 211.15 Jouanna = 7.110 L.), discussed above.⁶⁵ The passage is a portrayal of an illness with significant psychopathological details in which ‘the *phrenes* swell outwards and are painful when touched’.⁶⁶ Jouanna retained the original reading *phrontis* but wondered: ‘Did the author feel the etymological connection between φροντίς (*phrontis*) and φρένες (*phrenes*)? Was he relating the swelling of the *phrenes* to mental derangement? Perhaps there is a trace here of the archaic belief that the *phrenes* are the source of intelligence.’⁶⁷ The question remains open for modern readers as much as it did for ancient ones: a psychological disturbance with pain in the diaphragm (‘anxiety, worry’) is diagnosed as *phrenitis* (Potter) or seen as a possible indicator of the mental relevance of the *phrenes* (Jouanna).

⁶⁵ p. 29. ⁶⁶ See also Thumiger (2017) 377 on this passage.

⁶⁷ Jouanna (2003) 211 n. 5; my translation.

After Hippocrates

What happens in the period between the composition of the nucleus of the Hippocratic texts (which date from the classical era) and our next extensive source, the section on *phrenitis* in Cornelius Celsus' *De medicina*, some four centuries later (3.18)? The evidence is scant, since the bulk of Hellenistic medical writing (later fourth century BCE to the beginning of our era) is lost. The sophistication and richness of Celsus' account makes one regret this loss all the more, since many developments in medical approaches to mental disease must have intervened. Unfortunately, given the restricted number of uses of the term *phrenitis* in non-medical texts, most of the evidence for this period is negative. As mentioned above, it is striking that neither Plato nor Aristotle mentions *phrenitis* even once in discussions of madness, confirming that the disease remained strongly linked to bodily physiology.⁶⁸ Moreover, Aristotle's discussion of the *phrenes* at *Parts of Animals* 3, 672b28–30 as a partition between regions of the body and as 'drawers (of heat)' (*pros tēn thermotēta tēn . . . hoion paraphyades*) that serve to protect the nobler upper parts from the lower ones devoted to digestion, offers no account of *phrenitis*. An affection of the part is described by Aristotle when he writes that when the *phrenes* become drenched in the 'hot, residual fluid' from below, this 'evidently disturbs (*epidēlōs tarattei*) the intellect and perception (*tēn dianoiān kai tēn aisthēsīn*)'. The disease itself, however, is not addressed, despite points of contact with a phrenitic humoral aetiology.⁶⁹

If we turn to the fragmentary evidence, considerable information regarding these intervening centuries can be extracted from later medical writers and doxographers. Three figures stand out: the *Anonymus Parisinus* (*AP*, first century CE), Galen (first–second century CE) and Caelius Aurelianus (fifth century CE). Additional information is preserved in the encyclopaedic works of Aetius of Amida and Paul of Aegina (sixth and seventh century CE, respectively). This indirect testimony – to be read, of course, with the caution that reported opinion and doxography dominate in it – is of immense assistance in filling in the gap between the Hippocratic material and the work of Celsus; I rely on it for what follows.

⁶⁸ The disease is categorized by the second-century BCE Pythagorean Hipparchus (190–120 BCE, according to Stobaeus, Diels, *Vorsokr.* I.2 p. 449) as clearly 'of the body' (Stobaeus 4.44.81 p. 980 Hense, *Vorsokr.* 29 p. 228): 'In the body (*peri to sōma*) there are forms of *pleuritis*, *peripleumonia*, *phrenitis*, *podagra*, strangury, dysentery, *lēthargos*, *epilēpsia*, putrefaction and many others. But those in the soul (*peri tan psychan*) are greater and more, for profanities against life, evil acts, illegalities and impious acts are among the illnesses of the soul.'

⁶⁹ See Ahonen (2014) 75 on this passage.

In addition to these authors, important information is offered by a section of a first-century CE text, the so-called *Anonymus Londinensis*,⁷⁰ regarded by scholars as preserving material from the so-called *Menoneia*, a collection of medical writings known to Galen and composed as early as the fourth century BCE, which are attributed to Aristotle but were in fact written by his disciple Menon. We therefore start from this, as the earliest source for medical developments in this period. At *Anon. Lond.* IV.7–10, just before the beginning of the text attributed to Menon, the author discusses how diseases get their names. These can derive, he says, from the ‘attendant affection (*apo parakolouthountos*)’ or the ‘affected place (*apo topou*)’ (5.7–10 Ricciardetto⁷¹). Thus ‘fever’, *pyr*, is named after the affection, the symptom of fever (*to pyrōdes*, 5.10 Ricciardetto), and so too in the case of ‘paralysis’ (*paralysis*, 5.11 Ricciardetto). Next the author mentions a different case, exemplified by *phrenitis*: ‘*phrenitis* gets its name from the place affected (*apo topou*). For the affection establishes itself in the *phrenes* – this is *not the diaphragm*, but the rational part of the soul (*ouchi to diaphragma, alla tout’ estin to logistikon meros tēs psychēs*, 5.13–17 Ricciardetto).’⁷² The difficulty is in attributing this powerful remark regarding localization to a precise period. The concept of a *logistikon*, a ‘rational part of the soul’, is found in Plato’s tripartite schema and is also Aristotelian and Stoic. What is noteworthy here is the theoretical distinction between *phrenes* as location (the diaphragm, rejected by the author in this connection) and the word’s abstract, non-bodily meaning ‘mind, intellect’, which is the sense he intends. Most of all, it is remarkable that, as far as we can tell, in this second use as ‘mind’, *phrenes*, like *to logistikon*, is still treated as a spot in the human body, a *locus affectus*, a *topos*. We thus have here an early voice advocating against a localization of mental life in the diaphragm (agreeing with *De Morbo Sacro*), but also arguing against a bodily meaning of *phrenes* when it comes to our disease, in contrast with the bulk of Hippocratic material discussed above. As an alternative, another bodily location or delocalized ‘embodiment’ for the rational functions is indicated, ‘*to logistikon*’. To identify this with the brain, as Jones does in his light-hearted translation (‘for the affection makes

⁷⁰ A Greek papyrus with medical content dated around the first century CE preserved today in London and first edited by Manetti (2003); see Ricciardetto (2016) ix–xxiii; Manetti (2022). On this passage, see also Pigeaud (1981/2006) 77–78; Ricciardetto (2016) 77–80 *ad loc.*

⁷¹ *eirēsthai de to pathos symbebeken [apo] parakolouthountos [ē] apo topou.*

⁷² *apo topou de tēn onomasian eschen phrenitis; to gar pathos peri tas phrenas symistatai, ouchi to diaphragma, alla tout’ estin to logistikon meros tēs psychēs.*

its seat in the *phrenes* (brain, not diaphragm), *which is the rational part of the soul*⁷³, is to read too much into the word and mislead the reader.

Other important testimony from the same period comes from Diocles of Carystus (fourth–third centuries BCE), a physician much celebrated in antiquity whose work survives only in fragments. Diocles wrote variously on dietetics and nosology, and several later nosological works (e.g. Galen, *Anonymus Parisinus* and Caelius Aurelianus) refer to him as an authority, suggesting that his contribution was substantial. What is known about Diocles' opinions on *phrenitis* comes mostly from Galen and Caelius Aurelianus. In fr. 71 van der Eijk (preserved in Galen's *On Critical Days*) Diocles is quoted as saying that 'people do not become affected by *phrenitis* (*phrenitikoî*) immediately from the first day', which seems to confirm comorbidity with other diseases and the nature of *phrenitis* as an unfavourable development from one. Fragment 72 belongs to the doxographic section of the chapter on *phrenitis* in *Anonymus Parisinus*, which focuses on the localization of the disease:

Diocles says that *phrenitis* is an *inflammation* of the diaphragm (*phlegmonē tou diaphragmatos*⁷⁴) – he gives this name to the affection on the basis of the place (*apo tou topou*) [affected], not the activity (*apo energieas*) [affected]), the heart being affected simultaneously (for he, too, seems to posit reasoning around this) and that, for this reason, too, these affections are accompanied by mental disturbances.

The concept of inflammation (*phlegmonē*), said in *Anonymus Parisinus* to be Diocles', is a crucial step towards a thematized localization of the disease (or any disease generally), since it places the emphasis on an impaired part suffering damage or alteration.⁷⁵ The author goes on to explain the name, but adopts the opposite perspective from *Anonymus Londinensis*: *phrenitis* is called after the anatomical place, the diaphragm, *because it is close to the heart*, indicating the region Diocles regards as the centre of mental functioning.⁷⁶ Derangement is the implication of this involvement of the cardiac region.

Caelius Aurelianus also preserves information about Diocles' therapy for *phrenitis* (fr. 73 van der Eijk), although this is of limited significance for our purposes: in *On Fevers* (thus Caelius, *Morb. Ac.* I.II–12 = 76.25–80.88 Bendz)

⁷³ Jones (1947) 33 *ad loc.*

⁷⁴ *diaphragma* appears to be a more technical term for the midriff (*phrenes* for some); cf. van der Eijk (2001) 146.

⁷⁵ See van der Eijk (2001) 146.

⁷⁶ As van der Eijk (2001) 147 notes, the expression used is *peri tautēn*, 'around it'; Diocles is not a proper cardiocentrist, or at least not by virtue of this passage.

he appears to have said that the ‘strong and impetuous’ should be treated with baths, but the ‘young and strong’ and full-blooded, or those who drink wine habitually, with venesection. According to Caelius in his section on causes and treatments, moreover, Diocles said that blood should be taken from the vein under the tongue as well as from the arm. The late-antique pharmacological author Gargilius in his *Medicinae ex holeribus et pomis* (third century CE) XVIII (2 Maire) says that Diocles prescribed boiled garlic for phrenitics; this appears to be in line with the use of substances with a strong aromatic scent, or even a foul smell, to stimulate such patients.

We only have two testimonies regarding *phrenitis* in Herophilus (fourth–third centuries BCE). One comes again from Caelius Aurelianus: at *Morb.Ac.* 1.11–12 (76.25–80.8 Bendz), in his chapter on *phrenitis*, Caelius writes that ‘neither Hippocrates nor Praxagoras nor Herophilus (T 239 von Staden) handed over any treatment for the disease, unlike Diocles’. A possible reference to Herophilus’ disciple Demetrius of Apamea is also found at *Morb.Ac.* 1, 4–5 (24.6–9 Bendz): *Demetrius Erophilum sequens* is said to ‘define *phrenitis* as a violent attack of madness accompanied by a loss of reason and (more frequently than not) by fever (*delirationem . . . vehementem cum alienatione atque <frequentius cum>⁷⁷ febre*), and swiftly leading either to death or at times to a restoration of health’ (T 211 von Staden). Von Staden interprets *sequens* as indicating doctrinal agreement (‘following the view of . . .’), as opposed to ‘being a follower of . . .’; both are possible.⁷⁸ Fever appears to be underplayed here, as opposed to other sources which refer to it ‘more’ or ‘rather frequently’: Caelius, uniquely, challenges the claim that fever should occur ‘most of the time’.

Erasistratus (304–250 BCE), the other great Alexandrian medical authority besides Herophilus, is said by *Anonymus Parisinus* in his doxographical section on the causes of the disease (Erasistratus fr. 176 Garofalo) to have claimed, in accord with his doctrinal convictions, that *phrenitis* occurs when

the activities of the [cerebral] membrane are affected (*kata ti pathos tōn kata tēn meningan energeiōn*); at the place where, according to him, thinking is reasoning (*he noesis phronēsis*), disturbance of thinking is likely to represent a disturbance of reasoning (*he paranoēsis paraphronēsis*).

This passage is the first attestation of the association between *phrenitis* and the brain that shapes the history of the disease from Galen to the modern

⁷⁷ *frequentius cum* is Bendz’s addition. ⁷⁸ See von Staden (1989) 377 on this.

era. Not only the head, but a specific part of the brain, the meninges, are involved in making the localization more concrete. The doxographer here reverses the logic of *Anonymus Londinensis* once again: as in the case of Diocles' quasi-cardiocentrism, because Erasistratus located thinking in the head, *as a consequence* he located the disturbance of thinking, *phrenitis*, in the head as well.

Erasistratus' encephalocentrism is juxtaposed in *Anonymus Parisinus* to the cardiocentric view of Praxagoras (fourth century BCE): Praxagoras 'says that *phrenitis* is an inflammation of the heart (*phlegmonē tēs kardias*), whose natural activity he in fact believes to be reasoning (*phronēsis*), and that when the heart is disturbed (*tarassomenēn*) because of this inflammation, it becomes productive of this affection' (1.2, 2.7–10 Garofalo = Praxagoras 61–2 Steckerl).⁷⁹

This simplified organization of material must be taken to reflect the *Anonymus Parisinus*'s penchant for localization and neat categories.⁸⁰ Proof of this is found in the final paragraph, devoted to Hippocrates on *phrenitis* (1.4, 2.16–21 Garofalo), contrary to chronological order. Here the encephalocentric suggestion does not match at all what we know from surviving Hippocratic material: 'Hippocrates says that the mind is placed in the brain (*en tōi enkephalōi tetachthai*) like a sacred statue on the acropolis of the body (*kathaper ti hieron agalma en akropolei tou sōmatos*), and that it uses as nutriment the blood around the chorioid membrane'; corruption of this blood causes the phrenitic pathology.

Caelius also provides information about other figures from the Hellenistic period, whom he discusses especially in regard to therapeutic measures. The first of these is Heraclides of Tarentum (third–second centuries BCE), a Greek physician of the Empirical school who wrote commentaries on Hippocrates, and 'the only empiricist' Caelius wishes to mention, as he states explicitly (114.13 Bendz). Heraclides' recommendations in Book I of his *On Treatment of Internal Diseases* (in Caelius, *Morb.Ac.* 1, 17 = 115.13–125.16 Bendz) can be paraphrased as follows: patients should lie in a dark place, since light can excite them; clysters should be given for the bowels, at no specified time, but

⁷⁹ Following the interpretation offered by *Anonymus Parisinus*; see van der Eijk (1999a) 308–09 on the doxographical style of this text.

⁸⁰ See van der Eijk (1999a). *Anonymus Parisinus* mentions Hippocrates in connection with a strong version of encephalocentrism just after this passage and thus in the context of *phrenitis*. But this representation has no correspondence in the Hippocratic texts we have, and certainly not in association with *phrenitis*. This passage instead reflects, I suggest, the encephalocentric interest of AP as author. On this passage, see van der Eijk (2001) 147–48.

every day; it is recommended that one foment the head with decoctions of laurel, then shave it with a razor and steam it again; it is beneficial to apply a poultice of flour and hydromel, iris, mastic oil and sweet flag; the head and nostrils should be anointed with sulphurwort, castor, poppy juice and bitter almond oil (or with vinegar and iris oil); a decoction of poppy and thyme should be used to warm the head at night; sleep should be induced by administering oppressive drugs in the correct dosage; if the disease subsides, chicken broth or gruel made from pearl barley should be offered.

A second type of treatment is advised in cases of *phrenitis* arising through indigestion (*cruditati*, 122.2 Bendz). This concept is itself interesting, since it connects to the gastric localization in a strand of the Hippocratic account of the disease (see above⁸¹), despite the fact that Heraclides regarded the head, *caput*, as central. In this second case, a poultice should not be permitted until a clyster has been administered. There is also a third type of *phrenitis*: 'If the whole body is not weighed down with excess food, but only parts of the head seem congested, blood should be withdrawn from the forehead vein' (122.32 Bendz). Finally, what may be a further type is mentioned for those 'who have fallen into the disease through decomposition (of the humours)' (124.4–5 Bendz). For them, Heraclides recommends a clyster, water to drink, and sometimes honey with wine.

This survey of therapies offers a confirmation of the early presence of a competition between localizations, and a division of *phrenitis* into distinct embodiments, so to speak: some precisely localized (in the head), some 'removed' or shifted (to the stomach), and some, finally, holistic and delocalized ('putrefaction of the humours').

Conclusions

From this survey of the doctrines preserved from the Hippocratics, on the one hand, and the traces of later developments in medicine in the centuries that follow, on the other, a number of themes and aspects emerge: the localization, increasingly polarized around the chest and head; the originary nature of *phrenitis* as a winter chest ailment; the strong technicality, shown by the absence of any reference even in Aristotle and Plato; the fever. If this picture appears to dominate in medical quarters, we also find traces of a competing suggestion, which

⁸¹ pp. 34–35.

gives a central place to a holistic, delocalized account (the role of blood, for example, as *locus affectus* or causative agent, as seen above). I focus next on this branch of the tradition, one that emerges later and endures for centuries, although it remains marginalized in the history of the disease.

Psychology and Delocalizing Themes
Asclepiades, Celsus and Caelius Aurelianus

So far, the story of *phrenitis* has been characterized by language and questions involving localization – albeit not a firm localization, but one which appears to shift from torso to head – and by fever and derangement. This can be explained by the physiological, materialistic psychology of Greek medicine, which integrates mental health within the overall medicine of the body by elaborating on traditional ideas about its cognitive and emotional seats. These inevitably take the form of a localizing discourse, with a rivalry between different views or ‘maps’ of the body.

A parallel account in Greek cultural and medical history, however, interlocks with the one best understood through a language of localization: a holistic understanding of embodied and mental health, promoting (or at least having the potential to promote) a more rounded, psychological view of clinical activity.¹ In this non-localized portion of the story, non-technical literatures are a richer resource in the classical period for the pathologization of mental health than medicine is. As I have argued elsewhere, Hippocratic medicine, unlike other literary genres, does not conceptualize a ‘disease of the soul’ of a psychological kind as categorically independent,² and if it does offer intimations of holism, we must wait until the early centuries of the Methodist school for a strong theoretical attack on localization.³ Moreover, as the survey in [Chapter 2](#) suggested, the Hellenistic period is remarkably under-represented in the medical material that survives. In this limited and fragmentary context, therefore, the evidence provided by non-medical literature helps fill the gap.

¹ ‘Holism’ is a difficult, composite concept; see the introductory discussion in [Thumiger \(2020d\)](#), with [Thumiger \(2020a, 2020c\)](#) and [Singer \(2020a\)](#) 154–56 on definitions and distinctions in ancient medicine. Here I intend the term fundamentally in the sense of an attention to the physiological, bodily aspects as well as the mental, psychological ones, and therapeutically of attention to the inclusion of measures other than pharmacological and dietetic.

² See [Thumiger \(2017\)](#) 1–66, 419–22; the classic [Pigeaud \(1981/2006\)](#) on medical-philosophical traditions.

³ See [Thumiger \(2020a\)](#); [Leith \(2020\)](#) on holism and the Methodists specifically, also 139 with reference to *phrenitis*; [Singer \(2020b\)](#) 170–72.

If we look for references outside medicine to the term *phrenitis*, we will nonetheless be disappointed. While anyone familiar with ancient literature knows that the words *mania* and *melancholia* are frequent and idiomatic in non-technical realms,⁴ in non-medical Greek literature prior to the Imperial era *phrenitis* and derivatives appear in only one author, the comic playwright Menander (342/1–292/1 BCE). This scarcity of evidence is further proof of the technical nature of both the nosological concept and the term; both aspects play a role in the comedian's sole reference to *phrenitis*, in two passages of his *Aspis*. These references are instructive regarding the general currency of the disease in public knowledge.⁵

The first passage, *Aspis* 336–42, associates *phrenitis* with *pleuritis*, superficially agreeing with the Hippocratic evidence in putting its dominant location in the chest. Despite the strong localization, however, these diseases are both also said to derive from pain, *lypē* (λύπη), and are thus psychological and 'holistic' – a topic that, intriguingly, recurs elsewhere in comedy of the period, pointing to an approach to mental health alternative to the medical, localizing one.⁶ In the episode in question, the slave Davos is suggesting a plan to stage a 'tragic' scene and pretend that his master Chaerestratus has fallen gravely ill, so as to make his subsequent 'death' plausible in order to deceive the greedy old Smicrines. Chaerestratus must appear to fall prey to despondency (*athymia*, 331), 'one of these suddenly

⁴ Although the first, *mania*, is so much more than the second, both are part of the educated vocabulary that signals an illness of the mind proper, humorously nonsensical or reproachable behaviour, or a philosophical flaw in the reasoning capacities. On non-technical sources, see Kazantzidis (2011) and (2013) on melancholy. On *mania*, e.g. Mattes (1970); Padel (1992); Guidorizzi (2010); Ahonen (2014) and (2018) on philosophers; Ustinova (2018).

⁵ The striking absence of *phrenitis* from ancient theatrical texts (apart from the example from Menander) is rightly noted by Montemurro (2015) 63 n. 46. The use of the term *phrenitis* by Menander can also be framed as part of comedy's absorption of technical terms into its language as part of its hyperbolic, parodic posture; cf. Silk (2000), (2013) on comedy and genre definition; Ruffell (2018) on madness in Aristophanic comedy; Kazantzidis (2018) for a subtle discussion of the purposeful clumsiness of medical 'technicalism' between comic and realistic effect. On this passage of the *Aspis* in particular, see Lloyd-Jones (1971); Ihm (2005) 96–103; Montemurro (2015) 55–57 on Doric colouring as part of the comic construction of the 'foreign doctor', 60–64; Capra (forthcoming); and especially Most (2013) 395–97 and Kazantzidis (2018) 34–37.

⁶ Cf. elsewhere in the fourth-century BCE comic fragments: Antiphanes fr. 106 K.–A. 'Every form of grief is a disease for man, but one that takes many names' (ἕπαν τὸ λυποῦν ἔστιν ἀνθρώπῳ νόσος | ὀνόματ' ἔχουσα πολλά); Alexis fr. 294 K.–A. 'Greater than average griefs cause changes in thinking' (τῶν μετρίων αἰ μείζονες | λύπαι ποιοῦσι τῶν φρενῶν μετὰστασιν); 298 K.–A. 'Grief has some affinity to *mania*' (λύπη μανίας κοινωνίαν ἔχει τινά); Philemon fr. 106.1–3 K.–A. 'By its nature, grief is for everyone the cause of many evils: for because of grief both *mania* can arise for many people and incurable diseases' (πολλῶν φύσει τοῖς πᾶσιν αἰτία κακῶν | λύπη· διὰ λύπην καὶ μανία γὰρ γίνεται | πολλοῖσι καὶ νοσήματ' οὐκ ἰάσιμα); Menander, *Aspis* 422–23, 'bile, some kind of grief, derangement of the *phrenes*, suffocation' (χολή, λύπη τις, ἔκστασις φρενῶν, | πνιγμός).

arising . . . evils (*tōn aphnō toutōn tini kakōn*, 335–36). The explicit plan is as follows (336–42):

The majority
of everyone's sicknesses come from some sort of
grief; and I'm well aware that you're by nature bitter
and melancholic. Afterwards we'll call
a doctor, a philosopher⁷ who'll say
that the problem is *pleuritis* or *phrenitis*⁸
or one of these diseases which kill you quickly.⁹

Various points can be made here. *Phrenitis* and *pleuritis*¹⁰ seem to be akin, first because of their location in the chest, something that appears to be sensed immediately by a non-medical author (and audience), and also because of the assonance of the names. When reading this passage, of course, we must discount the comic context and the lack of interest in terminological precision. But this kind of amateur mention gives a sense of the degree of familiarity with the disease for the wider population. The incompetent – not because he is a slave, but because he has no medical training – speaker throws in *faux*-technicalities that might sound professional: the two diseases originate ‘in grief’ and in one’s character, and are thus perfectly fitting for a person burdened by *athymia* after a sad event. We thus have the localized affinity between *phrenitis* and *pleuritis*, on the one hand, but a whole psychology, on the other, which is new or at least extraneous to the medical material analysed so far. This might belong to the comic and parodic make-up of the situation. But it is also in line with the psychologization of

⁷ The association with the two themes of grief and philosophy is comic because they bring in areas of abstract thinking which are exactly what a diagnosis of *phrenitis*, with its embodied characteristics, has nothing to do with.

⁸ The effect of the list both is *faux*-technical and makes a light philosophical/existential point: diseases have many names, but human grief is one. Compare the quotes in n. 4 above, as well as adesp. com. fr. 910 K.–A. ‘forms of *pleuritis*, *peripleumonia*, *phrenitis*, strangury, dysentery, *lēthargos*, *epilēpsia*, putrefaction and countless others’.

⁹ τὰ πλεῖστα δὲ
ἅπασιν ἀρρωστήματ’ ἐκ λύπης σχεδόν
ἐστίν. φύσει δὲ σ’ ὄντα πικρὸν εὖ οἶδα καὶ
μελαγχολικόν. ἔπειτα παραληφθήσεται
ἐνταῦθ’ ἰατρός τις φιλοσοφῶν καὶ λέγων
πλευρίτιν εἶναι τὸ κακὸν ἢ φρενίτιν ἢ
τούτων τι τῶν ταχέως ἀναιρούντων.

¹⁰ *Pleuritis* is also a rare technical term outside medicine. See Capra (forthcoming) 7, listing as the sole parallels Ar. Ec. 408–21; Pl. Com. fr. 200 K.–A.; Plb. 2.4.6, Posid. fr. 249.21 Theiler (the passage from Plutarch, on which more below, pp. 193–94).

mental health in medicine which is visible from the end of the Hellenistic era onwards.¹¹

Consider the even more precise reference in the second passage, *Aspis* 444–50.¹² Here the *iatros*, the doctor, actually visits Chaerestratus and effortlessly diagnoses *phrenitis*.¹³ Sadly, the verses follow a lacuna, and we do not know what the first part of the consultation entailed. The doctor's dialogue with Smicrines is as follows:

(Med.) It's the *phrenes* themselves, I think. . . .
we usually call this *phrenitis*.

(Smicr.) I understand. And then?

(Med.) There's no chance to save him.

[. . .] Because diseases like these, if you don't want me to comfort you with vain hopes.

(Smicr.) Don't deceive me, but tell me the truth!

(Med.) It's impossible for him to survive.

He's throwing out bile, he's darkened

[] with his eyes

[] and is foaming at the mouth

[] he's looking at a funeral.¹⁴

The lacuna means that we do not know what the doctor is doing physically as he indicates *a]utatas phrenas*, 'the *phrenes* themselves': speaking of the mind, or touching the diaphragm, the chest or the

¹¹ See Thumiger and Singer (2018a) 3–32. The confusion *pleuritis/phrenitis* is common among both specialists and non-specialists: cf. Johnson's Loeb *Method of Medicine* 13.21 (10.932 K.), p. 405 for the same slip in the English translation.

¹² On this passage, see also Capra (forthcoming) 7.

¹³ This scene might be among the models for Plautus' *Menaechmi* and was a clear ancient comedy favourite. See Fontaine (2013) on the epistemological implications.

¹⁴

(Ια.) [α]ὐτάς τὰς φρένας δὴ μοι δοκῶ

[]. ὀνυμάζειν μὲν ὧν εἰώθαμες

[φ]ρενῆτιν τοῦτο.

(Σμ.) μανθάνω. τί οὖν;

(Ια.) οὐκ ἔστι]ιν ἐλπίς οὐδεμία σωτηρίας.

καίρι]α γάρ, αἰ μὴ δεῖ σε θάλλειν διὰ κενᾶς,

τὰ τοια]ύτα.

(Σμ.) μὴ θάλπ', ἀλλὰ τάληθῆ λέγε.

(Ια.) οὐ πάμπαν οὗτός ἐστί τοι βιώσιμος.

ἀνερεύεταί τι τᾶς χολᾶς ἐπισκοτεῖ

[]εντ[.] και τοῖς ὄμμασι

[]υκνον ἀναφρίζει τε και

[]. ας ἐκφορὰν βλέπει.

head?¹⁵ The use of the emphatic *a]utas* suggests greater concreteness, so I am inclined to imagine a palpation of the chest in the preceding scene. The disease is fatal: there is darkened vision, foaming at the mouth and a discharge of bile, the typical pseudo-scientific tokens of clinical madness at the time. Despite the concreteness of the pathology, Menander's audience could plausibly understand a connection between existential suffering and *phrenitis*, which puts on display a psychologized discourse about the disease which might be a Hellenistic development but is also part of a discussion already present in the background, even if eschewed by the Hippocratics. Already in Aristophanes' *Wasps* (1038–41), sycophants and the oppression they cause are metaphorically described as 'shivers and fevers', nightmarish presences who attack at night: 'the nightmares and fevers, who strangled their fathers in the night and throttled their grandfathers, lying in their beds to attack the inoffensive'.¹⁶ A para-technical notion of fever appears already here, in 422 BCE, in a comic context: shivering, and nightmarish in nature, these hostile presences attack during sleep and provoke frightening visions.

The isolated, fragmentary hint at *phrenitis* in the non-technical testimony of Menander's *Aspis* is thus fundamental to bridging the gap to the next extensive medical source,¹⁷ Cornelius Celsus, but also to aspects of Asclepiades' doctrine on *phrenitis*, as we shall see next. Celsus marks the beginning of a crucial period, that of medical discussions after the gap in the evidence in the Hellenistic era. But this is also an exceptional account in itself, which I categorize, together with Caelius Aurelianus (and his Methodist predecessors, whose works survive only in fragments), as the central testimonies in the tradition of the delocalized, holistic view of *phrenitis* (and of mental health, and thus of any antecedent to what we call 'psychiatry' as a whole).¹⁸

¹⁵ Lloyd-Jones (1971) 187 n. 31 says "diaphragm", not "brain". Cf. Sandbach (1970) 115.

¹⁶ τοῖς ἠπιόλοις . . . καὶ τοῖς πυρετοῖσιν, | οἱ τοὺς πατέρας τ' ἤγχον νύκτωρ καὶ τοὺς πάππουσ' ἀπέπνιγον | κατακλινόμενοι τ' ἐπὶ ταῖς κοίταις ἐπὶ τοῖσιν ἀπράγμοισιν.

¹⁷ Ahonen (2014) 194 proposes that Lucretius at *De Rerum Natura* 3.459–75 might have *phrenitis* in mind when he speaks of the embodied *animus* which is diffuse in our body: 'Even in bodily diseases the *animus* often wanders away. For it is demented (*dementit*) and talks deliriously (*delira* . . . *fatur*), and at times it is carried by heavy lethargy (*gravi lethargo*) into a deep continuous soporous state, in the eyes and in the lowered head.' The coupling with lethargy supports Ahonen's hypothesis.

¹⁸ See Ahonen (2014) on madness and philosophy, tracing this strand of delocalized views of mental disorders in a philosophical key.

Asclepiades (Second–First Centuries BCE)

Although Celsus is the first medical source that survives entire to offer an organic picture of a discussion of mental health, we can trace a strand among his predecessors that testifies to a delocalized and holistic, although radically materialistic model of human health relevant to *phrenitis* and mental pathology in particular: the elusive doctor and philosopher Asclepiades of Bithynia, and the Methodist school controversially associated with him.¹⁹ As already noted, only fragmentary and indirect information survives regarding Asclepiades (124–40 BCE), a philosopher and physician of atomistic persuasion.²⁰ He enjoyed wide popularity, however, and was traditionally known as the teacher of Themison, the founder of the Methodist school. As a rigorously materialist thinker,²¹ Asclepiades was the target of numerous polemical attacks, most notably by Galen and Caelius Aurelianus, the two fundamental sources who preserve his medical doctrine and his views about *phrenitis*, which reach us as a consequence of the biases of these authors.

First, let us consider the concrete data regarding Asclepiades on *phrenitis*. Galen's account of his views in this respect²² in *Medical Experience* (28.3 Walzer) focuses on pathogenic blockage in the cerebral membranes as determinant of the disease. The passage poses complex problems, since the text survives only in Arabic, and the modern translation most commonly used, by Richard Walzer, is very literal and therefore at times difficult to interpret.²³ *Phrenitis* is said here to be caused by intensified movements of the corpuscles²⁴ out of which reality is constructed. I quote a translation into English based on Walzer, but revised at key points, with specifications, corrections and problems commented on in the footnotes:

For you say: 'Burning fever inflames the cerebral membranes, and it results from this that the corpuscles²⁵ make their way to the "thing that is light/

¹⁹ Cf. van der Eijk (1999b) 47–56. The affiliation might nonetheless be more a construction than a concrete intellectual datum; see discussion at Vallance (1990) 130–43; Tecusan (2004) 13 n. 18; Leith (2020) 2.

²⁰ On the dates and life of Asclepiades, see Polito (1999). ²¹ See Polito (2006).

²² The Arabic translator of Galen, Hunayn, here identifies Asclepiades as the source; see Walzer (1944) 146 *ad loc.*

²³ I offer a translation revised by Simon Swain, with linguistic clarifications. I thank him and Oliver Overwien for comments and help with the Arabic. Responsibility for the conclusions reached remains my own.

²⁴ A controversial aspect of Asclepiades' physics: see Vallance (1993) 696–99; Polito (2007); Leith (2009). On the theory of the *poroi* and *ogkoi*, see Leith (2012), (2019).

²⁵ Walzer: 'atoms'. The Arabic is *hubaybāt*, literally 'little grain' (of cereal *vel sim.*), as well as 'sweetheart': 'atom' as 'indivisible' is conventionally translated by a different term in Arabic (*al-habā*). The conventional 'corpuscle', obviously referring to the Greek *ogkoi* (ὄγκοι), is thus better.

subtle/rare in its parts”,²⁶ and²⁷ those of them that do so become extremely fast and violent in motion all at once; this is followed by a stoppage of the corpuscles in the pores,²⁸ which causes the disease known as *phrenitis*.²⁹

Galen continues with a further explanation of this process:

Thereupon what lies beneath the cartilages²⁹ spreads upwards, being attracted by the more rarefied areas (‘the thing that is light/subtle/rare in its parts’). Now when the very numerous corpuscles rise and scratch the [walls of the] narrow parts in which they tend to get clogged,³⁰ they revert and thus are purged. After this, they return to the roomy parts that are capable of absorbing them, and for this reason there is a voiding of the stomach.³¹ Since this is the case, it is therefore necessary for the origin of the burning fever and its accompanying symptoms to come first, after which *phrenitis*³² follows. Then comes

²⁶ Walzer: ‘finely divided thing’. As Vallance explains, what is in question here is the type of ‘suction’ exerted by the more inflamed and as a consequence more rarefied part, a process that belongs to Asclepiadean physics; see n. 17. For Walzer, this expression translates the Greek *to leptomerēs* (τὸ λεπτομερές), which is found elsewhere in Caelius indicating a non-pathological concept in Asclepiades, what Caelius calls *spiritus/pneuma*: the nourishment the body extracts from food (*Ac.* 1.14, 84.29–30 Bendz). See Pigeaud (1981/2006) on this passage; Polito (2007) 315 n. 8 on Asclepiades’ soul as *leptomerēs*.

²⁷ Walzer ‘or’. The particle *aw* in the Arabic does mean ‘or’, but is easily confused with *wa-* ‘and’. (It could also mean ‘except that’.) Therefore it is most likely a mistake, since it is syntactically incoherent: the sentence it introduces is not an alternative to the preceding one but a further qualification of it.

²⁸ The Arabic term used is the plural of *nuqbab*, thus *nuqab*, different from the more usual *musāmm* (-āi). Its root sense is ‘perforate’/‘perforation’. According to the dictionaries, the plural *nuqab* is not attested in this meaning (although it is in another sense); the collective noun *naqb* means ‘perforation’.

²⁹ The Arabic term is *sharāsīf*, plural of *shursūf*: ‘rib cartilage’, ‘anterior wall of the abdomen’. This is used to translate the Greek *hypochondrion* (ὑποχόνδριον), literally ‘what lies beneath the cartilage’. The text is here describing a movement of corpuscles from below the diaphragm upwards, towards the head and brain.

³⁰ Arabic *al-ajzā’ al-lāhijah*. Walzer ‘the resisting parts’. The root *l-h-j* has the sense ‘hollow’, ‘narrow’, as well as ‘beating’, ‘hitting’, ‘confusing’; also of a sword stuck in its sheath. I suggest that what is in question, is a tunnel-like space, the *poroi*, explicitly mentioned in the earlier paragraph. The root is not found in Wehr’s modern Arabic dictionary, the standard for Arabic scholars, but is in the dictionaries that treat the classical language. Kazimirski gives ‘beating’ as the primary sense, but also ‘sticky’/‘sticking’; Ullmann is absolutely clear that the primary sense of the root *l-h-j* is ‘stick’/‘be stuck’, and that the present participle used adjectivally, *lāhij*, in particular has that sense, capturing the Greek *empeplasm-* (ἐμπεπλάσμ-) and *glischr-* (γλισχρ-) (pp. 278–79). The Arabic expression thus seems to aim at rendering the idea of a narrow, elongated passage in which something (the corpuscles) tends to get stuck, scratching the sticky parts, i.e. of its walls. (Swain suggests something like *ta emplattonta* (*ious porous*) (τὰ ἐμπλάττοντα τοὺς πόρους), ‘the material that is blocking (the pores)’; numerous parallels for *emplatt-* and *poroi* are found in Galen, e.g. *Meth. Med.* 8.2, 10.547.10 K. on ‘emplastic’ substances, *tōn emplattomenōn tois porois*, with Johnston’s translation). The aggregation and scratching action of the corpuscles causes obstruction, with pathological consequences, the clogged *poroi* of *phrenitis*.

³¹ Walzer ‘the belly is loosened’.

³² Arabic *ikhbilāt*, ‘confusion’; often used to translate Greek *phrenitis*.

the upward attraction of the regions of the cartilages, and the *phrenitis* is followed by a voiding of the stomach.³³

According to this account, the genesis of *phrenitis* for Asclepiades is the heating of the meninges, which causes a ‘rarefaction’, a vacuum in the affected area which the corpuscles are drawn in to fill.³⁴ They quickly move towards that area, causing a landslide of effects: blockage (in the upper parts), discharge, and a loosening (in the lower parts) of the body via sympathetic co-affection.³⁵ In this version of Asclepiades’ doctrine, then, *phrenitis* does not have a core location in the *caput*, although the origin of the inflammation is in the meninges. Instead, it is diffuse, striking the chest, head and stomach in successive phases.

The version of Asclepiades’ theory presented by Caelius, by far the most extensive account, also begins with a reference to the corpuscles and their movements, but more decisively accentuates the meninges of the brain as *locus affectus*, attracting Caelius’ criticism. As a Methodist, Caelius disregards the problem of localization altogether and even opposes raising it as a question, in the interest of medical pragmatism. He focuses, however, on Asclepiades’ views in this respect at the very beginning of the section on *phrenitis* at *Morb.Ac.* 1,6 included within the *praefatio* in the current organization of chapters,³⁶ which is fundamentally devoted to Asclepiades (24.17–32.26 Bendz). Here he seemingly exaggerates the importance of localization in Asclepiades in order to discredit his medical trustworthiness.³⁷ Caelius offers a critique of Asclepiades’ definition of *phrenitis* as a meningeal affair: Asclepiades (and some of his followers) defined the disease as ‘a stoppage or obstruction of the corpuscles in the membranes of the brain (*corpusculorum statio sive obtrusio in cerebri membranis*) frequently with no feeling of pain and accompanied by a loss of reason and fevers (*frequenter sine*

³³ On the theory expressed here, see Vallance (1993) 701–02. See Leith (2021a) 9 on this passage and on the corroborating testimony of *P. Oxy.* LXXX 5231.

³⁴ This natural attraction of the corpuscles towards ‘finer’, more rarefied regions belongs to Asclepiades’ doctrine and is fundamental to its physics and pathology. See Vallance (1993) 699, 701–02.

³⁵ See Vallance (1993) 701–02; Polito (2006) 299 on the importance of the meninges for Asclepiades, perhaps explained by the head containing a greater concentration of *pneuma*; Vallance (1990) 108–09.

³⁶ See Stok (1999) 9. On the *praefatio* in Caelius Aurelianus, and in particular the *praefatio* to *Acute Diseases*, see Urso (1990).

³⁷ As far as Caelius is concerned, Asclepiades is by far the most discussed medical authority and visibly also the most criticized, in particular with reference to *phrenitis*. On Caelius as critic of Asclepiades, see Pigeaud (1981/2006) 90–100, (1994) 30–33; van der Eijk (1998) 343; Thumiger (2019) and further bibliography there; Leith (2021a).

<con>sensu,³⁸ cum alienatione et febribus)' (24.17–19 Bendz). In addition, Caelius explains that the detail about fever offered by Asclepiades ('with fevers') is aimed at drawing a distinction between this mental affection and the one caused by intoxication by such ingredients as poppy seed, mandragora or henbane (*papaver . . . mandragoran . . . altercum*), by emotional turmoil (*immensa ira aut nimio timore commoti vel maestitia etiam compressi*), or by another disease altogether (*aut epileptica agitati passione*).³⁹

The head (the meninges of the brain) again appears at first sight to be at the centre of this definition, concretely indicated as the anatomical localization of the disease. On the other hand, Asclepiades' belief in the importance of co-affection emerges from other cues more in line with the account offered by Galen in *Medical Experience* and despite Caelius' dismissal of this feature of his doctrine. Further on (26.3–10 Bendz), in fact, Caelius mentions that 'some of Asclepiades' followers' (*eius sectatores quidam*) spoke of 'membranes of the brain' in the plural as *locus affectus*. The discussion is apparently motivated by a desire to rule out the involvement of other membranes; Caelius refers here to the one covering the spinal cord down its full length (*medullarum spinæ membranæ*), whose inflammation does not cause *phrenitis*.⁴⁰ The inclusion of other membranes would expand the territory of the inflammation to the whole torso, rather than confine it to the head; the membrane that comes to mind, of course, is the diaphragm or *phrenes*, which plays an important role in the history and etymology of *phrenitis*. It is difficult to grasp Caelius' precise philological and doctrinal point, but it is tempting to hypothesize that there was controversy regarding Asclepiades' view about the meningeal location as exclusive; the co-affection between membranes bringing together chest and head in the pathology of *phrenitis*, after all, is a cornerstone in the history of the disease.

Other corroborating details offer reason to believe that an involvement of the chest might have been at issue. A little earlier, Caelius comments on Asclepiades' statement that *phrenitis* should be *sine consensu*, 'without

³⁸ Drabkin translates <con>sensu (correction *ex sequentibus* accepted by most editors) as 'pain'; Pape's translation is 'Schmerzempfindung'.

³⁹ See Stok (1996) 2361 on the same point about Asclepiades' doctrine being made by Cicero (*Tusc.* 3, 11), and 2360–62 on the relationship between the two thinkers.

⁴⁰ The idea of an inflammation of the membranes *qua* membranes, independent of their location, is an instrument of holistic extension of the illness to multiple areas of the body in subsequent medical literatures, where the membranes become central. This is the case in the medieval texts, where the *velamina* or *panniculae* are the locus of affection, while the brain itself is not always and only controversially involved (see below, Chapter 7, esp. pp. 240–43, 259, 262).

pain'. Asclepiades intends this specification to distinguish *phrenitis* from *pleuritis* and pneumonia, whose patients also rave on the seventh or eighth day;⁴¹ these two disorders are accompanied by pain (24.23–26.2 Bendz).⁴² If we consider the history of *phrenitis* and early Hippocratic accounts of it as a winter disease occurring together precisely with *pleuritis* and *peripleumonia*, we can legitimately interpret this as proof that Asclepiades, like many others, localized the disease more flexibly than Caelius seems to imply. Other membranes and parts of the body are involved, especially the membranes of the chest (the diaphragm), the *pleurai* and the lungs, as the otherwise forced parallel with *pleuritis* and *peripleumonia*, of all diseases, clearly shows.⁴³ Not only this reference to a plurality of *loci affecti*, but especially the holism implicit in the corpuscular theory makes Asclepiades the first clear voice in favour of a delocalized version of the disease, despite the difficulties in discerning his thought within the disparaging presentation handed down by his opponents.

Further on in the discussion of *phrenitis*, Caelius devotes two more sections to censuring Asclepiades (*ad Asclepiadem*, I.14–15). At 14 (28.29–30.6 Bendz) he offers an important criticism which further supports a holistic reading of Asclepiadean *phrenitis*, the contradiction between the materialist philosopher's sense-based view of mind and his discussion of alienation:

Asclepiades holds that, in general, every case of *phrenitis* involves mental impairment (*alienatio*) and that the essence of mental impairment is in the senses (*in sensibus*). In fact, in his definition of mental impairment (*alienatio*) in his treatise *On Definitions*, Asclepiades explains the term in the following way: 'Mental impairment is an affection of the senses, and in this affection the mental activity is sometimes too great for the capacity of the sensory passages (*sensuales viae*);⁴⁴ but in some cases the passages are too

⁴¹ See Urso (2018) 299–301 on the role of pain in differentiating between *pleuritis* and *peripleumonia*, on the one hand, and *phrenitis*, on the other.

⁴² For Caelius, phrenitics actually do suffer pain, but they cannot be aware of it due to their lack of judgement (90.25–26 Bendz).

⁴³ For yet another instance of Asclepiadean holism regarding fevers and *phrenitis*, cf. I.11 (28.5–8 Bendz), where Asclepiades reportedly says: 'We clarified . . . the nature of the stoppage or obstruction, and the type of corpuscles involved in this stoppage, and also how that which takes place in parts of the body can cause a disturbance in the whole body (*quomodo ea quae partibus eueniunt, totum commoueant corpus*) and produce fever.'

⁴⁴ See Pigeaud (1981/2006) 89 on the fundamental contribution made by Asclepiades' 'sensorial' interpretation of *phrenitis*: 'the reduction of psychopathology to a disorder of perception; the encounter, within the discussion on *phrenitis*, of the separation between diseases of the soul and diseases of the body with the repartition between doctors and philosophers of the human being as a whole' (my translation); Polito (2006) 300–01 on Asclepiades' idea that 'the mind is coextensive with the senses'.

large for the motions [of the corpuscles]. When this disease (*alienatio*) is chronic (*intardans*) and without fever, it is called *furor* or, commonly, *insania*. But an acute (*recens*) case with fever and no feeling [of pain] (*neque cum sensu*⁴⁵) is called *phrenitis*.’

In agreement with his conception of mind, then, it is sensory impairment that matters in Asclepiades’ account. Moreover, fever is the differentiating factor, while the *alienatio* itself is delocalized and can have multiple causes.⁴⁶ This is stressed again at I, 20 (32.19–20 Bendz), where Caelius repeats that in *On Definitions* Asclepiades declares *phrenitis* to be ‘a sudden mental derangement (*alienatio repentina*) accompanied by fever (*cum febribus*)’. In this way, in Caelius’ view, the doctrine of the senses, if properly interpreted, would make *phrenitis* a ‘holistic’, delocalized disease for which the meningeal corpuscular aetiology makes no sense and with which it is in open contradiction (30.7–8 Bendz): ‘Now, if *phrenitis* is a disease in the senses, Asclepiades is wrong in defining it (*non recte . . . dicit*) in the first instance as an obstruction in the membranes of the brain.’

Diagnosis and Prodromic Signs

An important topic that stands out in Caelius’ depiction of Asclepiades is diagnosis: the possibility of detecting signs of coming *phrenitis* or of a disposition to the disease. At I, 24–26 (34.28–36.9 Bendz) Asclepiades is credited with the view that there are signs of impending *phrenitis*, but that these do not point to inevitable death (unlike e.g. a wound to the heart). It is an approximation, not an inescapable verdict, *frequentia futura significantia*: ‘In the case of *phrenitis*, the signs that point to a coming attack indicate only what is probable, not what is inevitable. That is, while there are signs of the coming of *phrenitis*, patients manifesting such signs do not necessarily (*non necessario*) incur the disease.’ As Caelius moves on to describe patients ‘on the verge of slipping into the disease (*proni, labiles*)’, he attributes to Asclepiades an interesting psychological profiling that is the first such personal colouring in our history of the disease: at *Morb.Ac.* I, 32 (38.28–40.12 Bendz) we are told that ‘some physicians, and among them Asclepiades and his followers, consider as predisposing the influence of the weather, the season, the antecedent causes, the *nature of the patient and his*

⁴⁵ *sensu* is here equivalent to *consensu* used earlier; see n. 38. In this paragraph, the *senses* in general in Asclepiades are under discussion, which may explain the use of the term *sensus* rather than *consensus*. In the phrase *neque cum sensu* (which returns at 30.24–25 Bendz, shortly below), however, it appears obvious that a lack of pain is indicated; Pape again translates ‘Schmerzempfindung’.

⁴⁶ On this aspect, see Stok (1996) 2330.

age'. The notion 'antecedent causes' (*antecedentes causae*) is central here: 'if he is of inconstant temperament and easily angered, or much devoted to reading, or if his head is weak and prone to feeling congestion, or if he is easily subject to mental aberration (*facile alienatione vexetur*) whenever he suffers from illness' (40.3–8 Bendz). The psychology implies a delocalizing move and here goes hand in hand with Asclepiades' corpuscular materialism: there are no inescapable signs that make *phrenitis* inevitable, and the risk factors, to use a modern expression, are external circumstances such as season and environment, and broader, 'holistic' aspects of personality, lifestyle and the like.⁴⁷

It is in this spirit, then, that Asclepiades' style of therapy is described by Celsus in terms of healing 'safely, quickly and pleasantly' (*tuto, celeriter, iucunde, De Med.* 3,4,1 = 104.27–28 Marx), and that he is mentioned by later authors for his musical therapies in connection with *phrenitis*, which might at first sight appear at odds with his radical determinism. Martianus Capella, in his *De nuptiis Philologiae et Mercurii* (LLA 710, 9, 926), also refers to Asclepiades for his use of musical therapy ('for I healed phrenitics with my music, in this also following the example of Asclepiades the doctor', *nam phreneticos symphonia resanavi, quod Asclepiades quoque medicus imitatus*), and others do as well.⁴⁸

Discussing therapy, Caelius offers numerous details about Asclepiades' practices in the long section *Ad Asclepiadem* mentioned above (105–54, 80.19–86.21 Bendz). Referring to his *Celerum vel acutarum passionum*, Book I, he attributes to Asclepiades the following stances: first, the refusal of contrary measures (*contraria adhibenda*); second, attention to prevention and avoidance (how to keep a fever from turning into *phrenitis*: *quomodo declinanda vel avertenda*); and finally, treatment proper.

⁴⁷ It is on the basis of these aspects that Kudlien (1968) 13 saluted Asclepiades as the founder of 'medical psychiatry'. Cf. Stok (1996) 2376 on Asclepiades' importance in devising a therapy other than the strictly somatic for mental disorder.

⁴⁸ Censorinus, *De die natali liber* (LLA 441, 12, 4), reports that 'also Asclepiades the doctor often restored the mind of the phrenitics, grieved by the illness, to its natural state through music' (*et Asclepiades medicus phreneticorum mentes morbo turbatas saepe per symphoniam suae naturae reddidit*). Likewise Cassiodorus, *Institutiones* (906, 2, 5, *Asclepiades quoque . . . freneticum quendam per symphoniam pristinae sanitati reddidisse memoratur*); and Isidorus of Sevilla, *Etymologiarum sive Originum libri xx* (1186, 4, 13), *Asclepiades quoque medicus phreneticum quendam per symphoniam pristinae sanitati restituit*. It is true that music was seen by the ancients as also effective against purely physiological ailments (notably sciatica, according to Theophrastus: cf. Apollonius Paradoxographus, *Historiae Mirabiles* 49, and Athenaeus of Naucratis 14.624a–b. I thank Sean Coughlin for the point and for these references). In the case of Asclepiades, however, the sources we have on musical therapy clearly qualify it as a way to approach the mentally distressed *iucunde*, and as working on their psychological state.

As to the first, in the first part Asclepiades is said to criticize clysters, the drinking of iris and oxymel, and mustard as means to favour the discharge of phlegm. He criticizes cutting hair; opposes the idea of making a patient lie in the dark, since darkness, as opposed to light, favours imagination and numbs the senses;⁴⁹ and stigmatizes venesection as a murderous act.

As far as the second is concerned, to avoid and prevent *alienatio mentis*, Asclepiades recommends observing the days of attack and remission. On the first, one should give minimal food, pearl barley, unpeeled barley, spelt groats, and lentils with beet: dietary variety is advantageous. If fever persists, on the next day one should draw off the obstruction (through a clyster) and offer rest, and make the patient drink limited amounts of water (one or two *heminae*) twice a day, and the same at night. On the following days, gruel of various sorts should be offered. If fever abates, soft food should be given; if it persists, abstinence is necessary. On the seventh day, bread, fish and wine.

At 128–29 (94.5–23 Bendz), in his criticism of clysters, Asclepiades again adopts a clear holistic position:

The bowels, inflamed by the honey and by the gripping effects of the other substances, give rise to an intense heat which passes upward from the lower parts to the membrane of the brain through passages that are somehow connected. *For all the internal parts of the body . . . are joined by imperceptible connections; and among these internal parts there are the membranes of the brain.* (my italics, 94.7–15 Bendz)

This inner *sympatheia* culminating in the brain is another important delocalizing move, which again brings in the *caput* as locus, but diffuses affection, pathology and physiology through the body.

More in general, finally, at 131 Asclepiades, like Heraclides, is said to distinguish between kinds of therapeutic approach. He says that ‘there are two different methods of treatment, one cautious and suitable in many cases of *phrenitis*, the other violent and dangerous, *philoparabolos*, as he calls it’ (94.30–96.2 Bendz). The former (96.3–24 Bendz) requires that all aromatic substances be stopped; that the patient be given sternutatory and honey drink; and that he be moved from a dark place to a bright one, and in the evening to a small room with no fresh air. If fever increases or there is numbness in the limbs, gruel should be given; otherwise, anointing and gruel-like food are appropriate. Rest should be encouraged, as well as passive exercise. At 102.12–22 Bendz the *philoparabolos* method is

⁴⁹ On this point, see also Celsus 123.6–7 Marx; below, p. 55.

described: wine is given instead of honey, strong and undiluted, and mixed with brine. This is a quicker method, possibly dangerous, aimed at strengthening the pulse.

In summary, the sources suggest that the following factors characterize Asclepiades' view of *phrenitis* – or the views attributed to him by his ancient readers. On the one hand, there is a materialistic, corporeal account: localization in the meninges, corpuscular explanation and aetiology in a pathological 'blockage', and fever. But there is also a more prominently delocalized, almost holistic approach, emphasizing sympathy and co-affection among different parts in the body, more hospitable to psychological elements and focusing on impairment of the senses, derangement and the profile of the individual as a whole, including predispositions and lifestyle. From a modern point of view, these two sides are not necessarily in stark contradiction, and Caelius' mission to emphasize them as flawed precisely in this respect should not influence us. For the history of *phrenitis*, this is the first historical attestation of a move of this kind – provided, of course, that we can give at least some minimal credit to our doxographic sources on Asclepiades.

Cornelius Celsus

The first extensive surviving discussion of our disease after the Hellenistic era comes from the encyclopaedic work *De medicina*, composed by a Roman author who was perhaps not a physician, but who nonetheless produced a high-quality account that preserves important, otherwise lost information on the earlier medical tradition.⁵⁰

At *Med.* 3.18 (122.11–127.15 Marx) Celsus discusses 'madness', *insania*, in its three 'types' (*genera*), in which the Greek medical entities *phrenitis*, *melancholia* and *mania* can be recognized.⁵¹ The first notable aspect of this discussion appears at the beginning of the section, where Celsus introduces the new topic as a move away from the fevers discussed in the [previous chapter](#). These *genera insaniae* are defined as belonging to the category of 'other affections of the body, which manifest themselves in it, and among

⁵⁰ We know that Celsus also composed a technical work on agriculture, perhaps displaying a similarly high level of competence, thus showing impressive intellectual range.

⁵¹ A first *insania* is such, *quae et acuta et in febre est*, ΦΡΗΝΗΣΙΣ (*PHRENĒSIS* = *phrenitis*, 122.15 Marx); a second *genus* is one which *spatium longius recipit . . . sine febre* and *consistit in tristitia, quam videtur bilis atra contrahere* (*melancholy*, 125.28–9 Marx); the third is *longissimum*, and the patient remains robust (*mania*, 126.19–20 Marx). On Celsus and mental disorder, see Pigeaud (1987/2010) 122–23; Stok (1980), (1996) 2328–41; Gourevitch (1991); Ahonen (2014) 17–18; Thumiger and Singer (2018a) 7–15.

those the ones which cannot be assigned to specific body parts (*alii corporis adfectus, qui huic superueniunt, ex quibus eos, qui certis partibus adsignari non possunt*, 122.12–13 Marx). The three mental syndromes are for him characterized precisely by their delocalization, by their not belonging to a precise *locus* of the body: a key marker of *insania* seems to be its delocalized nature.⁵²

This opening remark appears to apply in particular to the first of the three types Celsus discusses, which corresponds to our *phrenitis*. This is the first disease he discusses and the most extensively considered: 103 out of 154 CML lines of the text are devoted to it, including remarks that appear to be instructions valid for insane patients generally. The second aspect worth mentioning is the Greek name given to this first disease: it is a ‘madness . . . which is acute and occurs with fever: the Greeks call it *PHRĒNĒSIS* (*insania . . . quae et acuta et in febre est: ΦΡΗΝΗΣΙΝ [PHRĒNĒSIS] Graeci appellant*)’. This form, *PHRĒNĒSIS*, is not extant elsewhere in Greek or Latin literature.⁵³ If we look at the content of this section, the difference in focus between this account and the previous ones surveyed, from Hippocratic and Hellenistic thinkers, is striking. But there is also a difference from the localized, anatomical account of *phrenitis* that will prevail in Galen and others. An initial part, about 10 per cent of the text, focuses on the distinction between *phrenitis* and other forms of delirium with fever; the rest of the discussion is entirely devoted to the manifestations of the disease and its therapy, which are inseparable from a close study of the differences among types of patient. The account is thus eminently clinical and more precisely, as we will see, psychological and personal.

The initial section establishes psychology rather than physiology as the main area of the disease, although fever characterizes it. ‘Delirium and senseless talk (*desipere et loqui aliena*)’ are common in the paroxysms of fevers in general (122.16–17 Marx); although these are serious signs, they are not worrying and can recede quickly (122.18–19 Marx). *Phrēnēsis* proper, by contrast, ‘is truly there when a continuous dementia begins, when the sick

⁵² Book 3 of *De medicina* is devoted to the therapy of fevers and other acute diseases, which are mostly tackled through dietetic means. This explains, at least in part, Celsus’ ‘holistic’ approach to the types of *insania*. His decision to place *insania* in such a context within his *oeuvre*, implicitly categorizing it as delocalized, nonetheless remains worthy of discussion. See Stok (1980), esp. 16–20, for hypotheses regarding the cultural-philosophical *milieu* in which Celsus wrote his *De medicina*. I thank Hynek Bartoš and Peter Singer for discussion of this section.

⁵³ See below; cf. Urso (1998) 40–41. Steven Colvin (personal communication) suggests to me that this is a ‘trivial re-building using the very common suffix *-sis* (Chantraine 1933, pp. 279–80) – perhaps on the analogy of *phrēnēsis*’.

person, although up to then in his senses, nevertheless entertains certain vain imaginings. The insanity is established when the mind becomes at the mercy of such imaginings' (*uero tum demum est, cum continua dementia esse incipit, cum aeger, quamuis adhuc sapiat, tamen quasdam uanas imagines accipit: perfecta est, ubi mens illis imaginibus addicta est*, 122.21–24 Marx). This is the first time in the tradition that we encounter a reference to images and imagination (Greek φαντασία), which will become a central feature of the discussion of mental impairment through *phrenitis* in later medical and philosophical literature.⁵⁴ The thematization of the 'mind', *mens*, as key point of affection is also noteworthy. Hallucinations and vain fears were mentioned in the Hippocratic discussions of *phrenitis*, but they were not of comparable importance.⁵⁵ Our disease is thus conspicuously identified with lasting, uninterrupted insanity characterized by the perception of 'false images', to which the mind becomes accustomed. No physiological causation is mentioned. Instead, psychopathology takes centre stage, with intensity and duration as its main markers.

The second important novelty is the recognition of the existence of *plura genera* of this disease:

Some are sad (*tristes*), others cheerful (*hilaris*); some are more readily controlled and rave in words only, others are rebellious and act with violence. And of the latter, some only do harm by impulse, others are artful as well, and show the most complete appearance of sanity while seizing occasion for mischief, but are detected by the results of their acts. (122.25–9 Marx)

The variations in character among patients seem to lead to different pathological outcomes, and Celsus pays considerable attention to these aspects of personality. In the therapeutic instructions that follow, the overarching principle is again the importance of adapting therapy to different kinds of patient (122.29–125.26). The first therapeutic measure considered is coercion, which is useless (*supervacuum*) for 'those merely raving or even making a trifling use of their hands' (*qui intra uerba desipiunt aut leviter etiam manu peccant*, 122.29–30 Marx), but convenient for violent individuals 'who ought to be restrained' (*uincire conuenit*, 123.1–2 Marx). Here excellent psychological observations are found. The insane, for example, have a characteristic trick of pretending to be back in their senses: 'Anyone so fettered, although he talks rationally and pitifully when he wants his fetters

⁵⁴ See below, pp. 145–57; Pigeaud (1987/2010) 95–128, (1983), (1981/2006) 97.

⁵⁵ See Chapter 2, p. 29.

removed, is not to be trusted, for that is a madman's trick (*dolus insanientis*)' (123.2–4 Marx).

Second is the already mentioned expedient of modulating darkness and light (123.4–13 Marx): 'The ancients (*antiqui*) generally kept such patients in darkness, for they held that being frightened (*exterreri*) was contrary to their good, and that the very darkness can confer something towards the quieting of the spirit (*ad quietem . . . aliquid conferri*)'; Asclepiades (123.6–7 Marx) thought the opposite, deeming darkness frightening (*tenebris ipsis terrentibus*) and recommending light (*in lumine habendos eos*). Celsus criticizes the establishment of a general rule, reinforcing the importance of trial and error in individual cases and of adapting measures to the inclination of each patient (123.8–12 Marx).

The [next section](#) surveys diet and pharmacology, appropriate timing and psychotherapy. This offers Celsus an occasion for methodological remarks, in particular again on the importance of considering each case on its own terms. First of all, he writes, it is useless to apply remedies at the peak of derangement (*ubi maxime furor urget*, 123.14 Marx); restraining the patient and offering relief are the only possible measures at this stage. Celsus surveys ancient opinions on the matter: Asclepiades was fiercely against bloodletting except during remission, and recommended inducing sleep via massage (*in his somnium multa frictione quaesivit*, 123.19–20 Marx). Celsus objects that fever brings sleeplessness in any case, while rubbing also helps only during remission. He proposes instead applying remedies, including bloodletting, when the fever is at least not getting stronger; after a day, the patient's head should be shaven bare (*caput ad cutem tondere*, 123.27–28 Marx) and fomented with water in which vervain or other repressive herbs have been boiled (*in qua uerbenae aliquae decoctae sint uel ex reprimentibus*, 123.28–124.1). These measures should be alternated and followed by pouring rose oil on the head and through the nostrils, as well as offering vinegar-soaked rue to the patient's nose to provoke sneezing. Celsus underlines the importance of avoiding these measures in individuals who are weak, however: for them, he suggests only moistening the head with rose oil, thyme or the like. Finally, two herbs are recommended, regardless of the patient's strength: bitter-sweet (*solanum*) and pellitory (*muralis*) (124.7 Marx). Once the crisis has passed, massage is prescribed, but 'more sparingly in those who are over-cheerful than in those who are too gloomy' (*parcius tamen in is, qui nimis hilares quam in is, qui nimis tristes sunt*, 124.8–9 Marx). As elsewhere, the head and chest are targeted.

The remark about the distinction among patients based on a psychological trait, their mood (*hilares, tristes*), reveals the most remarkable part of the whole section on *phrenitis*: a set of psychotherapeutic observations and instructions following ‘the nature of each case’ (*pro cuiusque natura*, 124.10–11 Marx). This becomes the chief measure for dealing with the ‘spirits’ of these patients (124.11–26 Marx):

Some need to have empty fears relieved, as was done for a wealthy man in dread of starvation, to whom supposed legacies were announced from time to time. Others need to have their violence restrained, as is done in the case of those who are controlled even by flogging. In some, overly untimely laughter must be put a stop to by reproof and threats; in others, melancholy thoughts are to be dissipated, for which purpose music, cymbals and noises are useful. More often, however, the patient is to be agreed with rather than opposed, and his mind is to be slowly and imperceptibly turned from irrational talk to something better. At times also, his interest should be awakened, as may be done in the case of men fond of literature, to whom a book may be read, correctly when they are pleased by it, or incorrectly if that very thing annoys them; for by making corrections they begin to divert their mind. Moreover, they should be pressed to recite anything they can remember. Some who did not want to eat were induced to do so by being placed on couches between other diners. But certainly, for all so affected, sleep is both difficult and especially necessary; for under its influence many get well.

This repertoire of psychological types and the convenient treatment for each is entirely concerned with moral-psychological aspects, occupational measures, diversions, entertainment, intellectual-cognitive engagement, and concern for social and emotional experience. The breadth and variety of existential levels in this passage point to a larger discussion than the disease *phrenitis* alone, to an identification of *phrenitis* with a larger category, making it a representative *exemplum*. The discussion ends with a list of beneficial substances, beginning with those which aid sleep and ‘help compose the mind itself’ (*ad mentem ipsam componendam*, 124.26–27 Marx): saffron ointment; a decoction of poppy or hyoscyamus; mandrake apples under the pillow; cardamom, balsam or sycamine tears smeared over the forehead. Celsus also mentions fomentation, the application of a decoction of poppy seeds – something he says Asclepiades criticized, since they produce a change to *lethargus* (125.6–7 Marx). Asclepiades advised instead abstention from food, drink and sleep for the first day, and drinking water in the night and gentle massage; if excessive massage might cause *lethargus*, in the right measure it should bring about sleep.

Sleep as a characteristic issue in *phrenitis* appears here as a central topic for the first time in the tradition available to us, showing with some degree of certainty a development that must have occurred between the Hippocratic sources and the beginning of our era.⁵⁶ The contiguity of our disease with *lēthargos*⁵⁷ is confirmed by many later authors (especially Galen⁵⁸) and becomes topical. At 125.14–19 Marx various solutions specifically targeting sleep are illustrated – provided caution is taken lest an excessive dose make it impossible to wake the patient up again. In addition to drugs, the sound of falling water, rocking after food, and at night especially the motion of a slung hammock are helpful. Bloodletting in the occipital part of the cranium can be beneficial if sleep continues to be a problem, since this relieves the disease. Food should also be kept under check: not too much, ‘lest he be maddened’ (*ne insaniat*), nor too little, which might debilitate him (125.22–23 Marx), and a light option such as gruel is best.

The exemplary character of *phrenitis* as a model of *insania* is also confirmed by the fact that at 3.19–20 the disease features as a contrasting item to define the specifics of two others: the cardiac disease (*cardiacum*, 127.16–17 Marx) and *lethargus* (*lethargum Graeci nominarunt*; the affinity with sleep has already been noted, 129.2–3 Marx). Regarding the first, Celsus writes: ‘The kind of affection which the Greeks call cardiac is a complete contrast to the foregoing diseases (*his morbis*), although phrenitics (*phrenetici*) often pass over into it. In the former the mind gives way, whereas in the latter it holds firm (*siquidem mens in illis labat, in hoc constat*)’ (127.16–18 Marx).⁵

A non-mental disease, then, is a version of illness that is a possible outcome of *phrenitis*. Its localization is in the torso (although seemingly more in the lower part, *stomachus*; see 127.19, 128.5–23 Marx for the description of the gastric aspects), and its therapy is strictly bodily and diet-based. The particular outcome described by Celsus, the development of *phrenitis* into this *cardiacum* disease, I suggest, is the more exclusively bodily counterpart to Celsus’ more ‘psychological’ *phrenitis*, in which the delocalized, quintessentially psychic form is materialized into a ‘mental disease’ proper. It is interesting that at 3.19 (127.22–23 Marx) the disease is said to ‘break out from the whole chest and from the neck, and sometimes

⁵⁶ On the topic of sleep and *phrenitis* as present in, although not central for the Hippocratics, see [Chapter 2](#), pp. 49–50.

⁵⁷ *Lēthargos* is a similar but contrary disease to *phrenitis*, causing sleepiness and unconsciousness, as the name suggests, with mental consequences and once again a localization oscillating between chest and head.

⁵⁸ On whom, see below, pp. 101–03, 108–10, 119–23.

even the head (*ex toto thorace et cervicibus atque etiam capite prorumpit*), touching on the dual localization of mental functions where *phrenitis* too is involved.⁵⁹

The next associated disease, *lethargus*, is in Celsus' words *aliter phrenetico contrario*, 'a contrast – in a different way – to the phrenetic' (128.31 Marx):⁶⁰ 'In it, sleep is got with great difficulty, and the mind is disposed to any foolhardiness (*prompta ad omnia audaciam mens est*)'. There is a fierce need to sleep, indulgence in which is often lethal; sneezing is one of the disease's cures.⁶¹ Among therapies for *lethargus* are pouring liquids over the head (129.19 Marx) and shaving it (129.23 Marx). Most interesting of all, attention is paid to the 'part below the ribs', the *praecordia* (129.20; 130.10–12 Marx), which, it is said, should not be too soft or too hard. We thus have another bodily feature of the Hippocratic make-up of *phrenitis* which is shifted to a neighbouring disease.

If we look at the Hippocratic antecedents to these nosological relations, cardiac and lethargic diseases, the first is not mentioned, but lethargy (*lēthargos*, λήθαργος) is discussed at *Morb.* 2.65 (204.3–10 Jouanna = 7.100 L.) and *Morb.* 3.5 (12.14–24 Potter = 7.122 L.). In both cases, the disease closely resembles pneumonia, which in the Hippocratics is a sister disease to *phrenitis* in its seasonality, location in the lungs and mental import, and is often mentioned alongside it. At *Morb.* 2.65 *lēthargos* has the patient coughing up a great quantity of material and talking nonsense, and the outcome is often death. At *Morb.* 3.5 the disease is openly said to be 'the same condition (*stasis*) as *peripneumonia*, with coughing, drowsiness and weakness'; it is again said to be fatal. Localization in the respiratory system, drowsiness and derangement are thus obvious areas of similarity if not intersection with *phrenitis* already in the Hippocratics; what we notice in

⁵⁹ The discussion of *synkopē* or *kardiakoi* in the Imperial-era physician Aretaeus (*Morb. Ac.* 2.3, 21.27 Hude; *Tb. Ac.* 2.3, 126.3–130.29 Hude) shows this development more clearly. The derivative relation to *phrenitis* is foregrounded, as the origin of cardiac disease is in a fever, a *kausos*; at the same time, the mental import and the need for psychotherapeutic attention are added. On the hypothetical relationship between this *cardiacum* and the *kardiakos* of Talmudic medicine, sometimes identified with *phrenitis*, see Chapter 7, pp. 282–84.

⁶⁰ The other Latin author of medical interest from the same period who mentions *phrenitis* is Pliny the Elder (23–79 CE). His mentions of *phrenitis* mostly appear in lists of ailments (*phrenitici*, *lethargici*) and in remarks about pharmacological remedies of various kinds; this is useful additional testimony that the disease was common and well known as acute and severe, attracting therapies of the head. Pliny also points to a vicinity to *lethargia* (*Nat. Hist.* 24.38), with both cured by *decoctum in oleo* (also *Nat. Hist.* 20.90; 24.16; 26.77; 32.13 *phreneticos somnus sanat*).

⁶¹ One wonders about the connection between sleeping and lungs: lethargy and pneumonia share similarities in the Hippocratic texts, perhaps based on the idea, explored at length by Aristotle, that sleep is part of the digestive process, a heating through digestive fumes of the area around the heart causing torpor (cf. Arist. *Somn. et Vig.* 456b–7a); cf. Debru (1996) 90–91.

Celsus' discussion is the overt delocalization of *phrenitis*, now assigned to the realm of psychological disorders, and the 'reassigning', so to speak, of its bodily features to separate pathological entities.

In summary: what is conspicuous in the discussion in Celsus is, first of all, what is not there. There is no aetiology, and not even any physiology. (Only in a miscellaneous collection of acute symptoms is it mentioned that thin, white urine is typical of *phrenitis: diluta quoque atque alba vitiosa*, at 2.5, 54.7–8 Marx.)⁶² There is also an open delocalization of the disease, and no mention of the *phrenes*, nor any etymological interest in the name, although the mental aspect is overt throughout. The discussion focuses instead on the manifestations of the disease and of *insania* generally (cf. also 3.18, 123.4, 124.10 Marx), and on pharmacological and especially psychological therapy. Much attention is given to the principle of patient individuality and the adaptation of the cure to the case; all this, it is worth reminding ourselves, is found in a discussion that opened on a delocalizing note and framed this particular discussion of *insania* as a fever at the onset, but without catering to it medically afterwards, with all efforts directed towards the psychological sphere.

We are clearly far from the Hippocratic bodily accounts here, and none of the fragmentary material from Hellenistic times sheds additional light on the development of such a 'clinical psychology' in the intervening period.⁶³ Non-technical evidence such as Menander might testify to a different, pain/*lypē*-based view of mental pathology recognized outside medical circles; this is the first text we have where we begin to get some information regarding a psychological kind of nosology, as well as one that will remain isolated with its inclusion of *phrenitis* under an umbrella concept of *insania*. As such, Celsus' discussion stands out within the Imperial-age medical discussions, most notably in Galen, for whom *phrenitis* is an exclusively physiological problem to be addressed and handled as such.

The Methodists and Caelius Aurelianus

Other medical writers from the early centuries of the common era contribute to the development of a psychological approach to mental disease, adopting philosophical strategies and methods aimed at addressing the

⁶² See also *Med.* 2.4 for an account of pathological sleep.

⁶³ See Chapter 2. There are instead noteworthy points of contact with Hippocratic dietetics, especially with the unique material preserved by *Regimen*, on which see Bartoš (2015).

person as a whole, his or her relationships, emotions, lifestyle and activities (although to various degrees and with numerous differences).⁶⁴ The handling of *phrenitis* is one of the most eloquent instances for considering this approach, and evidences a chasm between authors like Galen, who forcefully relegate *phrenitis* to the realm of localized physiology with no psychological interest, and those – most notably Asclepiades, Celsus and the Methodists – who in different ways reject or dismiss localization and thus establish psychology as a concern for the ‘person as a whole’. This position will remain more marginal in approaches to our disease, although some doctors, like Aretaeus, include psychological concerns in their operations despite a physiological conception of the disease.

The final author eloquently to display a continuity with the delocalizing approach offered by Celsus has already been discussed in his complex role as a key source for information on Asclepiades: the fifth-century CE physician Caelius Aurelianus. Caelius is not only of great importance for the quality and extent of his nosological work, but also a precious doxographic source for the history of ancient pathology, since he discusses the practice and doctrine of his predecessors extensively. His text preserves important information about medicine in the Hellenistic period and as late as the first century CE, as already noted. His remarks about others are for the large part critical, with the exception of the Methodist Soranus, whose work is one of his main sources. Caelius too, in fact, belongs to the Methodist medical sect, whose doctrine rejected theoretical (‘dogmatic’) speculation about causes and hidden processes and supported instead a focus on the patient’s reactions and a pragmatic approach to therapy. Caelius lived and operated in Sicca in Numidia (today Tunisia), wrote in Latin but was obviously bilingual in Greek at least, and had some literary talent. The rich clinical information preserved in his writings, which seems to suggest practical interaction with patients, raises the possibility that he was himself a practising physician. But any details about his activities must remain a matter of speculation and hypothesis, since the text shows that the sources with which Caelius engages explicitly do not reach beyond the first century CE. There is no doctrinal or intellectual element to prove that, intellectually at least, he went chronologically beyond his main source, Soranus. The argument *e silentio* is not strong enough, however, and a change of plan in the course of a monumental work which was becoming

⁶⁴ On this shift, see Thumiger and Singer (2018a); Gill (2018); Singer (2018); Devinant (2018), (2019), (2020).

too vast to complete may well explain the neat chronological interruption in an otherwise engaged account.⁶⁵

The Methodist School and *phrenitis*

As noted above, Caelius is a major source for the reconstruction of other authors' thought. In particular, to the purpose of the present chapter, he offers important information about the exponents of the Methodist school, notably Themison and Thessalus. Themison (first century BCE) is traditionally described as the founder of Methodism, and as such is prominent in Caelius' account. His take on our disease is preserved at *Morb.Ac.* 1, 16–17 Bendz 108.10–115.10 (fr. 28 Moog⁶⁶), in a long section offering a critique of the treatments for *phrenitis* he proposed (*Ad Themisonem*). Here Caelius, again despite his own Methodist affiliation, chastises Themison for his medical mistakes, illustrating various aspects of his doctrine: 'Themison repeated errors of the ancients and left certain matters confused' (108.10–11 Bendz). In cases of *phrenitis*, we read, Themison prescribes offering nourishment from the end of the first three-day period of the illness and giving gruels, gourd, plain honey drink and fruit; on the other hand, he bans other ingredients. He advises fomenting the head with vinegar and rose oil in winter, with rose oil and rue in summer. (After two or three days, fomentations should be carried out at intervals: ivy leaves or juice, thyme, mint or other simples, but not powerful drugs, in olive oil and vinegar.) One should anoint the chest during the attack, and generally avoid strong-smelling substances, and so forth, as Caelius describes Themison's detailed prescriptions for fomentations, diet and exact days of administration. Head fomentation in combination with anointing the chest is of interest as an early marker of the persistent ambivalence between these two localizations – and one which did not sit comfortably with everyone. Despite his own eye-catching inclusion of the diaphragm in the portrayal of *phrenitis*,⁶⁷ Galen would be especially critical of this passage at *Meth. Med.* 13.21 (10.929 K.):

The Empiric says that he has come upon the discovery of such remedies by experience. But why does someone who disdains experience and shuns the search for functions choose to pour water on the head rather than on the

⁶⁵ I thank the anonymous reader at Cambridge University Press for suggesting this final possibility. For various takes on this topic, see Urso (1997); van der Eijk (1998), (1999b); Polito (2016). For our purposes, what matters is the Methodist delocalizing narrative on *phrenitis*, whether it be attributed to Soranus or to Caelius. The question of originality is thus largely irrelevant.

⁶⁶ Fr. 198 Tecusan for Themison. ⁶⁷ See Chapter 4.

chest in those with *phrenitis*? But this *oxyrrhodinum*, which we apply to the head in those with *phrenitis*, clearly refutes not only the amethodical Thessalians . . . but also all the others who think the *hēgemonikon* of the soul is in the heart.

The other Methodist mentioned by Caelius (I.22, 34.5–16 Bendz), Thessalus (70–95 CE), is referenced approvingly in the discussion of the warning signs of *phrenitis*. Thessalus adopts a more extreme position than Asclepiades when it comes to denying that any secure sign of the coming affection might exist. If such signs were reliable, he explains, ‘all those who display them would inevitably fall ill’, a concept of ineluctability that clashes with Methodist pragmatism and respect for the variations in individual outcomes. He insists that ‘no *antecedens causa*’ can indicate *phrenitis* or *phrenitis* any more than other diseases such as *lēthargos*, *apoplēxia* and *epilēpsia*. In all these positions, even through the partial and biased account offered by a polemical doxographer, the following common elements are visible: anti-dogmatism; a pragmatism regarding prognosis and therapy; and above all else a relaxed attitude towards, if not complete lack of interest in, localizing definitions.

Caelius' Views on *phrenitis*

Doxographic reports aside, Caelius devotes a lengthy discussion to *phrenitis* which occupies the whole of the first book of *Acute Diseases* and as such inaugurates the work as a whole.⁶⁸ Following the usual practice, Caelius organizes his material *a capite ad calcem*, while also following the traditional bipartition into acute and chronic diseases. The insertion of *phrenitis* at the beginning seems to follow the conventional association of this disease (and the one that follows in the book, *lethargus*) with the mind as affected principle and *locus*. Caelius justifies this choice in the *praefatio* to his treatise on acute diseases with a subdivision of his material into two categories: acute diseases with fever (such as *phrenitis*, *lethargus*, pleurisy and pneumonia) and those without fever (*synanche*, *cholera* and others). Fever is for him most relevant to acute diseases (*febres sunt acutis magis comites passionibus*); here *phrenitis* is simply ‘to be taken up first (*phrenitis*

⁶⁸ Not only lengthy, but also noteworthy for the fact that it represents the only case in which Caelius discusses one disease alone for a whole book (as noted by Nutton 2004, 413 n. 41), which might suggest a change of source and/or a recognition of the particular importance of the topic. On Caelius and *phrenitis*, see Pigeaud (1981/2006) 257–59, (1987/2010) 123–26, (1994); McDonald (2009) 154–203 for a detailed survey and accurate summary; also Murphy (2013) 30–79 for a survey; Gourevitch (2017) 284–87; Urso (2018) 305–12.

praeposenda)' (22.15–18, 20–22 Bendz). Not only does *phrenitis* come first in the book but, following a pattern noted already in Celsus and which returns in the nosological text *Anonymus Parisinus*,⁶⁹ Caelius discusses it at far greater length than any other disease, confirming its important status within ancient reflections on mental health as well as ancient nosology generally.

The Definition

Caelius begins his discussion by commenting that '*phrenitis* took its name from the impairment of the mind' (*difficultate mentis*, 1, 24.1–5 Bendz), with *mens* intended here as *locus affectus*. (In a philological spirit, he compares the labels *dys-yria* and *dys-enteria* as similar formations, indicating disturbances concerning urine and the intestines, respectively.) He then continues: 'For the Greeks called the mind *phrenes*; whose impediment, as we said earlier, is brought about by the phrenitic affection (*phrenas enim Graeci mentes uocauerunt, quarum, ut supra diximus, impedimentum phrenitica ingerit passio*).' Caelius thus begins his discussion by treating the *phrenes* as the impaired 'locus' but simultaneously relying on circular argument reducing them to their abstract meaning 'mind' with no reference to the diaphragm as a location in the body. It is then the 'mental impairment' (*difficultas mentis*, 24.1 Bendz) and not a place in the body that is primary to the definition of the disease.⁷⁰ He returns to the topic later.⁷¹

As he moves on to sketch the basic features of the disease, Caelius stresses mental derangement, *alienatio mentis* (for him not fundamentally different from delirium, *deliratio*, 24.10–11 Bendz), and fever. These two symptoms must accompany the disease *phrenitis* (*necessario numquam sine febris esse*). A detailed doxographic discussion follows (5–21, 24.10–32.26 Bendz) before Caelius moves on to his own doctrinal beliefs and observations. His full definition (given at 32.23–26 Bendz, at the end of the doxographic section) is as follows:

phrenitis is an acute mental derangement accompanied by acute fever, a futile groping of the hands, seemingly in an effort to grasp something with the fingers, which the Greeks call *crocydismon* or *carphologia*, and a small, thick pulse (*phrenitim esse alienationem mentis celerem cum febris*

⁶⁹ See below, pp. 130–36.

⁷⁰ As Pigeaud (1981/2006) 80 notes, a clear parallel to this definition of 'mind' or 'mental functions' as *locus affectus* is offered by *Anonymus Londinensis*. See Chapter 2, p. 52.

⁷¹ See van der Eijk (2005) 119–23 on this passage.

acuta atque manuum uano errore, ut aliquid suis digitis attrahere uideantur, quod Graeci crocidomon siue carphologiam uocant, et paruo pulsu et denso).

Three elements are thus highlighted: mental derangement, acute fever and crocydism, the compulsive movement of the hands. In addition, Caelius notes the presence of a particular type of pulse.

If the practical recommendation and descriptive aspects of the disease are in large part consonant with those of Caelius' predecessors, several key emphases emerge as distinctive of his own intellectual outlook (or that of his main sources, or shared with them) in the direction of psychology and a soft approach to illness. Gourevitch poses this question when she asks if Caelius' 'humane approach', which I argue here is directly affiliated to psychology and delocalization, should be seen as a result of Christian influence.⁷² Pigeaud also discussed this aspect, emphasizing Stoic affiliations.⁷³ A definitive response to the question is impossible. But Caelius' discussion of *phrenitis* certainly epitomizes the history of the disease up to the fifth century CE, following a delocalizing, psychological route which runs largely parallel to that of the dominant medicine of the time.⁷⁴ The Caelian themes or tendencies which illustrate this are:

- (1) A thematization of patient disposition to *phrenitis*, with discussion of the prodromic signs of the disease. The illness is no longer an isolated event, but is integrated into the nature of each individual's weaknesses and overall characteristics.
- (2) The topic of differential diagnosis, important in other authors (such as Galen) as well: it is not only *phrenitis* that is contiguous and similar to *lethargus* and other fevers, but also other diseases and the pathological consequences of substance intake.
- (3) The forms of the disease: two basic types.
- (4) Localization itself is self-consciously posed as a question – a key epistemological point of questioning in Methodist environments.
- (5) Therapy is given considerable space and detailed discussion.

⁷² Gourevitch (2017) 294; she also suggestively writes that 'Caelius indeed might have read some pages by Augustine' – on which, see Gourevitch and Gourevitch (1998) 510–11. See also Pigeaud (1981/2006) 79 on physiological holism and psychology in Caelius on *phrenitis*.

⁷³ See Pigeaud (1981/2006) 79–82 on the influence of Stoicism on some aspects of this nosology of *phrenitis*. On materialism, Stoicism and the senses as part of the delocalizing story, see Pigeaud (1998) 336–38; Polito (2016), esp. 8–12 on the complications in this relationship in Caelius Aurelianus.

⁷⁴ On *phrenitis* as holistically framed in Caelius, see also Leith (2020) 136–37.

Patient Disposition

Caelius discusses the opinion of various ‘representative sect leaders (*sectarum principes*)’ regarding prodromic signs, describing the polemical discussion between Thessalus and Asclepiades about the possibility that such signs might have epistemological value (34.1–38.2 Bendz). For his part, he declines the most radical version of Methodist pragmatism, which firmly rejects the idea of remote signs of predisposition to a disease (34.10–12, 17–18 Bendz). For Caelius as well, forecasts based on the assessment of a present pathological state that might lead to *phrenitis* may be legitimate, and he allows for the possibility of isolating such signs ‘of being on the verge of the disease (*phreniticae futurae passionis*)’. He discusses them in *Morb. Ac.* 1, 2:

Those who are on the verge of *phrenitis* or are slipping into the disease (*in phreniticam passionem pronos uel decliuēs*) show the following signs: an acute fever barely rising to the surface of the body, pulse low and thick, face somehow puffed up or full, blood dripping from the nostrils, continual sleeplessness or troubled sleep with confused dreams, unreasonable worry or concern (*mentis sollicitudo ac gravitas sine ratione*), frequent turning of the back while lying, and continual changing of position of the head; at times there is also giddiness without reason (*sine causa hilaritas*), redness of the eyes with slight tearing, tossing about of the hands (*circumiectio manuum*), absence of pain in the head, coldness of the limbs without trembling, abundance of urine, light-coloured, watery, thin and discharged a bit at a time. In some cases, there is also a sensation of noise in the head and ringing of the ears (*sonitus capitis atque aurium tinnitus*); also pains in the head suddenly abating for no obvious reason, praecordial tension (*praecordiorum . . . tensio*), and fixity of the gaze or frequent blinking. (38.16–27 Bendz)⁷⁵

General and Prodromic Signs of phrenitis

In Chapter 3, ‘How *phrenitis* is recognized’ (*Quomodo intelligitur phrenitis*, 34–39, 40–44 Bendz), a full, enlarged profile emerges, with two notable features: psychological richness (mood disturbance, gloom, laughter and anger) and a fundamental conflation of all signs of acute pathology recognized in Greek medicine starting from the Hippocratic texts onwards. *Quellenforschung* could map each item in this passage against precise

⁷⁵ On these signs and the possible Stoic affiliations of the notion of predisposition, *decliuitas*, see Pigeaud (1998) 336–38.

Hippocratic and Galenic parallels.⁷⁶ In particular, we find material from prominent clinical cases (for instance, the patients' characteristic lack of interest in food and drink, and the intermittent attacks in which they aggressively snatch what is offered to them, perhaps merely to chew it and then spit it out; talking to themselves, muttering and unexplained tears; hallucinatory hand movements and compulsory plucking; shunning light; troubled sleep); and visual features well known from Hippocratic prognostic texts (bloodshot eyes; a fixed gaze; eyes either unblinking or with fluttering eyelids; face contracted and spastic; bruxism). Especially notable in the portrayal are an uncomfortable posture and restless movements associated with the primary symptom of crocydism: these patients have a 'disproportionate bodily strength' (*corporis vana fortitude*, 42.20 Bendz), pull themselves in and out of bed, move their hands anxiously, trying to feel something before their eyes, plucking the wall and their own clothes, and so forth, before they fall into a state of stupor. In addition, there is a full psychology of anger, aggression and desperate self-harm:

such a state of anger (*mentis indignatione*) that the patient jumps up in a rage (*in furore*) and can scarcely be held back, is wrathful at everyone (*iracundus omnibus*), shouts, beats himself or tears his own clothing or that of his neighbours, or seeks to hide out of fear (*metu*), weeps, fails to answer those who speak to him, while he speaks not only to those who are present but also with those who are not, and even with the dead (*mortuis*) as if they were in his presence. (42.1–6 Bendz)⁷⁷

Within this selection of possible symptoms, the key indicators of gravity are duration and lack of respite: 'We hold that those patients are gravely and dangerously affected who show many varied symptoms, as described above, continually and without remission or alleviation' (44.3–5 Bendz). Aggressiveness and forcefulness generally also suggest the severity of the condition, with a parallel between exacerbation in a healthy state and during disorder ('for even healthy people, if they are given to fits of anger, appear to be mad', *insanitiue etenim etiam sani, si iracundi esse perspiciuntur*, 44.10–11 Bendz). Third, the tendency towards spasms is also a negative sign, forecast by facial contractions: 'smiling to oneself . . . with gnashing of the teeth or hiccoughs (*subridere . . . stridore dentium aut singultu affici*)'. Finally, it is also a reason to worry 'if the patient's

⁷⁶ For the Hippocratic part of the story, I have organized the material into various categories elsewhere: Thumiger (2017) 67–271.

⁷⁷ Chapters 6 and 8 show how the popularization of the 'phrenitic' type shares more with Caelius' portrayal than with that of any other medical author.

complexion changes, and he trembles, snores or shows distaste for everything' (44.13–14 Bendz).

As a principle, Caelius supports the view that the potency (*magnitudo*, 44.24 Bendz) of the disease in its present version, so to speak, and of its symptoms determines severity, not other more abstract and general indicators. As a Methodist, he disagrees with those who say that 'the gravity of the affliction varies with age, young people being more seriously affected than those of other ages, and also with sex and nature, men being more seriously affected than women, since the mind is more vigorous in young people and in men'. Caelius prefers instead to 'take a general view (*dicimus communiter*)', namely that everything depends on the severity of each occurrence of the disease: 'Those whom the disease hits in potent form suffer gravely (*graviter laborare quos passionis adficit magnitudo*)' (40–41, 44.23–25 Bendz).

Differential Diagnosis (Morb. Ac. I, 4, 42–44, 45.26–46.23 Bendz)

According to Asclepiades, writes Caelius, all circumstances are to be considered (season, age and environmental aspects) in order to differentiate *phrenitis* from other diseases as precisely as possible. This is a rare case in which Caelius agrees with Asclepiades (40.8–12 Bendz): for him as well, the physician needs to look for a combination of signs. Derangement and fever alone are insufficient, but the quality of the pulse and the presence of crocydism can make diagnosis of the disease secure (40.20–22 Bendz); 'we recognize *phrenitis* through the overall combination of symptoms (*intelligimus phrenitum ex toto signorum concursu*', 40.15 Bendz). In addition, a plethora of other signs enriches the picture, presenting variations of the disease, gradations of severity, and other 'special features' (40.23 Bendz).

According to Caelius, it is a problem that the disease *phrenitis* thus described is contiguous to and potentially easy to confuse with *mania*, *melancholia*, *pleuritis* and *pneumonia*, as well as with other conditions. This list reveals a tension between two taxonomic principles, a thematic one (based on the mental quality: *mania* and *melancholia* are thus involved) and another, traditional and Hippocratic in origin, that involves the chest localization and affiliation to the group of winter diseases (*pleuritis* and *pneumonia*). In addition, Caelius distinguishes the loss of sanity in *phrenitis* from what occurs under the effect of intoxicants such as henbane and mandrake (44.30–31, 46.14–17 Bendz); these can in turn also be a trigger of *phrenitis*, an interesting point Caelius mentions but fails to develop ('*phrenitis* can even derive from a substance that is drunk, *etiam de medicamine*

poto potest phrenitis evenire, 46.15–16 Bendz).⁷⁸ In short, since patient interrogation is arduous and deceiving and might make it impossible to discover if the patient has consumed such substances, fever and crocydism remain the best differential indicators to individuate a case of *phrenitis*.

Mania and *melancholia* are marked by the absence of fever and crocydism, and are generally chronic and painless. Moreover, *melancholia* presents additional signs, such as a dislike of company, vomiting black bile and a leaden complexion. As far as *pleuritis* and *pneumonia* are concerned, derangement is caused by physical pain and subsides with it; it is accordingly not a ‘primary’ madness. Chapters 5 and 6 (44–46, 46–48 Bendz) focus more precisely on *mania* with fever and on how it can be distinguished from *phrenitis*, on the one hand, and on distinguishing *phrenitis* with sleep from an incipient *lethargus*, on the other.

In the first case, *mania* with fever will be recognized because the fever follows insanity rather than preceding it, the pulse is different, and no crocydism is observed, unless we are to speak of an evolution from *mania* to *phrenitis* – that is, with a taxonomic definition coming to assist the ontological one. Conversely, sleeplessness in reposing phrenitic patients should not be hastily interpreted as a form of *lethargus* and handled as such; the difference is in the ‘complexion, expression, respiration, pulse, reaction to touch, position in bed and degree of fever (*colore, caractere, respiratione, pulsu, tactu, schemate iacendi, febrium magnitudine*’, 50.10–11 Bendz). The sleep of recovery in *phrenitis*, in fact, infuses the patient with a fresh complexion and a peaceful expression accompanied by regular breathing, a more vigorous pulse, no tension in the precordial region and a more natural posture.

Aside from the details of these differentiations, it is noteworthy that a mature nosological understanding is apparent in these discussions: a sense of the possibility of overlap, co-morbidity and resolution of one disease into another, on the one hand, and the epistemological problem of confusion, the mistaken diagnosis between two similar but distinct diseases, which is a key topic in Galen as well, on the other.

Different Kinds of phrenitis?

That there are variations and different kinds of *phrenitis*, reflecting varying circumstances, can be inferred from the rich clinical description Caelius offers. He refuses, however, to follow those who multiply types and

⁷⁸ On which, see Urso (2018) 291–93.

categories to describe different versions of the illness: some 'say that in one type the loss of reason is manifested by laughter and childish dancing, in another type by sadness, crying out, silence or fear' (52.4–5 Bendz). But Caelius is keen to escape the constraints of nosological formalities, and he distinguishes two basic types of disease, following Methodist doctrine: one based on stricture and one on stricture combined with looseness ('stricture' and 'looseness' being the two 'generalities' or key states of health in Methodism). These can cover most of the variations that other physicians recognize in the different psychological and behavioural symptoms he lists (*Morb. Ac.* 1,7, 52.1–10 Bendz). By dismissing the robustness and cogency of symptomatological details, this move shifts attention away from localized physiologies and material individualities to the pragmatic whole of the patient. The result is that the definition of *phrenitis* is made broader and more composite and is perhaps as a consequence also 'diluted' in terms of severity: the much more limited attention to, if not complete absence of the mortal and most acute quality of the disease in Caelius is notable. Prognostically he appears by far the most optimistic, or at least the most open, of all medical writers on *phrenitis*.⁷⁹

The Topic of Localization (*Morb. Ac.* 1,8, 53.13–54.23 Bendz)

In his own self-styling as a doctor belonging to the Methodist school, and as such removed from the abstraction of doctrinal disputes regarding localization and aetiology, Caelius is sarcastic about the range of medical positions vis-à-vis *phrenitis* in medical history as showing ideological opportunism:

Now some say that the brain is affected, others its fundus or base, which we may translate *sessio*, others its membranes, others both the brain and its membranes, others the heart, others the apex of the heart, others the membrane which encloses the heart, others the artery which the Greeks call *aortē*, others the thick vein (*phlēps pacheia*), others the diaphragm . . . *In every case they hold that the part affected in phrenitis is that in which they suspect the ruling part of the soul to be situated.* (*Acut.* 1, 8, 52.8–13 Bendz; my italics)

In his view, these are unimportant matters: 'We . . . do not alter our general therapy on the basis of these places or the regions about them (*sive locorum sive vicinitatis eorum causa*). For in a given general type of disease, a difference in the parts affected is not an essential difference' (52.15–18

⁷⁹ I thank Philip van der Eijk for this observation.

Bendz). Indeed, Caelius is explicit about his holistic view of this disease: ‘We hold that in *phrenitis* there is a general affection of the whole body, for the whole body is shaken by fever (*communiter totum corpus pati accipimus, etenim totum febre iactatur*). And fever is one of the signs that make up the general indication of *phrenitis*, and for that reason we treat the whole body’ (52.29–30 Bendz). In addition, however, Caelius considers the head especially exposed, which justifies placing the disease at the beginning, with no motivation other than the pragmatic basis of observation:

We do hold, however, that the head is particularly affected, as the antecedent symptoms indicate, e.g. its heaviness, tension and pain, noises within the head, ringing in the ears, dryness and impairment of the senses; and the other symptoms which are found when the disease is already present, *viz.* the loss of function of each of the senses, eyelids stiff, eyes bloodshot and bulging out, cheeks red, veins distended, face puffed up and full, and tongue rough. (54.1–7 Bendz)

On the whole, for Caelius the debates about localization are mere dogmatic deductions thinkers make based on their own theories of mind: wherever they believe the seat of rational faculties is, they locate the disease there. Caelius nonetheless seems to let the encephalocentrism he has pushed out of the door back in through the window, although he addresses this objection as well, saying that he recognizes the brain being especially hard hit as an empirical datum, something observation shows to be true.

Treatment (Morb. Ac. I, 9–11, 54–76 Bendz)

As often in authors in whom the clinical aspect plays an important role, treatment reveals more fundamental aspects of the view of the disease. In his illustration of ‘the treatment of *phrenitis* according to the Methodists’ (76.25 Bendz), Caelius sketches guidelines for different measures depending on the severity of the disease, in line with his generalization about intensity of illness being the only key difference; on the prevalence of stricture or looseness, also as per Methodist doctrine; and on the phases of the disease and the general condition of the body. The therapeutic discussion opens and closes with considerations of a psychotherapeutic nature, as elaborate and remarkable as those offered by Celsus, and includes additional elements.⁸⁰ Caelius also offers instructions about dietetics,

⁸⁰ As well as mirroring information found in others, for example *Anonymus Parisinus* or Aretaeus.

fomentations and scarification, and discusses venesection and cupping as key procedures, along with their risks and qualifications.⁸¹

The psychotherapeutics generally aim at soothing the patient's derangement. A lengthy section is devoted to the importance of modulating light and darkness according to the preferences of the phrenitic individual, which should generally be followed (see 58.6–7 Bendz), but avoiding excess on either side. Likewise, excessive heat or cold are harmful (54.25–56.5 Bendz). Light should be let in but shielded from the eyes if necessary, and should come from 'high windows', since 'it often happens in this disease that unguarded patients in their madness [jump out] of windows' (54.28–29 Bendz).⁸²

The derangement and hectic alteration of the phrenitic demand that he or she be protected from excessive stimuli and demanding company (56.8–9 Bendz): no paintings should be hung on the walls of the room,⁸³ no bright colours, no distracting visits that might arouse hallucinations and turmoil. On the other hand, one should allow visits from 'people who are regarded by the patient with awe or veneration . . . yet only at intervals, for "familiarity breeds contempt (*parit enim frequentia contemptum*)"' (58.20–3 Bendz). Also, after venesection it is important that familiar servants attend the patient, 'so that his mental derangement should not be further aggravated by the sight of new faces . . . Persons to whom the patients owe respect should also be present' (62.23–27 Bendz). In the same spirit, the massage with oils that follows cupping should be performed by 'persons who are already known to the patient through previous service, to avoid aggravating his disturbed mental state' (66.24–26 Bendz). Soft bedding is also recommended – perhaps because rough textiles are more likely to trigger crocydism – as is a firmly placed bed capable of resisting the spasms and restless movements of the sick. The bed should face away from the door, to protect the patient's quiet and isolation. (Sleep should be administered according to the same principle: under stricture, wakefulness is preferable, and under looseness, sleep.)

⁸¹ In Caelius, this section is especially long and rich, through his critical engagement with his predecessors. But it is also in line with his attention to the different nuances required by the various phases and circumstances of the disease, and the responses shown by different patients.

⁸² This is an interesting detail that suggests that Caelius had read Galen (despite his striking failure to mention him even once). The physician from Pergamon in fact preserves in different versions a famous anecdote about a phrenitic patient throwing objects (or people) out of a window (cf. p. 146 n. 41, 195, 320 below). Defenestration, or hurling oneself down from cliffs or high places, in *phrenitis* is also topical in non-medical literature; see Chapter 6.

⁸³ A similar point is made by Aretaeus, *Tb. Ac.* 1 (Hude 90.17–21), on which see Chapter 5. Cf. Pigeaud (1987/2010) 150–52; Stok (1996) 2385.

Caelius devotes considerable attention to the care bestowed on patients by attendants (*seruientes*), and this is an interesting elaboration on the interpersonal psychology of his account. They should ‘endure the crazy whims of the patient and deal skilfully and ingeniously with them, agreeing to some and rejecting others; sympathetically, however, to avoid exciting them’ (58.17–20 Bendz). There are explicit recommendations about how to deal with phrenitics to avoid exacerbating their condition: attendants should gently restrain the patient if he wants to jump out of bed, and tie him down if necessary but protect his body from friction against the ropes by the use of soft wool. In general, remarks about the dangerousness of patients are implicated with the topic of the personal involvement of assistants. These practical personal details contribute to a realistic, rich psychological portrayal of the ill, while also being part of the delocalizing narrative: 1.66, for example, recommends taking care when relieving the dry mouth of the phrenitic, ‘for patients under the compulsion of mental derangement have often bit the fingers holding the sponge’ (60.1–2 Bendz).⁸⁴

As we move to corporeal treatments, fomentations, scarification and shaving, as well as venesection and cupping, are fundamental elements. Applications should address both the *hypogastrium* (60.9–10 Bendz) and the head as the chief *locus* of the affection. These should be performed with odourless substances, however, ‘to avoid filling the patient’s head and aggravating his derangement’ (60.15–17 Bendz). Caelius proceeds to offer details and subtle distinctions regarding the quality of these applications to the head, always following the principle of avoiding excessive stimulation and triggering a heightened kind of insanity.⁸⁵ Venesection is discussed at *Morb. Ac.* 1.70 (62.3–11 Bendz), where it is said that the patient should be reasonably strong to undergo it without fainting. After venesection, fomentations are recommended.

The locations emphasized for these therapies are the head, of course, but also the hip joints, the *praecordia* and the chest, *pecten* (cf. the *hypogastrium* above), ‘for these parts are always sympathetically affected in *phrenitis*’ (62.17–18 Bendz). The gastric-diaphragmatic regions appear here alongside the head as well as the hips. At the end of the third three-day period, Caelius also suggests shaving the hair from the head (*caput detondemus*) to allow the

⁸⁴ On the bite of the phrenitic, see pp. 210, 293, 299. Many of these details suggest that Gourevitch and Gourevitch (1998), Gourevitch (2017) are right to hypothesize that Caelius was acquainted with Christian literature, and especially with his countryman Augustine (pp. 198–216).

⁸⁵ This preference for soothing measures is in contrast to what is recommended by others, who suggest resorting to pungent odours to stimulate phrenitics.

affected parts to breathe freely (*partes reflantur*) and relieve the pressure exerted by weight (*plurima grauitatione liberatae*) (64.14.6 Bendz). At the end of the fourth three-day period, more shaving and the application of leeches (on the occiput, *bregma* and temples) also aim at giving relief to the head, along with cupping, to which the [next section](#) turns (*Morb. Ac.* 11). Here too we read that one should watch for any inflammation of the *praecordia* (66.10–11 Bendz), and scarification of the previously cupped parts is recommended. The regions in question are again head, praecordial area and hypogastrium, along with the pubic area.

The psychological profile that emerges from Caelius' account is one of the phrenitic as a sensitive character exposed to bouts of anger and aggressiveness, constantly on edge and ready to respond to any provocation. The ability of attendants to soothe and deceive the patient as needed is duly emphasized, in ways often verging on the patronizing and manipulative and hinting at a top-down relationship between patient and medical authority. At 11.81, for example, patients who refuse appropriate food 'will have to be deceived (*erunt fallendi*)'. But this will be easy, since this kind of patient 'is also affected by disturbance of the mind' (*siquidem etiam mentis aegritudine afficiantur*, 66.29–30 Bendz) and 'if they have some measure of sanity, they can be controlled by exhortations or fear' (*si ex aliqua parte sapuerint, hortationibus aut metu compesci*, 68.4–5 Bendz).

Wine should be avoided, since it is to be considered poisonous for such patients (68.9–11 Bendz⁸⁶). Mild, passive exercise – swinging on a hammock or the like – is recommended. Finally, Caelius offers various details about the kind of 'aftercare' these patients need, which is especially psychological in nature. That this section closes his therapeutic discussion is significant: once the 'period of anxiety is fully over and we see all grounds for suspicions removed' (*cum omnis deinde sollicitudo recesserit atque omnia suspecta circumscripta uiderimus*, 76.7–8 Bendz), and the derangement is cleared up, all the occupational, soothing and restorative measures should be applied together (passive exercise, anointing, bathing and varied food and wine). In this phase, the derangement might leave traces, and patients 'remain in a state of sadness, anger or aberration right up to the return of physical health' (76.13–15 Bendz). An allopathic approach should come in at this point: caregivers should speak 'with grave and serious language (*seuera uerborum atque tristi oratione*) to those whose state had been one of hilarity', while 'those who begin to fall into a state of sadness or anger (*qui*

⁸⁶ See also 72.4–8, where the layman's use of wine is again criticized as responsible for many deaths: wine must be given only in small quantities once the patient is on the way to recovery.

maestitudine atque ira afficiebantur) must already be soothed with gentle encouragement and pleasant and cheerful language (*leui consolatione atque nunc dictis hilarioribus et iucunditate releuare*)' (76.15–19 Bendz).

Conclusions

Through two sets of sources, the line that goes from Asclepiades to Caelius Aurelianus through the Methodist school, on the one hand, and the formidable section devoted to *insania* in Celsus, on the other, we have sketched a second, important thread of discourse in Western medical cultures that intersects with *phrenitis*, as well as with the history of psychiatry as a whole and of medicine generally: delocalizing, holistic approaches that ignore or marginalize the topic of bodily *locus affectus*, or that empty its language of relevance in order to place more emphasis on holistic, delocalized signs, therapies and causes. Ultimately, to borrow an expression from contemporary holistic critiques, these approaches foreground patients and the human beings they are, not the disease as construct. If this appears a crude sketch and a simplification of the complex world of Graeco-Roman medicine, comparison even between the therapeutics of these three authors and Galen makes deep cultural and anthropological differences stand out. To some extent, these involve the ingress of psychology as a science of the 'whole' man into professional medicine; the same is true of the influence of moral philosophy on medical discourses. Such shifts do not occur overnight or discontinuously: the language of traditional Greek medicine, the signs available to observation, and the traditional topics in physiology, dietetics or pharmacology raised by these authors, are familiar to historians of ancient medicine from Hippocrates onwards. Galen himself wrote a number of treatises devoted to the care of the soul, and elements of these delocalized, psychological discussions can also be found in Aretaeus, another key figure in medical science in the early centuries of our era who incorporates psychotherapeutic aspects within his prescriptions. In the panorama sketched here, however, Celsus and Caelius most firmly move the focus of their interest to these delocalized themes. They thus constitute for us as historians the most fitting bridge between medical discourses and the plethora of ethical portrayals of *phrenitis* which suddenly appear in non-technical literatures of the first centuries of our era – comedy, but especially theological and prudential texts, as explored in [Chapters 6 and 8](#).

*Theoretical Aspects of Imperial Nosology
Localization, Semiotics, Chronology, Aetiology
(First–Sixth Centuries CE)*

In the early centuries of our era, medical writing (of course, based on the evidence available to us, and bearing in mind the fragmentary nature of Hellenistic surviving evidence) began to take the shape we tend to expect of technical writing today, in two fundamental senses: systematicity and logical rigour, and theoretical engagement. We cannot engage here with the degrees, nuances and differences between authors vis-à-vis these developments. It is enough to note that with the nosological authors at the beginning of our era and with Galen, the approach to pathology increasingly displays the neater terms which have become standard in modern medicine. Writers such as *Anonymus Parisinus*, Aretaeus and Caelius Aurelianus now formalize and itemize fundamental nosological topics: localization, etiology, illness course, prognosis and the semiotics of a disease. The division of diseases into ‘acute’ and ‘chronic’ has also become conventional by this point.¹ Not only that, but these become theoretical problems and objects of debate, as is evident to the highest degree in Galen.

This chapter concentrates on the theoretical aspects of nosology that emerge in a mature formulation in these centuries: first, the thematization of the affected place, in the case of *phrenitis* in two medical figures of the dogmatist tradition, Aretaeus and Galen, who adopt different positions in this respect; and second, the sophisticated discussions in Galen of semiotics, the chronology of pathological manifestations and aetiology as a topic. Galen himself, although not explicitly interested in nosology as a medical genre,² discusses and problematizes the questions it implies. In particular, these include the validity, reliability, specificity and necessity of diagnostic signs, which I sometimes categorize under the term ‘cogency’; the causes

¹ A Methodist distinction. But the category was found already in previous medicine; see Roselli (2018) 182–87; Thumiger and Singer (2018a) 8 on mental diseases; Singer (2020a).

² Although he is interested in principles of nosological classification; see especially *Symp. Caus.* 2.2, 2.7 (7.149, 202 K.), on which Singer (2020a) 390–91; *Loc. Aff.* 1.7 (7.66–68 K.) on the distinction between physical and psychic *loci* and corresponding affections.

and courses of illnesses; and most important, localization, to which he devotes a full treatise, *On the Affected Places* (*De locis affectis, Loc. Aff.*).

Aretaeus and Galen are both key figures in the medical history of the early centuries of our era, despite the huge disproportion between the two in terms of how much information there is about them and how much of their work survives. Aretaeus authored a work on *Acute and Chronic Diseases* with a related *Therapies of Acute and Chronic Diseases*, a text which testifies to intense medical activity as well as extensive knowledge of authors from the past. He probably lived in the first–second centuries CE (although our biographical information is extremely poor³), which might be taken to explain Galen’s silence about him. Galen, the much more famous, prolific and nominally influential physician of Pergamon, lived and operated between the second and third centuries CE and left behind an immense corpus of writings in all areas of medical science and beyond, which exerted a fundamental influence on the history of Western bio-medical sciences.

Localization in the Second Century CE: *phrenitis* between Head and Chest in Aretaeus and Galen

In Galen and other medical authors in the imperial period, localization is a key nosological topic. Not only is it central to their discussions, but it is also complicated and problematized through various intellectual strategies (for example, the notion of primary vs secondary affection, described in terms of sympathy or co-morbidity⁴). It is through these complications and elaborations, all of which endow the localized pathological model with flexibility, that the question of the *locus* of the disease is made central by most medical thinkers, by omission even by those – as seen in the preceding chapters – who were uninterested in or even hostile to the question itself.

Aretaeus: A Sophisticated Integrated Model

Aretaeus emerges from his medical discussions as a medical thinker and author of the highest degree of erudition and clinical competence. According to his doctrine, not only is the condition of the *pneuma* fundamentally important for human health, in connection with the four

³ See Oberhelman (1994) on the issues; Nutton (2004) 210–11. For a survey of Aretaeus on *phrenitis*, see Murphy (2013) 30–79.

⁴ It is correct to continue to see such forms of physiological *sympatheia* as ‘problematized’ or ‘complicated’ forms of localization, fundamentally different from the challenges to localization explored in Chapter 3. Holmes (2020) explicitly sketches out the distinction.

humours, but the heart emerges as the core location in human physiology and the seat of the mental faculties alongside the brain. Aretaeus also refers several times to the term *neura* (νεῦρα) to indicate the stringy formations in the body, but also organs such as the liver, which further complicates our reading, as we shall see.⁵

As in Celsus and Caelius Aurelianus, so too in Aretaeus *phrenitis* was placed first in *On Acute Diseases*. For a work in which pathologies are largely organized following the conventional order *a capite ad calcem*, from head to toe, this placement of *phrenitis*, a disease emphatically known as mental, at the beginning exposes a first sidestepping or correction of the writer's cardiocentric beliefs. Even if cardiocentrism is not a fixed, rigidly codified doctrine,⁶ one would still expect Aretaeus to localize *phrenitis* in the heart and chest, as others had. Instead, an implicit association with the head appears to be a premise of the nosological survey of *phrenitis* he offers.⁷ This partial inconsistency goes even further, since *phrenitis* is followed by *lēthargos*, also a chest disease and often coupled with *phrenitis* in authors of this period – Celsus, as we have seen, and Galen.⁸

The actual discussion of *phrenitis* and *lēthargos* in Aretaeus' *On Acute Diseases* is lost, but we have the relevant sections of his *On Therapies for Acute Diseases*, in Book 5.1 of which he offers a lengthy account of the therapeutics of *phrenitis*. From this section, a considerable amount of information about the physician's view of the disease can be extracted. In particular, what emerges first is the key role played by the *neura* – here in the modern sense of 'nerves' – reflecting a general development in post-Hellenistic medicine. Although Aretaeus is a cardiocentrist, he highlights the *neural*/nerves as a vulnerable body part in phrenitic patients, who are prone to convulsions and should sleep in beds that are neither too big nor too small in order to soothe their '*neura*' (91.21–92.1 Hude). Extending the discussion, apparently, to other organs in the body, Aretaeus mentions the

⁵ I adopt '*neura*' as a convenient working equivalent of Greek *neura* (νεῦρα). It is important to avoid the suggestion that a notion comparable to that of our neurology was in place. In Greek (e.g. Hippocratic) medicine, the *neura* were initially identified with the sinews of the body. Aretaeus in particular applies the term to the stringy structures that emerge from the brain, but also to the bladder and the uvula, and to parts which seem capable of contracting. Galen describes them in a manner closer to and indeed identifiable with our own understanding, and I accordingly use 'nerves' when I quote him. A relationship to pain, sensation and control appears to belong to all these uses of the term.

⁶ The labels 'cardiocentrism' vs 'encephalocentrism' are less rigid than one might think, vary at different historical points, and have stronger and weaker versions. Aretaeus' cardiocentrism is evident, for example, in his repeated reference to the heart as the centre of cognition, although this is accompanied by an acknowledgment that the brain is the key centre for the elaboration of sensations.

⁷ For a list of head-centred diseases and their mental aspects, see Thumiger (2017) 48.

⁸ See below and above on this topic, pp. 75–78, 86, 101–03.

‘agreement’ or ‘sympathy’ between *neura* generally and the overall state of the individual (*neurōn koinōniēs*) as one reason to address the pleura, diaphragm, heart and chest in acute diseases (96.23 Hude). He thus recommends taking care not to damage the *neura* when giving cold water in cases of *kausos* (97.14–17 Hude). According to this general doctrine, then, *neura* are a fundamental locus for *phrenitis* as well.

Second is the importance of diet not only for nutrition, along traditional lines, but also in consideration of the psychological benefits food offers.⁹ The physical remedies mentioned are in the first instance nutritional (moderate fasting and a recommendation that food be liquid and scanty and be given frequently: ‘Food also soothes the emotional state of the person (*meiligmata . . . kai thymou*)’ (92.9 Hude). The right time to offer food is during remission, but it can also be given if a patient ‘becomes delirious for want of food’ (92.9–12 Hude). Liquid food is especially suitable for fevers (93.6 Hude).

Third, venesection (92.21–22 Hude) and the application of plasters of various kinds to specific body parts are important for *phrenitis*. The first point of attention for these measures in the body is the head, which is again not a straightforward choice in a cardiocentric perspective, but which Aretaeus explains as follows: ‘We may open a vein more boldly in these cases if the disease proceeds from the *hypochondria* and not the head; for there (*sc.* in the *hypochondria*) is the origin of life (*enthade gar tēs zōōs esti hē archē*). But the head is the seat of sensation (*kephalē de chōros men aisthēsios*) and of the origin of the *neura* (*kai neurōn aphēsios*)’ (92.26–29 Hude). Here the theme of the localization of different faculties emerges clearly, since two sites for the disease *phrenitis* are mentioned, although the relationship between them is not problematized: the heart is the *archē*, while the head is the *chōros* of sensation through the *neura*, and both should be targeted. In line with this duality, therapy is directed both to the head and to areas in the torso.¹⁰

For the former, ‘the head must be dampened with the oil of unripe pounded olives; for in phrenitics the head does not like to be kept warm’ (93.28–30 Hude), with different recipes as the delirium worsens, and varying frequency depending on the stage the paroxysm has reached. As a measure against delirium, fomentation¹¹ of the forehead or face, nose and

⁹ A topic this and other authors from the same period recognize: see Thumiger (2018a) on food and psyche in imperial and late-antique medicine.

¹⁰ The remarks of Lewis (2018) could then be extended to their full dimension: not only are several authors not bothered by the contradiction between their cardiocentric belief and encephalo-directed therapies, but they theorize and justify the dual localization.

¹¹ As previously explained, the application of a lotion or poultice to the affected part.

ears with specific preparations is advised (94.11–14 Hude).¹² Scarification¹³ (96.7–15 Hude) is also described; if delirium persists, ‘cropping of the head’, that is, giving a hair-cut, might be necessary, depending on the length of the patient’s hair (96.15–17 Hude). As far as the torso is concerned, both the area of the *hypochondria* and the underlying gastric cavity (*toisi de hypochondriōisi kai tēi koiliēi*, 95.3 Hude) are targeted. These should receive cataplasms and embrocations¹⁴ if ‘distended by inflammation, hardness or flatulence’ (95.3–4 Hude). The liver, in case of pain (95.9 Hude), and the spleen (*splēni*, 95.13 Hude) should receive specific applications; if the *hypochondrion* becomes ‘collapsed and retracts upwards, and the skin is taut’, another recipe (95.15–18 Hude) is recommended. The effects of these cataplasms are even greater ‘when conveyed internally to the trachea, the lungs and the thoracic cavity’ (*eisō parelthon artēriēi kai pneumoni kai thōrēkikai koiliēi*, 96.1–2 Hude), because ‘delirium in certain cases arises from one of the parts in the chest’ (*ek tinos tōn en tō thōraki*, 96.26–27 Hude). The bowels (*tēn koiliēn*) should be purged regularly (96.2–4 Hude) ‘in order to produce attraction/suction of the [humours deriving from the head]’,¹⁵ yet another strategy to account for the involvement of multiple localizations. At the same time, there is no explicit mention of the *phren(es)* in Aretaeus.¹⁶ Elsewhere in his work, at 3.5.1 (39.14 Hude) and 3.5.4 (40.7 Hude), the *phrēn* is the place where black bile can pathologically accumulate, causing *mania* and *melancholia*;¹⁷ he also uses *diaphragma* to indicate the same body part.¹⁸ Still, a connection between *phren(es)* and *phrenitis* is not established etymologically or terminologically, and the role played by the chest is presented as a deeper doctrinal element, not as lip service to a traditional feature of the disease.

In sum, Aretaeus resorts to a plurality of locations and physiological ‘systems’: nerves/*neura*, head, gastric parts and various physiological processes. The composite nature of the pathology that emerges should not, of

¹² Cf. also 94.28–29 Hude below on the importance of head, face and temple massage, which can soothe even wild beasts (*ta thēria*).

¹³ The removal (typically superficial) of layers of skin and flesh from the body.

¹⁴ The rubbing of a substance onto the body.

¹⁵ Compare below on the *stomachos* (στόμαχος), 5.1.25 (97.5–7 Hude): ‘If the stomach is affected with torpor and loathing of food, the juice or fronds of wormwood are mixed up with them, and the hypochondriac region is to be fomented with this boiled in oil’ (5.1.26; 97.10–14 Hude).

¹⁶ See McDonald (2009) 94.

¹⁷ *phren(es)* is also used in the conventionally psychological sense, e.g. with reference to the effects of wine, at 5.1.28 (97.29 Hude); cf. McDonald (2009) 94 n. 53.

¹⁸ 2.7.2 (27.11 Hude); 2.8.2 (28.17 Hude); 3.9.1 (49.15 Hude); 5.1.23 (96.24 Hude), where damage to the diaphragm (*diaphragmatos kakiē*) features among the affections of the region around the heart, involving the stomach and pleura.

course, appear contradictory or even problematic to us as readers. But we ought to note how this more open, pluralistic view of the pathology Aretaeus adopts differs from the clear remarks of his predecessors and most of his successors, who took either diaphragm-chest or brain and meninges as localization. Instead, at 96.19–27 (Hude) Aretaeus explains that generally ‘in *all* acute diseases the chest must be remedied, since this part *generally* suffers along with the heart and the lungs . . . Moreover, in cases of *phrenitis* these parts in particular must be soothed. For the delirium in certain cases arises from one of the parts in the chest.’ Elsewhere, in the discussion of *mania* at 3.6.7 (42.29–43.1 Hude), the same principle is affirmed: ‘The cause of the disease is seated in the head and hypochondriac region, sometimes commencing in both together and the one imparting it to the other . . . In *mania* and *melancholia*, the main cause is seated in the bowels, as in *phrenitis* it is mostly seated in the head and the senses (*en tēi kephalei kai tēsi aisthēsesi* – referring as before to the head as centre of sensation via *hendiadys?*)’, with a remarkably abstract use of the term *hai aisthēseis*, ‘senses’.¹⁹ There is no perceived inconsistency between this emphasis on the head, the cardiocentric doctrine and the account of the gastroenteric signs of *phrenitis*.²⁰ In short, a sophisticated model of interaction and internal sympathy is offered, such as to make Galen’s disdain for the ‘contradictoriness’ of cardiocentrists, when they address the head in their therapies, a simplification, perhaps in bad faith.²¹

To understand localization in *phrenitis*, it is instructive to compare Aretaeus’ accounts of *melancholia* and *mania*, the other two elements of the triad that in Celsus, as we have seen, express the three main types of *insania* (a long-lasting, traditional grouping).²² For Aretaeus, the typical madness of phrenetics, their misjudgements and hallucinations, precisely characterize a location in the brain as seat of the senses, while manics and melancholics rave in ways that betray affection of the heart as the seat of cognition (5.1.5, 92.26–29 Hude). In both *mania* and *melancholia*, the area

¹⁹ By contrast with the discussion of *mania* quoted above, however, in *phrenitis* the anatomy and the embodiment are strongly emphasized, as is the fever, while the psychological sphere is comparatively much less developed. *Phrenitis* emerges as an organic disease with a complex localization.

²⁰ Discussing *synkopē* and *kausos*, Aretaeus sees *aisthēsis* as a faculty of the heart (*Acut. Symp. Caus.* 11.3–4).

²¹ Aretaeus explicitly distinguishes the locus targeted by therapeutic action from the primary seat of the disease. Describing *synkopē* as a disease of the heart through affection of the stomach, against those who believe it to be a disease of the stomach instead, he makes a general (and ironic) point at *Morb. Ac.* 11, 3 (22.10–19 Hude) that involves *phrenitis*: such mistaken physicians ‘ought to hold *phrenitis* a disease of the hair and skin of the head, since phrenetics are relieved by the shaving and wetting thereof’.

²² See Thumiger and Singer (2018a) 10–15.

of the *phrēn* becomes engorged with black bile, and the seat of the disease is obviously the *hypochondrion*, even if the head may be sympathetically involved. In conclusion, it is notable, and somehow ironic, that Aretaeus emphasizes a primary localization in the brain and *neural*/nerves precisely for the one disease, of the three notable psychiatric entities, which has the root *phren-* in its name, but that he nonetheless involves the chest region in his account of it to an important extent, a move that contributes to rendering delocalization more flexible and nomenclature more mature. Galen, as we shall see, takes a similar step, but in a more radically encephalocentric and neurological spirit (and, of course, opposing the anatomical frame offered by others).

Galen and the Localization of *phrenitis*: The Nerves, the Brain, the Diaphragm

Inquiry into the nervous system and mapping the functions of the soul are a central project of Galen's scientific career. This is particularly clear from *On the Doctrines of Hippocrates and Plato* (*De placitis Hippocratis et Platonis*, *PHP*), in which he endeavours to bring the doctrines of Plato, and especially his tripartite organization²³ of the soul as expressed most notably in the *Timaeus*,²⁴ into agreement with those of Hippocrates – that is, of Galen's own interpretation of Hippocrates,²⁵ giving full expression to his development of the discoveries of the Ptolemaic scientists Erasistratus and Herophilus, and in disagreement with Aristotle and the Stoics.

In *PHP*, Galen distinguishes three parts of the soul, the *hēgemonikon/logizomenon* ('rational'), the *thymoumenon* ('spirited') and the *epithymoumenon* ('desiderative' or 'appetitive'),²⁶ located in the brain, heart and liver, respectively. At the same time, the brain is described as the anatomical point of origin of the nerves, observed as filaments distributed lengthwise

²³ That is, composed of hegemonic, located in the head; passionate, located in the chest; and nutritive, located in the liver.

²⁴ *Ti.* 69d–72d on the brain as central seat of the rational soul.

²⁵ In this chapter and the next, much of the narrative about the evolving history of the disease *phrenitis* will be presented through the lenses of one particular genre, the commentary, which Galen produced prolifically. Galen wrote commentaries on a variety of Hippocratic texts, offering his own clarifications, interpretations and distortions of the work of the great predecessor he treated as an authority and point of reference. These texts offer a precious opportunity to observe *inter alia* a process of scientific appropriation and reshaping in the making. On Galen's commentaries, see Manetti and Roselli (1994); Gill (2010) 87–93; Boudon-Millot (2018); chapters and introduction in Pormann (2021); Coughlin (forthcoming b). For a list and bibliography, see Savino (2013).

²⁶ Cf. *PHP* 7.1.27–2.17 (434.10–438.23 De Laczy = 5.594–600 K.) on this thesis and the refutation of Aristotle and the Stoics.

within the body; the *hēgemonikon* in the brain is thus endowed with a full connection to embodied activities such as sensation and other voluntary functions, notably movement.²⁷ Also residing in the brain is the ‘psychic *pneuma*’, a fluid substance which is essential in connecting the brain and various parts of the nervous system and in facilitating the function of nerves in imparting orders and information.²⁸

In line with this doctrinal approach, Galen localizes the causation and onset of *phrenitis* in the brain, taking the nerves originating there to be its *locus affectus*. As he clearly states in *On the Function of the Parts (De Usu Partium, UP)* 17 (II, 450 Helmreich = 4.363 K.), ‘anyone who has learned that the work of reasoning (*logizomenon*) is carried out in the brain (*enkephalon*) will know that delirium (*paraphrosynai*), *phrenitis*, *lēthargos*, *mania* and *melancholia* occur when the *enkephalon* is affected either primarily or through sympathy’.²⁹ The consequences, often left implicit but no less significant for that, are many. First, in terms of functions, *phrenitis* is an affection of the *hēgemonikon*, and specifically of the *dianoētikon*.³⁰ In terms of anatomy, *phrenitis* is an affection of the brain and nerves, and involves the physiology of the psychic *pneuma*, which is responsible for human reasoning faculties. As Galen explains, ‘since all men call *phrenitis* the state in which they see that the “mind” = *phrenes* have been damaged (*hēi tas phrenas horōsi beblammenas*), by which name they mean *nous* and *dianoia*, it is necessary that the part of the body in which the intelligence of the soul is located first be identified (*heurēsthai chrē proteron en hōi tou sōmatos moriōi to phronou tēs psyches estin*)’ (*A Commentary on the Prorrhethikon of Hippocrates (Comm. Hipp. Prorrh.) I*, 1.4 (17.1–4 Diels = 16.518 K.).

Pathologically, *phrenitis* affects the entire body through the network of nerves, with a variety of consequences in different parts. The psychiatric disturbance thus touches all aspects of mental health, from the voluntary functions, to reasoning, to ‘neurological’ reactions,³¹ to behaviour and

²⁷ For the brain as *archē* of our mental life, see Centanni (1987) 14, 55; Rocca (2003), esp. 201–38.

²⁸ Following the Erasistratean doctrine of distinguishing between ‘vital *pneuma*’ located in the heart and travelling through the blood vessels, and psychic *pneuma* (*PHP* 1.6.1–3, 78.16–25 De Lacy = 5.184–85 K. = 78; 2.8.36–38, 164.8–16 De Lacy = 5.280–81 K.).

²⁹ Galenic psychopathology is complex, and his commitment to nosological classification and localization is subordinated to clinical pragmatism, as Devinant (2020) demonstrates. We are thus here somehow artificially extracting information about one individual disease from an author who never compartmentalized discussions of (mental) diseases as self-contained units as other nosological authors did.

³⁰ As Galen writes in *Caus. Symp.* 7.60–61 K.

³¹ In the modern understanding of the term, ‘neurological’ damage more explicitly belongs to the motoric sphere (voluntary and involuntary: tremors, spasms, paralysis) in its sensory and metabolic aspects.

character. The physiology and anatomy of the brain, with its distinct regions and its ventricles, explains the variety of manifestations of *phrenitis*. As Galen explains in humoral and encephalocentric terms, the disease affords a variety of symptoms, sensorial and dianoetic, with each of these in turn ramifying into more manifestations, depending on the section of the brain affected.³²

Galen anchors *phrenitis* to two hard bodily facts: the symptom of fever and a ‘primary’, or ‘original’ localization in the brain and nerves.³³ These are not only concomitant but interconnected, as explained in *On the Affected Parts* (*Loc. Aff.* 3.7, 8.165–66 K.). Here Galen reports two cases of individuals suffering damage to their reasoning through excessive work, exertion and undernourishment:³⁴

Obviously, both of these were *harmd by all drying and heating factors, and benefited by those which moisten and simultaneously heat*. Damage to leading activities arises in conjunction with *fever* as well, as in the cases of *phrenitis* and *lēthargos* – [these conditions] also arise without fever, as in *mania* and *melancholia* – and also in cases both of sympathy with and (following a) primary affection (*prōtopatheia*) of the brain.³⁵

That the locus of this damage is the brain, says Galen, is self-evident to both physicians and laymen, although the point might escape philosophers, committed as they are to the prejudices of their speculations and of the sect to which they belong. Some of them, Galen knows, locate the origin of diseases such as *epilēpsis* or *phrenitis* in the torso (*Loc. Aff.* 3.7, 8.166–68 K.):

Now the fact that all impairments of the leading activities arise in the brain (*to men oun enkephalōi panta ginesthai ta tōn hēgemonikōn energeiōn pathē*) is agreed upon by all doctors (as long as they do not think one thing in their soul, but say another as the result of the argumentative compulsion of a sect). But to discover the nature of a bad mixture is not a trivial task. For this, the doctor must have both a devotion to work and a capacity for enquiry, and not in the sense of investigating how he may contradict what has been correctly stated by previous authors on the leading part of the soul – a matter so manifest that even uneducated people are convinced that

³² See [Chapter 5](#), p. 143.

³³ In *On the Affected Places* (esp. 2.10, 8.120–34 K.; 3.1, 8.136–44 K.), Galen clarifies at length the concepts of *prōtopatheia* and *idiopatheia* in discussions of pathology, i.e. the prior, specific and primary involvement of a part as origin of the disease, its original seat, on the one hand, and its involvement via sympathy and co-affection, on the other.

³⁴ On fever in this context, see [Centanni \(1987\)](#) 55.

³⁵ Cf. *Symp. Caus.* 1.8 (7.144 K.), where the emphasis falls on another aspect, the dryness caused by the quality of humours: ‘On the other hand, a more excessive dryness (*xērotēs*) or heat (*thermotēs*), as in the *phrenitides*, due to some either mordant or hot humour, produces irritation or insomnia.’

it is in the brain. One might, perhaps, forgive philosophers sitting in some corner for being mistaken on this point. But such argumentativeness – I should rather say, shamelessness – is unforgiveable amongst those with long experience in medical matters. For they bathe the head in all cases of infirmity arising from insomnia, as also in all cases of delirium (*para-paiontes*), *phrenitis* and *lēthargos*. Archigenes applies medicaments to the head in cases of damage to the memory as well, and the treatment he will undertake for a patient who is ‘stupefied’ (*mōrōthenta*) will also all be applied to the head.

The practicalities of clinical experience are called to witness:

What doctor with any experience will heal sufferers from *apoplēxia*, *epilēpsia*, *opisthotonos*, *emprosthotonos* or *tetanos* in any other way? or for that matter those suffering from paralysis of half the body? Do not all doctors address the main part of their therapy to the first vertebrae, in cases of spasmodic impairment, since the test of experience leads them to this immediately – as also in the case of those with paralysis of half the body, in which situation they simultaneously heat the brain as well? Sufferers from *apoplēxia* are also cured this way, as well as sufferers from *epilēpsia*. When the impairment arises as a result of the mouth of the stomach or another part, they treat that part especially and primarily (*malista kai prōton*), but prepare the brain as well against the possibility of falling into impairment (*paraskeuazousin de kai ton enkephalon eis dyspatheian*).³⁶

These comments and developments are central and may at first sight appear at odds with Galen’s mention and use of *phren(es)* in discussions of *phrenitis*. At *PHP* 8.9 (536.3–4 De Lacy = 5.716 K.) he still feels the need to remind his readers that Plato and other ancients identified *phrenes* with *diaphragma* (διάφραγμα),³⁷ stating once and for all that the abstract, figurative meaning of *phrēn/phrenes* and the anatomical one are completely unrelated. He now employs the term, therefore, to refer abstractly to the mind and mental faculties³⁸ (or to indicate the diaphragm through which

³⁶ I thank P. N. Singer for this translation of the passage in question, which I have used with some changes.

³⁷ Galen also dwells on the history of the term *phrenes* and its relation to the disease *phrenitis* at *Loc. Aff.* 5.4 (8.327–28 K.); see below, pp. 109–10.

³⁸ Cf. *PHP* 3.3–4 (184.11–200.17 = 5.302–21 K.), where Galen amasses various quotes against Chrysippus’ claim that the heart is the seat of the rational soul, blaming him for quoting only poetic passages that in fact show the breast to be relevant to mental activities, but as seat of the spirited rather than the rational soul (*phrenes*). Here Galen intends *phrenes* in the psychological, abstract sense, as at 3.8.9 (224.27 De Lacy = 5.350 K.) and 9.6.42 (580.29 De Lacy = 5.771 K.), where the term is used to describe how the ‘mind’ is affected by wine, as well as in the expression *phrenōn hapsis*, ‘touching of the *phrenes*’ at 9.6.47 (582.12 De Lacy = 5.772 K.). (We saw the connection already with Aretaeus.) At 6.2.7 (370.2 De Lacy = 5.516 K.) Galen also appears to follow the *Timaeus* in locating the desiderative soul between the *phrēn* and the navel. This concrete, basic sense of the

the vena cava runs, along the same lines as the Hippocratic discussions³⁹). These uses of *phrenes* thus appear conventional and idiomatic rather than medically relevant.

At the same time, Galen *also* reserves an important place for this body part in the pathological account. Despite this stark position against cardiocentrism and his criticism of any therapy for mental affections that targets locations other than the head, later in *On the Affected Places* he offers a discussion of mental disorders and an account of *phrenitis* which involves and even prioritizes the diaphragm of all places (*diaphragma*).⁴⁰ On this occasion he engages again with the name of the disease and the tradition of its localization in the chest and the ‘diaphragm’ (*Loc. Aff.* 5.4, 8.327–32 K.):

All the ancients called the lower boundary of the chest *phrenes* because this term came to their mind, or because, as some believe, inflammation [of this area] damaged the patient’s mind . . . We will here repeat [the account of the] diseases which connect the *diaphragm* (διάφραγμα) through sympathy with the higher source [of reasoning] in the brain above . . . Now, *paraphrosynē* results also from a poor state of the opening of the stomach, and further from burning fevers, *pleuritis* and *peripneumonia*. If *paraphrosynē* originates around the diaphragm (*phrenes*), [the patients] are close to phrenitic (*engys tōn phrenitikōn eisin*). When the *paraphrosynē* arises from ailments of the other parts, and from burning fevers, it subsides in the period after their peak. But 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 this disease, but by specific affection (*idiopatheia*) or primary affection (*prōtopatheia*). Therefore, this disease [*paraphrosynē*] develops gradually, and the patients do not become deranged suddenly and all at once, as [in diseases originating in] other organs.⁴¹

What follows is an illustration of the characteristic symptoms when the *prōtopatheia*, the primary localization of the disease *phrenitis*, is in the

term is also found at 6.3.42 (382.29 De Lacy = 5.532 K.), 6.8.69 (422.4 De Lacy = 5.580 K.) and 9.9.12 (534.35 De Lacy = 5.716 K.), where the *phrēn* is the dividing partition between the two kinds of ‘soul’ and two regions in the torso.

³⁹ *PHP* 1.7.43 (88.17 De Lacy = 5.197 K.); 6.5.12 (390.12 De Lacy = 5.541 K.); 6.8.59 (420.4 De Lacy = 5.578 K.), 6.8.63–66 (420.20, 22, 26, 27, 28 De Lacy = 5.578 K.).

⁴⁰ As do Aretaeus and other nosological discussions of the same period.

⁴¹ On the functions and etymology of *diaphragma* in Galen, including its role as a ‘barrier’ (the literal meaning of the term) between the respiratory parts and those that receive nutriment, see *On the Function of the Parts* 5.15 (291–92 Helmreich).

diaphragm as opposed to the brain; this is the most exhaustive such presentation in Galen.⁴² For instance:

Those whose brain is . . . affected gradually become delirious (*phrenetizousin*). We do not encounter a continuous delirium because of any organ other than the diaphragm alone. This kind of delirium is nearly continuous. The ancients therefore presumed that patients became phrenitic because this particular organ is inflamed. They called the diaphragm *phrenes* on the assumption that it is connected to the body part responsible for thinking.

At the end, Galen summarizes these two directions in the conception of the development of *phrenitis*:

Those symptoms which . . . are manifest prior to *phrenitis* are either absent or of minor importance when the inflammation starts at the diaphragm. By contrast, the *hypochondrium* itself is contracted when the patients suffer from a disease involving the diaphragm from the very beginning, or when the disease spreads later to the brain . . . The heat is greater in the head and face of patients in whom the delirium starts at the head.

Ocular symptoms also set ‘diaphragmatic delirium’ apart from *phrenitis*, as do nosebleed and the quality of respiration. The latter is shallow and frequent, unlike the deep, slow respiration of cerebral *phrenitis* (*Loc. Aff.* 5.4, 8.331 K.).

Galen recognizes the involvement of the hypochondriac region in some cases of *phrenitis* also at *Comm. Hipp. Prorrh. I*, 2.9 (59.25–60.16 Diels = 16.606–08 K.), where he comments sceptically on the following statement: ‘Shrill voice, in patients whose *hypochondria* are drawn out’. Galen agrees only in part with this observation:

There are many doctors who included in their writings a retracted *hypochondrium* among the signs that accompany *phrenitis*; for many phrenitics appear to be affected this way. The present [quoted] discussion, however, does not say ‘retract’ but ‘pulled towards the inside’. But you, wishing to fully represent the truth, should combine the two and say that they are pulled up and towards the inside, which is likely to be due to the oblique/crosswise position of the diaphragm.⁴³

As these examples show – tortuously at times – it is precisely in a chapter criticizing false etymologizing about the name *phrenitis* that Galen introduces a disease that is similar in many respects to *phrenitis*, or a form of

⁴² Devinant (2020) 175 n. 6 as well recognizes this as the ‘most complete’ description.

⁴³ On the *hypochondria*, see also *Comm. Hipp. Epid. III*, 3.91 (186.23–187.4 Wenkebach = 17A.791 K.).

phrenitis, located at least in its defining onset in the diaphragm, although the brain is affected later.⁴⁴ The effect, if not the explicit intent, is to maintain awareness both of the name of the disease etymologically linked to *phren-* and of the traditional diaphragmatic connection. Galen speaks of a mistake by the ancients, who failed to distinguish between the delirium of those who have an inflamed diaphragm and those who have *phrenitis* whose derangement is continuous, as the quality of the patients' breathing testifies ('for this reason this presupposition was reached by the ancients, *di' auto touto doxasthēnai tois palaiōis'*, *Loc. Aff.* 5.4, 8.331 K.). This mistake made the ancients give the name *phrenes* to the concrete place, the diaphragm, on analogy with *phren-*-based terminology of thinking and mental life.

It is interesting that this distinction is related to the one made by the Hippocratic author of *Sacred Disease*. In that case, the author did not question the seminal role played by *phrenes* as a location or as a term of medical vocabulary. Rather, he stigmatized the belief that its reactivity to emotions might suggest it was a seat for the mental in any active, independent form.⁴⁵ In any case, Galen persists in using *phrenes* as a synonym of *diaphragma*, despite finding this confusing and ill-conceived, as also at *Loc. Aff.* 5.4, 8.329 K.: 'Those [*paraphrosynai*] originating through the diaphragm are close to those of the *phrenitics*.'⁴⁶

The chest area more comprehensively around the diaphragm and the *hypochondrium* is also considered a locus of inflammation with possible mental consequences at *Comm. Hipp. Progn.* 1.23–24.⁴⁷ Galen is commenting on the related Hippocratic lemma 'Frequent breathing signifies pain or inflammation in the regions above the diaphragm.'⁴⁸ Drawing large breaths, and for a long time, indicates delirium. Exhaling cold air from the nose and the mouth becomes in fact very fatal', confirming the association between mental life and chest location. He returns to this part of the

⁴⁴ Compare a similar strategy at *Loc. Aff.* 3.9 (8.178–79 K.), where *phrenitis* functions again as a pivot or interface between the encephalocentric and the cardio-gastrocentric frames: Galen mentions a gastric co-affection to the brain through the large nerves that run from it to the mouth of the stomach ('for the cavity and the head have a mutual exchange of pathologies', *hē te gar koilia tēi kephalēi kai be kephalē tēi koiliai metadidōsi tōn pathēmatōn*). In such cases, we read in *Comm. Hipp. Acut.* 4.37, 307.5–8 = 15.803 K., 'it will be appropriate to treat the disease by using not a therapy against gastric pains but the therapy appropriate for *phrenitis*, remembering that the stomach suffers through co-affection (*eis sympatheian*) with the brain, while the brain is affected by a pathology which is proper and primary (*kat' idiopatheian kai prōtopatheian*)'.

⁴⁵ See above, p. 40. ⁴⁶ Cf. p. 104. ⁴⁷ 238.9–239.8 Heeg = 18B.75–77 K.

⁴⁸ 238.9–13 Heeg = 18B.76 K.

body later, at *Comm. Hipp. Progn.* 1.27, again discussing inflammation and exploring in detail the material state of this part:⁴⁹

The state of the *hypochondrium*. The *hypochondrium* is best when pain-free and soft and uniform both right and left. If it is inflamed, or painful or taut, or if the right side is different from the left – of all these one must beware. Summing it up in one very brief statement, one could say that the *hypochondrium* that is most like the natural one is best.

After detailing the different indicators, at 1.28 he again refers to the mental significance of a pulsating sign: ‘Should there also be pulsation (*sphygmos*) in the *hypochondrium*, it indicates confusion or delirium, but in addition one must look at the eyes of those who are in such a way. For if the eyeballs move frequently, there is the expectation that they will go mad.’⁵⁰ Finally, Galen develops the idea that illness of both the *hypochondrium* and the mouth of the stomach is linked to delirium most extensively at *Comm. Hipp. Progn.* 1.28 (245.16–246.10 Heeg = 18B.88–89 K.). He is explaining the crucial importance of the large artery and its state of health, which involves stomach, liver and diaphragm, and notes that the latter is more readily a cause of mental disturbance:

For the large artery belongs to the principal parts, as do the stomach and the liver, as does the diaphragm as well. At any rate, it is always one of these that is affected, whether it is written ‘palpitation’ (*palmos*) or ‘pulsation’ (*sphygmos*), but the diaphragm brings delirium most readily – therefore, they say, it is also called *phrenes* by the ancients – and, not least, also the orifice of the stomach when it is greatly inflamed . . . Hippocrates too therefore rightly said that either confusion or delirium are indicated by the symptom. Confusion is indicated by one contingent attribute common to all the dangerous dispositions, in which it happens that not only the patients but also the doctors are confused, but delirium [is indicated] because of the diaphragm and the orifice of the stomach. One must examine the muscles in the *hypochondrium*. For these do not necessarily bring about delirium or danger when they are throbbing or quivering.⁵¹

The debate about the localization of *phrenitis*, the rivalry between chest and brain as centres of the pathology, and mental health returns in *Method of Medicine (Meth. Med.)* 13.21 (10.928–32 K.), in a passage to which we will return.⁵² Here Galen focuses his polemical energies on medical sects which

⁴⁹ 243.17–245.6 Heeg = 18B.85–87 K.

⁵⁰ 245.7–10 Heeg = 18B.88 K. Restlessness of the eyes traditionally has a mental significance in medical as well as non-technical classical sources.

⁵¹ 245.21–246.10 Heeg = 18B.88–89 K. ⁵² Above, p. 166.

locate the rational faculties in the chest, but as soon as they notice the signs of *phrenitis* (typically, floccillation), nonetheless apply treatment to the head; in this way, they follow what they have empirically learnt to be effective, and contradict their own doctrinal beliefs, as is also evident through comparison with *lēthargos*.⁵³ Galen attacks the followers of Thessalus ‘who, neither grasping anatomy nor understanding functions or uses, dare to follow me in drenching the head with *oxyrrhodinum* whenever they see someone picking at the blankets or tugging at bits of hair’ (*Meth. Med.* 13.21, 10.928 K.). ‘Why is [then] the chest not better, if they discover their remedies indicatively, and were it indeed possible for someone to become phrenitic when the heart is affected?’⁵⁴ He continues, discussing *lēthargos*: ‘There is no one who does not apply the remedies to the head, for this affection is also, in a way, opposite in terms of kind to *phrenitis*. It occurs when the brain, in which the *hēgemonikon* of the soul lies, is affected.’ If the humour predominating in the brain is cold, *anaisthēsia* and *akinēsia* follow. ‘When the humour is hot, however, there is more normal movement (*eukinēsia*), as one might put it, along with damage to reasoning.’ *Phrenitis* and *lēthargos*, as well as *apoplēxies*, torpors and *katalēpsies* (all forms of impaired ability to move and bodily tone), depend on these imbalances in the brain, and as such are cured by making the *hēgemonikon* numb, cooling the overheated brain (*enkephalon*), in the former phrenitic case. ‘Applying a preparation of thyme and vinegar (and other ingredients) to the nose, rub the palate and use ptarmics, and apply similarly powerful medications to the head.’ In sum: ‘As a result, here again *lēthargos* and *phrenitis* lead to a common treatment at the time of their abatement’ (*Meth. Med.* 13.21, 10.931–32 K.).⁵⁵

While Aretaeus appears to deal effortlessly with multiple localizations when discussing our disease, and to explain it harmoniously as a form of co-affection occurring with *phrenitis*, Galen’s take on this tension often remains conflicted and unresolved; he deals with the problem by throwing the *phrenes* out of the door (via the strong brain-nerve localization) and

⁵³ As above, in *Loc. Aff.* 3.7 (68.164–68 K.). See Lewis (2018) on Galen’s handling of this contradiction and the lack of problematization in this respect in other authors. On treatments to the head for mental disorders, see Devinant (2019) 14–19. For a broader discussion of localization and psychopathology in Galen, see Devinant (2019) 25–32, and at greater length Devinant (2020), esp. 123–36.

⁵⁴ The Loeb translation here is mistaken and seriously misleading, attributing the view that ‘It is also possible for a person to become phrenitic when the heart is affected’ to Galen rather than his opponents.

⁵⁵ Cf., again in an anti-cardiocentric frame, *Symp. Caus.* 1.8 (7.143 K.): ‘So in the same way those treating madness and *phrenitis* and all forms of insomnia contrary to nature apply remedies to the head.’

letting them back in through the window (the elaboration of a *phrenitis*-like *paraphrosynē* beginning in the diaphragm, as at length in *PHP* and most clearly in *On the Affected Places*, where the chief discussion of *phrenitis* is about the type which affects the superior organ, the brain, in sympathy with the diaphragm, at 5.4 (8.327–32 K.). It is worth noting again the puzzling character of the choice in *On the Affected Places* to mention *phrenitis* only briefly in Book 3.9 (8.177–79 K.), where diseases of the head are found, in the context of humoral causation for *epilēpsia* and similar diseases, and instead to focus on it extensively in Book 5, which is devoted to the chest. This part of *On the Affected Places* became hugely influential in the afterlife of Graeco-Roman medicine, and Galen's choice of how to organize his material played a role in sustaining the involvement of the chest rather than overcoming it decisively even in encephalocentric frames.⁵⁶

Similarly noteworthy are the scattered remarks about the chest and diaphragm as the point of pathological involvement with ailments contiguous or similar to *phrenitis*, as well as Galen's various references to *phrenes* and *diaphragma* in cases of derangement. Here is an example from *Comm. Hipp. Progn.* 1.23 (237–38 Heeg = 18B.73–75 K.):

Likewise, *it happens also in acute fevers and in inflammation of the lungs*, when the humours in the body rise as vapours to the head, that the clear fluid around the pupil shares in their exhalation. And wherever and in whatever way it is made turbid, the aforesaid images are generated. But in violent headaches, as also in cases of *phrenitis*, because the head becomes full, and some part of the humours reaches the eyes, this causes the same symptoms . . . The dispositions producing such symptoms are fairly grave, with acute fever, and inflammation of the lungs, and headache affecting them because of their intensity, while *phrenitis* does so because of the pre-eminence of the affected part. For the entire category of the latter is fatal, but fevers and inflammation of the lung and headaches are so according to their intensity, as has been said.

Although Galen's encephalocentric commitment is strong, he also feels the need to account for the ambiguities in localization and the competing places of affection for mental disorders in the body, which are so blatant in the medical history of *phren(es)* and *phrenitis*, and more generally in the Hippocratic tradition. Another clue in this sense comes from Galen's

⁵⁶ See Chapter 7 pp. 246–51, 261–73, 278–84. on the *Syriac Book of Medicines* and other medieval sources in Latin, Arabic and Hebrew in this regard. Conversely, the *absence of phrenitis* from *Symp. Diff.*, in Galen's account of impairments of hegemonic activity (see Singer 2018, 388–89), is also interesting.

differentiation between diseases like ‘*ophthalmia*, *pleuritis* or *kynanchē* (quinsyl sore throat)’, in which ‘the sufferer himself is aware of the affected part (*autos ho kannōn aisthanetai tou peponthotos moriou*)’, and diseases in which the *locus* ‘comes to recognition through tactile and visual examination (*dia tēs haphēs kai tēs opseōs eis gnōsin hēkei*)’. Galen specifies that ‘the same applies to *lēthargos*, *phrenitis*, *epilēpsia*, *paraplēxia*, convulsion and *tetanos*, as well as to what is called *katoché*’. *Phrenitis* is thus explicitly numbered among the subjectively delocalized diseases, namely, diseases ‘holistically’ experienced by patients which do not *feel* as if they are affecting a precise anatomical location.⁵⁷

In this way, Galen makes a strong argument for theory-based diagnosis and treatment based on a physician’s antecedent knowledge, rather than on the patient’s feelings:⁵⁸ ‘In all such cases, the kind of remedy is discovered from the nature of the affection, while the place to which it is particularly necessary to apply the remedy is discovered through *prior knowledge* (*proegnōsthai*) of the functions and uses of that part’ (*Meth. Med.* 13.21 (10.932 K.)).⁵⁹ As we shall see, the element of unawareness or unconsciousness regarding one’s own pathology becomes a noticeable trait of *phrenitis* in the ethical and allegorical representation of the disease as well.⁶⁰

Nosology in Theory: *phrenitis* as Case Study in Galen

As we have seen, with localization a key medical theme was embedded in the nosology and clinical discussion of the disease *phrenitis*. A reverse process can also be observed, whereby the importance of the disease is again made evident: the fact that in the first centuries of our era *phrenitis* had definitively become a paradigmatic nosological entity, a classic example. This is shown most perspicuously by Galen, in parallel with the

⁵⁷ Compare the inclusion of *phrenitis* among diseases where the inflammation is not evident (as opposed to diseases affecting the eyes, ears, feet and so forth): ‘Why should that be surprising in the case of *pleuritis*, *peripneumonia* and *phrenitis* and all the others whose inflammation cannot be observed?’ (*Diff. Febr.* 7.394 K.).

⁵⁸ To be fair, Galen does not entirely ignore the indications offered by patients’ subjective feelings. At *De Crisibus* 3.11 (9.752 K.), in fact, he mentions ‘powerful pains in the head and neck, accompanied by spasm and fever’ as felt signs, and an idea of ‘fullness in the head’ is discussed at *Comm. Hipp. Epid. VI* (181.15–20 Wenkebach = 17b.106 K.): ‘It is said in the treatise on the *Prorrhetikon* that the heating that arises in these patients can bring about something towards *paraphrosynē* through the filling of the head. This in itself, however, is insufficient as a sign of *paraphrosynē* and especially of phrenitic *paraphrosynē*. For many have reported regarding the filling of the head also at the peak of fevers.’

⁵⁹ Phrenitics are again referenced for their lack of awareness of their own bodily experiences at *Comm. Hipp. Prorrh. I*, 30 (43.22–23 Diels = 16.572 K.): ‘Since phrenitics are unable to express what they are suffering in words, we engage in [*or attempt*] the prognosis on the basis of our own observations alone.’

⁶⁰ See below, pp. 203–09, 215, 292, 314, 339.

development in his medical thinking of a sophisticated theoretical approach to ‘disease’ as an epistemological challenge.⁶¹

Galen engages with his medical and philosophical predecessors in intellectually sophisticated and at times disingenuous ways, often exaggerating polemical opposition to the antecedent tradition to affirm his own doctrinal pre-eminence, or instrumentally forging an agreement with idealized authors of the past, in particular Hippocrates. He absorbs the observations of the Hippocratic and later traditions in two fundamental ways in regard to our disease. First, he reshapes traditional ideas according to his encephalocentric and neurological frame, forcing the words of the ancient author’s writings into more defined anatomical and physiological models of pathology than are apparent anywhere in the surviving Hippocratic writings. Second, and accordingly, he orders the grid of signs and symptoms presented by the Hippocratic writings, especially clinical cases, according to a logically more rigorous system of definition than was originally offered, scrutinizing the resulting disease semiotics in terms of what we have called ‘cogency’.

These two methodological moves, and especially the second, involve the definition of diseases in general. But the example chosen as case study is, at least in a number of central discussions, again *phrenitis*. A fundamental source here is Galen’s commentary on the Hippocratic *Prorrhethikon I*, a text he considers spurious and criticizes as wanting on a number of levels, but with which he nonetheless engages in depth on the level of content.⁶²

Semiotics as Problem and the ‘Cogency’ of Signs: Urine, Expectoration, Chronological Aspects, Troubled Sleep (agrypnia), Floccillation or Crocydism

I have chosen these five topics as examples, although most key signs of *phrenitis* are tested for their validity by Galen.⁶³

⁶¹ For surveys of Galen’s discussion of *phrenitis*, see generally McDonald (2009), (2014); Murphy (2013); Ahonen (2014) 156–58. The discussion regarding the correct definition of diseases, however, was not exclusively Galenic: the *praefatio* to the first Book of Caelius Aurelianus’ *Acute Diseases on phrenitis* (22–32 Bendz) focuses precisely on the form and methodology of a sound definition, mostly criticizing Asclepiades (see above, Chapter 3, pp. 80–81). On this topic, Devinant (2020), e.g. 112–22. On Galen and the theoretical problems posed by nosology, Salas (2019); Singer (2020a); Havrda (forthcoming) on Galen and logic.

⁶² This is not the occasion to survey the problem of a methodological and logical kind that Galen poses in his commentary on *Prorrhethikon I*, or those occasioned by the text of the *Epidemics*, on which he also wrote commentaries. These belong to Galenic scholarship, and I am instead interested in these texts as works of medical doctrine and reception, as part of the project of reconstructing the disease *phrenitis*.

⁶³ See Chapter 5, pp. 80–81. on the quality of the voice, tremors and so forth. See Devinant (2020) 175–77 on the Galenic reception of the Hippocratic signs of *phrenitis* and on the problems posed by semiotic discussions.

Urine (and Breathing)

Consider the discussion in Galen's commentary on the Hippocratic *Prorrhetikon I* on an indicator of health that had been traditional since Hippocrates' time: urine.⁶⁴ The occasion is the following Hippocratic aphorism:

Colourless urines in persons with troubled sleeplessness, if they have dark material suspended in them, suggest derangement; in a person who perspires over his whole body, *phrenitis*. (I.4, 13.25–26 Diels = 16.511 K.)

Commenting on this well-known sign, Galen proposes taking *phrenitis* as illustrative of his approach to disease in general, for the purpose of a methodological argument: 'Our argument will base itself on *phrenitis* by way of example, but applies generally to all diseases (*genēsetai d' ho logos hōs epi paradeigmatos tēs phrenitidos, hapantōn nosēmātōn koinos ōn*).'⁶⁵ He then sets out to list its signs by 'following a method (*methodōi*)'.⁶⁶ Here is the passage in full:⁶⁶

Since, then, it is our present purpose to discover all the signs of *phrenitis* methodically, we shall begin from the *concept* of the disease (*apo tēs apo tou pathous ennoias*). For it is shown in *De Demonstratione* that the definition of the matter one seeks to inquire into is the best beginning for those who are going to discuss it. And so, since all men call *phrenitis* a state in which they see the *phrenes* damaged, this being the name by which they call the mind and intellect, it is necessary first of all to find out which part of the body the mental/intellectual faculty of the soul (*to phronoun tēs psychēs*) is located in . . . I have already said in the past that the first prognostic signs of its beginning are also those of its full expression. Someone who knows the behaviours/faculties (*erga*) of the brain when it is in its natural state will be able, from its damage, to become aware, in the first place, that it is affected, and second, to find out which affection it is suffering from. These things have been listed by us to be: the voluntary faculty, intellect, sensation and memory (*hē te kata proairesin energeia kai dianoēsis aisthēsis te kai mnēmē*). Damage to any of these shows that the brain is suffering from the affection that could take the form of that damage. The muscles are the immediate instruments of voluntary functions; the damage thus takes place in their functioning through fingers and limbs, in the moving head and neck, and in

⁶⁴ *Comm. Hipp. Prorrh. I*, I.4, 16.29–31 Diels = 16.517–18 K.

⁶⁵ Galen also mentions *phrenitis* and 'the phrenitic individual' as exemplary in a polemical discussion of the relationship between general concepts and actual individual cases at *Meth. Med.* 2.7 (10.140–45, 149–54 K.): *phrenitis* is obviously one of his favourite nosological cases in clinical, nosological, physiological and even logical discussions.

⁶⁶ *Comm. Hipp. Prorrh. I*, I.4, 16.32–20.7 Diels = 16.517–24 K. Here and throughout, the translation is my own; cf. Devinant (2020) 179–80 with n. 23 on this passage.

talking, emitting voice and breathing . . . To make the distinction clear, I should survey the parts which move together with the thorax. It has been demonstrated, in fact, in *On Dyspnoea* that these too affect breathing. If you find all of these to be without affection, then look at the kind of breathing disturbance and which disposition it can indicate of those in the brain, as, to complete our example, Hippocrates says in his *Prognostikon*: 'Frequent breathing signals a struggle or inflammation in the area above the *phrenes*, while deep breathing at long intervals signals derangement.'⁶⁷ He names this respiration at large intervals '*araion*', as I have illustrated in the treatise *Peri Dyspnoea*. *araion* is a *specific* as well as *inseparable* sign of derangement (*idion te hama kai achōriston paraphrosynēs sēmeion*). It is demonstrated in the book of the *Epidemics* that all those who breathe deeply and at long intervals are deranged. If someone therefore can show a sign in the urine, excrement, sputum, vomit, sweat or anywhere else [which] is either *specific* to derangement and derangement alone (*eite idiai monēs tēs paraphrosynēs esti idion*), or is not exclusive to it but still inseparable from it (i.e. necessary) (*ei kai mē monēs, all' achōriston autēs*), it is clear that this should be counted among the phrenitic signs. But if it is impossible to demonstrate this on the basis of the nature of the facts, nor is it possible to show, based on all the *Epidemics*' cases of derangement, that it recurs through all cases of derangement, but only in some of them, then this sign would be illegitimately included among the phrenitic ones, since it is impossible to say more than this: the sign can be observed in *some* phrenitic cases.

For Galen, when one scrutinizes a sign occurring within a disease, it is not enough to notice mere concomitance. To qualify as a diagnostic marker, the sign must be specific (occurring in *phrenitis* alone in a given constellation) and inseparable (necessary, i.e. always occurring in *phrenitis*). He goes on to challenge another sign, this time gastric:

And so, take the case of phrenitic patients we have visited, some of whom suffer blockage in the belly, while others passed more than is the right amount by nature. Someone wrote that gastric blockage is also among the phrenitic signs, and then someone else judged that some people are phrenitic if their stomach has blockage; for when someone writes precipitously *in the definition/judgement* that a blocked belly is phrenitic, it would be possible for another who is also precipitous to abandon any reason (*mē martyrein tōi logōi*) and define as phrenitics, say, those whose stomach he has observed to be suffering from diarrhoea instead.⁶⁸

⁶⁷ Quoted again at *Comm. Hipp. Epid. VI*, 2.11 (74.1–4 Wenkebach = 17A.918 K.).

⁶⁸ For external testimony in this sense, cf. Severus Iatrosophista, *De instrumentis infusoriis seu clysteribus ad Timotheum* (second–fourth centuries CE): 'It (*sc.* blockage in the stomach) not only

Incompetence in the logic of formulating definitions can thus have absurd consequences – one person might see a sign, constipation, as phrenitic, and another person as its opposite. Going back to urine:

But we should go back with the discussion to our beginning, in the words in which the author has put it: ‘Colourless urines in troubled states of troubled sleep (*agrypnia*), which have a black floating suspension and in the context of sweating, are phrenitic.’ He is here talking about the (signs) specific to and inseparable from *phrenitis* (*tōn men idiōn te kai achōristōn phrenitidos*) when he uses the phrase ‘in troubled states of troubled sleep (*agrypnia*)’. But they are not inseparably specific to it *alone* (*d’ out’ achōristōn oute monēs autēs idiōn*), since he adds ‘in sweating’, although the sweating, when it takes the affected place, can prove the points made above.

As said, the sign is strengthened by being combined with other circumstances. In addition, the competent doctor must consider overarching, more abstract categories of diagnosis, such as damage to the core faculty, and their ‘holistic’ markers, such as the pulse:

Indeed, as we first approach a patient, it is convenient first to find out if he is severely ill through damage to one of the three principles, or two, or all; or if none of the principles is affected, but instead one of those which are generated from it or somehow concomitant with it. And so, if you inspect the urine in states of *agrypnia*, and no bad sign appears in it, nor even in the pulse – for it is necessary that, for the sake of the most exact diagnosis, this sign too should be added – this man can nonetheless be phrenitic, since he displays these signs of *phrenitis*, and he is at risk, since the core activities (*energeiai*) of the remaining two have remained unharmed in him.

This long quote serves an important purpose in this discussion: it shows the level of theoretical elaboration of diagnostics in Galen’s time, and confirms how rich and important *phrenitis* was as a medical construct for him and his audience. It is in fact to precisely this disease that Galen turns again and again to lend concrete form to his doctrinal statements.

Expectoration

Among bodily products, expectoration traditionally occupied a special place in *phrenitis*. As a symptom, it is prominently associated with the

destroys the physical faculties through the intertwining of diseases, but also inflicts damage on the very hegemonic faculties of the soul, determines *karos* and *kataphora*, readily generates derangement and *phrenitis*, makes memory obtuse and dulls the intellect. Moreover, it is harmful to all sense perceptions. For it impedes sight and makes it hazy, and it also dulls hearing.’ On the edition of this text, see Roselli (2003).

chest and chest affections, and it offers a wonderful illustration of how Galen appropriates Hippocratic evidence and empirical data to the purposes of his own representation of human physiology. In general, this topic clearly conveys the image of upward movement that characterizes the evolving anatomies in the history of (Western) human biology – the shift of the centre of cognitively active life from the belly and chest upwards towards the head, with a largely consistent trajectory (if one not without interruptions and divergences).

One would expect Galen's position on *phrenitis* as definitely located in the brain to be to dismiss the sign of expectoration with reference to our disease. In fact, he devotes his initial energies to the usual dismantling of the supposed power of the sign, and here with particular intensity. An initial relevant lemma is discussed at *Comm. Hipp. Prorrh. I, 1.6*:⁶⁹

Frequent coughing (*anachrempsis pyknē*), if another sign is added to it, is phrenitic.

This sign is clearly not exclusive to any disease, Galen explains, but is an expression of a defective or excessive voluntary (*proairetikos*) activity. He writes:

It would have been better to add to these words the sentence 'when no sputum comes out through it'. For if something were to be expelled, then [we would have to remind ourselves that] this [coughing] typically occurs, as is the case sometimes in forms of catarrh, because of what flows into the mouth through the channels that run to the nose. It can also happen at times because of the forcefulness of the breath coming in, since this flowing matter becomes plastered to the passages of the channel or plugged up, so that a frequent coughing derives from it.

The sign of coughing, first of all, would need to be qualified, not simply dismissed as a typical sign of what we would call the presence of mucus in the airways. Galen then continues with the theoretical point:

But, as I have said before with respect to negligent and simplistic interpretations offered without the necessary distinctions, one must remember that all the things mentioned are said with the exclusion of external causes. For this reason, the sputum, being one of the voluntary (*proairetikos*) actions, becomes frequent when there is damage in the *logistikos*, like any other of the voluntary faculties, just as in the case of some who pass wind loudly [when ill], whereas they would take the utmost care [to avoid this] when not prey to the disease, especially if anyone could hear them. Others move their

⁶⁹ 21.19–22.26 Diels = 16.527–29 K.

hands or limbs without reason, or likewise do or say something [inappropriate]. *Among other proairetic activities in excess or defect compared to the common standard, coughing is also a sign among the phrenitic ones.*

Again, the point is that coughing is too general and ‘weak’ a sign to be relevant on its own:

It was well put, as far as coughing is concerned, to say ‘if there is another sign accompanying it’; for having little strength in itself, this sign necessitates additional proofs. Sometimes, since frequent coughing also happens because of the sticky sputum getting clogged in the passages that go from the nose to the mouth, it is quite possible that, for some of those who are about to become phrenitic, [this] should be caused by the disposition of the brain, which is dry and hot. And so, what was said at the end of the discussion to be not ‘singularly’/‘univocally’ phrenitic, but ‘plurally’ phrenitic (*ouch henikōs phrenitikon, alla plēthynitikōs phrenitika*) can on the whole be referred either to the signs or to the disease; to [refer it to] both would make the statement absurd.

This discussion is enlightening in many ways. First, for the theoretical point of the constellation of signs, which corroborate each other; second, for the productivity of *phrenitis* as an example of these theoretical discussions; and third and most interesting, for the submission of a bodily sign – here expectoration, coughing – to an ideological project: the centring of the brain in Galenic physiology and in his account of *phrenitis* as a disease heavily impacting the faculties of the *hēgemonikon*, the seat of mental life, located in the brain.

A similar ‘encephalization’ of the (phrenitic) symptom is at work in Galen’s interpretation of the ‘dripping nose’ (perhaps, like coughing, another sign that could have been associated simply with a cold, and thus with winter diseases?) in the following Hippocratic lemma: ‘A runny nose . . . is a fatal sign, especially if it begins on the fourth day.’⁷⁰ This happens in patients who ‘have been comatose at the beginning, but later lie awake with pains in the head, loins, *hypochondrium* and neck’, and who seem exposed to developing *phrenitis*. Here too Galen’s interpretation places the cause in the brain being overflowed with bile or blood; many comparable examples could be cited.⁷¹

⁷⁰ *Comm. Hipp. Prorrh. I*, 1.1, 4.1–9.6 Diels = 16.491–501 K.

⁷¹ See likewise *Comm. Hipp. Prorrh. I*, 1.30, 43.4–30 Diels (16.571–73 K.) on black, bile-tainted sputum in dry diseases like *phrenitis*.

Chronological Aspects

Cogency, in the sense of strength and validity, as we have defined it, is not the only aspect in which signs may differ from one another. Chronological precedence must also be considered: at least in some cases, signs are related to specific phases of the disease, and their continuous or intermittent quality is also fundamental.⁷² Galen accordingly comments that alteration of the pulse is the only sign that can be seen from the beginning of the illness, while others arise later, when it is full blown. Signs, he explains, are like plants to the expert farmer: he alone can recognize them from their first sprout, while someone else would be unable to tell them apart until much later.⁷³

For this discussion, Galen says again, ‘it is appropriate to explore the concept of *phrenitis* (*zēteon esti peri tēs kata tēn phrenitin ennoias*)’. He now emphasizes duration, starting from the Hippocratic definition of the disease as a ‘continuous state of delirium with acute fever’. In fact, fever is here the differential tool for distinguishing a simple *paraphrosynē*, in which patients can be mad (*mainēsthai*) without fever, on the one hand, from *phrenitis*, on the other. Even in cases of madness accompanied by fever, Galen explains, some define this state through general terms such as *parakopsai*, *parachthēnai*, *paralērēsai* and *paraphronēsai*, but still refrain from using the term *phrenitis* ‘unless there is fever and continuous delirium’. In addition, he says, ‘we equally define as phrenitic those who, when they are comatose, are not in their right mind, but talk nonsense and appear to be alienated from the things present and similar to stupefied persons’ (5.10–12 Diels = 16.493 K.).⁷⁴

Pace is also an important variable. At *Loc. Aff.* 5.4 (8.330 K.), Galen insists that the mental symptoms of *phrenitis* do not arise suddenly, but – in the ‘idiopathic’/‘primary’ version of the disease (*kat’ idiopattheian te kai prōtopatheian*) – instead accumulate gradually.⁷⁵ He writes: ‘This affection forms gradually (*kata brachy*), and the delirium does not arise suddenly (*exaiphnēs*) nor all at once (*athrōs*).’ A similar point is made at *Comm. Hipp. Prorrh. I* (47.22–26 Diels = 16.581 K.), where the phrenitic state of delirium is described as long-lasting and gradually increasing, similar to the gradual drenching of a piece of cloth with dye. ‘The same thing happens to the brain as to fabrics when they are coloured: they do not absorb the dye

⁷² On time in medicine, see Coughlin, ‘Pneumatists on Time, the Body, and Vitality’, unpublished paper; cf. also Coughlin (forthcoming a) on Athenaeus’ reflections about time and health; Singer (2022) 102–22.

⁷³ The full passage is at *Comm. Hipp. Prorrh.* 4 Diels (16.492 K.).

⁷⁴ On this passage, see Devinant (2020) 110–11.

⁷⁵ On pace and disease description in this passage, see Devinant (2020) 249–51.

straightaway, but at the beginning they maintain their own quality. So this inflammation, like a dyeing of the brain, ends up provoking a state of continuous derangement (*paraphrosynēn hektikēn*).

The chronology of diseases, finally, also has to do with recurring patterns, almost a fixed schedule a doctor can recognize. At *Comm. Hipp. Prorrh. I, 1.1* (7.15–22 Diels = 16.497–98 K.), discussing ‘troubled sleep’ (*agrypneō*) in patients who are ‘comatose’ (*kōmatōdees*) since the beginning as a possible indicator of *phrenitis*, Galen considers the temporality of diseases. He does so in various senses: the continuity and duration of *paraphrosynē*; which signs arise at the beginning; which are characteristic of the end; and so forth. All these patterns signal a mature idea of nosology; for us, the fact that Galen takes the finest details of its manifestations to illustrate how ‘a disease can be divided into four parts: beginning, rise, peak and decrease’ (*eis tessara merē dielontes auton eipōmen ex archēs te kai anabaseōs akmēs te kai parakmēs synkeisthai*)⁷⁶ confirms the centrality of *phrenitis*.

Agrypnia (Troubled Sleep or Insomnia)

Continuous fever has now emerged as the first differential element, necessary (although insufficient) to the definition of *phrenitis*. Second is comatose sleeplessness: since ‘in these [patients] it is typical in most cases to keep the eyelid open and have trouble sleeping, most physicians have also included this form of troubled sleep/insomnia, *agrypnia* (ἀγρυπνία), in the pathognomy of *phrenitis* (*Comm. Hipp. Prorrh. I, 1, 5.18–20* Diels = 16.494 K.). Galen is commenting here on the following Hippocratic question: ‘Do patients who have been comatose at the beginning, but later lie awake with pains in the head, loins, *hypochondrium* and neck, develop *phrenitis*? A runny nose in these is a fatal sign, especially if it begins on the fourth day.’

This aphorism gives Galen another chance for theoretical discussion of the notion of a ‘sign’ of a specific ‘disease’ in general, and for probing the very concept of semiotic validity. In the case of *phrenitis*, a central sign, in his eyes, is precisely this characteristic state of sleep disturbance covering various degrees of insomniac distress and comatose wakefulness, with oppression and torpor; already in the Hippocratic texts, this was called *agrypnia*.⁷⁷ For

⁷⁶ *Comm. Hipp. Prorrh. I, 1* (7.20–22 Diels = 16.498 K.).

⁷⁷ A term best left untranslated: see Thumiger (2017) 176–82 for this and related terms in Hippocratic medicine. On *agrypnia*, see also *Comm. Hipp. Prorrh. I, 6* (22.14–16 Diels = 16.528 K.): ‘Disturbed sleep (*agrypnia*), and most of all the disturbed sleep of the distressed type . . . this is specific to the phrenitics (*hautē gar idios tōn phrenitikōn*). It is disturbed sleep of the distressed type, as I said, if

Galen, a comatose state on its own, without 'sleepless *agrypnia*', is not at all phrenitic. But *agrypnia* without *kōma* is necessarily so, when it arises at the beginning; and the combination of the two remains diagnostically ambiguous. In sum, here too Galen concentrates on necessity, exclusivity and sufficiency as features of a sign's cogency. Its strength is proportional to its being indispensable or unavoidable in that disease, and in its being also specific to it, sufficient to diagnose its presence.

Galen also reflects on the temporal variables of possible combinations of signs, when they arise, how long they last, and whether they recur, as well as on the combination and accumulation of signs as corroborative of such cogency. All these are also in play in modern disease taxonomies and symptom checkers used in clinical environments; for our inquiry, the fact that Galen explores *phrenitis* at such length in this respect testifies again to his strong conceptualization of the disease. Within this discussion, being able to exclude external causes by means of a chronology-conscious attention also allows a doctor to attribute the illness to an internal state, to qualify it as endogenous. By way of summary, Galen writes as follows at *Comm. Hipp. Prorrh. I, 1.1* (6.20–7.11 Diels = 16.496–97 K.):

If someone, after a sustained march or exhausted by some other exercise or heated during these at the same time, begins to have fever, and his head, back, *hypochondria* and neck begin to hurt, you should expect none of these to indicate a strong sign for future or existing illnesses to you. But if, without external causes, the above-mentioned parts should hurt; if there should be *agrypnia* in the patient with no sense of oppression; then expect him to become deranged. If this occurred with a comatose state, then conclude that he will remain in the present state for one day, in which you will be able to diagnose the development of the disease. For *phrenitis* that is pure and unmixed with another disease (*phrenitis men gar hē akribēs kai amiktos heterōi nosēmati*) originates in the yellow bile as it overflows in the part in which the hegemonic part of the soul resides [the brain], while *lēthargos* arises when phlegm moistens and soaks that same part, because damage capable of involving the brain by sympathy due to bile and phlegm lacks a continuous character. Whenever it happens that the brain is oppressed by both humours (i.e. both yellow bile and phlegm), contradictory symptoms befall the man, such as insomnia (*agrypnia*) and a short-lived sense of oppression. If he is oppressed and deranged all in one, one must think that he will remain in this mixed condition. In case he shifted in the other direction, as bile and phlegm prevail in turn, the man becomes 'purely' (*akribē*) phrenitic or 'purely' lethargic. When the patient remains in

during the images perceived/hallucinations they shout and jump up and barely recognize familiar people.'

a condition of both derangement and a comatose state up to the end, I for one define this disease as a combination of *lēthargos* and *phrenitis* (*mikton onomazō touto to pathos phrenitidos te kai lēthargou*). Some call it *typhōmania*.

There is thus a strong sign for *phrenitis*, which is *agrypnia*. But also, pragmatically recognized, there are mixed, less ‘pure’ forms that Galen identifies here with a combination with *lēthargos* as far as the symptom of sleep is concerned. This subdivision into different kinds constitutes an important chapter in the history of *phrenitis* as a disease concept, especially in the Middle Ages and the early-modern period, but also in modern times.⁷⁸ This fragmentation allows the notion of the disease to adapt to a plurality of new clinical observations and physiological projects.⁷⁹ For now, it suffices to locate the beginning of this taxonomic multiplication in Galen; no such elaboration of ‘versions’ of diseases is found in Hippocratic nosology, where the labels are insufficiently precise to make such a move necessary or even possible.

Floccillation or Crocydism

Our final instance of the semiotics of *phrenitis* is the commentary on the lemma concerning floccillation/crocydism (*Comm. Hipp. Prorrh. I, 1.33*). Floccillation functions almost as a symbol of *phrenitis*, as one of the most perspicuous behavioural aspects qualifying these patients. The sign was described by the Hippocratics as well,⁸⁰ and it is especially instructive to observe Galen’s move in framing this detail as part of his overall doctrine on *phrenitis*, in which he associates it with the ‘comatose oppression’ he recognizes as characteristic.

Let us consider the Hippocratic text and Galen’s subsequent commentary:⁸¹

Hai tromōdees, asaphees, psēlaphōdees, parakrousiee pany phrenitikai, hōs kai tōi Didymarchōi en Kōi.

Forms of derangement that involve tremors, confusion and floccillation point most definitively towards *phrenitis*, as in the case of Didymarchos in Cos.

Galen’s comment:

Often this kind of *paraphrosynē* also arises, in which the patient lies down calmly, without screaming wildly or springing up, as above – indeed

⁷⁸ See below, pp. 346–47, 363–65. ⁷⁹ See Chapters 6 and 8. ⁸⁰ See above, pp. 27, 38.

⁸¹ 46.1–21 Diels = 16.578–89 K.

without speaking at all – or abandoning his or her prone position. These behaviours often suggest to members of the family that, if only there was some silence, the patient would fall asleep. So the watchers close the doors and take a rest. Matters being this way, a long time sometimes passes, and once the family grows frustrated with the patient's lack of talk or movement, and they go to check if the person is sleeping, it appears that he is not and that he is moving his hands without tremors, similar to those who want to touch or find something and gently grope about. Once they are in this state, some behave this way, keeping their eyelids closed shut, and if someone goes to them and says something, some do not even open their eyes; others open them, but soon afterward close them again and keep them still; others do not lift their eyelids, even if someone shouts at them or pricks them. Therefore, regarding such phrenitics Hippocrates writes as follows in the *Epidemics*: 'None of the phrenitics was manic like the others, but they perished overwhelmed by a narcotic oppression.'

The special importance of this sign for Galen is in its indication of a non-aggressive, comatose kind of *paraphrosynē*.

[Hippocrates] calls phrenitics of this type 'unclear' (*asapheis*) in the present text, as if they were difficult for many observers to recognize – not only for non-specialists, but also for doctors. For they think that phrenitics are only those who scream and jump up, whereas in fact Hippocrates refers to individuals damaged in the *phrenes* thus (i.e. as phrenitics), although for the entire time they are in a state of *kataphora*. Sometimes, in fact, from the start a state of *paraphrosynē* can be observed in them while they are in a comatose state. My essay *De Comate in Hippocrate* makes it clear that he refers to the same state by both terms, *kataphora* and *kōma*. But this kind of *phrenitis* does not have the element of unclarity which is associated with the resting state; the unclear kind of *phrenitis*, as we were just saying, originates in the passage of time, and all those I have seen affected this way had a weak, hard, narrow and short pulse, so that it shows that the state of rest in them comes from the exhaustion of their vital power (*dynamis*), as they cannot make powerful movements. Some of them, just as they move their hands weakly, also speak very little; this escapes the notice of most and is perspicuous only to those who, being closer, can bend down to them. Some try to place their ear closer to their face to hear better what they say. But the movement of their hands too, being minimal and trembling, escapes the notice of many and only appears to those who observe most intently. And so this is a proof that their vital power is ill.

Galen's investment in the details of the cases he inherits from Hippocratic clinical observations is especially evident in this case. His discussion of the individual phenomenon – the hand movement – and its physiological and cognitive motivation reveals a level of logical-philosophical scrutiny and

theoretical reflection that is unprecedented in the nosological material preserved for us.

Retrospectively Diagnosing phrenitis

Galen's opportunistic attitude towards Hippocratic clinical material is reflected in the reinterpretation, elaboration and novel framing of a received sign in the case of floccillation just discussed. But it is also found on several occasions when Galen scrutinizes the signs described by his predecessors and finds them lacking validity because they are common to several diseases and the like, as seen in the previous examples.⁸² These are all instances of 'retrospective diagnosis', a practice usually stigmatized by historians of medicine and one that Galen carries out somewhat recklessly in an attempt to bring nosological order – the order of his own medical system – to the magmatic data offered by the Hippocratic texts.⁸³

Another example of this is found at *Comm. Hipp. Epid. III*, 2.13,⁸⁴ where Galen refers explicitly to a phrenitic case, the wife of Hiketes. The woman is feverish, comatose, has trouble sleeping and has a heavy head. She sweats, cannot sleep and suffers from fears and a low mood; her right eye has a squint; she speaks deliriously at intervals and has no thirst; and she dies on the seventh day. Galen identifies her as suffering from *phrenitis* and writes: 'It was clear that the person was phrenitic and that, besides, she was quite badly off (*phrenitikēn te ēdē tēn anthrōpon edēlōsen einai kai pros toutōi mochthērōs echein pany*)';⁸⁵ he confidently relies on the head-centred symptoms and the general psychopathological picture to make what is, for him, a clear diagnosis (*edēlōsen*).

Elsewhere Galen focuses on fever as a discriminating sign when *mania* and *phrenitis* are compared. This is an interesting choice, although an anachronistic one (we might say, with our own anachronism), because under no circumstances is *mania* treated in the Hippocratic texts as a nosological entity, a 'disease' proper that can constitute a categorical alternative to *phrenitis*: in the classical sources, it remains a state of things, like 'constipation', 'thirst' or 'delirium'.⁸⁶ For Galen, who operates in a context in which *mania* is already inserted as an item in nosological

⁸² On the cogency of signs, see also *Comm. Hipp. Epid. III*, 1.6 (31.18–22 Wenkebach = 17A.532–33 K.), where the specific signs of *phrenitis* (*ta tēs phrenitidos idia sēmeia*) are again singled out.

⁸³ On this aspect of Galen's medical project, see Devinant (2020) 177–78: 'the reception of the repertoire of Hippocratic symptoms in Galen, and the way in which he reorganizes the content' (my translation).

⁸⁴ 100.18–104.21 Wenkebach = 17A.634–41 K. ⁸⁵ 102.20–22 Wenkebach = 17A.638 K.

⁸⁶ See Thumiger (2013) 61–70.

lists as a form of derangement without fever,⁸⁷ *mania* is instead a condition fit to be compared with *phrenitis*. As he discusses the Hippocratic statement ‘None of the phrenitic became manic, as in the other cases, but they perished oppressed by another form of bad heaviness and stupor’,⁸⁸ Galen imposes the precision and standards of the nosology of his own time on the older material:

If, instead of saying at the beginning ‘No one of the phrenitic became manic’, he had simply said ‘They perished oppressed by another form of bad heaviness and stupor’, it would have been plausible to interpret this as a change into *lēthargos* coming upon them so as to destroy them. But since he says at the start ‘No one was manic’, it is more probable that they perished with oppression, remaining phrenitic, namely deranged. For we understand that the discriminating fact consists only in this, and that in no other respect than fever does *phrenitis* differ from *mania*. Both are in fact damage to the mind (*phrenōn*), but it is proper to the manic to be without fever, and to phrenitics to have fever. One should not be surprised, then, that when uncocted humours collect in the body, as the evacuations demonstrate, the patients are at the same time comatose and deranged: comatose out of the abundance and coldness of the uncocted humours, and deranged because as (the humours) putrefy, they produce acidity and heat. (*Comm. Hipp. Epid. III*, 3.46, 138.16–139.5 Wenkebach = 17A.698–99 K.)

At *Comm. Hipp. Epid. III*, 3.79 (173.5–174.14 Wenkebach = 17A.759–62 K.), Galen deals instead with a case in which the diagnosis of *phrenitis* is already given by the original Hippocratic lemma. Here not fever but the intoxicating humour is the pivot of his interpretation. The Hippocratic text: ‘The fourth patient. The phrenitic man on the first day that he took to bed vomited a great deal of thin matter the colour of verdigris (*tetartos arrōstos. ho phrenitikos tēi prōthi kataklineis ēmesen iōdea, polla, lepta*).’ Galen interprets this case as especially acute, but specifies that its apparent onset should not be misinterpreted. It is a case of slow and gradual intoxication reaching a tipping point – another remark on the chronology of diseases:

This case is illustrative of acute *phrenitis*, arising on the first day immediately with the fever. Indeed, all those we have seen to be phrenitic in this way died by the seventh day. Very few, indeed extremely rare cases survived. The nature of such illnesses is amazing, the way in which it suddenly seizes patients who were perfectly healthy. For it is not the case that the onset of them, or the cause of the onset itself, is so sudden, as when a man consumes a lethal substance or a dangerous beast bites him, but little by little somehow

⁸⁷ One example standing for all: the *furor* of Celsus, on which see [Chapter 3](#).

⁸⁸ *Epid.* 3,6 (85,3–5 Jouanna = 3.82 L.).

the causes of these illnesses grow in the body, as happens with those who have been bitten by a rabid dog. For it is clear that also in those cases, the poison of the dog does not remain idle, nor is it inactive. Still, it does not offer any clue, sometimes for many months; then suddenly, when they see water, they are seized by fear and quickly destroyed. For a long time, the cause that produces rabies grows; when it finally reaches the point, it brings a quick death. Likewise, in the above-mentioned case of *phrenitis*, a malignant (*mochthēros*) humour accumulates gradually in the body, similar to a lethal poison, gradually acting on the neighbouring parts. When in some way the humour has reached the highest level of malignity, then the mortal symptom appears. For also in the case of this phrenitic person it happens straightaway at the beginning that he ‘vomited thin matter the colour of verdigris’, which follows the much ardent fever. Just as some die out of fatal poisoning on the second or third day, due to the quality of these substances, not to their quantity as causing death, so also in this case one must think that death came directly on the third day due to the quality of the verdigris vomit, not due to the *phrenitis* as destructive cause, and the *phrenitis* followed it as symptom/accident . . . In this way, Hippocrates seems to have placed before our eyes a particularly quick mortal case.⁸⁹

Elsewhere the retrospective diagnosis is implicit. At *Comm. Hipp. Epid. III*, 1.4, for example, Galen speaks of a patient in the Hippocratic lemma, saying that he ‘did not *behave phrenitically* during his episodes of troubled insomnia (*out’ ep’ agrypniais tarachōdesin ephrenitisen*)’.⁹⁰ What does ‘to behave phrenitically’, *phrenizitein* (φρενιτίζειν), mean? Here it appears to indicate an ensemble of typical behaviours that Galen contrasts with the stronger indicator (for him) of the disease, *agrypnia*. We are thus made to think that the overall patient portrayal is significant and has a cogency that can be independent of individual indicators: he has trouble sleeping, but this is *not* phrenitic in quality.

What such an overall phrenitic portrayal might have entailed, can be gathered from the discussion of another Hippocratic case, regarding which Galen claims that ‘from the beginning she appears to be phrenitic (*ex archēs hautē phainetai phrenitikē genomenē*)’. ‘She’ is the wife of Dealkes of Thasos, who ‘suffered from fever and shivering coming out of a grief (*pyretos phrikōdēs ek lypēs elabe*)’, a patient for whom the Hippocratic text did not offer a diagnosis of *phrenitis* (*Comm. Hipp. Epid. III*, 1.6, 184.14–186.7 Wenkebach = 17A.786–89 K.).⁹¹ Subsequently, among other things,

⁸⁹ Cf. *Comm. Hipp. Epid. III*, 3.35 (132.23–24 Wenkebach = 17A.687 K.) on an accumulation of (toxic) moisture in the head causing severe *agrypnia*, *paraphrosynē* and *phrenitis*.

⁹⁰ 15.13 Wenkebach = 17A.504 K.

⁹¹ This is one of the texts marked with the sign [φ] or [φρενιτίζ], a later addition known to Galen as well to be spurious: see *Comm. Hipp. Epid. III*, 2.5 (81.23–83.13 Wenkebach = 17A.610–13 K.); 2.14 (104.22–

the woman wraps herself up in her covers; moves her hands compulsively, picks at her hair and gropes; cries and laughs; remembers little; produces scanty, thin urine; and is delirious at intervals, then falls silent. Most of these are typical signs of mental patients in the Hippocratics. But Galen – who, as we have seen, dismisses white urine, the only concrete phrenitic sign in the Hippocratics, as insufficient⁹² – seems in this case to recognize the ensemble of manifestations as forceful enough to diagnose the disease. And although he knows that the diagnosis did not originally belong to the text, he adds: ‘Such cases of *phrenitis* are, as I said before, most serious, and whomever they take, they quickly destroy’ (184.18–20 Wenkebach = 17A.787 K.). Galen also comments on the quality of the patient’s derangement: ‘It seems that the form of this derangement was a combination of the melancholic and the phrenitic. For much talking alternating with silence demonstrates such a combination.’ Finally, he returns to the topic at the very end: ‘[Hippocrates] also says this, that she wraps herself up and there is much talking and silence through to the end. For much talking is a phrenitic trait, the silence is melancholic, and wrapping oneself up belongs to both, except when patients cover themselves because of the cold’ (186.3–6 Wenkebach = 17A.789 K.).

The acknowledgement of a ‘portrait’ or profile, a comprehensive picture, so to speak, alongside the strong indicators for diagnosis is not as arbitrary as it might appear at first, nor does Galen leave this to intuition or improvisation. The emerging definition of the disease is thus syndromic, characterized by the repertoire of elements we have sampled – those which are strongly indicative, but also the concurring secondary aspects, all held together by the larger frame of the brain-centred and humoral accounts, and by the competent, experienced understanding of the physician.⁹³

This syndromic, composite quality of the diagnosis is formulated clearly in Galen’s own words at *Comm. Hipp. Prorrh. I*, 1.15,⁹⁴ where he mentions two key signs for the prognosis of *phrenitis*: delirium and a fever that stops and then starts again, accompanied by sweating. Notwithstanding the weight of these two indicators, Galen adds, the prediction (*prorrhēsis*) does not offer complete certainty but only a high likelihood. (It turns

105.4 Wenkebach = 17A.641 K.); cf. the Appendix to Kühlewein’s edition of the Hippocratic text (246–47); above, Chapter 2, p. 24, 49–50.

⁹² See above, pp. 112–14.

⁹³ Devinant (2020) 170 n. 5 uses the expression ‘réalisme naturel’ (natural realism) to describe Galen’s project in his non-schematic approach to the definition of diseases, especially with reference to *phrenitis*.

⁹⁴ 32.20–23 Diels = 16.549 K.

out correct *to pleistakis*, ‘most often’.) The numerical aspect of correct prediction is even more in evidence later: ‘For in predictions we want most of all, if possible, to hit the mark always, so that if someone misses the mark eight times and hits it twice, he is worse than a layman.’⁹⁵

This syndromic, combinatory strategy is highly efficient and holds sway for a long time. In the fifth century CE (although without reference to Galen), Caelius Aurelianus writes:

We recognize *phrenitis* from the complete combination of signs (*ex toto signorum concursu*). For any single sign, such as mental derangement or fever, does not indicate *phrenitis*, but the case is otherwise if many signs concur which together can indicate only this disease. In this case, an indication is obtained, as we have said, from many circumstances (*ex multis*) and constitutes a single sign indicative of the situation. We therefore recognize *phrenitis*, as I said, from the combination of acute fever, mental derangement, weak and rapid pulse, and the plucking of straws and hairs. For it is on the basis of these that the kind of disease (*passionis genus*) is recognized. (*Acute Diseases* 1.3, 40.15–22 Bendz)

The Aetiology of phrenitis

The final, central theoretical topic in nosological literature is aetiology: the question of the *causes* of a disease, something classical medicine did not focus on so clearly, privileging instead descriptive and clinical aspects. By contrast, cause, *aitia*, is an important object of debate in the medicine of the imperial period, in nosological treatises as much as in Galen. Aretaeus’ chapter on the causes and symptoms of *phrenitis* is unfortunately lost, and the chapter on therapy does not indicate a specific cause of *phrenitis* beyond its localization in the diaphragm or heart, but also the head and *neura*. But Galen thematizes the question of the aetiology of *phrenitis* from various perspectives, mostly humoral and encephalic (involving membranes and nerves). At *On the Causes of Symptoms* (*Symp. Caus.*) 2.7 (7.202 K.) he writes:

The kinds of delirium (*paraphrosynai*) which are defective movements of the authoritative capacity (*tēs hēgemonikēs dynameōs*) arise on the basis of abnormal humours or through a lack of balance (*dyskrasia*) of humours in the brain. *Phrenitis* is what they are called when accompanied by fevers, *mania* when they are without these. Sometimes they follow mordant and hot

⁹⁵ 54.24–26 Heeg = 16.594–95 K., quoted and commented on by Salazar (*Comm. Hipp. Progn.* 3.1, n. 80).

humours, the kind that are of yellow bile particularly, although they often arise in a *dyskrasia* of the brain itself tending towards more heat. The melancholic derangements alone have a colder humour as a cause; for *phrenitis* does not simply arise on the basis of hot humours (*oud' haplōs epi thermois synistatai chymois*), but is brought about along with the production of inflammation involving the brain and the meninges (*meta tou phlegmonēn ergazesthai kata te ton enkephalon kai tas meningas*).

A combination of circumstances, then, can also be responsible for *phrenitis* under the more general heading of 'inflammation', *phlegmonē*. The key active agent in this inflammatory balance is identified in particular in 'mordent' humours, yellow bile most of all. The effect of an excess of these acrid fluids in the head can be either *phrenitis* or *lēthargos*, or a mixture of the two. At *Com.* 4.3 (193.11–17 Mewaldt = 7.664 K.) Galen compares the effects of drunkenness causing the head to 'fill up' (*plērōtheisēs autōn en tēi methēi tēs kephalēs*, 193.8–9 Mewaldt) to those of the uncocted fluid in the prodromic phases of *phrenitis*:

As plenty of uncocted fluid reaches the head, [patients] become at the same time insomniac (*agrypnoi*) and comatose. And this happens at the beginning, when (the fluid) is concocted in large quantities, as if this were happening through [the effect of] wine (but neither *lēthargos* nor *phrenitis* results in such a case); it is when (the fluid) turns acrid that it ends in *phrenitis*. For in many cases it is evacuated when it is still thinner, concocted or digested, but it remains there when it is of the thicker kind, and then *lēthargos* arises. When a disease progresses to such a state, as we have demonstrated, then it is near *phrenitis*, as in the opinion of those who introduce the notion of a mixed disease between *lēthargos* and *phrenitis*, and it will appear most similar to it [*lēthargos*]. Whether those who are in this state should be defined as phrenitic, however, or one should expect them to become so shortly afterward, is a matter of different consideration, which is of no use for what we are proposing now.

And elsewhere: 'Yellow bile (*xanthē cholē*) rising to the head and settling (*stērictheisa*) in the brain and meninges generates *phrenitis*' (whereas in other body parts it engenders other pathologies).⁹⁶ Elsewhere, at *Loc. Aff.* 3.9 Galen differentiates between two kinds of *phrenitis*, one caused by yellow bile, the second, which is milder, by ochre bile: 'There is a more moderate kind of *phrenitis*, which originates in ochre bile. But another is more serious, originating in yellow bile' (8.178 K.).⁹⁷

⁹⁶ *Comm. Hipp. Epid. I.* 2.75 (88.26–89.3 Wenkebach = 17A.175–76 K.). Cf. *Comm. Hipp. Epid. III.* 1.6 (32.21–24 Wenkebach = 17A.534 K.) 'The nature of this fact demonstrated that humours dry in mixture and biting in quality, as they rise to the brain, cause both *agrypnia* and *phrenitis* (*eis enkephalon anenechtentas aitiōus agrypnias te kai phrenitidos gignesthai*)'.

⁹⁷ On humoral causation of various kinds and *phrenitis*, see also Devinant (2020) 205–29.

Blood can also be a vehicle in humoral causation: ‘After all, when the blood is carrying either black or yellow bile, being resolved into nasty vapours, it leads in the former case to *melancholia*, in the latter to *phrenitis*’, as written in *On the Use of Breathing* (*De Usu Respirationis* 5, 4,506–07 K. 126.18–128.7 Furley–Wilkie).

At *Caus. Puls.* 4.14 (9.185 K.), a humoral causation is combined with localization in the brain and a mention of the diaphragm in the context of a discussion of the pulse. In this case, the focus is on this key symptom, the pulse, as opposed to an anatomical *locus affectus*:

Here it is not at all difficult to find out the causes of what we have said for someone who knows how *phrenitis* originates in the bilious humour, just as *lēthargos* originates in the phlegmatic humour, but who also knows that *lēthargos* has its origin more in the brain itself (*kata men auton ton enkephalon*), and *phrenitis* mostly in the thin meninx and the diaphragm (*kata te tēn leptēn malista mēninga kai to diaphragma*). For someone who remembers these matters does not need to be told that the beats of the pulse are few and hard as a consequence. And indeed, if the disease is hot, but the throbbing is small, then necessarily they are very frequent.

These aetiological models seem to remain a doctrinal matter, present in the physician’s understanding only. After all, Galen had explicitly pointed out that causation as he discusses it is not always – indeed, rarely – evident to the patient.⁹⁸ But the very complexity of the discussions, and the thematization of the abstract questions posed by semiotics and aetiology in the case of our disease, testify to its medical and clinical importance, its proliferation in a variety of scientific-medical fields of debate, and – more broadly – its diffusion, by now, in the general knowledge of a wide audience, albeit one constricted in terms of class and intellectual background.

⁹⁸ See above, pp. 109–10.

Phrenitic People
Patients and Therapies in Imperial and Late-Antique
Cultures (First–Sixth Centuries CE)

In the first centuries of our era, the doctrinal representation of our disease, along with many other medical ideas, tends to consolidate around the authority of Galen. Certain models of *phrenitis* become dominant in learned medicine: it is an affection of the brain with fever simultaneously involving other parts of the body, especially the chest, along the lines discussed in [Chapter 4](#) through the examples of Aretaeus and Galen. These two authors, despite their differences, both foreground the brain as localization (Galen) and/or target of therapy (Aretaeus).¹ But other roads were taken and remained open alongside this main narrative, as a variety of voices outside official medicine show.²

Doctrines discussing a disease in terms of physiological theory in any case tell only part of the story: a different, broader testimony is offered by the observations and reports of the lived manifestations of a physical illness and in the existence of patients. These documents produce a richer picture and offer us direct (if in their own way still problematic) access to the human beings who were flesh and blood to the physician's annotations and

¹ A good overview of the vulgate view of the disease in the early centuries of our era is offered by the ps.-Galenic *Introductio seu Medicus* (second century CE), which should perhaps be understood as a school handbook of medicine (see [Petit 2010](#)): '*phrenitis* is an ecstasis of the intellect with acute derangement (*ekstasis dianoias meta parakopēs sphodras*) and nonsensical motions of the hands, crocodydism and carphology, and a high fever. It mostly arises from a cause such as excess of bile. It fixes itself in the brain, or meninges, or as some say in the *phrenes*, which is how the diaphragm is referred to (*synistatai de peri enkephalon, ē mēningas, ē hōs tines legousi peri phrenas, ho diaphragma kaleitai*). This is the appropriate therapy, if one can prognosticate it from its beginning: phlebotomy, cupping, blood-letting, clysters and abstinence from food as appropriate. Once the disease is established, soporific embrocations and sleep-inducing ointments and a wet diet' (14.732–33 K.). Cf. [Devinant \(2020\)](#) 169 on the 'non-Galenism' of this schematization, and on what, he warns, is the apparent stability, the '*stabilité de surface*' in the medical authors of the first centuries CE (183 n. 344), perhaps with some overstatement, as other authors, especially those discussed in terms of delocalization in [Chapter 3](#), share Galen's pragmatism when it comes to nosological discussion; 158 on the sole (dubious) passage in *Mot. Musc.* 2.6 (35.13–20 Rosa = 4.445.8–446.1 K.) where Galen appears to suggest that *phrenitis* can be categorized as a 'disease of the soul', a *pathēma tēs psychēs*.

² See [Chapters 3, 6 and 8](#).

diagnoses.³ Apart from Galen, this clinical information is mostly to be extracted from nosological treatises from the early centuries of our era. Nosology as a genre – a list of diseases *a capite ad calcem*, roughly organized into sections addressing causes, description and therapy – represents a post-Hellenistic approach to pathology to which Galen belongs only marginally, even though his immense corpus of writing offers a great deal of information about clinical and nosological aspects. The fact that, as was partially apparent in the [last chapter](#), *phrenitis* becomes obviously important in medical discussions at this time is reflected by the place it occupies in other nosological treatises: in addition to Aretaeus, *Anonymus Parisinus* and Caelius Aurelianus put it first in their lists (as did Celsus in his discussion of *insania*⁴); medical authors seldom fail to mention it in representative catalogues of diseases;⁵ and Galen, as already noted, repeatedly gives it exemplary status. Parallel to this, *phrenitis* becomes more visible among lay audiences, escaping the technical environment of medical treatises, as will be discussed in [Chapter 6](#). In agreement with these trends, we might infer, *phrenitis* was in turn more frequently diagnosed and more closely observed in clinical terms, and generally more present in contemporary language and the public imagination.

I turn now to the medical information preserved by material from the first centuries of our era (first–seventh centuries CE), dividing the discussion into authors preceding and contemporary to Galen, and thus fundamentally independent of him, and those after Galen, who reflect the massive influence exerted by his doctrine, the ‘Galenism’ which shapes the discussion in medieval receptions of Graeco-Roman medicine.⁶

Nosology in Practice: *Anonymus Parisinus*

Exemplary of the main trends in nosology as far as *phrenitis* is concerned is the *Anonymus Parisinus* (*AP*), a nosological text dated to around the first century CE, regarding the doxographic style and reliability of which

³ On patient reports and their problematic nature in ancient medicine, see [Thumiger \(2015\)](#), (2018c); the discussions in Petridou and [Thumiger \(2015\)](#).

⁴ See [Chapter 3](#).

⁵ In medical contexts, *phrenitis* is not only generally considered a central example of an important disease, but is also evoked out of context as a ‘typical’ disease, as in Soranus *Gyn.* 3.1 (94, 13–15 Ilberg): diseases are defined as states ‘against nature’, whereby *phrenitis* or *lēhargos* are examples of pathological states which are ‘partial’, i.e. ‘localized’ (*merikon*) and ‘acquired’ (*hypobebēkos*).

⁶ This is Temkin’s classic formulation (1973), variously re-qualified by more recent scholarship: see e.g. [Bouras-Vallianatos \(2019\)](#) and other discussions in that collection.

caution is needed.⁷ Much use was made of this author's reports of classical and Hellenistic sources in [Chapter 2](#), since he summarizes the views of his predecessors in his sections devoted to the 'causes' of each disease, including in our case (*phrenitidos aitia*). I turn now to this author's assessment of signs (*sēmeia*) and therapy (*therapeia*) for *phrenitis*.

The disease *phrenitis*, first of all, is the first in the treatise and receives one of the longest discussions, confirming its localization in the head within the traditional organization *a capite ad calcem*, but also its primary relevance as mental disease and nosological concept *tout court*. As the anonymous author discusses the signs of the disease, he emphasizes continual fever (*synechēs pyretos*); a quick, small, thick pulse (*sphygmōs dediō[g]menos, smikros, pyknos*); and continually shallow breathing (*anapnoē synechizousa kai mē diistasa teleiōs thōraka*) as somatic indicators – all these in line with the importance of the pulse as a diagnostic tool in this period (*AP* 1.1, 2.23–4.2 Garofalo).⁸

The signs included by the Anonymous concerning mental health and vitality are 'constant sleeplessness and trouble of the mind (*agrypnia diēnekēs kai paraphora tēs dianoias*)', which are typical features. In addition, there are aspects with an ethical or personal quality: a patient may 'sometimes get angry and savage and run outside (*pote men orgizomenou kai agriainontos kai exō trechontos*)', while 'at other times he is happy and sings, or lies down (*pote de hilarou kai aidontos ē katakeimenou*)'. These variations in mood as a result of illness were already described by Celsus and show the acquired power of the nosological label *phrenitis* as a container of subgroups and psychological variations.⁹ In addition, patients might need to be reminded to drink, or might refuse to do so (1.2, 4.2–4 Garofalo), signs which indicate dryness, but also potentially a damaged awareness of bodily functions.

This treatise also mentions the well-known signs of crocydism and compulsive hand movements combined with hallucinatory delusions and groping, which are described in detail ('raising his hands into the air, or pulling lint off robes, or picking at straws and pulling chaff from the wall and seeming to pluck hair, although catching nothing, as if groping about'). The worsening of the disease is revealed by exacerbating signs: chilled extremities, complete insomnia, delirium or silence (*parakopē ē aposiōpesis*), laughing or depression (*gelōs ē katēpheia*), red eyes that move

⁷ On this author's doxography, see [van der Eijk \(1999a\)](#).

⁸ See [von Staden \(2000\)](#); [Coughlin and Lewis \(2020\)](#), esp. 221–25.

⁹ And notably unlike classical medicine, where the reverse is the case: univocal signs generate or are expressed in the disease label through a one-way move.

rapidly and are full of tears. Patients collect lint (*krokodyzousi*). Their tongue lacks moisture, and their appetite may vary (*orexis allois allē*). When the danger becomes more acute, 'the *hypochondrion* contracts and is pulled up (*prosentēinetai kai anaspatai*), the neck and face sweat, the belly exudes catarrh (*koilia katarrei*), the body trembles'. When the moment of death approaches, finally, patients 'utter high-pitched screams, speak indistinctly (*asaphē lalousi*), stutter, their pulse weakens, and they have difficulty breathing and wheeze' (I.3, 4.5–15 Garofalo).

None of the signs the Anonymous lists is new, as comparison of his text to some of those from the classical period makes clear. Alongside the familiar cognitive and behavioural features and the signs that can be explained as consequences of high fever, however, there is some development: an ethical and emotional component; the possibility of individual variation; the elements of pulse and respiration; an affection of the belly with catarrh; and a detailed sense of progressive exacerbation. Unlike in Celsus, in this account psychology remains subordinate, and one senses the underlying tension between *caput* (in the visible signs of the face and head: sweating, red eyes and so forth) and torso (the catarrh in the belly, the difficult breathing, the tense, elevated *hypochondrium*) as locations. But no clear choice is made between the two: 'Consider these *as a whole* (*tauta panta*) signs of *phrenitis*', the author writes (I.3, 4.16 Garofalo).

Therapeutic Measures

As for therapeutics, the range of remedies is composite and bears the signs of the anatomical tension between head and chest Galen will stigmatize as contradictory in the formulations of other doctors.¹⁰ They can be summarized as psychotherapeutics; dietetic measures and other bodily interventions; and pharmacology.

Psychotherapeutics or soothing measures are the first to be mentioned by the *Anonymus Parisinus*, at the very beginning, and mostly match the directions found in Celsus, perhaps reflecting the same trend in approaching distress of a mental kind: to place patients in the light, dimming it if necessary (I.I, 4.18–21 Garofalo),¹¹ and most importantly, to calm them when they experience delirious fantasies (*en de tais tōn parakopōn phantasiās*) 'with the help of words (*tēi apo logou boētheiai*)' and persuasion

¹⁰ See above, p. 108.

¹¹ A traditional move, according to Celsus; cf. the later treatise usually included in the Hippocratic *Corpus Seven* (*Hebd.* 51, 76.84–89 Roscher = 8.670.15–17 L.).

(*parēgorēsomen*); to convince them that those around them are ‘friends, not enemies’; but also to rebuke them when necessary (*hote de kai epiplēxomen*). These details recall Celsus’ advice and must derive from a common source: one ought to gratify patients in various ways (*synaresthentes*), announcing unknown facts to them,¹² and bringing their wives and children or someone to whom they have an erotic attachment (*ei de kai pros tinas erōtikōs echousin*) into their presence (I.6, 6.16–24 Garofalo).

Also common to the measures recommended by Celsus and the Anonymous are restraining or coercing these patients, procedures classical medicine ignored (I.3, 8.22–10.2 Garofalo). When the disease worsens, frightening them (*ekphobein*) might be a necessary last resource, if patients become aggressive and violent, or misbehave more generally; when they pose a threat to others, whether physicians or family, ‘slaps and blows’ (*rhapismois kai epiplēxesi*) may be used. Only through physical restraint are these patients led to understanding and reason and calmed down (*apodeiliōsi*); otherwise ‘they will not understand (*ou syneisousin ei mē sōmatikōs biasthōsi*)’ – explicit early advocacy for a cognitive impact of physical intervention on patients’ bodies. That passive exercises such as the use of hammocks, in accord with individual strength and the state of sleep or delirium (I.3, 6.12–13 Garofalo), are also present, is part of the same ‘holistic’ approach, which aims at mental health *qua* psychological datum. There is also a class element at work here: bonds are more necessary for individuals of lower social provenience (slaves) than for those who lead an ‘honest, free life (*epi tōn biou eleutherou kai katharou*)’. The latter constitute a class of patients whom restraint would exacerbate rather than tame (I.3, 10.3–7 Garofalo). Holding them tightly by the hands and embracing them gently is recommended instead, a use of physical contact that recurs in late-antique physiological therapy as seen in nosological discussions of mental disorders.¹³

These points all go in the same direction as the ethical approach testified to by Celsus, with cognitive, emotional and relational aspects inserted within the nosological picture. In addition, they expand the social frame to include children, wives, friends and lovers, as well as the controversial (and popular) feature of the erotic remedy, a *topos* in the early centuries of our era.¹⁴ Class and ethical discriminations are also part of the patient’s profile and determine different therapies for different social statuses.

¹² Cf. Celsus 124.11–26 Marx, on provoking them with intentional errors or announcing happy news.

¹³ On touch in the Hippocratic tradition, see Kosak (2015); Thumiger (2020a) generally on ‘psychotherapeutic’ measures; and the classic Entralgo (1970) 159–72. The class specification returns in Paul of Aegina as well (3.6.2, 145.31–146.1 Heiberger; see below, p. 180).

¹⁴ Cf. Thumiger (2018a), (2021c).

Somatic measures to be adopted include bleeding and purging (1.2, 4.22–5 Garofalo) and phlebotomy (1.3, 9–13 Garofalo). Fasting and dietetic specifics are also recommended (1.3, 6.1–3 Garofalo), including drinking honey-water to relax the stomach (1.3, 10.8–10 Garofalo), bathing and a restorative regimen after improvement has begun to be apparent (1.3, 8.9–13 Garofalo). All these are directed to the respiratory tract in the chest and to the digestive parts. Other therapeutic measures centre on the head, such as embrocation with green rose oil and other ingredients (1.3, 6.4–15 Garofalo). At a later stage of the disease, inflammation ‘of the middle part’ may appear (*en tois mesois phlegmonē*), against which cupping with scarification is prescribed: the involvement of the lower location in the body for phrenitics returns here. Haircutting is mentioned in parallel with this, although it is to be avoided at the beginning of the illness (1.3, 8.10–12 Garofalo), and application of somniferous ointments to the face is also recommended. Sleep-inducing agents should also be given as draughts or suppositories (with various recipes offered at 1.3, 7, 8, 9, 10).

Neighbouring Diseases: lēthargos, pleuritis, and pneumonia

Nosological treatises are a precious source for exploring the relationships and overlaps among neighbouring diseases and their position in the taxonomy to which they belong. *AP* also explores and highlights points of contact with *phrenitis* in its discussion of other diseases. *lēthargos* comes just after *phrenitis* in the treatise, reflecting the important association between the two which recurs for centuries to come in all medical sources.¹⁵ Surveying the causes mentioned by thinkers in the medical tradition (1.1–3, 10.16–27 Garofalo), the Anonymous mentions ‘affection of the psychic faculty in the meninx (*pathos tōn peri tēn meninga psychikōn dynameōn*), where (*eph’ hōn*) it is precisely that *lēthargos* occurs’ (attributed to Erasistratus, 1.1); affection around the heart (‘the chilling of the psychic *pneuma* around the heart’, attributed to Diocles, 1.2); and the brain again burdened by excessive cold phlegm and causing the patient to fall into a comatose state (*kataphora*) (attributed to Hippocrates, 1.3).

The signs of *lēthargos* are continuous fever and a distinctive pulse (2.1, 12.1–5 Garofalo); difficulty in conversing and interacting, with delirium and oppression (2.2, 12.5–8 Garofalo); a swollen, flushed face; and various signs traditionally regarded as mental. As in the case of *phrenitis* (2.5, 4.11–13 Garofalo), when

¹⁵ And several traits in common with pneumonia: see [Chapter 2](#), pp. 22, 32 n. 27, 45.

the illness becomes worse, 'the *hypochondrion* is pulled up (*hypochondrion anaspatai*), the hands tremble a bit, and patients have difficulty swallowing (*katapinein ou dynontai*) (2.6, 12.13–16 Garofalo). In the therapy, interestingly, other points also connected with *phrenitis* return: a concern about light (2.1, 12.1–2 Garofalo); embrocations (2.1–2, 12.22–14.3 Garofalo); phlebotomy (2.3, 14.12–14 Garofalo); the phenomenon of *kōma* (2.4, 14.15–18 Garofalo); and a lack of awareness of natural functions such as excretion (2.5, 14.19–16.7 Garofalo) and swallowing (2.6, 16.8–13 Garofalo). Scarification and cupping are suggested, although these are common measures (2.6, 16.8–10 Garofalo). Also recommended are hot water to the head (2.8, 16.20–18.2 Garofalo), shaving and passive exercise (2.9, 18.3–4 Garofalo).

Pleuritis is located by ancient authors in or around the *pleura* or lungs, according to the report by *AP* (e.g. by Hippocrates: 8.1–4, 56.26–58.16 Garofalo). The localization of pleurisy in *AP* is the same as that of *phrenitis*, in line with what appears to have been the case in the Hippocratic texts (8.4, 58.11–16 Garofalo). Its symptoms are a sharp, piercing sense of pain in the *pleura* or upper chest, and fever and expectorations, accompanied by various mental or mind-related symptoms: 'They suffer roughness of tongue, sleeplessness, agitation, distress.' Most relevant, 'sometimes . . . they become delirious, the *hypochondrion* is pulled up, difficulty in breathing increases' (8.1–3, 58.18–60.9 Garofalo). *Pneumonia/peripleumonia*, finally, is only briefly described in this text as an inflammation of the lungs (*pneumonos phlegmonē*), and in a report of Praxagoras' views it is seen as contiguous to *pleurisy*: one is located 'in the part near the ribs', the other 'in the part near the lobes' (9.1–2, 64.16–21 Garofalo). Signs are fever, a heavy chest, difficulty in breathing, a thick pulse and coughing. The appearance of the face is affected (glossy eyes, blushing, bulging blood vessels). As for therapy, the vast majority of the suggestions are dietetic and pharmacological, and aim at curing the bodily physiology of the disease. At 9.11 (68.23–24 Garofalo), however, it is again said that 'we shall allay the delirium with embrocations on the head and sponging of the face'.

Still in this imperial author, then, perhaps precisely because of his comprehensive interest in doxography and lack of systematic ambitions, the ambiguity between the chest (with lung symptoms and breathing issues) and the head (partially in aetiology, but always in the signs and therapy) remains irreducible and even dominates. Compromises vis-à-vis localization and a potentially 'holistic' nature are reaffirmed as a marked peculiarity of our disease. At the same time, *Anonymus Parisinus* offers a sample of the themes addressed by nosology at this stage in Greek medicine, marking a profound difference

from the Hippocratic works: the discussion of the ‘name’; the question of localization; the definition of causes and systematic description of manifestations; the therapy; and the relationship of the disease to other, similar ones.

The Signs of *phrenitis* in Imperial Nosology

In the early centuries of our era, a tendency to economy becomes apparent in Graeco-Roman nosology, with a coalescence of signs and details around a number of prominent syndromes, among which *phrenitis* stands out.¹⁶ This is apparently brought about by a need to impose order, through lists and taxonomic schematization, on the wealth of clinical information inherited from the earlier tradition. At the same time, the grid of a ‘modern’ theoretical understanding (anatomical and physiological) is imposed on the older material, as we have seen notably in Galen.

The Galenic commentaries on Hippocratic treatises can profitably be understood as versions of such a move, both going back to the details observed by the Hippocratics and reinterpreting them within new scientific models, and adding the fruits of newly established methodologies and models, notably neurological theories and pulse diagnosis. Authors who engage less, or less explicitly, with their predecessors, such as Aretaeus, display similar tendencies towards systematization. The result, in respect of the descriptions of *phrenitis*, is a richer, more complex syndrome in which we begin to glimpse the characteristics of a modern representation of disease. What follows is a survey of the main signs, which emerge as common to different medical authors, and which remain central in the tradition of the disease after the end of the ancient world.

Fever

Since early times, fever had been a central marker of *phrenitis*.¹⁷ In the Hippocratics, it was a key part of the disease’s affiliation with winter chest ailments. In later authors such as Diocles and Erasistratus, it apparently converged into the concept of inflammation, *phlegmonē* of a topical kind (the brain, meninges or diaphragm being affected) that accompanies it up to modern times. In others, such as Celsus, fever seems to sustain the

¹⁶ For a comprehensive discussion of the signs of *phrenitis*, see Pigeaud (1981/2006) 71–100; Centanni (1987).

¹⁷ See Pigeaud (1987/2010) 34–36 on fever as a differential sign in *phrenitis*, and more generally 67–69; Hamlin (2014) 17–88, 43–53 on Galen.

delocalized, systemic, atypical account of the disease. In nosology, fever becomes a differential element to distinguish *phrenitis* from other mental afflictions, notably *mania*. Fever also remains important for another fundamental reason: it constitutes a gravitational point for many of the observable manifestations of *phrenitis*, which are often of a typhoid kind and associated with overheating and drying.

'Fever', of course, must be defined. In modern medicine, the term might be taken to indicate, rather straightforwardly, 'a body temperature that is higher than normal' (with 'normal' usually indicated as a range). But for a world that lacked the concept 'temperature' as continuum (as opposed to 'hot' vs 'cold'), and that had no way to measure such entities with precision and no interest in them as a physical datum, the use of the modern term needs qualification. If we can, as I would argue, legitimately read *pyr* (πῦρ) as an experience to a substantial extent superimposable upon our 'fever', we must nonetheless be cautious, especially since this pathological sphere is too predominant in ancient medical literature to be taken as a strong indicator of a disease state we can recognize. Hamlin has carefully explored and exposed the network of demographic, environmental, scientific and socio-medical variables and biases that must be discounted when we apply the term to premodern contexts.¹⁸

Areteaus, in his therapeutic discussion, speaks of a fever 'of a continuous type' as characteristic of *phrenitis*: 'Nor do they have long intermissions, but they experience short and ill-marked remissions' (*Th.Ac.* 5.1, 92.33–93.2 Hude). For Galen, an accompanying continuous fever is also a particular element differentiating *phrenitis* from other kinds of insanity, as explained at *Caus. Symp.* 2.7 (7.202 K.): 'All forms of delirium (*paraphrosynai*) are dissonant movements (*plēmmeleis* . . . *kinēseis*) of the hegemonic faculty (*tēshēgemonikēs dynamēōs*), caused by malignant humours or by a bad mixture of the cerebral humours. Those with fever are called *phrenitis*, those without it *mania*.'¹⁹ In *Comm. Hipp. Epid.* VI, 1.29 (52.7–20 Wenkebach = 17A.882–83 K.) Galen discusses various typologies of fever based on their heat, and in particular the nature of the plague described by Thucydides. He criticizes the medical categorizations offered by other authors and writes: 'Some of the ancients called this kind of fever (i.e. that causes ulcers on the skin) phrenitic fever, like lethargic, pleuritic, peripneumonic.' Galen disagrees, however, because 'the fever of the

¹⁸ Hamlin (2014) 6–12, 24–30.

¹⁹ The same point returns at *Comm. Hipp. Prorrh.* I, 1.1 (5.3–5 Diels = 16.493 K.): 'All those are said to be manic (*mainesthai*) who are deranged without fever, those with fever to be phrenitic (*phrenitizēin*).' On the two types of *paraphrosynē*, *mania* and *phrenitis*, see Singer (2018) 389–90.

phrenitic is found to display a biting heat (*tēn thermasian echōn daknōdē*) in every part of the body equally and continuously to the touch (*dia pantos homotonōs en panti chronōi tēs epiballomenēs haphēs*).²⁰ Likewise at *Diff. Resp.* 3.9 (7.937 K.) we read that ‘these diseases that happen with continuous fevers are of the kind [Hippocrates] demonstrates in his book *On Regimen in Acute Diseases*. These are acute, those the ancients call *pleuritis* and *peripleumonia* and *phrenitis* and *kausos* and all the others of this kind, whose fevers are mostly continuous.’²¹

Among the symptoms of fevers described by Galen at *De Cris.* 11 (200.2–5 Alexanderson = 9.752 K.) are ‘strong pains to the head and neck, heaviness with or without fever. In phrenitics, spasms sometimes with yellow vomit; some of them die very quickly.’ Several details described here recur for *phrenitis* elsewhere as well, along with heaviness of the temples, darkened vision, tension and pain in the *hypochondria*, and epistaxis; the latter is also mentioned as a sign of *phrenitis* at *Loc. Aff.* 5.4 (8.330 K.).²² Galen is well aware of the generality and frequency of the signs that characterize fevers (*kausoi* and other diseases with ardent fever) and, as we have seen, is very concerned with the cogency of signs as a methodological question. In this spirit, at *Comm. Hipp. Prorrh. I*, 1.15 (31.1–5 Diels = 16.545–46 K.) he comments on the following Hippocratic point: ‘Those who are severely out of themselves with fever and sweating become phrenitic.’ He writes: ‘We define this formulation as strident/contradictory (*asymphōnon*); its sense is so obscure, that the nouns in it can be interchangeably separated or conjoined.’ Galen proceeds with a critique of the unclear, ambiguous syntax of this author, which in his eyes fails to establish any clear interdependence between basic signs such as fever, derangement, sweating and so forth. What is notable for us is the role of fever as container already perceived by Galen himself to be dangerously loose, as by Celsus before him. Celsus in fact drew the distinction between insanity due to fevers and insanity due to *phrenitis*, but did not develop this as fundamental to the definition of the disease (122.17–24 Marx).

Already in the Hippocratics, fever came with a plethora of heat-related signs, such as a rough tongue, thirst and dryness; these symptoms are

²⁰ More on the topic at *Comm. Hipp. Epid. VI*, 1.29 (56.19–57.15 Wenkebach = 17A.889–91 K.).

²¹ On the course of fevers, and *phrenitis* as an example, see also *Dieb. Decr.* 2.13 (9.897 K.), where Galen mentions Diocles in agreement.

²² At *Comm. Hipp. Epid. III*, 3.34 (132.4–5 Wenkebach = 17A.686 K.), Galen writes that *phrenitis* and ardent fever have a common cause, but differ in their *locus affectus* (*koinēn . . . echonta tēn aitian, diapheronta de tois paschousi topois*): the first is in the liver and stomach, and especially its mouth, the second in the brain. On this topic, see also Ahonen (2014) 156–58.

picked up by imperial authors as well. As expected, one of them is sweat: at *De Cris.* 3.3 (170.7–9 Alexanderson = 9.707 K.) it is said that ‘the good kind of sweat resolves *phrenitis*, and especially if abundant from the head and if warm, with the whole body sweating’. The idea, it seems, is that pressure and heat are relieved via the head, a process blood flow can also favour: ‘Through haemorrhages through the nostrils, *phrenitis* is even more safely resolved.’ In fact, fevers are directly related to the rise of bile to the head, as explained at *Comm. Hipp. Epid. III*, 3.12 (117.5–7 Wenkebach = 17A.661 K.): ‘High fevers (*kausoi phrenitikoī*) derive from the excess of bile falling on the liver and stomach, and become phrenitic when they rise to the head.’²³

At *Comm. Hipp. Prorrh. I*, 2.2 (53.14–26 Diels = 16.592 K.) Galen writes that headaches, insomnia and *asapheia* – a lack of clarity in speech – should be reckoned among phrenitic signs (*tōn phrenitikōn esti sēmeiōn*), and ‘since we have seen *phrenitis* to be a particularly dry (*xērōn malista*) illness, any symptom of dryness occurring in the organs close to the head or sharing something with it also signals oncoming derangement, by virtue of which signs the disease is called the ‘the one with thirst/the thirsty one’ – *to dipsōdein*/τὸ διψῶδει is the transmitted form – ‘in the discussion above’. These are all classic manifestations of high fever, and their constant presence in *phrenitis* testifies to the strong embodied nature of the syndrome.

Sensorial Receptiveness

We have already observed that a notable element in Aretaeus’ analysis is the importance he assigns to the ambience created around the patient to protect his sensory health; the physician opens the chapter on precisely this topic. ‘A house of moderate size . . . a mild temperature’ are prescribed; the patient and those who live with him should ‘be ordered to preserve quiet’ (*hēsychiēn agein*, 91.12–15 Hude).²⁴ The reason for these recommendations is the extreme sensory sensitivity, tactile and visual, of phrenitic patients: they ‘have acute hearing and are affected by noise’ (*oxyēkooi gar ēde psophou kathaptomenoi*, 91.16 Hude), and are extremely prone to visions. For this reason, ‘walls should be smooth, level, without projections, unadorned with a frieze or paintings; for painting on a wall creates

²³ For a full discussion of the localization of fevers in the body, with special reference to the *hypochondrion*, see *Comm. Hipp. Epid. III*, 2 (63.10–64.23 Wenkebach = 17A.580–82 K.).

²⁴ Some of these ‘psychotherapeutics’ have already been discussed with reference to Celsus and Caelius Aurelianus.

excitement' (91.17–18 Hude). And again, since 'certain false appearances float before their eyes (*pro tōn ophthalmōn amphaireousi tina pseudea indalmata*, 91.18–19 Hude)' and easily cause them to grope and become busy with their hands (91.20–21 Hude), bedclothes should be plain, to avoid giving patients the opportunity to surrender to the urge to pluck. Light and darkness should also be modulated to suit each individual and the nature of the attack under way (92.2–8 Hude):²⁵ light is recommended, for instance, to keep the patient from being scared by confusing perceptions or 'strange images (*xena indalmata*)' (92.5 Hude). This hypersensitivity of the sensorial faculties is present *in nuce* in some Hippocratic remarks, such as those about the vividness of dreams in phrenitics,²⁶ and in the mention of floccillation as a recurrent behaviour. In this later period, medicine combines these traditional details and traces an image of impaired cognition: the senses impart deceptive information, and patients fall prey to images larger than life, both in dreams and awake.

The Hippocratic discussion of the vividness of phrenitic dreams just referred to is corrected by Galen at *Comm. Hipp. Prorrh. I*, 1.5 (20.10–21.18 Diels = 16.524–27 K.), in a long passage that nicely illustrates once again the complex interpretation imposed by imperial medicine on traditional signs. The observations made by physicians from the past are fitted into a comprehensive system: reading that 'dreams in phrenitics are conspicuous/clear' (*Prorrh. I*, 5, 75.10–11 Polack = 5.512 L.), Galen comments as follows:

Satyrus the student of Quintus, whom I had as my teacher before Pelops, explained this saying thus: 'Of those things which appear clearly in phrenitics and are done by them, those that seem to us to be seen or done, are not real images matching reality but all conspicuous dreams.' The fact that other people arising from sleep walk around while still asleep, but with their eyes open, like people who are awake, has been narrated and described in many places. But whether such things are done by phrenitics as well, is among the points that remain obscure to us. Whatever the truth might be, this inquiry does not help establish a prognosis. If I suggest that the preceding dreams of phrenitics are seen so clearly, that they are disturbed out of sleep and jump forth or speak because of the clarity of what they see, this adds something to the pre-notion of this disease; the very dryness is the cause of *agrypnia* and of the perspicuity of dreams. In this way, then, in melancholics as well all their visions seem perspicuous in dreams. Among those who are healthy, the

²⁵ For criticism, see also ps.-Galen, *De Optima Secta ad Thrasybulum liber* 22 (1.167 K.): 'Besides this, they also stupidly take over the idea of darkness for phrenitics. Because if darkness exacerbates *stegnōsis* (stoppage), exacerbated *stegnōsis* exacerbates derangement.'

²⁶ See [Chapter 2](#), p. 28.

dreams of those who have eaten modestly are perspicuous, while for those who are full or drunk, these appear to be without images, because the images flow in front of them due to the obscurity in such a way that they leave no sign or residue in memory; in this way too, whatever affections accompany the humidity of the brain are comatose, somnolent and without images.

It is thus the dryness of this disease and of these patients' physiological states that causes the neatness of the images they perceive, just as humidity dulls the imagination, and torpor makes perceptions heavy and opaque. Through the language of dryness, wetness, fluid engorgement and flow, Galen is thus able to sketch out a mechanism of interaction between physiology and cognition based on the received Hippocratic sign, and forges a vocabulary for it.

Damage to Cognitive Faculties

Senses and images constitute only one level of the psychological and psychopathological portrait of the *phrenitic*, although perhaps the one most readily mentioned in medical literature on the history of mental disturbance.²⁷ While Galen is not as interested as Aretaeus or Celsus are in the emotional and personal sphere touched by phrenitic pathology, his elaboration on cognitive and imaginative damage has a depth and richness unmatched in other authors. In *Comm. Hipp. Prorrh. I*, 1.4,²⁸ as we have seen, Galen distinguishes precisely among types of mental damage in *phrenitis*, with – according to him – unprecedented precision. As he points out, in the presence of such damage the physician must check whether the ‘muscles’²⁹ (*myes*) of these functions are affected, or if the problem is with the source of their impulses, the brain:

Since everyone calls *phrenitis* such a condition, in which they see damage to the *phrenes* (φρένες), which is how they call intellect and reasoning (*noun kai dianoian*), one should first inquire in which part of the body the seat of psychic intellect is located (*en ôi tou sômatos moriôî to phronoun tês psychês estin*) . . . Therefore, it is necessary to identify the symptoms that express this damage . . . *I was the first to define (heurethê de hêmin) what the damaged faculties are, namely the critical capacities: intelligence, perception and memory (hê . . . kata proairesin energeia kai dianoësis, aisthêsis te kai*

²⁷ On which, see McDonald (2009) 120–52; Pigeaud (1987/2010) 95–127; Ahonen (2014) 119–21.

²⁸ 17.1–18.3 Diels = 16.517–20 K.

²⁹ Another difficult term, that does not map precisely onto our notion of ‘muscle’. See the introduction by Debru (2005); Gregoric and Kuhar (2014) on the problems posed by *neura* and muscles in Aristotle.

mnēmē). The damage to these functions will indicate the type of affection . . . ; and if one finds none of the muscles [which are the voluntary organs of those actions] to be damaged, one should suspect an encephalic lesion.

We learn more about the ‘types’ of mental affection at *Loc. Aff.* 4.2 (8.225–26 K.), in a passage which explores problems in the sensory organs. Here three kinds of *phrenitis* are distinguished, depending on which type of damage prevails:

There are two simple types of *phrenitis* (*haplai men dyo*), and a third which is a combination of the two (*synthetos de ex amphoin*). Some people suffering from *phrenitis* make no mistakes at all in distinguishing visual impressions (*peri tas aisthētikas diagnōseis tōn horatōn*), but base their judgement on an abnormal thought process (*ou kata physin echousi tais dianoētikais krisisin*). Others, to the contrary, commit no errors of judgement, but have a distorted sense perception (*enioi d’ empalin en men tais dianoēsesin ouden sphallontai, paratyptōtikos de kinountai kata tas aisthēseis*). Yet it happens that others are affected in both ways (*allois de tisin kat’ amphō beblaphthai symbebēken*).³⁰

In a remarkable passage at *Comm. Hipp. Prorrh. I*, 1.27 (39.22–41.26 Diels = 16.564–68 K.), Galen combines humoral explanation with hard-wired encephalocentrism to account for the variety of symptoms, sensory-motor and dianoetic, which *phrenitis* produces, each of the two kinds ramifying in turn into more manifestations, depending on the section of the brain affected.³¹ Discussing the Hippocratic aphorism that ‘frequent changes in *phrenitis* are spasmodic’ (*ta en phrenitisi pykna metapiptonta spasmōdea*), he takes the occasion to scrutinize the nature of sudden changes in cases of *paraphrosynē* and in *phrenitis* in particular. At issue is not the change from bad to better, but from one *type* of bad symptoms

³⁰ The distinction closely resembles the famous one drawn by Jaspers and his school between ‘content’ and ‘form’ in madness, which was then taken up by the history of psychopathology (cf. Jaspers 1923/1963, 58–59). Pigeaud (1987/2010) explores the partially superimposable distinction between ‘illusion’ and ‘delusion’ vis-à-vis appraisal of reality; see also Pigeaud (1983) on the ancient philosophical and medical traditions.

³¹ Localization in the brain, and the separate but related topic of ventricular localization, is a difficult chapter in the history of medicine, evidence for it being episodic and unsystematic. See Young (1970) on the history of localization in modern science; Grunert (2002) 152–66; Green (2003); Rocca (2003) 245–47 for a summary of the material, and 196–98, although he dismisses the present Galenic evidence for subdivision of different areas of the brain in favour of a view of Galen’s doctrine as involving ‘the hegemonic faculties’ of the brain as a whole; the observations in Debru (2010); Guenther (2015) for the place in history of modern neurology; Wright (2016) 129–30, 182–94, discussing Nemesius (as the earliest occurrence), Posidonius and Galen, (2018); the essays in Ambrosio and MacLehose (2018) on various chapters in the historical ‘imagi(n)ing on the brain’ in Western cultures.

to another, the quality of the symptoms (40.7–8 Diels = 16.564–65 K.). These manifestations are caused by variations in humoral flows, and each case is appropriate to the body part where the imbalance fixes itself, and reflects the power of the individual humour. His explanation is long but worth quoting. With *phrenitis*

one can conjecture from the permanence of the disease in those parts, that the humour inflicting the affection is found in the head (*ek tou diamenein ep' autōn tēn phrenitēn estērichthai tis an en tēi kephalēi ton to pathos ergazomenon hyponōēsie chymon*). In fact, the reflux is in the brain itself, affecting now one part of it, now another, *maintaining a fixed disease conceptualization*, but with symptoms that change by part (*ontōs oun kat' auton ton enkephalon hē metarrysis estin, allote kat' allo meros autou ti gignomenē, tēn men idean tou pathou phyllattousa, kata meros d' hypallattousa ta symptōmata*).

Different clinical manifestations, Galen adds, clearly follow the affection in different regions of the brain, involving now sight or hearing, now smell, now touch, and so forth:

And now the author of the present book mentions these changes, saying that they suffer from floccillation or carphology and, after a state of deep calm, in a little while they jump up and do something manic, and next they become calm again, blaming some non-existent external object – for example, like those who order that the trumpeters or flute-players be driven away when there is not even one of them there.³² For just as carphology or floccillation are damage to the optical perception (*blabē tēs optikēs ... aisthēsēōs*), so these others are damage to the acoustic perception (*tēs akoustikēs*), and there is a similar symptom for the olfactory perception (*kata tēn osphrantikēn*), like those who complain of foul-smelling odours that are not there. There are also those who order that something which is there be taken away, saying that it is too heavy, or too hot, or too pungent or cold to the touch, while in such symptoms the damaged tactile perception is at work (*tēs haptikēs aisthēsēōs en tois toioutois symptōmasi beblammenēs*) . . . Often we observed such forms of derangement persisting continuously while the patient was in a maddened state (*hai toioutai parakopai dia pantos men en tōi paranoein*), but changing its fashion in accord with each type of affected faculty (*hypallattomenou . . . tois tropois kata panta ta genē tōn psychikōn energeiōn*).³³

³² Galen refers to the case of the doctor Theophilus hallucinating pipe-players also at *Symp. Diff.* 1.4.3 (224.18–226.8 Gundert = 7.60–61 K.), in a discussion of kinds of *paraphrosynē*. See King (2013b) for this peculiar musical element as a topic in Greek stories of psychopathology.

³³ See also *Comm. Hipp. Epid.* III, 3.35 (134.14–16 Wenkebach = 17A.690 K.) on continuous derangement as phrenitic sign; cf. 3.47 (139.15–16 Wenkebach = 17A.700 K.).

So much concerning sensory stimuli and their interpretation by the patient. Other types of damage are more ‘purely’ cognitive, independent of sensory appraisal, such as memory or emotional excitement:

And so, just as I have listed them with regard to the senses, so in the same way as far as reason is concerned, we see that reasoning, judgement, memory³⁴ and intelligence (*kata logon kai gnōmēn mnēmēn te kai noēsin*) are sometimes subject to change in phrenitics, so that at times they anger themselves, but sometimes they enjoy themselves or engage in serious discourse, although they are deranged (*paraphronountas*).

Remarkably, other capacities may remain intact throughout these episodes of derangement:³⁵

And so, I have heard of orators who would rehearse during an attack of derangement (*en parakopēi*), and of a grammar teacher who would read a book thinking it was Bacchylides or Sappho, or a mathematician or geometer who went through the theorems of his own art. And if, while solemnly reading these things, after a while they remembered something filthy or unholy, what in the *Epidemics* is called ‘being foul-mouthed’ (*aischromythein*) – the change was not from mean to appropriate, but from bad to bad, as deranged patients sometimes appear at their boldest when caught sight of at one point, and then meek and cowardly just afterward. For such symptoms appear to be fundamentally identical: they fear things that are not to be feared, indeed at times are afraid of the smallest things. An example of such an occurrence, it seems to me, [the author of *Prorrhetikon*] wrote in the following statement, that says ‘passing urine without realizing, bad’. So consider someone who suffers the changes mentioned above, in the urine and in other matters, in which the memory is damaged; and imagine that in turn all his sensory representations are damaged, just as the dianoetic is.

The broad variety of forms of disturbance, finally, depends on the regional complexity of the brain as it is struck by different humours with different intensities:

Of these the cause is in the brain, but the reflux affects now one part of it, now the other (allot' allon) alias alium ipsius locum . . . quod transfluit³⁶. We have illustrated that these refluxes arise from each of the receiving parts (*tōn dechomenōn moriōn*) pushing the residue towards another (*eis heteron*).

³⁴ On damage to memory in *phrenitis*, see Julião (2018) 228–35.

³⁵ On ancient remarks about this phenomenon of ‘selective’ madness, see Thumiger (2017) 60.

³⁶ This is the Latin translation given in Kühn’s edition (Durling 1961, n. 157, Vassaeus, Johannes), also interpreting the expression *allot' allon* (ἄλλοτ' ἄλλον) as locative, ‘regional’, conceptualizing the brain as an organ subdivided into functional areas.

It thus makes sense that the humour which brings the pathology, flowing down from one part of the brain into the other, should in turn be pushed away from it, and that falling on the nerves which originate there, it should cause spasms. Hippocrates himself said that this affection comes from repletion and evacuation.³⁷

A comprehensive physiological picture of humoral overflow in this way explains emotional, imaginative-sensory and reasoning-cognitive disturbances, as well as motor impairment: the source of everything is in the brain and the nerves originating there, with the humoral element allowing for a flexibility and complexity of internal reactions that encephalocentrism alone could not provide – a picture very similar to that of *De morbo sacro*, despite Galen's surprising lack of engagement with that Hippocratic treatise.³⁸

We thus discover two accounts of the distinct cognitive damage that occurs in the disease *phrenitis*. The first is subdivided into hallucination, on the one hand, and impaired judgement, on the other (with a mixed version to complete the picture). The second is tripartite, depending on the type of cognitive damage (to the intellectual faculty, the sensory faculty, or the memory), partly superimposable on the first.

In various texts, Galen offers precise clinical examples of phrenitic patients which better illustrate the distinction. The first case is a famous one, namely his own personal experience. As a young man, Galen too once fell sick with *phrenitis*:

Stricken by a burning fever during summer, it seemed to me that I saw sticks of dark straw protruding from my bed, as well as similar pieces of wool from my garment. I attempted to pull these out. When I was unable to catch onto anything with my fingers, I renewed this effort more steadily and forcefully. When I heard two friends who were present telling each other, 'He is pulling wool and straw', I understood that I had the affection of which they spoke, but I realized that I was not deranged in my reasoning faculties and said, 'What you say is right, but help me, to keep me from suffering from *phrenitis*.'³⁹ Then they busied themselves applying wet dressings to my head. Throughout that entire day and night, I remained agitated by frightening dreams, shrieking loudly and even trying to get out of bed; but on the next day all symptoms subsided. (*Loc. Aff.* 4.2, 8.226–27 K.)⁴⁰

³⁷ *Comm. Hipp. Prorrh. I*, 27 (40.9–41.26 Diels = 16.565–68 K.).

³⁸ The relevant passage is at *De morbo sacro* 14 (25.12–26.10 Jouanna = 6.387 L.).

³⁹ On this famous passage, see also Devinant (2020) 291–92.

⁴⁰ Cf. Aretaeus, *Morb. Chr.* 1, 6 on *mania*, for a similar distinction regarding 'another species of *mania*', that of patients who have 'a madness of judgement only; for in all other respects they are

The patient, Galen, is here beginning to hallucinate, but his judgement remains sound and he is capable of intervening promptly by asking for help. Even more precise theoretical distinctions regarding the nature of derangement and hallucinations following damage to the *hēgemonikon* are made at *Symp. Diff.* 1.4 (224.9–226.8 Gundert = 7.60–61 K.). In this case, different kinds of impairment are listed and assigned a precise vocabulary, articulating mental damage along various branches of activity and faculty, which can be weakened individually or together: ‘Often delirium exists in both at the same time, in the ill-functioning [faculty of] representation (*phantasiousthai*) and in the improperly functioning reasoning (*logizesthai*), but sometimes in only one of those two.’ At *Symp. Diff.* 1.4 (226.13–17 Gundert = 7.61 K.) Galen offers another famous *phrenitic* case for the sake of illustration:

In some [people] no *phantasma* appears, but they do not reason correctly (*logizontai d’ ouk orthōs*), because the rational part of the soul is affected in them. Such was the case of the phrenitic [person] who, having closed the doors within, was holding each of the household utensils through the windows and asking passers-by if they would order him to throw them out. He spoke the name of each of the utensils quite precisely, from which it was clear that he was neither impaired in his *phantasia* regarding these objects nor in his memory of names (*out’ en tēi phantasiāi tēi peri auta beblammenos out’ en tēi tōn onomatōn mnēmēi*). Why then did he wish to throw all these objects from a high place and shatter them? This he was no longer able to understand, but by the act itself he was manifestly delirious (*tout’ ouketh’ hoios t’ en symbalein, all’ en autōi dē tōide katadēlos egineto parapaion*). In this case the perception of reality and memory is clearly untouched; it is the judgement, reasoning and morality, we might say, that has suffered damage.⁴¹

At *Comm. Hipp. Epid. VI*, 7. 30, 31a and 31b (1315–23 Vagelpohl),⁴² commenting on the Hippocratic passage at *Epid.* 6, 8.10 (175.5–9

sane (*kai esti tēs hypolēpsios he maniē mounon, ta d’ alla sōphroneousi*)’ (43.31–44.1 Hude), but are in particular victims of ‘holy fantasies’ and religious fanaticism.

⁴¹ This patient, or a similar one, is also mentioned at *Loc. Aff.* 4.2 (8.226 K.) in a description of phrenitic behaviour due to impairment of the mental faculties: ‘A man who was confined to his house in Rome in the company of a young wool-worker rose up from his bed and went to the window, where he could be seen and could also watch the people passing by. He then showed them each of his glass vessels and demanded that they ask him to throw them down. The people laughed, clapped their hands, and told him to do so. Then the man grasped one vessel after the other and threw it down. The people laughed and screamed. Later he also asked whether they wanted him to throw down the wool-worker. And when they told him to do so, he complied. When the people saw the man fall from high up, they stopped laughing, ran to the fallen man, who was crushed, and lifted him up.’ On this anecdote, see also Devinant (2020) 288–90.

⁴² On this passage, Vagelpohl (2023) *ad loc.*

Manetti–Roselli = 5.348.1–3 L.), Galen tackles a difficult Hippocratic lemma: ‘VIII 30. Hippocrates said: The mind, distinct from the organs and the things it resides in, thinks inwardly: it feels pain or pleasure, experiences fear or courage, hope or negative thoughts.’⁴³ This passage gives Galen the opportunity to offer some additional comments on mental faculties, with phrenitic parallels regarding damage to reason but not to sensation (nor memory):

A doctor in my home town in the province of Asia visited a person who was suffering from brain fever. The patient then engaged the doctor, drew a sword, grasped it, handed another (sword) to the doctor and wanted him to have a sword fight. Another man was struck by this illness in the city of Cumae.⁴⁴ In his house there was a large sack filled with flour. He emptied this flour on the floor and when the doctor arrived, he wanted him to wrestle with him on this flour as wrestlers do on fine sand in the arena. Another man who had this illness hid behind the door until a person entered. He closed and locked the door and told the person who had entered that he would not open it for him until he had wrestled with him. All these individuals did what they did while (still) recognizing the faces of the people who visited them and remembering their names. That they remembered their names, indicates that they recognized them by their appearance.

We have observed many other behaviours from people with brain fever that indicate that only their mind has been harmed but not the ability to recognize perceptible objects. I therefore think that Hippocrates wanted to mention such people. *Melancholia* also belongs to this category, because people suffering from it clearly perceive everything and remain aware, just not in the mind’s eye.

‘Neurological’ Signs

Some markers of *phrenitis* are also of psychiatric interest from a modern perspective, if more on the neurological side, on our understanding of the term.⁴⁵ These are often associated with fever and dryness in the ancient accounts. For example, there are tremors due to the ‘dry character of the disease’ and its ‘tensions⁴⁶ of the nerves (*ai . . . eutoniai tōn neuron*)’, and once the patient’s energy has dissipated due to prolonged wakefulness and exertion, ‘the nerves dry out and tremors appear’.⁴⁷ The gesturing of the phrenitic is disorderly and uncontrolled: ‘Some puff loudly . . . others

⁴³ On the problems raised by this Hippocratic passage, see Thumiger (2017) 331–32.

⁴⁴ Transliterated as *Kymī*. ⁴⁵ I use this term with the caution expressed in Chapter 4, nn. 6, 26.

⁴⁶ Or lack thereof, ‘slackness’, *atoniai* (ἀτονίαι)? Cf. Diels *ad loc.*: εὔτονια L, ἀτονίαι RT.

⁴⁷ *Comm. Hipp. Prorrh. I*, 1.9, 24.25–28 Diels = 16.533 K. Cf. *De trem.* 8 (7.641–42 K.).

move their head and hands in a disorderly fashion (*alogōs*). Later on, 'their strongest sign is *agrypnia*, and most of all that of the troubled kind (*hē tarachōdēs*): this is characteristic of the phrenitic. It is troubled, as I said, if in the course of the hallucinations they scream and jump and can barely recognize their family.'

It is interesting that Galen can superimpose both a phrenitic interpretation and his own neural understanding on a patient for whom neither is explicit,⁴⁸ as at *Comm. Hipp. Epid. III*, 3.91,⁴⁹ a young man who develops a fatal fever after drinking and sexual excess (*ek potōn kai aphrodisiōn pollōn*). Galen comments that 'drinking too much harms the nerves and their origin in the brain. Sex also damages them, as it affects the strength and debilitates the patient. And so this young man, once a toxic amount of humours had accumulated, was taken by a slight fever, as expected. Had it got worse over the course of the days, it would have evolved into *phrenitis* proper (*eis phrenitin akribē*). In this case, quite unusually, Galen seems to reconstruct a history of unhealthy lifestyle as antecedent to the humoral imbalance, sketching a chain of causation and a landscape of predisposing circumstances that can lead to *phrenitis*. At the same time, this shows the many venues through which he remoulds his Hippocratic sources to his own purposes.

Within the neurological manifestations, motor disturbances, such as spasms, are especially important. At *Comm. Hipp. Progn.* 3.39 (365.16–23 Heeg = 18B.294 K.), the discussion of violence and tremors is an occasion for a neurological assessment of the disorderly movements of the phrenitic:

Those signs that appear mainly in serious cases of *phrenitis* indicate spasms in illnesses of this kind in those who are grown up, and especially those of them that come about as the parts of the face are distorted, or the teeth grind, or the eyes are unstable or twisted. In the case of children, merely being sleepless is sufficient, and sometimes being extremely frightened – which he called 'being panic-struck' (<*ekplagēnai*>) – and crying intensely, and an inability to evacuate their bowels.

Children present an extreme version of the severe motor symptoms *phrenitis* may cause in adults.

Spasms, it is explained elsewhere, originate in the overheating and drying up (*hyperxēranthentōn*) of the brain and meninges through the accumulation of yellow bile.⁵⁰ In extreme cases, spasms can be violent at the end, as Galen states when he comments on the Hippocratic lemma

⁴⁸ On this retrospectivity, see again [Chapter 4](#), pp. 49–50.

⁴⁹ 186.8–187.4 Wenkebach = 17A.790–91 K.

⁵⁰ *Comm. Hipp. Epid. I*, 2.56, 78.2–4 Wenkebach = 17A.153 K.

‘The phrenitic affections end with violent tremors’ (*ta phrenitika neanikōs tromōdea teleutai*) at *Comm. Hipp. Prorrh. I*, 1.9.⁵¹ If these are extreme cases, it is a general fact that ‘the vigour of the nerves, because of the dryness of the disease, affects phrenitics for a long time. And when their strength is diminished (*katalytheisēs . . . tēs dynamēōs*) by their troubled insomnia (*agrypnia*) and their many movements, once the nerves are entirely desiccated, at that time the tremors occur’.

This dryness and parching of the nerves may also explain yawning as a symptom – although *phrenitis* is only one possible factor. At *Comm. Hipp. Prorrh. I*, 1.11,⁵² Galen reflects on the Hippocratic ‘Experiences of pain in the *pharynx*: dry, small, suffocating, when yawning, with difficulty clenching and closing the mouth, and links them to derangement; among such cases, the phrenitics are in danger.’ He adds: ‘When, in the presence of these symptoms, a *phrenitis* should arise, of whatever kind, it is dangerous, as is rightly said. But you should not presume that it is unavoidable that *phrenitis* emerge from these symptoms.’ For Galen, as he goes on to explain, these signs are related to a variety of possible forms of damage at the origins of the nerves, in the brain; *phrenitis* could be one such circumstance, but not the only one. As in several of these discussions, Galen takes the occasion of a description of a phrenitic sign to challenge its semiotic cogency, and in the vast majority of cases to deny that it is *idion* (‘specific’) to the exemplary disease *phrenitis*. But for our purpose of offering a sketch of how *phrenitis* was medically perceived and described, all these signs are equal in weight, despite Galen’s ranking and discussion, and following his own pragmatism and realism.⁵³ In a similar spirit, at *Meth. Med.* 12.8 (10.872 K.) Galen points out that a state in which patients ‘lie stretched out and in pain due to severe dryness’ indicates ‘the need for moisture’. This is especially hard to treat in case of fevers. He adds: ‘In particular, it follows the deadly *phrenitides* (*tais olethriais phrenitisi*), and I myself have seen no one who has been saved after having suffered convulsions in this way’; when the cause is dryness rather than biting humour, there is no hope of curing the patient.

Sleep is an important area of psychopathology in ancient medicine, observed in fine detail by doctors from the time of Hippocrates. In Aretaeus, sleep disturbance is an important element in the portrayal of *phrenitis*. A range of *ad hoc* soothing measures for this condition is contemplated in his text on therapy, including head fomentations,

⁵¹ 24.17–28 Diels = 16.533 K. ⁵² 26.7–18 Diels = 16.536–37 K.

⁵³ On which, see again Devinant (2020) 169–90.

applications under the pillow, rubbing the nostrils, ears, face or feet of the patient, and bespoke relaxing measures (94.14–95.3 Hude). He recommends various activities and diversions conducive to sleep, and in particular those familiar to the lifestyle of the individual patient (94.30–95.3 Hude):

to the sailor, repose in a boat and being carried about on the sea, the sound of the beach and murmur of the waves, the boom of the wind, and the scents of the sea and the ship. But to the musician, the customary note of his pipe in stillness . . . to a teacher, intercourse with the prattling of children. Different persons are soothed by different charms to bring about sleep (*alloisi d' alla hypnou thektēria*).

Restoration of the conditions for a peaceful rest are fundamental: insomnia and excessive sensory response seem to go together.

In Galen, sleep disturbance is also characteristic, and *phrenitis* is defined to an important extent as both identical and contrary to *lēthargos*:⁵⁴ excessive wakefulness and tension, for which, however, the physician from Pergamon notably avoids any psychotherapeutic involvement. In particular, *agrypnia* of a troubled kind (*tarachōdes*) is typical (*idion*) of *phrenitis*, as seen above in the methodological discussion.⁵⁵ In *Comm. Hipp. Prorrh. I*, in fact, Galen devotes considerable attention to articulating sleep disturbances in cases of *phrenitis* and *lēthargos* in a differential spirit: *kōma*, *agrypnia*, *kataphora* and the presence of sleep proper or sleepiness are variously combined in complex ways to describe the pathology, with levels of fine distinction that are at times impossible to grasp.⁵⁶

The topic of sleep was obviously important for Galen, since he devoted an entire treatise, his *De comate secundum Hippocratem*, to commenting on the Hippocratic concept of *kōma*, a condition of pathological sleepiness. At *Com. 2.14–15* an important discussion involves *phrenitis*:⁵⁷ reading Hippocrates, Galen first distinguishes between an ‘oppression, heaviness’ (*catafora*) that is sleepy in kind (*somnolentia*) and one that is not so (*catafora*

⁵⁴ See *Comm. Hipp. Prorrh. I*, 1.1 (6.27–7.1 Diels = 16.496–97 K.): ‘Those affected by lethargic *kōma* can in no way be considered phrenitic. Instead, the patients who are wakeful without *kōma* will be called phrenitics, when they are struck by the affection proper to the disease. It will be called *phrenitis* proper (*hē akribēs*) when yellow bile occupies the seat of the *hēgemonikon* . . . *lēthargos* has a different cause: the *phlegm*. Yet another different illness is *typhōmania*, a disease that arises when the two humours mix without one taking over the other, and without determining as a consequence a purely phrenitic or a purely lethargic state’; cf. *Comm. Hipp. Prorrh. I*, 3.1 (107.17–108.5 Diels = 16.707–09 K.); *Com. 2.12–14* (187.29–188.21 Mewaldt = 7.653–55 K.).

⁵⁵ *Comm. Hipp. Prorrh. I*, 1.6, 22.13–16 Diels = 16.528 K.; see above, pp. 114–18.

⁵⁶ *Comm. Hipp. Prorrh. I*, 1.1 (6.18–7.14 Diels = 16.496–97 K.). ⁵⁷ 188 Mewaldt = 7.655–56 K.

non somnolentia).⁵⁸ Further on, on his reading, Hippocrates distinguishes two types of sleepless (*insomnis*) *catafora*, one that is ‘dull/somnolent’ (*pigra*) and one that is not so. While the first is characteristic of the lethargic, the second befalls phrenitics (188.29–33 Mewaldt = 7.656 K.); under its influence, patients ‘speak and have delirium with no grip on their mind, are particularly ready to be startled’ – all the opposite of lethargics (189.20–27 Mewaldt = 7.655 K.). Further, phrenitics are delirious about matters that make no sense, and are strong enough to get up, which is impossible during lethargic *kōmata*, in which patients do not respond readily to any stimulus. The phrenitic *kōma* is thus an alert comatose state, with no weakening of sensation or movement:

And so these patients lift themselves up immediately when they hear a voice; if touched on any part of their body, they look towards the part involved. In this type of *kōma* the movement is disorderly (*alogōs*): suddenly they are taken by uncontrolled spasms . . . This state is called ‘heavy oppression (*nōthra kataphora*)’ by Hippocrates . . . Already Hippocrates asked himself – and we do the same with him – if these patients should be called phrenitics or something else. In any case, a distinction between the two types of *kōma* is necessary.⁵⁹

Likewise, agitation and a lack of peaceful sleep (*hē agrypnia kai hē tarachē*) characterize *phrenitis* – they are *phrenitika sēmeia*⁶⁰ – and show the involvement of the brain. As a consequence, phrenitic patients ‘scream through their sleep, and get up due to the vividness of their dreams/visions (*dia tēn enargeian tōn phantasmātōn*)⁶¹. Galen also differentiates them from persons suffering from torpor and oppression in *Comm. Hipp. Epid. I*:⁶² ‘If these things [certain affections involving the diaphragm and the *hypochondrion*] arise with troubled sleep and without oppression (*baros*), then he will die phrenitic.’

⁵⁸ This portion of the text is preserved only in a Latin translation.

⁵⁹ Cf. *Com. I.4* (182.15–21 Mewaldt = 7.645–46 K.): ‘Hippocrates too was in doubt about the whole combination of symptoms [*agrypnia* and *kōma*], whether it was opportune to call them phrenitics, or what else. For one should avoid calling them phrenitics, because they are not yet deranged. But when all the symptoms appear to be phrenitic, the pain in the head, loins, *hypochondrion* and neck, one should not be afraid of mistakes or ignorance. No one will deny that these have an obvious probability (of being phrenitic), however not sufficiently.’ Again *Com. I.4* (192.12–19 Mewaldt = 7.663 K.), on a similar concern, the distinction between ‘comatose *kataphora*’ and ‘non-comatose *phrenitis*’; here, as elsewhere, *phrenitis* provides the ideal arena for methodological discussion.

⁶⁰ *Comm. Hipp. Prorrh. I, 1.4* (15.11–15 Diels = 16.514 K.).

⁶¹ *Comm. Hipp. Prorrh. I, 1.5* (20.22–24 Diels = 16.525 K.). Cf. *Loc. Aff. 5.4* (8.329–30 K.) ‘disturbed sleep, frightful and disturbed dreams, awful nightmares with screams and startling, forgetfulness’.

⁶² *Comm. Hipp. Epid. I, 3.19* (132.22–23 Wenkebach = 17A.264 K.).

At *Com. I.3* (181.15–16 Mewaldt = 7.644 K.) Galen notes that Hippocrates' use of the term *kōma* (κῶμα) differs from the traditional one. 'Hippocrates . . . says (*phēsi*) that *kōma* often arises with troubled sleep/sleeplessness (*agrypnia*) and accompanies the phrenitic condition (*phrenitikois synedreuein*)', and Galen comments:

Had he not anticipated that no phrenitics have a manic outburst, but simply said that those phrenitics who were present died with narcotic *kataphora*, it would have been persuasive to hear that after a conversion into *lēthargos*, they died this way. But since he anticipates that none had a manic outburst, it makes more sense to say that they died with *kataphora* while remaining phrenitic, namely while still deranged. In fact, this is the only discriminating fact, together with fever, that we accept for *phrenitis*, which is otherwise in no way different from *mania* except for fever. For both are damage to the mind, but the one without fever is characteristic of the manic, while to have fever is characteristic of phrenitics. It therefore causes no surprise that when raw humours gather in the body, as shown by the excrement and urine, they become at the same time comatose and deranged: comatose because of the coldness and abundance of the raw humours, and deranged because the humours, as they putrefy, generate acidity and heat.

At *Comm. Hipp. Prorrh. I, 1.33* (46.18–27 Diels = 16.578–79 K.) Galen returns to the same passage:

About such phrenitic patients, Hippocrates writes as follows in the books of the *Epidemics*, that none of the phrenitics was raving . . . but they were dying oppressed by another kind of narcotic state, *kataphora*. In the discussion above, he calls these phrenitics 'unclear' (*asapheis*), as if saying that they are difficult cases not only for non-specialists but also for the doctors. For they think that only those who cry out and jump up are phrenitic, while Hippocrates refers this way to those who are hit in the *phrenes*, even if they appear to be in some form of *kataphora* all the time.

It is clear that this particular kind of *kōma* characterizes a version of our disease, since it appears, despite variations, in a number of different sources.⁶³ It is also clear that Galen considers types of sleep to be indicators of states of mental health generally, with these exemplified by *phrenitis* and *lēthargos*. The underlying physiology is described at *De causis pulsuum* 3.10

⁶³ See also *Comm. Hipp. Epid. III, 3.64* (146.16–147.3 Wenkebach = 17A.713 K.) 'Comatose in particular were phrenitics and sufferers from *kausos*, but also in the case of all the other most important diseases, when they occur with fever. The comatose state creates a density of matter especially in those whose head is affected. It suffers this primarily in phrenitics, but in sufferers from *kausos* it occurs incidentally [or accidentally], for [in them] the heat of the fever brings up the bad fluids (*tous mochtērōus chymous*) to the head (*pros tēn kephalēn*); in that case, those of the crude and cold type (*hoi ōmoi kai psychroi*) were abundant.' I thank P. N. Singer for help with this translation.

(9.140 K.), where a distinction is drawn between two different causes of sleep, a dry and a moist one, with opposite pathological outcomes:

Sleep comes from natural heating or through toil of some sort or through *excessive dryness*, or is caused by food or by *excessive moisture* that is unable to find a way out. The first is healthy and in accord with nature, whereas the second described is the type in cases of *kōma* or *lēthargos*. The state of wakefulness of *phrenitis* and in all cases of insomnia contrary to nature is in antithesis to this, [coming about] at the point where the natural heat dries up excessively and, as if it were burnt up, is for this reason pushed violently towards the exterior.

Voice and Tongue

The feverish dryness of *phrenitis* has consequences for the voice and tongue of these patients, as repeatedly noted in the Hippocratic texts, where a ‘rough tongue’ or ‘lisping tongue’ often accompanies high fevers. At *Comm. Hipp. Prorrh. I*, 1.3,⁶⁴ the Hippocratic aphorism under discussion attributes to phrenitics precisely ‘muffled and dry tongues’ (*hai daseiai glōssai kai kataxēroi*), which Galen connects with those that are *tracheiai* (‘rough’), emphasizing the dryness and roughness caused by the heating generated by yellow bile. At *Comm. Hipp. Prorrh. I*, 1.20,⁶⁵ ‘a trembling tongue is a sign of a mind not well composed’: what is at stake here is this sign and a weakened psychic faculty, as also in the case of *phrenitis*: ‘For when the brain suffers and there is a hot affection, it cannot stay still.’ In both cases, the issue involves heating, dryness and the state of the organs of speech.

Galen also considers this sign in terms of semiotics and cogency vis-à-vis *phrenitis*. At *Comm. Hipp. Prorrh. I*, 1.19⁶⁶ he comments: ‘Derangements with a shrill voice and trembling spasms of the tongue, when these grow tremulous, [the patients] are out of themselves, and in these cases hardening (of the tongue) is fatal.’ This sign, Galen observes, is characteristic but not exclusive:

Whenever derangement appears in *phrenitis*, which is a hot, dry illness, and the dryness is passed on to the trachea, a shrill voice develops, just as a raucous voice derives from being drenched in moisture. But these are not affections proper to *phrenitis*; for they also arise in other diseases and do not last for the whole duration of the phrenitic affection. The tremor of the tongue thus affects the psychic faculty because of the dry condition of the

⁶⁴ 12.6–7 Diels = 16.507 K. ⁶⁵ 36.4–16 Diels = 16.556–57 K. ⁶⁶ 35.18–29 Diels = 16.555 K.

above-mentioned illness. The spasms are instead a consequence of the dryness of the muscles in it (i.e. the tongue), as they suffer together with the head, just as the voice becomes tremulous because of a lack of tone due to the bad mixture in them. *All the symptoms mentioned above arise because of the onset of dryness in the head, and obviously signal affection of the mind.* In all these cases of hardening, [this set of signs] is fatal because of the excessive dryness accumulated in the brain.

In this way, the sign is revealed as characteristic of fevers generally, but not of *phrenitis* specifically. In the same spirit, at *Comm. Hipp. Epid. III, 3.33* Galen comments on the Hippocratic statement regarding a phrenitic quality of certain kinds of voices, writing:⁶⁷

Since the affection to the head belongs to this *katastasis*, which is hot, moist and continuously without wind, it follows that also in phrenitics and those with ardent fever there will be the same symptom due to the same cause, and not because of the constitution proper to the disease in itself. For the phonetic parts dry themselves more than they moisten themselves, as in the *katastasis* being discussed here. And then also the voice becomes metallic and acute because of the dryness of the phonetic organs, and hoarse because of the moisture.

As was the case already in the Hippocratics, a lack of clarity in articulated speech – which in the older sources is often identical to a lack of mental clarity – is associated with overheating and dryness.⁶⁸ Overheated, feverish patients may suffer from a characteristic insecurity of speech, the ‘trembling tongue’ (*hai tromōdeis glōssai*), a general consequence of a weakened ‘mental power’ found in *phrenitis* or due to other causes. This too is not a defining sign for Galen (*ouk . . . tōn oikeiōn tēs phrenitidos sēmeiōn, Comm. Hipp. Prorrh. I, 1.20*).⁶⁹ The trembling tongue, he says, is seen by some as a sign of psychic weakness, while the lack of clarity is instead ‘a sign of cerebral suffering caused by heat that does not allow the brain a state of calm’.

In conclusion, just as this manifestation is not exclusive (*idia*) to *phrenitis*, neither are the muffled tongue or the quality of the voice – the ‘metallic voice’.⁷⁰ These are all interconnected for Galen as features of the

⁶⁷ 13L.16–23 Wenkebach = 17A.684–85 K. ⁶⁸ See Thumiger (2017) 417–18.

⁶⁹ 36.6–16 Diels = 16.556–57 K.

⁷⁰ *Comm. Hipp. Prorrh. I, 1.19, 35.21–25* Diels = 16.555 K. ‘Whenever in a *phrenitis* a *paraphrosynē* generates a hot and dry affection, the dryness in it is transmitted to the pipe, making it rough, and the metallic voice (*he phōnē klangōdēs*) follows, just like a hoarse voice (*branchōdēs*) in cases of accumulated humidity, but *not* as identifying markers of *phrenitis*; for these occur in other diseases as well, nor do they occur continuously in cases of *phrenitis*.’ On *hē phōnē klangōdēs*, cf. *Comm.*

dry and hot disease, which also involves urinary incontinence while asleep⁷¹ and a dry tongue. As such, they are ‘common’ but not exclusive (*ouch henikōs phrenitikon alla plēthyntikōs*).⁷²

Urine, Sweat and Other Secretions and Excretions

As we have seen, the urine of phrenitics was described by the Hippocratics as whitish with sediment. Urine and the excreta generally are an object of scrutiny in ancient medicine from its early origins. This tradition of observation continues through the imperial age with the work of late-antique doctors and is substantially developed there, expanding into a separate branch of medical diagnosis.⁷³

For Galen, as we have seen, the quality of urine lacks cogency as a nosological marker. Urine, he explains at *Comm. Hipp. Prorrh. I*, 1.13,⁷⁴ can be white for various reasons, especially diet-related ones. At *Comm. Hipp. Prorrh. I*, 1.4⁷⁵ he notes again that neither urine nor sweat is a sufficient sign. For the vast majority of patients, in fact, bodily products – stools, urine, vomit, sweat, exanthema, sputum and a sense of oppression/unwellness in one particular body part – are not cogent. At *Comm. Hipp. Aph.* 4.72,⁷⁶ Galen also points out that the quality of the urine reflects the general state of the individual, although this is particularly true for acute cases like *phrenitis*: ‘Those pertaining to urine are signs of extreme indigestion/crudity, on which account the disease becomes chronic. Some of these are very damaging when they attack already fading strength, as in the case of *phrenitis*.’ Likewise, he writes later on (*Comm. Hipp. Aph.* 4.72, 17B.760 K.) that ‘a watery

Hipp. Prorrh. I, 1.17, 34.12–17 Diels = 16.553 K. ‘Vomit with nausea is a symptom common to these cases with the malignant fevers, just like the metallic voice.’

⁷¹ *De motu musc.* 2.4 (32.24–27 Rosa = 4.438 K.), *Comm. Hipp. Prorrh. I*, 1.28 (41.27–42.18 Diels = 16.568–70 K.).

⁷² *Comm. Hipp. Prorrh. I*, 1.6 (22.23–24 Diels = 16.529 K.).

⁷³ The tradition of urological prognostics had great success in the late-antique and Byzantine world, as exemplified by Theophilus Protospatharius’ seventh-century *De urinis*, with an overview of traditional doctrines. Stephanus in his *In Magni Sophistae librum de urinis* II (436.5–7 Bussemaker) writes that ‘abundant, thin and white urine passed during fevers signals an interruption in the quartan fever; for he passes thin, white urine during the peaks of fever due to the excess of phlegmatic bile in those who have an unnaturally cold liver’. Cf. ps.-Galen, *De urinis ex Hippocrate, Galeno et aliis quibusdam* 19.610.19 K. ‘In chronic diseases, by and large, there is transparent, white urine because of the state of weakness . . . ; it signals blockage, as is clear in phrenitic cases’, and 19.621.17 K. ‘He passes thin, white urine also in burning fevers, and it signals sharp, severe *phrenitis* (*phrenitida aploun megalēn*)’.

⁷⁴ 28.14–30.14 Diels = 16.541–44 K. ⁷⁵ 15.18–25 Diels = 16.514–15 K. ⁷⁶ 17B.759–60 K.

kind of urine is most negative; such things appear especially in phrenitic patients who are doing very badly'.⁷⁷

Other secretions are also discussed. Sweat is similar, associated with fever generally rather than with *phrenitis* in particular: 'Those who are insane with fever and sweating are phrenitic' (*Comm. Hipp. Prorrh. I, 1.15*⁷⁸); 'Phrenitic difficulties accompanied by chilling and sweating in the upper parts with fevers, as for Aristagora, are fatal' (*Comm. Hipp. Prorrh. I, 1.26*⁷⁹). Linked to heat and dryness is also a symptom that often recurs after Galen, the dense acridic lacrimation of phrenitics: 'When they are about to suffer from *phrenitis*, they have very dry eyes, or a single acridic tear flows from one or the other' (*Loc. Aff. 5.4, 8.330 K.*).

Expectoration – coughing and sputum – was important in the early history of *phrenitis* as well, since the association with derangement was consonant with a localization of *phrenitis* in the chest. Galen tests this sign too in terms of validity – as seen in [Chapter 4](#) – and regards it as relevant but not restricted to *phrenitis*. This chest sign is thus retained by Galen, albeit minimized in its importance as non-exclusive, and is explained as a consequence of the impairment in the brain-centred proairetic capacities, and thus as entirely disconnected from any inflammation, clogging or pathology of the respiratory tract as primary.

Pulse

A fundamental diagnostic element in the medicine of the imperial period is the pulse, inspection of which is increasingly regarded as a major prognostic technique, as we have seen as early as the *Anonymus Parisinus*.⁸⁰ In the case of phrenitics, the pulse is described by Galen as characteristically 'low/small (*mikros*); but very rarely it may appear large (*meγas*), and it has a moderate tone and is hard and sinewy (*sklēros kai neurōdēs*) and overly thick and fast (*pyknos agan kai tachys*). But it also comes in waves; sometimes it will be felt by you as trembling, but at other times as spasmodically intermittent' (*Caus. Puls. 4.14, 9.184 K.*). At *De causis pulsuum* 4.14 (9.186 K.) we read that 'spasmodic intermission in the movement, and its

⁷⁷ What is being discussed here is the Hippocratic *Aph.* 4.72 (426.7–8 Magdelaine = 2.528 L.): 'Those in whom urine is transparent, whitish, bad: it mostly appears in phrenitics.'

⁷⁸ 31.1–26 Diels = 16.545–47 K. ⁷⁹ 39.8–21 Diels = 16.562–63 K.

⁸⁰ At *Anonymus Parisinus* 1.2.1 (3.23–24 Garofalo), *phrenitis* is indicated by 'pulse doubled, small, thick; respiration continuous and not entirely dilating the chest'. On the phrenitic pulse, Pigeaud (1981/2006) 86.

stopping for a rather long interval of time throughout, belongs to phrenitics, as if the heat were taking over and the organs becoming hard’.

The cause of these qualities of the pulse is the bilious humour that causes heating and hardness (*sklerotēs*) in the arteries (*De Caus. Puls.* 4.14, 9.184–86 K.).⁸¹ Rufus, writing in the first/second century CE, likewise says in his *Synopsis de pulsibus* 6.2 (227.1–2 Daremberg) that ‘the pulse of the phrenitic is short and vigorous, because of the continuous motion of the breath due to the lack of sleep’. The second-century CE medical writer Marcellinus in his *De pulsibus* (289–90 Schöne) also describes the pulse of phrenitics as generally frantic and stressed: ‘fast, thick, and irregular, in many cases small/frequent . . . In some cases, it also appears to tremble. There are in addition cases in which the artery falls down and rises up again suddenly. In some cases, there is only shrinking of the artery, in others indeed its collapse. Such a state develops quickly into a “tickling” feeling (*formicatio*).’⁸² Again at *De pulsibus* 431 Schöne, discussing Herophilus, he claims to have often observed the ‘gazelle-like pulse’ the Alexandrian mentioned as a common feature of phrenitic and cardiac dispositions (*en . . . phrenitikais kai kardiakais diathesei*), with a noteworthy conceptualization of the phrenitic ‘disposition’.

Respiration

A kind of pathological respiration is also associated with *phrenitis*. Respiration is an important point of connection between the physiology of pulsation, with its distribution in the body perceived as holistic, which is delocalized, and the chest function of respiration, localized in the lungs and heart, and which *phrenitis* affects or involves, at least in its Hippocratic formulation, where this is

⁸¹ Cf. *Caus. Puls.* 4.14 (9.186 K.) ‘Spasmodic intermission in the movement and not stopping briefly throughout belongs to phrenitics, as when the heat takes over and the organs become hard’; *De puls. ad Tirones* 12 (8.483 K.) ‘The pulse of phrenitics is small; on some very rare occasions, it appears large and has a moderate tone. It is also hard and sinewy, frequent and very rapid. It also has something wavy. Sometimes it might appear to you to tremble slightly, and sometimes to cut off spasmodically’; and at *Caus. Puls.* 14 (9.185K.) ‘Just as the peripleumonic pulse is rarely double-beating, because it is least involved in hardness, so the phrenitic one is very rarely wavy, because it is least involved in softness.’

⁸² Cf. Rufus (first/second century CE) in *Synopsis de pulsibus* 6.4 (227.3–10 Daremberg) on the phrenitic pulse; 8.2.3 (230 Daremberg); ps.-Alexander of Aphrodisias, *Probl.* 4.25.1, where the rapid pulse of phrenitics is also mentioned and opposed to that of lethargics (*hoi phrenitikoï men mikrosphyktoï, megalosphyktoï de hoi lēthargikoï*).

explicit.⁸³ At *Diff. Resp.* 3.10 (7.940–41 K.), Galen cautiously discusses a connection between respiration, thirst and *phrenitis*:

For this reason, deep breathing (*hē makropnoia*) is a sign or pathological cause of continuous yawning . . . Because shallow breathing is characteristic of those who do not drink or drink very little; but this is not said clearly – actually, it is expressed as if it were quite symbolic (*touto d' ouketi saphōs, all' ēdē symbolikōteros eirētai*).⁸⁴ For should we think that phrenitics are meant by him here, since others too say that phrenitics drink little, are startled by noises and have tremors? Or [should we think] instead that he means to indicate those in whom the parts around the heart and lungs cool, so that their inhalation is prolonged and they exhale due to being chilled at the same time? For shortness of breath in both is a sign of healing (*eisagomenē gar ex ptoimōn hē brachypnoia sēmeion ietērion*).⁸⁵

In the chapter of *Loc. Aff.* (5.4 = 8.332 K.) that concerns the *phrenitis* that involves the diaphragm, Galen carefully differentiates between the different affections of respiration in these cases, as opposed to cases where the *phrenitis* affects primarily the brain: in the second case, respiration is 'deep and slow' (*mega kai araion*), in the first 'rapid and spasmodic' (*mikron kai pyknon*).

Drinking, Thirst and Lack of Awareness Thereof

Thirst is also an area where mental distress manifests itself at the crossroads between physiological alteration and mental-behavioural disturbance. This is already noted in the Hippocratic texts in several cases where mental disturbance is preponderant, as well as in concomitance with fever.⁸⁶ As such, *phrenitis* is an obvious case, although the classical sources do not discuss thirst as a specific sign in connection with it. Thus at *Comm. Hipp. Prorrh. I*, 1.16 Galen reflects on the lemma 'Phrenitics drink little, are bothered by noise, tremble (*hoi phrenitikoī brachypotai, psophou kathaptomenoi, tromōdees*)'⁸⁷ and comments:

What is said here is true; for they are troubled by noise as timid people are when they hear a sudden strong thundering or realize a wild animal is nearby. But in addition phrenitics all drink little, although they have a dry

⁸³ On the 'organs of respiration' in Galen and the earlier tradition, see Debru (1996) 94–124, 211–42 on pathologies of respiration in ancient medicine.

⁸⁴ At greater length, see *Comm. Hipp. Prorrh. I*, 1.1 (4.1–9.6 Diels = 16.491–501 K.), where Galen assesses the association between respiration and the cognitive sphere, the muscular explanation and the mental-encephalic one (also *Comm. Hipp. Prorrh. I*, 1.4, 13.25–20.9 Diels = 16.511–24 K.).

⁸⁵ Cf. *Prognosis through pulse* 4.8 (9.405–12 K.) on *lēthargos* and other conditions, prognosis, respiration, mental states and sleep.

⁸⁶ See Thumiger (2017) 216–19. ⁸⁷ 33.9–26 Diels = 16.550–52 K.

and hot affection, so that they have a rough tongue due to the extreme dryness. In addition, Hippocrates teaches us that their mind is sick in that aphorism which says: 'Whoever aches in any part of the body and does not feel the pain, his mind is sick (*hē gnōmē noseī*)'. Moreover, in the third book of the *Epidemics*, in which he speaks of the pathological state of phrenitics, he says the same: 'They were notably lacking in thirst.'⁸⁸

Galen here decisively interprets a lack of thirst as having to do with a lack of self-awareness as a psychopathological sign somehow analogous to unmotivated fears, bringing in parallels from other physiological functions also discussed by the Hippocratics.⁸⁹ At *Comm. Hipp. Epid. III*, 3.45,⁹⁰ in the same spirit, he comments on a mention of lack of thirst in the Hippocratic text, writing: 'The talk is about phrenitics, for [Hippocrates] says that they have become thirstless *not so much because of having excessive moisture at the mouth of the stomach, but because of being unaware* of what happens to them, and because the oretric power at the mouth of the stomach has perished in them.'

Psychology and Behaviour

As far as character and psychology are concerned, aggressiveness is a recurring behavioural trait in the disease. This is an interesting ethical elaboration if we compare the imperial material with earlier classical medicine, where a dangerous character is not emphasized as much: the insane may be agitated, easily startled or prone to shouting, but there is no parallel for the complexity of these examples of aggressiveness or for the consequent moralization of the motor phenomenon they allow.

Phrenitics do not display a particular ethical makeup in the Hippocratics, where the focus is on their physiological state. In the late-antique period, a character, an ethical typology, and a peculiar emotional state begin to take shape. This is most evident in the non-technical literature, but also appears with increasing frequency in medical authors. Galen is not a rich source here,

⁸⁸ Galen even considers a textual variant that points in the direction of a lack of awareness of one's disease or physiology: 'Some wrote *brachypoptai*, meaning paying attention to/hearing the most exiguous sounds. And they say this is proven by the fact that he says "troubled by noise", which means being in distress about matters that are quite exiguous (*hypotopeisthai*), i.e. "to be suspicious/hypersensitive"' (33.23–26 Diels = 16.551–52 K.).

⁸⁹ Compare how later, at *Comm. Hipp. Prorrh. I*, 1.28 (42.13–18 Diels = 16.569 K.), Galen insists that urine passed unawares 'is a sign of an abundance of crude humours either being cooked or being filled with *pneuma* . . . and *not of phrenitis, although this can also happen at times in phrenitics*, or not happen, just like any other symptom which is neither proper nor contrary to *phrenitis*'.

⁹⁰ 138.9–12 Wenkebach = 17A.698 K.

however. Outside the impermeable container of his ethical treatises, Galenic psychology remains fundamentally reductionist. This position is most evident in his account of *phrenitis*, which is extensive on all physiological levels, broadly intended (neurological, encephalic, humoral, sensory-motor and cognitive), but close to non-existent when it comes to psychology in the sense of the subjective, conscious life of patients (emotions and character).⁹¹ It is no coincidence that *phrenitis*, Galen's favourite case in many discussions of the physiology of the body, is mentioned only once in his ethical treatises,⁹² while *mania* and *melancholia* are evoked a few times as examples of impaired states of health impacting the state of the mind. For the physician, *phrenitis* was perhaps simply too hard-wired a disease to be subject to ethical or psychological scrutiny – which in turn, I suggest, made it ideal material for allegory in non-medical authors.

Galen's comments about the eyes of the phrenitic open up a perspective on this. This body part is seen in Greek medicine in a quite literal sense as an expression of the state of the individual's mental and ethical health,⁹³ an element that reflects a wider cultural belief, and 'encrusted eyes' are explicitly mentioned as manic signs (*ommata epichnoun echonta, manika*) in this sense in *Prorrh. I*, 17 (77.1–3 Polack = 5.514 L.). Galen has an interesting comment on this passage (*Comm. Hipp. Prorrh. I*, 1.17):⁹⁴ this sign, he says, while common to various diseases – and especially the putrescent sort – appears in phrenitics as well, and in the most aggressive cases (*tōn sphodrotata phrenitizontōn*). Moreover, the eyes of these patients 'have a bold glance (*to blemma thrasy*)', while in putrescent patients the glance is meek (*deilon*). When phrenitics display this sign, they 'are frantic in a furious way (*maniōdōs parapaiousin*)' due to their overwhelming dryness. Here we see Galen wrestling with the variety of Hippocratic data, returning again and again to *phrenitis* as an inclusive category, even when *mania* – a disease he pointedly differentiates from *phrenitis* by virtue of the presence or lack of fever – is being explicitly discussed instead. Galen's engagement with the psychological event tends to return to the bodily manifestation and physiological account, in this case specifically dryness.

⁹¹ Galen seems to admit the existence of *phrenitides* caused by psychological, emotional circumstances, although, significantly, this remains only a hint: at *Symp. Caus.* 1.8 (7.144 K.), after a physiological claim regarding our disease, he inserts the corrective: '[This is the case for] those [*phrenitides*] at least that do not arise from pain or some anxiety (*hosai ge mē dia hypēn ē tina phrontida synistantai*).'

⁹² By this term, I refer to the titles in which Galen engages with human ethical flourishing and its preservation (i.e. those published in Singer 2013).

⁹³ See Thumiger (2017) 86–93. ⁹⁴ 34.7–15 Diels = 16.552–53 K.

Extraordinary strength is also a fundamental characteristic of the portrayal of violence, linked, visually in particular, to the spasms, restlessness and compulsive movements from which phrenitics suffer. At 3.5 in the *Problemata* attributed to Alexander of Aphrodisias, it is observed that these patients are identified as strong during the disease but weak during remission, again due to the drying effect of the illness, emphasizing the polarity between the alternating states:

Why are phrenitics especially strong in their disease, but weak when it remits? Because the dry *dyskrasia* takes over the brain and the nerves, and this imparts tonicity (*tonon*) to the nerves, energizing them (*pros energeian*). Then when they realize they are in remission, from this fatigue a lucid state comes about in the judgement faculties in the ill, and once wetted, their nerves become soft and weak.

Cassius Iatrosophista, the author of the *Quaestiones Medicae et Problemata Naturalia* (possibly from the late second/early third century CE) likewise discusses this remarkable strength in a medical problem (62.1–2 Garzya–Masullo):

Why are phrenitics and manics stronger in their paroxysms (*en tois paroxysmois ischyroteroi*), and why do they have increased strength (*tēn dynamin epitetamenēn echousi*)? One should say, because they are rendered bolder by derangement; for their body is made inflexible/rigid by the excessive contraction (*hoti thrasynontai men hypo tēs parakopēs; dyskamptōn de autois esti to sōma apo tēs agan sphixēōs*). For this reason, once they have reached remission, they relax/lose strength, not because they are passing from a better to a worse state, but because once the tension is loosened, everyone returns to being able to see without obfuscation.⁹⁵

We now come to variation and inconsistency of character. In this determinist account of phrenitic derangement, mental alterations with their duration and chronology are fundamental. All forms of behaviour that are out of character are seen as characteristic. At *Comm. Hipp. Prorrh. I*, 2.8,⁹⁶ as he comments on the fact that ‘an aggressive reply from a kind person is a bad sign’, Galen explains that the discontinuity in itself signals *phrenitis*, just as the contrary change, from bold to mild, signals *lēthargos*: ‘A person who habitually has a gentle nature, not only reveals his state when he is deranged in a fatal way, but also reaches the point of *phrenitis*

⁹⁵ Compare the *corporis vana fortitudo* mentioned by Caelius, *Morb. Ac.* (42.20 Bendz).

⁹⁶ 59.15–22 Diels = 16.605–06 K.

(*hekei phrenitidos*) when he answers in an aggressive way. In turn, a polite reply in a bold character foresees *kataphora* and *lêthargos* in the patient.’

Areteaus’ extant testimony, with its focus on therapy, is by contrast especially dense in clinical information aimed at the psychology of the patient in a more comprehensive sense. He opens his discussion of the care of phrenitics with psychotherapeutic aspects: the whole initial section at *Th.Ac.* I (91.12–92.8 Hude) stresses elements of psychology rather than strictly physiological ones. Patients ‘ought to lie in a house of moderate size and mild temperature’; peace and quiet should be maintained by family and guests; the walls should be smooth, devoid of any image, since images might trigger the patients’ disturbed imagination; likewise covers should be smooth, so as not to excite the ill to compulsive picking with their hands (flocillation). The company of friends should be encouraged, but without producing excessive excitement, and an appropriate modulation of light should be obtained to suit the mood of the patient. This approach presents phrenitics as primarily patients of a mental kind, although the usual dietetics and physiological measures follow.

In Areteaus as well, explicit mental and neurological signs are included: impaired cognition; sensory alteration, especially hallucinations; pathological insomnia; or restlessness and uncontrolled movements of the limbs. Even the voice may change in these patients, this being a traditional marker of psychic alteration in ancient medicine:⁹⁷ ‘Insomnia (*agrypniê*) and false visions (*phantasiê*) are present . . . They become disordered in understanding (*tên gnômên parakineontai*) and their voice changes (*tên phthenxin exallassontai*) . . . The delirium becomes more violent’ (93.31–94.3 Hude). Degrees of delirium signal stages in the progression of the disease and demand different pharmacological options to keep derangement (*paraphorê*) in check (92.17 Hude).

In addition to these general categories, numerous features of general behaviour are important indicators for mental cases, communicating impairment on a holistic level or simply characterizing the patient, the ‘human being’, as phrenitic in the reality of his or her existence. Despite his attention to physiology and the poverty of his comments on phrenitic personal psychology, Galen offers a great deal on the level of assessment through direct observation, again following the path of Hippocratic clinical activity. The behavioural portrait of phrenitics includes disparate elements such as gesturing, a lack of desire or ability to drink, a fixed gaze, sudden weeping and incoherent responses to questions. Patients are deranged and speak senselessly, are afraid for no reason, and pick flocks with their hands. ‘Sometimes they speak aggressively, others remain despondent and hardly

⁹⁷ See Thumiger (2017) 115–43.

answer. Even if they feel pain in some parts, sometimes they do not feel physical contact, even if one touches them forcefully (*ē merous tinos odyneran echontos diathesin oud' holōs aisthanesthai, kan sphodroteron tis autou thigēi*), as described at *Loc. Aff.* 5.4 (8.331 K.).

The most representative individual visible sign of *phrenitis* is surely floccillation or crocydism, which we have already encountered many times.⁹⁸ Galen explicitly interprets it as a form of hallucination, a misrepresentation of reality belonging to the same category as visions. (He pays no attention, however, to the compulsive specifics of the focus on small items, whether dust, pieces of wool, threads or insects.)⁹⁹ We have seen how Galen at *Loc. Aff.* 4.2 (8.226–27 K.) relates his own experience as a phrenitic patient beginning precisely with this sign: 'Stricken by a burning fever during summer, it seemed to me that I saw sticks of dark straw protruding from my bed, as well as similar pieces of wool from my garment.'¹⁰⁰ He explains the nature of this disturbance, which was in his case accompanied by nightmares:

Throughout the entire day and night I remained agitated by frightening dreams, shrieking very loudly and even trying to get out of bed; but on the next day, all symptoms subsided . . . When a bilious humour accumulates in the brain at the time of a burning fever, the brain is affected in the same manner as objects which are burned on a very hot fire. A kind of smoky flame arises, as from an oil lamp. When fumes enter the blood vessels leading to the eyes, they produce optical illusions (*phantasmata*) in these patients.

The process is also considered at *Problema* 2.54 by ps.-Alexander of Aphrodisias, where the optical *pneuma* is discussed. The text explains that in phrenitic patients the vapours (*hoi atmoi*) go directly from the damaged brain to the optical pneuma, making it difficult for them to see things the way they are.¹⁰¹

Different causes can produce the malignant vapours which obscure vision, although *phrenitis* is one of the most common, and Galen takes it as his chief example:

It can happen in this way also in acute fevers and inflammation of the lungs, when the humours in the body rise as vapours to the head, that the clear

⁹⁸ On this as recurring symptom (*symptōm constant*), see Pigeaud (1981/2006) 82–86.

⁹⁹ See Thumiger (2017) 152–53 on these and on the neurology of this symptom; Walshe (2016) 100 on the medical event; Pigeaud (1987/2010) 124–26 on Galen and hallucinations in cases of crocydism and other *phrenitis*-relevant themes.

¹⁰⁰ See p. 145.

¹⁰¹ Just as in other patients afflicted by an overflow of humours to the head, who see images distorted in size and colour; see also Alexander's *Comm. Arist. Metaph.* 3.5 (312.21 Hayduck), where individuals with jaundice or *phrenitis* are telling examples of persons whose judgement and perception of size and colour are impaired.

fluid around the pupil shares in their exhalation. And wherever and in whatever way it is made turbid, the aforesaid images are generated.¹⁰² But in violent headaches, just as in cases of *phrenitis*, because the head becomes full and some part of the humours reaches the eyes, this causes the same symptoms. And ‘picking at loose flocks’ and ‘picking at things’, verbs habitually used by all doctors, especially for patients suffering from *phrenitis*, have acquired their meaning from the following. Some people have described the image of flocks (*krokydon*) and of chaff, both while this was actually happening and afterward, recalling it later. (*Comm. Hipp. Progn. I*, 23¹⁰³)

And a bit later:

For it seemed to them that in many places the flocks of the bedclothes were protruding, and that there was chaff attached to the walls, and often also that there were many pieces of straw lying on the bedding, and that small creatures were flying past close to their eyes. They attempt to chase these, moving their hands about as if to catch something. As for the other things that appear to be protruding, they attempt to remove the former from the bedclothes and to tear away the latter from the wall. Accordingly, the dispositions producing such symptoms are fairly grave, with acute fever, inflammation of the lungs, and headache affecting them due to their intensity, while *phrenitis* does so because of the pre-eminence of the affected part.¹⁰⁴

Neighbouring Diseases

A useful measure of the ontological status of a disease is its position within a taxonomy or community of diseases synchronically present in a given context. Classical medicine notably placed *phrenitis* among the winter diseases affecting the chest and among high fevers. Celsus clearly positioned it among the kinds of *insania*, as its most representative type; other nosological authors of the early centuries placed *phrenitis* first within an order *a capite ad calcem*, implying its importance and position in the head (meninges and brain). Another important relative positioning which emerges in this period has to do with *mania*, from which *phrenitis* as a mental disorder is differentiated by fever.¹⁰⁵ The most important relation,

¹⁰² See also *Comm. Hipp. Aph. 7.12* (18A.112–13 K.) on the Hippocratic statement ‘*phrenitis* coming on peripleumonia, bad’: ‘Whenever *peripleumonia* arises due to a heated humour, sending up many vapours to the head, it fills the head with vapours and causes *phrenitis*.’

¹⁰³ 237.8–19 Heeg = 18B.73–74 K. ¹⁰⁴ 237.26–238.6 Heeg = 18B.75 K.

¹⁰⁵ Thus explicitly Galen, Aretaeus, Caelius Aurelianus and the encyclopaedists. This distinction remains firm in the following centuries. See below pp. 243, 258, 261 on Avicenna and others; Pigeaud (1987/2010) 67–69.

however, is between *phrenitis* and *lēthargos*, as already posited with Celsus.¹⁰⁶ The relation between these two appears to have a primarily practical importance: this is clear in the fact that the pharmaceutical author Dioscorides often presents and discusses the two together in his notes, and that their course and therapy are presented as symmetrical by several late-antique and medieval authors.

In Aretaeus as well, proximity or convertibility into other diseases is a recurring feature of *phrenitis*. First, *kausos* (καῦσος) can be its co-affection (97.14–19 Hude), with ‘thirst, restlessness, *mania*’ (*dipsos, aporiē, manīē*). Second, Aretaeus is the first (and perhaps only) author to mention the disease *synkopē*, literally ‘collapse of strength’, as a possible outcome of *phrenitis* (*phrenitis gar eutrepton es synkopēn kakon*, 92.22 Hude); in this case, therapy must disregard the delirium and focus on preventing the patient from dissolving his or her strength into vapours and humidity (97.19–23 Hude). Support is given by wine, with its ability to ‘impart pleasure through its sweet smell’ and to ‘soothe the mind in delirium’, two important effects of drinking.¹⁰⁷ *synkopē* is localized in the heart (*kardiē*; cf. 2.3, 21.27–23.12 Hude).¹⁰⁸ Third and most important, since Aretaeus maintains that *phrenitis* has connections in the body with both the chest and the head, affiliation to neighbouring diseases in these two parts is mentioned: *lēthargos*, on the one hand, and the more traditional *pleuritis* and *peripleumonīē*, on the other. Just as for *phrenitis*, the chapter on *lēthargos* survives only in Aretaeus’ book on therapy (*Th.Ac.* 2); here he mentions the importance of moderating light and creating a suitable environment, offering patients interesting conversation, massages and tickling, as well as stimulating images on the wall to inspire their sense of vision – an entire invigorating package identical but contrary to the one for *phrenitis*, where relaxation and calm are key. If excessive sleep prevails, strong measures such as shouting, angry reproach and exciting announcements are in order, ‘the opposite as for phrenitics’, as he specifies (98.8–14 Hude).

The polarity, symmetry and complementarity of the two conditions are clear in physiological terms, but also as an ethical contrast between the excessive, hyperactive, ‘phrenitic’ ways of the one group of patients and the passivity, sleepiness and lack of engagement of the other. For Aretaeus, in *lēthargos* as well both belly and head are in focus, calling for the same prescriptions as for phrenitics (99.10–11 Hude), namely therapy directed at body parts located in the lower chest (bladder, *hypochondrion*). In general,

¹⁰⁶ See Chapter 3. ¹⁰⁷ 97.23–28 Hude. ¹⁰⁸ Cf. ‘heartburn’ (97.10 Hude).

lack of *aisthēsis*, sensitivity (101.23 Hude), is the issue for *lēthargos*, corresponding to the hypersensitivity found in *phrenitis*. This sensory aspect has ethical repercussions, and therapeutic measures for the two are either similar to or mirror images of each other (e.g. here too hair must be clipped, 102.3–4 Hude).

In Aretaeus, *pleuritis* shows no pathological point of contact with *phrenitis*, apart from the close localization, and therapy is addressed to the body exclusively; *peripleumonīē* (2.1, 15.1–16.26 Hude), on the other hand, presents similarities. The latter disease is obviously focused on the respiratory system and its organs and seat in the chest and neck. The description of it, however, includes interesting mental aspects, as was already the case in some of the Hippocratic material.¹⁰⁹ Among these are aberration of mind, *gnōmēs aporiē* (16.6 Hude) and vain fancies, *phantasiai axynetoi*; patients are deranged in their understanding (*paralēroi tēn gnōmēn*) although not violently delirious (*ekstatikoi ou mala*), and have no knowledge of their present suffering (*agnōsiē tōn pareontōn kakōn*, 16.9–11 Hude). There are also visible signs (heat, pulsating veins on the temples, gasping and a dry tongue) which suggest involvement of the brain.

Galen follows similar lines, giving particular emphasis to *lēthargos* as a contrasting and symmetrical condition. At *Symp. Caus.* 3.10 (7.259–60 K.), for example, *phrenitis* is a dry, hot disease, and because of this it promotes and intensifies the active functions. *lēthargos*, on the other hand, is said to be weak, soaking the parts with abundant moisture, and cold.

In his invective against the Thessalians and the followers of Athenaeus at *Meth. Med.* 13.21 (10.928–31 K.), as we have seen, Galen criticizes the fact that, despite their cardiocentric affiliation, they focus their therapeutic attention on the head in cases of *phrenitis* – just as Galen himself would do. He extends the example to *lēthargos* and adds:

Even in those with *lēthargos*, there is no one who does not apply the remedies to the head, for this affection is in a way symmetrical in kind to *phrenitis* (*touto gar to pathos enantion men pōs esti kata tēn idean tēi phrenitidī*). It occurs when the brain, in which the *hēgemonikon* of the soul is located, is affected. Therefore, whenever the humour predominating in the brain is cold, *anaisthēsia* and *akinēsia* befall the person . . . This, then, is common to both diseases (*koinon amphoterōis tois nosēmasin*), both those which occur with *lēthargos* and those which occur with troubled sleep/insomnia.

Phrenitis is thus pragmatically categorized as a ‘wakefulness’-related disease, especially when therapy is under discussion, being defined a little later

¹⁰⁹ See above, pp. 22, 23–27, 32.

as one of the ‘diseases with troubled sleep/insomnia and raving (*tois . . . agrypnitikois kai perikoptikois nosēmasi*)’ that must be cured by ‘making the *hēgemonikon* sleepy and numb, cooling, obviously, the over-heated brain. But in the opposite affections [i.e. *lēthargos*] it is appropriate to rouse and to cut and heat the thickness of the distressing humours which, without putrefaction, creates deep somnolence.’ It thus makes sense that for Galen *lēthargos* should be the obvious resolution for *phrenitis*, as explained in *Comm. Hipp. Epid. VI*, 6.9:¹¹⁰ ‘Just as the quartan fever resolves *epilēpsia*, and fever any sort of spasm or catarrh or asthma, in the same fashion diarrhea resolves ophthalmia, heartburn the passing of indigested food, *pleuritis peripleumonia*, (and) *phrenitis lēthargos*.’¹¹¹

Galen also appears to implicitly categorize *phrenitis* as a mental health issue when he implicates it in previous discussions of other mental disorders.¹¹² Consider his critique of a Hippocratic diagnosis of *melancholia* at *Comm. Hipp. Acut.* 4.37.¹¹³ The original Hippocratic statement runs as follows: ‘In those patients, during fevers the cavity is wet and the mind troubled (*gnōmē tetaragmenē*), and many of them pick flocks and pick their nose and reply to questions only briefly, but by themselves do not say anything sensible. Therefore, these seem to me to be melancholic.’ Galen disagrees with the Hippocratic author and offers instead a phrenitic interpretation:

The other symptoms are typical of phrenitics, but the one involving a wet cavity is sometimes present in *phrenitis* but is not specific to it, so that it is appropriate to treat the wet cavity independent of the definitions/territories (of *phrenitis*) and to consider other therapies proper to *phrenitis*. The therapy this author described does not target *phrenitis* precisely, but appears to me to want to cure a disposition arising from a situation in the cavity, which involves the head by sympathy, so that there is delirium with affection of the cavity. He writes that such cases are ‘melancholic’, incorrectly; for such cases arise more because of yellow bile when it reaches the cavity.

¹¹⁰ 351.4–8 Wenkebach = 17B.343–44 K.

¹¹¹ The ps.-Galenic *Definitiones Medicae* (19.414–15 K.) confirm the importance of the theme of sleep and oppressive torpor, the *katochos* Galen discusses at length in various places, bringing together *phrenitis* and *lēthargos*: ‘*katochos* is lack of sensation of the soul with a fixing of the whole body. There are three types of *katochos*. For one is somnolent, which happens in *lēthargos*. The second is wakeful, in which *tetanos* and the so-called *hysterikē pnix* appear. The third kind of *katochos* is that which one would not inappropriately call phrenitic *katochos*. It arises from a mixture of two sicknesses, *katochos* and *phrenitis*, just as is the case with *typhomania*.’

¹¹² On the methodological complexity of Galen’s position vis-à-vis conceptualizing the ‘diseases of the soul’, with which we cannot engage here, see the important discussion in Devinant (2020), with key conclusions at 298–302; also Devinant (2018).

¹¹³ 306.25–307.14 Helmreich = 15.802–03 K.

It is clear that Galen focuses here on a sign of mental significance, floccillation, and takes it in the abstract to be associated, by virtue of other physiological details, to a general phrenitic make-up.

Finally, in Galen, as in Aretaeus, *phrenitis* can be co-present with ardent fevers (*kausoi*) or follow them, with different outcomes. He comments on a passage in Hippocrates as follows (*Comm. Hipp. Epid. I, 2.78*):¹¹⁴

In those who had become phrenitic without having had *kausos*, none of the above-mentioned symptoms occurred, but death came around the sixth day to those who had become phrenitic after a *kausos*, the severity of their disease having been doubled (*diplesiasthentos autois tou kakou*).

Both pathological forms are caused by yellow bile, with *kausos* hitting the stomach, while *phrenitis* affects the brain and its membranes (*Comm. Hipp. Epid. I, 2.75*):¹¹⁵

The same humour causes burning fevers and *phrenitis*, but occupies different places (*ou ton auton de topon echōn*). When it settles in the brain and in the meninges, it causes *phrenitis*. Before it settles, when it flows down through the vessels in the meninges, it brings not *phrenitis* but those forms of *paraphrosynē* which occur at the peak of fevers.¹¹⁶

Age, Season, Profiling, Predispositions

While the profile of patients prone to our disease was not made particularly clear in earlier medicine, external factors and aspects of profiling begin to appear in the nosology being discussed here, more fully contextualizing the disease. In Galen, the typical phrenitic is said to be neither very young nor old, but just ‘past the young age’, as we read in *PHP* 8.6.31;¹¹⁷ this age-profile is shared, however, with *pleuritis*, *peripleumonia* and *lēthargos*. The age-specification is in any case not rigid: at *Comm. Hipp. Aph. 3.30*¹¹⁸ we also learn that ‘the forms of *phrenitis*, burning fever, cholera, dysentery hit the young no less than those past their prime (*tois neaniskois ouden hētton ē tois parakmazousi ginontai*), taking their origin from the yellow bile’.¹¹⁹

¹¹⁴ 91.32–92.2 Wenkebach = 17A.182 K. ¹¹⁵ 88.26–89.6 Wenkebach = 17A.175–76 K.

¹¹⁶ Cf. *Comm. Hipp. Epid. I, 2.20* (58.22–59.21 Wenkebach = 17A.112–14 K.) on the connection between these two kinds of fever.

¹¹⁷ 518.19–20 De Lacy = 5.695 K. ¹¹⁸ 17B.645–46 K.

¹¹⁹ Commenting on *Aph. 3.30* (408.11–13 Magdelaine = 4.500 L.): ‘for those beyond this age, wheezing, cases of *pleuritis*, cases of *peripleumonia*, *lēthargos*, *phrenitis*, *kausos*, *cholera*, chronic diarrhoea . . . cases of dysentery, haemorrhoids/haemorrhages’.

As for triggering circumstances, in Galen summer heat is predominant in favouring the disease (alongside springtime, youth and a hot nature), as we read at *Com.* 2,7;¹²⁰ Galen himself, as we have seen, fell prey to the disease in summer. The development of the description of *phrenitis* in the direction of a dry, bilious ailment determines this emphasis on heat, sun and summertime. We are a long way from the Hippocratic chest infection linked to the cold months of the year.¹²¹

Similar information, to the effect that *phrenitis* is not a cold disease, is found at *Comm. Hipp. Epid. VI* 7.50 (1255.14–16 Vagelpohl): ‘So *phrenitis* is a disease of the warm nature and one that corresponds to the warm age of life, and it stays in opposition to a cold nature and cold age’ (and, as such, to *lēthargos* – my translation). Again: ‘When someone is scattered in his movements, fidgety, vehement, clumsy, irritable, he has the disposition for wandering of the mind with fever, which is called “hot *phrenitis*” (“heiße *phrenitis*”); opposite this is a ‘cold *phrenitis*’ – *lēthargos*, we might suppose: ‘In cases of madness with fever, the person who is dumb, slow, sluggish is predisposed to fall into cold *phrenitis*, which is called *lēthargos*’ (*Comm. Hipp. Epid. VI*, 7.38, 1219.17–1221.2 Vagelpohl).¹²²

¹²⁰ 186.4–10 Mewaldt = 7.651 K.

¹²¹ Galen seems to distance his understanding most radically from the Hippocratic interpretation of *phrenitis* as a winter ailment, as his attempt to bring his predecessor into agreement with himself testifies. At *Comm. Hipp. Epid. I*, 2.76 (89.10–19 Wenkebach = 17A.176–77 K.), he comments on the discordant Hippocratic statement that ‘there were (a) few cases of *phrenitis* also in the summer’ (the majority, it seems to be implied, were normally in winter), and explains this as follows: ‘Part of [the summer], until the Dog [i.e. the heliacal rising of the star Sirius, in July–August, n.d.t.], was cold; but part, until Arcturus [the rising of the star α-Boötis, or *Ursa Maior*, in spring] was hot and dry. For this reason, the summer was not such as to cause replenishment of the head in this period, nor could the south wind, which arises around Arcturus until the equinox. Nor was the weather wet, moist or stable for some time in the period between the Dog and Arcturus. But (clearly) what [Hippocrates] says is that when abundant bile was poured into the regions around the head, then also cases of *phrenitis* occurred (*hoti cholēs pollēs enechtheisēs en tois kata ton enkephalon chōriōis kai phrenitides egenonto*).’ On *phrenitis* and summer heat, see also ps.-Alexander of Aphrodisias, *Probl.* 1.76, which discusses the example of dogs maddened in the summer and evokes *phrenitis*: ‘Why do only dogs become mad (*lyttōsin*) in the summer? Because of the *prolēpsis* of the dry mixture: for they are dry by nature, and especially during the summer heat. And so the humid components and *krasis* in them burns ardently when they are heated and dried. They thus rave (*mainontai*) just as phrenitics do (*kathaper phrenitiōntes*).’ On the construct ‘sun disease’, see [Appendix 1](#).

¹²² In his translation of this passage, Pfaff wrote ‘Schlaflosigkeit’ rather than ‘Schlafsucht’ (my *lēthargos*) because the single Arabic manuscript available to him contained the term *sahar* (cf. *Comm. Hipp. Epid. VI*, 506.8–11 Pfaff: ‘wo ich das Wesen der Epilepsie, der Aphasie, der Paralyse, der kalten Phrenesie, die Schlafsucht heißt, der heißen Phrenesie, der Melancholie, der Traurigkeit’, ‘I have presented the nature of epilepsy, aphasia, paralysis, cold *phrenitis* that is called lethargy, hot *phrenitis*, melancholy, sadness’). The correct reading *sahw*, which corresponds to *lēthargos* and confirms my interpretation, is preserved in Ḥunayn ibn Iṣḥāq’s summary of the commentary, the Masā’il. I thank Uwe Vagelpohl for this clarification; he translates ‘absent-mindedness’, however, which fails to express the symmetry of *phrenitis*–*lēthargos* as hot and cold brain fever respectively I am discussing here.

These ‘cold’ and ‘hot’ models aside, there is only sporadic information about what might make a patient more prone to falling ill with our disease. At *Comm. Hipp. Epid. III*, 3.72,¹²³ for example, in a physiognomic spirit, we are told that ‘the red-faced and those prone to *melancholia*, having thick, hot blood, were likely to be taken by phrenitic diseases or forms of *kausos* or blood-stained forms of dysentery in the vast majority of cases’. Even emotions can have an impact, as *Comm. Hipp. Epid. VI*, 2.40 explains:¹²⁴ fear can cause the blood to become serous and lead in turn to *agrypnia*, and ‘if there is a bad humour, not only does the serous part of the blood circulate in the blood vessels, but it will also cause forms of *paraphrosynē*, *phrenitis* and *mania*’.

Diet and what we would call lifestyle can also play a part, although they are not systematically foregrounded. At *Comm. Epid. III*, 3.91¹²⁵ Galen comments on the young man in Moelibea discussed by Hippocrates (*Epid.* 3, 17, III.10–13 Jouanna = 3.146 L.) and mentioned previously. The youth had a fever and ultimately died ‘as a result of drinking and sexual activity’ (*ek potōn kai aphrodisiōn*). Galen retrospectively explains this death as a phrenitic outcome: it may (*eikotōs*) have begun with a moderate fever, with the passing of time it became worse, and it ultimately resulted in a true and proper *phrenitis* (*eis phrenitin akribē periēstē*). The reason is that excessive drinking and sexual activity can damage the nerves and their origin, the brain (*ta te neura blaptousin kai tēn archēn autōn, ton enkephalon*). Most important, Galen stresses the nature of each individual, his or her *ēthos* (ἦθος), as a determinant: ‘In men of an unstable and troubled nature (*kouphois kai tarachōdesin*), a small cause is enough (*epi smikrais prophasesin*) to unleash the disease. For those, on the other hand, who have the opposite nature (*ēthos*, i.e. one that is stable and calm), more substantial triggers are needed (*epi megalais aitiais*).’

Cure and Prognosis

Surprisingly for a modern reader, *phrenitis* does not attract much specific therapy of a physiological kind, despite its importance. In general, measures target the patients’ over-heated, flushed head, and try to induce sleep in order to favour calm and relaxation. In reference to this period, it would be poor anthropology to distinguish ‘scientific’ therapy from folk or magic methods. We should nonetheless, albeit with some reservation, group here

¹²³ 153.20–23 Wenkebach = 17A.725 K. ¹²⁴ 109.21–23 Wenkebach = 17A.984 K.

¹²⁵ 186.11–187.4 Wenkebach = 17A.791 K.

the measures invented by professional doctors who insert themselves in a tradition of incremental scientific discourses, and leave other methodologies, more reliant on traditional, symbolic and ritual elements, to a separate discussion in which non-technical sources are surveyed, even if there is a grey area between the two categories.¹²⁶

As for pharmacology, at Gal. *Meth. Med.* 13.21 (10.930 K.) various methods of purging are proposed for diseases that involve humoral excess, *phrenitis* among them: fasting, phlebotomy, washing and the application of *oxyrrhodinum*, a mixture of vinegar and rose oil, to the head. The latter, a mixture of rose oil and low-quality wine or vinegar, is a recurrent recipe mentioned at *Simpl. Med.* 3.9 (11.559 K.) as a remedy often recommended for the initial stages of the disease, as well as at *Comp. Med. Loc.* (12.523–24 K.), where Galen reports that Apollonius ‘orders that vinegar be mixed with rose oil, as for the phrenitic and lethargic. At the beginning of diseases, most doctors usually employ that’, although he criticizes the lack of precise indications of the quantities recommended. Later he moves on to explaining the efficacy of this acrid mixture precisely in terms of its ability to reach deep beneath the skin:

In the case of phrenitics, since all the external parts of the cranium are insensitive, as are the skin and the surrounding pericranial membrane, some conveniently begin by mixing old wine/vinegar, following the principle I exposed at length in my treatise on pharmacology when I said that it is appropriate for *conditions which are deep seated within the body (tais en tōi bathei tou sōmatos ginomenais diathesesin)* to apply different *pharmaka* from those destined for illnesses which are superficial (*tōn epipolēs ginomenōn diatheseōn*).

Phrenitis is then a ‘deep’ illness, and suitable substances should be chosen for it, capable of reaching deep under the ‘insensitive’ (*apathes*) layer of the cranium.¹²⁷

The acrid recipe is also found in the *De materia medica* of the famed Greek doctor and botanist Pedanius Dioscorides (first century CE), who recommends, as others do as well, ‘combining old wine/vinegar and rose oil as ointments for the lethargic, phrenitic, skotomatic, epileptic, those with chronic cephalgism, paralytics, etc.’ (*Mat. Med.* 3.78.2, 91.10–13 Wellmann). When speaking of ‘cow-parsnip’ (*sphondylion*), he further claims that ‘when drunk, it can cure hepatic diseases, hicterus, . . . epileptics,

¹²⁶ Cf. Chapter 6.

¹²⁷ The lack of sensation of phrenitics vis-à-vis their *locus affectus* is interesting and a suitable bridge to the ethical and delocalized history of the disease; see pp. 109–10 and below, pp. 203–05.

hysterical suffocation . . . Together with oil in embrocations to the head, it applies to phrenitics, lethargics, headaches' (*Mat. Med.* 3.76, 88.9–89.5 Wellmann). Dioscorides generally discusses *lēthargos* and *phrenitis* in succession when affections involving the head are at issue: at *Mat. Med.* 3.38 (50.7–51.11 Wellmann) we find a special preparation for both, while at *Mat. Med.* 1, 103, 96.1–3 Wellmann 'inhaled seed of pennyroyal moves to cleansing, as a plaster resolves headache, and is used for soaking with oil and vinegar in *phrenitis* and *lēthargos*'.¹²⁸

Another category of pharmacological remedy targets the need to restore a state of peace and quiet. In the Galenic *Ther.* 15 (14.271 K.) we read that 'often the *theriakē* [a powerful animal-based remedy] halted the derangement in phrenitic patients (*parakopas gennaiōs epausen*), bringing about sleep, and through sleep making the troubles of the mind and the entanglements of nightmares (*tas tēs gnōmēs tarachas te kai peripolkas phantasias*) cease'. Severus Iatrosophista (second–fourth centuries CE?) in his *De instrumentis infusoriis seu clysteribus ad Timotheum* (18.12–19 Dietz) follows the same principle by targeting the head with specific herbal ingredients:

Another use of the *kolokynthis* is for the *kentaurion*; for it brings specific, so to speak, topical relief for affections of the head (*tois peri kephalēn pathesin*) . . . This is most helpful for phrenitics; at best it works marvellously for those with *karos*, *mania* and *melancholia*, most of all for those whose brain abounds in excretions (*epi tōn perittōmatikon enkephalon echontōn*).

This formulation confirms that in this period *phrenitis* is finally accepted as a disease of the head with humoral manifestations (here the abundant excretions).

The use of wine is controversial in cases of mental disturbance, as is stated clearly by Caelius Aurelianus in his remarks on its inappropriateness in critical phases of *phrenitis*¹²⁹ and on the importance of using it in moderation. At *Comm. Hipp. Epid.* VI, 5.1,¹³⁰ Galen is more open in this respect, but he also acknowledges the crucial importance of recognizing exactly the correct time and quantity. He writes, a bit self-evidently:

If giving wine should be beneficial, giving it will help. If, however, upon giving it at the wrong moment it causes *paraphrosynē* or *phrenitis*, acting as pathogenic, then it is neither healthy nor a help. So who is responsible for determining the benefit? Clearly the one person who can establish the right moment. And how do the Greeks refer to this person? Well, is it not clear to

¹²⁸ Cf. *Euporista* 1.5 (154.5–12 Wellmann) along similar lines.

¹²⁹ E.g. *Morb. Ac.* 1.1 (68.9–11 Bendz) concerning *phrenitis*.

¹³⁰ 255.17–24 Wenkebach = 17B.226–27 K.

everyone that he is called ‘the doctor’? So the doctor is more powerful than wine when it comes to the preservation of health and action.

A similar concern is shared in a *Problem* in ps.-Alexander of Aphrodisias, where the author wonders: ‘Why can both water and wine have a trigger effect when given at the wrong moment in cases of fever, and cause *phrenitis* (*phrenitin kataskeuazei*) despite being opposite substances (for water is cold, while wine is hot)?’ (*Probl.* I.96).

The psychotherapeutics for phrenitic patients, the chapter of the history of the disease to which a modern reader can perhaps best relate, is most attended to by authors whose anatomical, localized orientation was less strong or whose physiological account was more flexible: Asclepiades (as far as we can tell from the little we know directly about his clinical practices), Celsus and Caelius Aurelianus,¹³¹ as we have seen, but also Aretaeus, whose take on localization was more fluid than that in others. These authors offer the richest discussions. Aretaeus has much to contribute regarding psychotherapy for these patients, as well as describing the cures their bodies require. These include first the typical corporeal interventions: dietetic measures, moderate venesection, the consumption of liquid food, and pharmacological preparations appropriate to fevers. Then there are localized measures: cooling the head by means such as damp applications and fomentations is a central feature – the head should not be warm – but anything moist should be kept away from the neck and the nerves that depart from it. The head also receives massages on the temples and ears, with effects that are emotional and psychological as well, targeting the predisposition to furious anger in these patients: ‘For by stroking their ears and temples, wild beasts are overcome, to make them cease from their anger and fury’ (94.28–29 Hude). The hair should be cut (96.16 Hude), again to keep the head fresh. In parallel, however, localized attention is directed to the chest in agreement with the double positioning of *phrenitis* in this author: the *hypochondria* and belly (*hē koiiliē*) (95.3 Hude), the liver (*hēpar*, 95.9 Hude), as well as the spleen (*splēn*, 95.13 Hude), receive embrocations and cataplasms drenched in various substances. Moreover, the bowels (*hē koiiliē*) should be stimulated, since these patients are often constipated (96.2–3 Hude). Galen, on the other hand, assigned cognitive and psychotherapeutic therapies to a separate class of emotional complaints, those discussed in his ethical writings, and once *phrenitis* had been classified as a hard-wired bodily disease, he disregarded the psychology of its healing process almost entirely.

¹³¹ See above, [Chapter 3](#), pp. 80–81.

After Galen: Summary and Consolidation

All late-antique nosology after Galen is massively shaped by the work of the physician from Pergamum, at least in the ‘flag topics’ in regard to which he made full use of his argumentative powers; *phrenitis* is certainly one of those. The topics that have already emerged regularly in regard to the definition of our disease are the encephalic localization (brain, meninges or the area around them; within the brain, the ventricular location becomes a topic); inflammation and overheating;¹³² and humoral imbalances. In terms of the manifestations of the disease, sleep, hallucination and derangement, along with fever, dominate. The therapeutics elaborate on those already seen, with a combination of dietetics and pharmacological, environmental and occupational psychotherapeutics.

In post-Galenic medical authors, the most extensive sources on *phrenitis* are of a compilatory sort, found in authors usually defined as ‘encyclopaedists’: Oribasius (fourth century CE),¹³³ who does not however discuss *phrenitis* extensively in the extant portion of his main work, the *Medical Collections*, but summarized the topic in the *Synopsis to Eustathius*; Alexander of Tralles (sixth century CE); Aetius of Amida (*Libri Medicinales*, fifth–sixth century CE); and Paul of Aegina (seventh century CE). All of these discuss *phrenitis*, mostly elaborating on previous sources (Galenic and other), but in some cases inserting additional details. It is to a large extent through the versions ‘digested’ by these authors that the earlier medical tradition is preserved for clinical use for several centuries to come, through the Middle Ages and beyond. Despite their derivative and largely unoriginal nature in terms of simple content, therefore, their role is fundamental for the reception of Graeco-Roman medicine in postclassical and medieval times.¹³⁴ The following are, in more detail, the key topics they highlight when it comes to *phrenitis*.

The Centrality of the Brain and its Ventricles

Oribasius takes the encephalic location of *phrenitis* for granted. Elaborating on the Galenic ventricular articulation and encephalic localization more generally,¹³⁵ at *Coll. Med. (Libri incerti, 159.19–23 Raeder)* he firmly defines

¹³² See e.g. ps.-Alexander of Aphrodisias, *Probl.* 2.67: excessive heat is again significant for phrenitic patients and the affection they suffer in the brain, and the state of the *enkephalon* is always central to this pathology.

¹³³ On Oribasius, see Gäbel (2022) 4–5. ¹³⁴ See below, Chapter 7.

¹³⁵ Localization in the brain is exposed in sufficient detail in Galen when he discusses *epilēpsia at Loc. Aff.* 3.9 = 8.174–75 K., as well as at *Comm. Hipp. Prorrh. I* (see above, p. 142 n. 31).

phrenitis as damage to the first part within the tripartite model of the living body (brain, heart, liver).¹³⁶ Likewise, Aetius¹³⁷ (whose writing on *phrenitis* is much more extensive) presents the brain as the most straightforward and clear localization of the disease in his discussion of the doctrine of Poseidonius of Byzantium (*Medical Books* 6.2, 125.4–128.5 Olivieri).¹³⁸ The disease is here ‘an inflammation of the meninges which surround the brain, accompanied by acute fever which brings derangement and impairment of the mind (*hē phrenitis phlegmonē esti tōn peri ton enkephalon mēningōn meta puretou oxeos parakopēn kai paraphoran tēs dianoias epipherousa*)’ (125.4–6 Olivieri). A description of the damage caused by *phrenitis* to the three ventricular areas of mental functioning, engendering different variants of the disease, familiar from the Galenic discussion, follows:¹³⁹

There are now very many kinds of *phrenitis*, but the most important are three: for some are damaged only in the imaginative faculty, but in them the *logistikon* and memory are preserved; or only the *logistikon* is damaged, but the imaginative and memory are spared; or the damage is in the *phantastikon* and *logistikon*, while memory is spared. When memory is damaged in diseases with fever, by and large the *logistikon* and the *phantastikon* are damaged together with it. And so, when the frontal part of the brain alone is damaged, the *phantastikon* is harmed, while if the central cavity (*tēs mesēs koilias*) of the brain is damaged, there is a change in the *logistikon*, and when in the posterior part the back of the brain is damaged, it destroys the mnemonic faculty, and together with it also the other two in most cases. And so, in cases in which the *phantastikon* is damaged, they can judge correctly, but they have alien imaginations; in cases in which only the *logistikon* is damaged, they imagine correctly but do not judge properly; in those in which the mnemonic is damaged, they cannot recall anything of what happened previously, but they also cannot either imagine or judge correctly in most cases. It is appropriate, then, to apply the most medicament to the most damaged part, but not to neglect the others. (125.9–26 Olivieri)¹⁴⁰

¹³⁶ In addition, in a discussion of embrocations (*Coll. Med.* 9.22.3, 24.19–22 Raeder) he explains that ‘one needs to know that in the case of phrenitics one should focus on the forehead and temples, and stay away from the top of the head and the posterior parts: for these do not bring about cooling, as the origin of the nerves is located there’.

¹³⁷ On Aetius on diseases of the brain, see now at length Gäbel (2022).

¹³⁸ A (perhaps) fourth-century medical author; cf. Gäbel (2020), (2022) 23–25.

¹³⁹ See above, n. 135.

¹⁴⁰ The localization in Nemesius, *Nature of Man* 13 (69.17–20 Morani; 13.54–65) is even more precise: ‘The organ of memory, too, is the posterior cavity of the brain, which they call the cerebellum and the *enkranis*, and the psychic pneuma within it’ (20); cf. Siraisi (1987) 212–14; Rocca (2003) 245–47; Ahonen (2014) 158 n. 77; Wright (2016) 129–30, 182–94; Wright (2018). On the reception of these localizations in the brain by a set of Arabic and Hebrew readers of Galen, see Wolfson (1935) 74–77; Marshall and Magoun (1998) 27–42 for an illustrated survey of the ventricles throughout the history of Western medicine.

Already at *Libri Medicinales* 5.72 (46.30–47.1 Olivieri) as well Aetius identifies a category of nervous diseases to which *phrenitis* belongs: ‘Some suddenly suffer from orthopnoea, oppression, *lēthargos*, *phrenitis*, parotid gland tumour, with spasms, tremors or *apoplexia*, and to summarize, *the whole nervous system and the head suffer*.’ Paul of Aegina’s chapter dedicated to *phrenitis* (3.6, 144.4–6 Heiberg) offers a similar formulation: ‘*Phrenitis* is an inflammation of the meninges, when the brain becomes inflamed together with them, or when there is an unnaturally overheated state in it.’

The Survival of the Chest Localization and Pathology

Aetius, in his compilation, mentions the ‘split’ location of *phrenitis* – encephalic as well as in the torso – but does so indirectly, on the occasion of the mirror discussion of *lēthargos*, according to Archigenes and Poseidonius. At 6.3 (128.6–10 Olivieri) he describes two versions of the disease, one located in the *phrenes* and *splanchna*, the other in the brain:

There are two types of *lēthargos*, for in some cases the primary affection (*prōtopathēsanta*) in the *phrenes* and *splanchna* leads to sympathy (*eis sympathēian agei*) with the brain, while in another the primary affection begins in the brain, and in some cases it attacks straight at the beginning of the disease, in others through a change from one of the other acute diseases.

It is significant that the discussion of *lēthargos* that follows presents many of the well-known points of complementarity with *phrenitis*. More explicitly, at 5.48.13 (29.20–21 Olivieri) Aetius speaks of the relationship between *phrenitis* and yet more diseases, saying that haemorrhages through the nose often resolve *phrenitis* but not *lēthargos* or *peripleumonia*, again pointing at the parallel with a lung disease, exposing the lasting trace of the archaic association with the chest.¹⁴¹

Paul of Aegina’s chapter dedicated to *phrenitis* (3.6, 144.8–28 Heiberg) explicates the possibility of sympathy with the diaphragm, again following Galen in *On the Affected Places* 5.4:

The cause of this disease is an excess either of blood or of blood containing yellow bile, sometimes even yellow bile being overcooked and mutating into black bile, in which case the *phrenitis* is most severe; *it occurs when the brain suffering together with the diaphragm through the nerves maintains the affection through the nerves that are spread through it*. The derangement (*parakopē*) that comes at the height of burning fevers or arises through sympathy with

¹⁴¹ See above, p. 22.

the stomach is not *phrenitis* but simply a *paraphrosynē* . . . But if the *phrenitis* develops through sympathy with the *phrenes*, then the breathing is anomalous and it pulls up the *hypochondria* and these have considerable heating, just as they in turn, because of the brain, display heating and flushing in the face and full blood vessels.¹⁴²

Alexander of Tralles' discussion of *phrenitis* at I.13 (509–27 Puschmann, *Peri phrenitidos*) uniquely emphasizes the controversy regarding the localization as a well-known point of conflict. This is an important bit of information, since it acknowledges something about *phrenitis* which is hidden in plain sight in most other authors in this period: its problematic location.

That *phrenitis* is one of the most acute and dangerous diseases (*tōn oxytatōn esti kai epikindynotatōn pathōn*), everyone agrees. Whence it arises (*hothen de synistatāi*), and under which condition suffered by the brain, and which part [of it] is affected, and about the therapy for the disease – everyone treats this as controversial (*ti paschontos tou enkephalou kai poiou merous autou kai peri tēs therapeias tou pathous, touto pasin amphibēteitai*). (I.13, 509.3–6 Puschmann)

Later the question of the phrenitic location is tackled and resolved by dismissing it:

The main signs of *phrenitis* are of such a kind and magnitude. From the start, the cause is in the brain; for *phrenitis* proper does not arise from affection of any other part, unlike what some think, that phrenitics become so from an inflammation of the diaphragm. This is not true, but once the brain itself is inflamed (*kai autos ho enkephalos epeidan phlegmainēi*) it causes the powerful derangements, as are characteristic of cases of phrenitis (*hōs eoikenai phrenitisin*). (5II.17–20 Puschmann)

The Relation of phrenitis to lēthargos and other Diseases

The traditional association is perpetuated by all these authors and remains central in Byzantine and medieval medicine as well. Oribasius (*Syn. ad Eust.* 8.I.2 = 244.8–11 Raeder) pairs *phrenitis* and *lēthargos* as diseases which attract similar therapeutic measures, mostly phlebotomy and applications with *oxyrrhodinum*. The two are seen by him as mirror images and capable of curing each other (*Coll. Med.* 45.30.55 = 195.30–33 Raeder): '*Phrenitis* is a cure (*iamata*) for *lēthargos*, and *lēthargos* tames those who are

¹⁴² Cf. also 3.6.2 (145.25–27 Heiberg) on the *sympatheia* between the two parts.

continuously out of themselves and undoubtedly phrenitic (*aparalogistōs phrenitikous*).¹⁴³

At 6.2 Aetius as well mentions *lēthargos* as parallel to *phrenitis*: ‘For mostly in those who, coming from a *phrenitis*, have been cooled through narcotic *pharmaka*, there is a change to *lēthargos*’ (128.10–12 Olivieri). At 6.3 (= 131.16–19 Olivieri) he reports in regard to Archigenes and Poseidonius ‘about *katochos* and *katalepsis*’, diseases seen as a combination of *phrenitis* and *lēthargos* already in Galen:¹⁴³ ‘You will find that there is a disease in the middle between *phrenitis* and *lēthargos*, which is a kind of *paranoia* or *parakopē* (*eidos paranoias ē parakopēs*). Doctors usually called it *katochē* or *katalepsis* because of the settling humour, especially melancholic.’ Again at 6.4, in regard to patients with *katochos*, who manifest symptoms similar to phrenitics, he says: ‘Sometimes they scratch the nearby walls and speak foolishly (*haplōs eipein*), in ways not at all similar to phrenitics or lethargics (*oute phrenitikois to pan eoikasin oute lēthargois*)’ (132.9–11 Olivieri). Paul of Aegina also underlines the contiguity with *lēthargos*: ‘And *lēthargos*, a form of damage affecting the *logistikon*, has the same location as *phrenitis*, I mean the head, but through an opposite substance. For it arises through moister and colder phlegm running through the brain’ (3.9.1 = 147.6–8 Heiberg). He too mentions the disease *katochos* as a comparable ailment: ‘We have already clarified the substance of the disease *phrenitis* in the chapter on this disease. But [consider now] the signs that are on the whole common somehow to *phrenitis* and *lēthargos*, as the opposite substance prevails’ (3.10.1 = 149.1–5 Heiberg). Most interesting, Alexander of Tralles (1.17 = 591.10–12 Puschmann) identifies a link between *melancholia* and *phrenitis*, where some patients with *melancholia* can display phrenitic behaviour: ‘Some of them (the melancholic) laugh all the time and their imagination is always full of hilarity, while others appear to suffer from anger and tension, *as in the case of those who are called phrenitic (phrenitikois onomazomenois)*’. Here ‘phrenitic’ already appears to embody a type, despite the fact that earlier literature had repeatedly recognized and classified different typologies for the behaviour of such patients;¹⁴⁴ Galen in particular described the comatose, passive type alongside the aggressive one. The profile offered by Alexander is that of the furious, violent madman, the ‘so-called phrenitic’.

¹⁴³ See above, p. 142.

¹⁴⁴ This bipolarity was traditional already in the Hippocratics, e.g. notably with melancholy; see Thumiger (2017) 57–58.

The existence of different versions of the disease *phrenitis* is thematized in these authors as well. Alexander of Tralles in his discussion (*Peri phrenitidos*) follows Galen in distinguishing *phrenitis* from *paraphrosynē*:

What is the cause of *phrenitis*? *Phrenitis* proper arises from yellow bile, whenever going up it causes inflammation (*phlegmonē*) around the brain or its meninx (*peri ton enkephalon ē tēn en autōi mēninga*). For before it goes up and fixes itself, it causes not *phrenitis* but *paraphrosynē*.

He continues:

For the form of *phrenitis* is not only one, but [there can be] also different ones. In one, the ochre bile (*hē ochra cholē*) establishes itself, and it is milder; another involves yellow bile (*hē xanthē cholē*), is much more severe and brings higher fevers; the third is most aggressive, called *theriōdes*, in which the yellow bile is uncontrollably overheated and overcooked. (509.10–23 Puschmann)

He also mentions the ‘false *phrenitis*’ Galen describes, the peculiar state of ‘phrenitics who are already chronic’, and the issue of differential diagnosis. All these authors engage with such ‘false *phrenitis*’, which will be picked up by medieval medicine and, with the discomfort with definition it betrays, constitutes an interesting point of taxonomic maturity.

Therapeutics

Aetius reports on the therapeutics for *phrenitis* in general and independent of *locus affectus*, and regardless of the ventricular localization of the illness he had explored; as we have often noted, these are the more holistic and psychotherapeutic kinds of measures. Detailed suggestions are accordingly offered about the ideal environment for the disturbed patients (6.2 = 125.27–126.6 Olivieri):

Now it is necessary to speak of the care for the phrenitic (as a whole). It is necessary to let the patient lie down in winter in a warm house, and in the summer in a fresh one, and to order him and the others in the house or nearby to maintain a calm environment. And those who are made worse by light should lie in a dark home, while those who are instead made calm by light should be in a well-lighted home.

Aetius also mentions venesection (although for him it should be practised cautiously),¹⁴⁵ purging of the stomach and embrocation of the head with warm rose extract,

¹⁴⁵ On this, see also 3.14 (= 274.3–5 Olivieri).

For when the meninges are inflamed, neither the cold nor the very hot are harmless. Because the cold, on the one hand, clogs the pores and hinders the residues in the head from flowing through, while the very hot, on the other hand, doubles the inflammation, so that in the summer one must apply rose oil, especially lukewarm with a little vinegar, but in winter rather warm. (126.20–127.1 Olivieri)

In this summary, Aetius combines traditional physiological measures with classic remedies from the tradition of soft medicine for the mentally disturbed: the importance of a particular environment, the role played by calm, the modulation of light and darkness. Elsewhere in his *Libri Medicinales* Aetius summarizes the manifestations and therapy of *phrenitis* and *lēthargos* combined: at 1.146 (72.15–19 Olivieri) he discusses pain in the head and its therapies in chronic cases of *lēthargos* and *phrenitis* and reports on the use of *oxyrrhodinum* for both, since ‘it stops the upsurges of blood’. Combining a psychotherapeutic tradition with the more strongly deterministic Galenic account, when he returns to therapy at 3.6 (= 264.1–5 Olivieri), he recommends use of a hammock for patients weakened by fever or hellebore, but also for phrenitics. Unlike Galen’s practice, psychotherapeutics and soft measures are combined with physiological interventions.

Paul of Aegina as well offers a combination of bodily measures (venesection, pharmaceutical interventions, head embrocations) and environmental and other psychotropic remedies, for example the creation of a suitable ambience, modulating light and darkness, and soothing or binding patients as necessary. Here Paul offers an especially competent summary of the character of the phrenitic, based on Galen and others:

The patient should be placed in a location with moderate light and temperature, after any colourful picture has been removed (for such things bring distress), where some concerned friends should visit and provide suitable company, sometimes addressing them gently, other times startling them with harsh remarks. (3.6.2 = 145.12–16 Heiberg)

Some comments appear attentive to social distinctions and a consciousness of class:

And in cases of *akinēsia*, you must remember to leave space, if some are very rich (*zaploutoi*), for them to be supported/helped by slaves (*dia paidōn*), whereas otherwise they should be bound tight with ropes (*desmois perisphingomenoi*); for disorderly movement (*ataktos kinēsis*) of the *dynamis* can bring about a *synkopē* (*synkoptikē estin*). (3.6.2 = 145.31–146.1 Heiberg)

In a different version, the feet should be fastened with ropes, but not tightly, and examined/palpated for the sake of preventing spasms (3.6.2 = 146.2–3

Heiberg). To conclude, 'it is important to aid the recovery of phrenitics by avoiding excess of wine, strong emotional alterations (*orgas*), excessive food and most of all exposure to the sun (*hēliokaias*)' (3.6.2 = 146.17–18 Heiberg).

Alexander of Tralles gives similar indications: again venesection and embrocation of the head with rose oil and vinegar, especially if hallucinations become more severe. There are also specific indications regarding houses (519 Puschmann):

One must consider the house in which the patient spends his time, so that the air should not be too thick or humid or cold or the least bit hot, lest a thickening of the pores affect the head or an overflow, but it should be quite temperate, so that in the good mixture the psychic pneuma can be tempered and relax. Let it also be more light than dark, so that through his perception the patient might be able to gain awareness of matters familiar to him (*hōste dia tēs aisthēseōs eis synaisthēsīn erchesthai tōn synēthōn ton kannonta*).

The same psychological and social advice returns:¹⁴⁶

For this reason, some friends, the closest, should also stay close to him, so that he will respect their mild advice when he interacts with them. Nor should any person of the household or any relative with whom he has had reason for pain or anger be allowed to enter; for this is a trigger and causes disturbance and is a clear cause of strong upsetting. Nor should friends visit in a crowd, since many people simply become a cause of much confusion, and in addition they make the air thicker with their breathing moistly. They should watch out not to move in a scattered manner but gently, lest they hit the bed and move it; for this is exacerbating, and among other things it deprives the patient of sleep.

Finally, massage and physical interaction can do some good:

Those present should hold all the limbs firmly but gently, and calmly massage them, especially in the lower part, and especially when the patient suffers spasms. The legs should be tied with bandages, since this procedure turns the (pathological) substance downwards and also makes the cramps milder. Even better is to foment the extremities after rubbing.

In addition, dietetic details are offered which cannot be summarized here (519.6–521.3 Puschmann). Wine (525–27 Puschmann), generally considered a fortifying but strong substance, even dangerous, remains a point of therapeutic controversy. Alexander too recommends caution: '(One should) venture to give phrenitics wine not treated with *gypson*, in

¹⁴⁶ As in Aretaeus; see above, p. 162.

cases when the trouble with sleeping is serious and their strength is fading and the fevers are no longer vehement or very hot, but there appears to be a form of coction in the urine' (525.28–527.1 Puschmann). It is especially appropriate to give wine to those who were already accustomed to drinking it while healthy. Here Alexander introduces a note regarding the character of the phrenitic: 'In addition to these, it is appropriate to give wine to everyone who suffers from *paraphrosynē* with moderation, for it changes their *thymos* and their angry disposition into benevolence, and brings sleep by producing "coction of food" (= digestion) quickly, and promotes the recovery of the whole body' (527.4–8 Puschmann). He also refers to the gastric area as relevant: 'In cases in which the inflammation in the *hypochondria* is not severely fierce and the *dynamis* is not fading, I strongly urge giving wine.' In this case, in fact, the benefit will exceed the damage. Fundamental with wine is balancing the benefits and the risks, a calculation which ultimately lies with the physician. This repeats the point already made by Galen:¹⁴⁷ for Alexander, 'the doctor is stronger than wine' and 'it is the task of the doctor to measure and judge such matters (*iatrou d' esti to metrein kai krinein ta toiauta*)' (527.17 Puschmann).

Other Themes

Finally, several other elements from previous pathologies are retained by these compilers; their presence is fundamental for the future portrayal of these patients. The quality of urine (mentioned for example by Aetius at 5.37 = 22.26–23.4 Olivieri) remains important as an indicator. The same is true of the pulse (Paul at 2.11.24c = 93.4–8 Heiberg) and for the whole variety of clinical manifestations, largely traditional: neurological (on our definition), sensory, motoric (alteration of sleep patterns, spasms, hallucinations, tremors), psychological (strong emotions, anxiety, torpidity), behavioural (crocydism, aggression, recklessness), sometimes with additions which appear less technical in their provenience. Alexander of Tralles, for instance, stands out for reporting a belief about prophecy (509–11 Puschmann):

Signs of emerging *phrenitis*. What signals impending *phrenitis* are most of all a continuous and intense state of troubled sleep (*synechēs kai epitamenē agrypniā*), troubled sleep and leaping up, and appearances of images as in dreams, *such as to make some people conjecture that they are aware of the future*

¹⁴⁷ See above, pp. 172–73.

*and are attempting to offer predictions (hōste kai tinas hyponoein eidenai ta mellonta kai prolegein ethelein).*¹⁴⁸

The usual manifestations (aggression, hallucinations, crocydism, altered respiration) accompany this; these appear also in Paul of Aegina (144–46 Heiberg).

Conclusion

The extent and relative position of *phrenitis* in nosological treatises, and Galen's constant – indeed, overwhelming – reference to it as a paradigmatic mental and acute disease, make it apparent that this is one of the most powerfully conceptualized disorders in this period, clearly codified and readily recognized as experienced in the ancient world, especially in the first centuries of our era. This state of affairs is corroborated by Galen's influence, but antecedent tendencies and independent strands are also visible.

To summarize the medical doctrines elaborated over the course of these six centuries of medical history, the defining topics of our disease are, from a strictly physiological point of view, fever, troubled sleep (*agrypnia*), a specific pulse and sensory disturbance. *Vis-à-vis* localization, the brain (and its ventricles) and membranes are central, with the nerves, the diaphragm and the *hypochondria* involved by sympathy, along with the stomach. Finally, the *depth* of the affection, reaching beneath the surface of the skull far into the *enkephalon*, is important. Behaviourally, an aggressive and disordered 'type' emerges. Its markers are spasm and crocydism; being startled and disordered, but also comatose and weak; sudden changes and behaviour out of character for the patient; a lack of awareness of one's own physiology (notably, urination) and of one's state of illness altogether; a propensity to sudden anger and aggression; supernatural strength and 'tension'; and nonsensical laughter.

In theoretical terms, different 'phases' of the disease are recognized and various types thereof. *Phrenitis* can be primary ('idiopathic' or 'protopathic') or secondary (by sympathy); genuine, mixed or 'false'; and three types can be distinguished, depending on the damage it causes. Its relationship to *lēthargos* is confirmed and elaborated, while the diaphragmatic version of the disease is included but marginalized. These points all

¹⁴⁸ The idea that the state of the body might influence dreams and their prophetic quality was reported by Aristotle, *De divinatione per somnia*; see especially 463b17–19 and 464a18–28 on the connection between mental inferiority or pathology and vivid, even prophetic dreams.

confirm a strong conceptualization and a substantial investment in taxonomy. In humoral terms, pathological centrality is given to yellow bile, ochre bile, blood and putrefaction of bodily fluids. Physiologically, heat and inflammation are key: *phrenitis* remains first and foremost a fever. It is a summertime, dry disease (bringing thirst, tremors, a dry tongue), and overheating characterizes it physiologically, seasonally and environmentally. In a metaphysical sense, finally, the themes of hallucination, heightened senses and even prophecy give the suffering individual a touch of the extraordinary.

This long chapter has taken us deep into the details of medical and biological reflection. To complete the picture, a key question awaits, which involves the status of *phrenitis* as experience and popular concept outside the world of medical professionals. The elements listed above prove useful building blocks for the powerful allegorical construct '*phrenitis*' in the centuries to come. But medicine is not the only influence here: the ethical reflections offered by philosophers writing in Greek and Latin at the beginning of our era are also a fundamental set of sources, which converge with the medical material to produce the description of the phrenitic in post-classical European culture, as we will see in [Chapter 7](#).

Quasi phreneticus

Phrenitis in Non-Medical Sources in Imperial and Late-Antique Cultures (First Century BCE–Seventh Century CE)

As we look back at the main medical sources analysed so far, one element persists in the history of *phrenitis* and its features as disease concept: its overriding non-ethical quality. This is unsurprising in classical medicine, where this is a general feature. But it is worthy of notice in later authors, in particular Galen who, in his so-called ‘psychological’ treatises,¹ largely identifies mental health with ethical soundness and at the same time speaks at great length about *phrenitis* elsewhere (in his works on pathology, anatomy and physiology). The discussion and definition of *phrenitis* in Galen remains firmly wired into a bodily, material, localized framework – along the lines described in Chapters 4 and 5. This picture fundamentally shapes medical discussion of the disease over the subsequent millennium and a half, with its pathology visibly recognized and its physiology univocally understood, despite various elaborations.²

If this non-ethical narrative is dominant in medical quarters, elsewhere within medicine a divergent if minority view developed in regard to our disease. In Chapter 3, I reconstructed this parallel medical history of *phrenitis* through the works of Asclepiades, Celsus and Caelius Aurelianus, and labelled it with the umbrella term ‘delocalization’. This line of the story still operates within the parameters of traditional Greek medicine, but privileges a holistic, delocalized approach allowing more space for what one might call psychological aspects in mental disorder. In all these authors, *phrenitis* (or *phrenesis* in Celsus’ Latin) is still a bodily disease to be cured through dietetics and bodily interventions, but clinical interest and therapeutics are emphatically addressed to the mental, emotional and interpersonal experience of patients. The discussions of *phrenitis*

¹ This label refers to works in which Galen discusses psychological life in an ethical, personal and emotional sense, rather than in the most basic neurological (sensory-motor) and cognitive sense, i.e. the works published in Singer (2013).

² See Polito (2016) 6 on Galen’s lack of interest in the classification ‘disease of the soul’ vs ‘disease of the body’; and especially the larger discussion in Devinant (2020) 300–02 for a summary.

in other physicians, such as Aretaeus, Galen and his followers, as we have seen, remained – albeit with some differences – fundamentally shaped by the anatomo-pathology of the disease. Within this approach, psychological elements of course also play a part (in Aretaeus, as already seen, and resurfacing perceptibly in encyclopaedists such as Aetius and Paul). But the centre of the discussion involves localization, fever and bodily therapy, and becomes increasingly bodily and concrete.

These parallel stories are kept fundamentally separate, a bifurcation that is seminal in the history of Western psychiatry generally.³ The chief illustration is offered by Galen who, as noted, devotes considerable attention to human psychology as an object of medical action in his psychological writings. In this ensemble of works, he mentions *phrenitis* only once, in *The Capacities of the Soul Depend on the Mixtures of the Body* (*Quod animi mores corporis temperamenta sequantur, QAM*) 5.32–33 Bazou (4.788–89 K.), discussing how the soul can be overpowered by ills of the body, with *phrenitis* as an example of one such ill.⁴ *Mania* and *melancholia*, by contrast, are mentioned in these works as relevant to the ethical discussion, making the absence of *phrenitis* all the more conspicuous in an author who considered it an object of great medical interest and repeatedly detailed the cognitive damage it could cause. Galen's radical refusal to engage with *phrenitis* on a psychological level points to a redline in the division between matters of the body and matters of the soul, albeit an undeclared one, where our disease is so powerfully embodied and so precisely labelled in technical terms as to make comfortable ethical discussion impossible.

This is the broader landscape preserved by medical treatises, namely texts that are highly technical in style and have a demarcated purpose and audience. But an important part of the evidence, as we try to reconstruct the nature and significance of this disease in a wider cultural-historical sense, is how it is understood in the broader contexts of ancient cultures: its currency among individuals with no medical education or professional standing, or even by the general population, the assimilation of the concept into popular and material culture and within 'folk' models of medicine.⁵ These two environments, we should always remember, are not separated as if in waterproof containers. Nor

³ See p. 160 n. 91 for a rare glimpse of an acknowledgment of personal psychology as relevant in the disease *phrenitis* in Galen.

⁴ On this passage, see Devinant (2020) 110 for Galen's lack of moral engagement with the behaviour of phrenitics: 'thus there is no evidence of a depreciatory use of the notion of *phrenitis*' ('ainsi ne trouve-t-on chez lui aucune attestation d'un usage dépréciatif de la notion de phrénitis'); cf. also 44 n. 36, 165 n. 60.

⁵ With the qualification required here: see Harris (2016) 1–64 for discussion.

does the medical or technical always exert a one-way influence on the literary and the popular. The opposite traffic is also apparent, and we should spread our analyses as wide as possible.

Let us begin with an initial clear-cut datum: in the centuries before Cicero, there is no mention of *phrenitis* outside medical texts, apart from the comic scene in Menander analysed in [Chapter 3](#) and one Pythagorean fragment which refers to it in passing *qua* bodily disease.⁶ The term does not appear in Plato or Aristotle, which is even more significant. Other terms for mental illness offer telling contrasts. If we compare the diffusion not only of *mania* (a widely used word with numerous semantic levels) but also of *melancholia* and related terms,⁷ which are found in tragedy and comedy as early as the fifth century BCE, the absence of non-medical references to *phrenitis* argues for a strong technical character of the term and points to its intrinsic novelty as a nosological concept.⁸ Both factors made the exactitude of its signs and symptoms unfamiliar, too concrete and less immediate, and on the whole less fitting material for comedy. In addition, its strongly embodied nature, with fever in the foreground, prevented it from being easily inserted into narratives of human passions and errors. Finally, its acute and deadly character may have made it too serious a topic to be lightly appropriated.

The technical nature and emphatic embodiment of *phrenitis*, on the other hand, provided perfect material for allegory and hyperbole at a later stage in literary and lay discourses of various kinds, as will be seen here and in [Chapter 8](#). This popular, non-medical assimilation of *phrenitis* into the wider lay vocabulary regarding mental well-being comes rather late, in the first centuries of our era in parallel to a greater diffusion of technical medical discourses among the educated upper classes and in the larger population generally. In this period *phrenitis* suddenly becomes popular outside medicine, not only as a quintessential ‘disease’ – a paradigmatically acute and dangerous one, often discussed by professionals – but also in a hyperbolic and allegorical sense which tends to foreground the ethical, behavioural and interpersonal features of the pathology. This matches what is essentially a developing moralizing and prudential discourse, first philosophical-ethical but in time also

⁶ The Pythagorean Hipparchus (second century CE) *Peri Euthumias* (68 C 7 D.-K.), where *phrenitis* is located in the ‘vulnerable and destructible body’ alongside *pleuritis*, *peripleumonia*, podagra, strangury, dysentery, *lêthargos*, *epilêpsis*, putrefaction ‘and many others’.

⁷ See the summary in [Thumiger \(2013\)](#) 62–70.

⁸ Or even if we compare *lêthargos*, found in a poetic context at Lycophron 241 (fourth century BCE).

specifically Christian and eudaimonistic.⁹ This discourse exploits the language and themes offered by the state of affairs in medicine: Galen's take on the disease, its presentations by encyclopaedic sources, and later – for medieval and Renaissance material – key texts such as Avicenna's *Canon* and the treatises of the Salernitan school.

This non-technical, popular anthropology of *phrenitis* is extremely rich and is best approached in terms of recurring themes. An aspect so conspicuous as to almost disappear in full light is the male gendering of this set of pathological signs and symptoms. The social, interpersonal, political and behavioural patterns largely point to the sphere of action of male patients or to perceived traditional features of 'male' morality, among which a failure of reason to control the senses is prominent, and follow a logical consequence of thought and argument; aggression, violence and pathological strength; a lack of awareness of one's surroundings and one's diseased state; and strong, assertive emotions. There is also an important shared trait: *phrenitis* is the incarnation of a moral flaw, individually but also as a species and community, our 'collective' human folly.

These aspects are not only commented on in theory but also emerge directly in a number of poetic motifs and narrative patterns, standard 'scenes' involving phrenitics (and lethargics as their inverted double, in a diptych comprising two moral extremes). In these, the phrenitic is at the centre of a larger allegory about how the sick interact with their care-givers or loving friends and relatives, engendering a number of recurring vignettes which, despite their grotesque realism, disguise important political points: the legitimacy of authority, the irreducibility of free will, constraint vs freedom, and the paternalism of constituted power. These vignettes have phrenitics attacking the doctor, showing 'diminished capacity', and needing involuntary treatment as a matter of compassion. They are the carriers of a hateful sin, but are not to be themselves hated; they require 'tough love'. Their exceptionality is confirmed in popular belief by their divinatory power and the fact that important leaders – already Alexander and Marius – are associated with the affliction.¹⁰ The greatest elaboration of all these is found, of course, in Christian texts, both theological and hagiographic.¹¹ But the fundamentals are already laid out by pagan authors,

⁹ An important elaboration on the assimilation of medical paradigms by theological sources is offered in Wright (2017) and especially Wright (2016), with a focus on the brain and neurology.

¹⁰ See below pp. 193–94 for the latter in Plutarch's *Life*, and pp. 302–04 for the sources on the former.

¹¹ See Wright (2016, 2022) on the importance of medical discourses in fourth- and fifth-century Christian texts, in particular the metaphorical-prudential nexus offered by the brain as locus of pathology and seat of the mental faculties; Papadogiannakis (2012) 31–52 on the example of

following guidelines partly set by Hellenistic philosophy in its discussions of human health and well-being, and especially by Stoicism, as we will see in what follows.

The genres involved in this first, pagan set of sources are equally comic-satirical and philosophical-ethical. In the second period (from the third–fourth centuries CE onwards), almost all the references come instead from Christian authors. In addition to these discrete groups of authors, pagan and Christian, information about *phrenitis* can be extracted from other non-medical literatures in which the disease is literally referred to as a pathology, although not within a technical medical frame: astrological texts, legal material and the hybrid pharmacological evidence preserved by Pliny the Elder and others. These complete the picture of the socio-cultural diffusion of the disease in various degrees of technicality during the Roman imperial period.

Late Republican and Imperial Pagan Sources

Philosophy and Knowledge

Mentions of our disease in Latin literature outside medical texts, found already in the first century BCE, are richer than in their Greek counterparts.¹² Seneca the Elder (54 BCE–39 CE) uses *phreneticus* to refer to someone generally insane and lacking good judgement, speaking of ‘our phrenetic cases (*nostris phreneticis*)’,¹³ which suggests a common category.¹⁴ The more loaded suggestion of effervescence and of strong, febrile movements in the case of *phrenitis* is implied as early as Marcus Terentius Varro (116–27 BCE), who uses a meteorological image in which winds are said to be the ‘phrenetic offspring of the North (*venti . . . phrenetici septentrionum filii*)’.¹⁵ Perhaps the older association with winter and the north is at issue here; the winter star Sirius is mentioned later on.

More consistent is the hyperbolic use of the medical concept, which is seen already in Cicero (106–43 BCE). For example, he excludes those who

Theodoret. Mazzini (2002), (2003) offers a detailed survey of medical influences and medical vocabulary in Christian authors; see Häfele (2020) 9–13 for the *status quaestionis*.

¹² See Stok (1980) 13–14 on the affirmation in Latin of the term *phrenesis/phreneticus* as antonomastic for mental disturbance at the turn of our era, in the first century CE; Langslow (1999) on the metaphorical use of technical vocabulary, especially 198–201. Latin literature seems to be more hospitable to technicalisms in metaphor, as Lucretius and other examples show.

¹³ ‘Our’ in ‘of our medical definition’ indicates technicality, since the term is blatantly a Graecism and still perceived as jargon.

¹⁴ *Controversies* 10.5.27.2. ¹⁵ *Sat. Men.* (fr. 271 p. 47).

are ‘diseased in the soul (or body)’ from the art of divination, disagreeing with Aristotle: ‘Anything like this should be attributed to *cardiacs* or *phrenitics*; because divination belongs to a soul which is wholesome, not to a diseased body (*nec cardiacis hoc tribuendum sit nec phreniticis; animi enim integri, non vitiosi est corporis divinatio*)’ (*De divinatione* 1.81). Two diseases associated at least in part with the chest are mentioned as examples of a mental disorder one would be mistaken to connect to divination; this is our earliest reference to a prophetic power for these patients. Tertullian (150–220 CE) in *De Anima* 43.47 also couples *phrenitis* and cardiac disease as both ‘similar to sleep (*aemulas somno*)’.

So far these are mostly conventional, antonomastic uses. The occurrences of the term in Seneca the Younger (14 BCE–65 CE) have greater depth and display many similarities to the notion in another philosophically minded author, Plutarch: in Seneca, *phrenitis* indicates incapacitation in general, in an exemplary sense, with ethical overtones. A good doctor is for him one who does not lose his temper with a phrenetic,¹⁶ and likewise the bad temper of children and phrenitics (*aegri rabiem et phrenitici verba, puerorum protervas manus*) should not affect us.¹⁷ The intensity of *phrenitis* (and of *insania* generally) can provide a parallel to anger and other excessive passions one might mistakenly admire as expressions of heightened strength:

One says, ‘anger (*ira*) is useful, because it makes us feistier.’ But so does drunkenness (*ebrietas*); for it makes many people arrogant and bold and readier with the sword than they would be when sober. In the same way, then, tell me that *phrenesis* and *insania* too are necessary for one’s strength, since fury often makes us stronger. But so what?¹⁸

Marcus Cornelius Fronto (100–60 CE) emphasizes senseless talk as a feature of *phrenitis*: the inability of Roman emperors after Tiberius to speak elegant Latin is a kind of *delirium* in men who are seized by the disease *phrenitis* (*quasi phrenitis morbus quibus implicitus est*).¹⁹

In all these sources, *phrenitis* seems to have become antonomastic for irrational, grossly incompetent and inconsequential behaviour. Given this, it is unsurprising that the second-century sceptic philosopher and doctor Sextus Empiricus (160–210 CE) is fond of the example of hallucinating phrenitics in an epistemological sense, opposing them to a healthy, normative reasoning ‘we’. In his *Outline of Pyrrhonism*, for example: ‘Those

¹⁶ At *De const. sapientis* 13.1.3.

¹⁷ *De ira* 3.26.1, 4.

¹⁸ *De ira* 3.13.3.1–4.2.

¹⁹ *Ad Verum Imp. epistulae* 2.1.1.1.

suffering from *phrenitis* and those in a state of ecstasy believe they hear daemons, while we do not, and they often claim to smell storax, or incense or some other scent, and perceive many other things as well, while we do not.²⁰ Likewise in *Against the Professors*, reporting on the Stoic Chrysippus,²¹ Sextus uses *phrenitizein* to qualify the ‘non-cataleptic’ among truthful representations, those which derive from external reality but under specific circumstances, and which are only casually apprehended: ‘Countless people are phrenitic (*phrenitizantes*) or melancholic but can draw a truthful fantasy, not cataleptic but falling down externally.’²² Elsewhere phrenitics are compared epistemologically to individuals possessed by daemons,²³ since both are in a state ‘contrary to nature’: ‘Phrenitics and those possessed by *daimones* seem to hear things, while we do not.’²⁴

Satire

Where there is moralized and intellectual stigmatization, there is always also humour and caricature. Satirical and comic genres tend to borrow from technical vocabularies in Latin perhaps more than they do in Greek, and there are several references to *phrenitis* in Roman satire. Martial (40–103/4 CE) accuses Maron of being crazy and having *phrenesis*, namely a disease that involves fever and delirium (‘You declaim while feverish, Maron. If you don’t know that this is *phrenesis*, then you are not in good health’, *Declamas in febre, Maron: hanc esse phrenesin si nescis, non es sanus*).²⁵ Elsewhere a *Nasica phreneticus*, ‘phrenitic Nasica’, attacked his doctor Euctis (*invasit medici Eucti*) and ‘cut Hylas to pieces’ – a comic reference to the topos of aggressiveness, especially against one’s caregiver.²⁶ Petronius (14–66 CE) uses the term in his *Satyricon* to indicate derangement and to describe the death of a ‘Cappadocian fellow’ as narrated by Trimalchio.²⁷ The appearance of witches causes the man to rush out, having bared his sword, and kill an innocent woman, before collapsing on his bed and ‘dying phrenitic in a few days (*post paucos dies phreneticus periiit*)’. Later a mad, possessed poet (literally ‘bellowing’, *mugientem*) is also deemed *phreneticus*:²⁸ grotesque, hallucinatory madness, aggressiveness and violence, and ultimately death, stand out here. Juvenal (60?–127? CE) uses the term in a moralizing sense close to the Stoic metaphor of

²⁰ 1.102–03. See on this passage Ahonen (2014) 183.

²¹ Chrysippus (281/76–208/4 BCE) fr. 65.29–33 von Arnim. ²² 7.247–48.

²³ *Outlines of Pyrrhonism* 1.99.5–101.1. ²⁴ See also *Outlines of Pyrrhonism* 2.52.4.

²⁵ *Ep.* 40.80.1. ²⁶ *Ep.* 11.28. ²⁷ *Sat.* 63.10. ²⁸ *Sat.* 115.5.

a weakness of greedy humanity, the ‘madness of all mankind’:²⁹ ‘Is it plain madness and *phrenesis* to live in want in order that you may be wealthy when you die?’

Two High-Ranking Examples: Plutarch and Lucian

Plutarch’s (45–125 CE) interest in and acquaintance with medicine are well known.³⁰ His references to *phrenitis* show an awareness of medical knowledge, if at times banalized or superficial, as he often uses *phrenitis* as exemplary or antonomastic for madness. At *De latenter vivendo* 1128d, for example, he points out that the suggestion to ‘live in hiding’ should not be applied indiscriminately to everyone: ‘If you are talking to a fool, or a wretched or senseless person, you are no different from someone who says “Hide the fact that you have a fever!” and “Hide the fact that you suffer from *phrenitis* (*lathe phrenitizōn*), so that the doctor might not recognize you!”’ *Phrenitis* is here clearly a representative mental pathology in a medicalized sense, an appropriate object of a doctor’s attention. At *Biogr. fr.* 136.4, the phrenetic is a paradigm of the madman with whom one should not engage on equal terms, an aspect of dismissive paternalism which is important in the psychological portrayal of the disease: ‘Just as it is best to blame and admonish friends, if they have made a mistake, when they are in good health, so we are accustomed not to fight against or oppose the other in cases of deranged or phrenetic attack (*en de tois parakopais kai tois phrenitismois*), but to accommodate and agree with them (*symperephresthai kai synepineuein*).’

In general, Plutarch mentions *phrenitis* as a typical severe disease that is difficult to cure. The interesting point here is that a communality with general fevers and *pleuritis* is still felt.³¹ Plutarch uses the technical term antonomastically, in the same way one might say ‘schizophrenic’ or ‘psychotic’ today to refer to a mentally unstable person, or think of cancer as the typical frightening disease. In all these Plutarchan examples, *phrenitis* appears to be used as a representative illness of the mad patient, and as a typical severe disease or disease entity generally.³²

²⁹ *Sat.* 14.135, on which see Ahonen (2014) 107–12, (2018) 346–48, on the Stoic idea; Tieleman (2003) 178–89. The popularized theme is already found in the pseudo-Hippocratic letters, especially Democritus’ speech in *Ep.* 17 with its description of men’s folly.

³⁰ See Durling (1995) on Plutarch’s interest in medicine; Mazzini (2007).

³¹ For a combination of these two, see also *Advice about Keeping Well* 5, 124b below.

³² Compare Sextus Empiricus, *Against the Professors* 11.136.3, where *phrenitis* also appears in a pair with *lēthargos* and alongside the similar case of *pleuritis/peripleumonia* to exemplify pairs of diseases a doctor could cause to turn into one another by applying the wrong therapy.

Although Plutarch recognizes *phrenitis* as a disease with a bodily origin, he sees it as especially difficult (like *mania*): in both cases unawareness and impaired judgement mean that patients are unable to seek help – unlike with standard diseases such as ophthalmia or gout. In fact, *phrenitis*, ‘raising inflammation to the pitch of delirium and confounding consciousness, as on a musical instrument, will touch the heart-strings never touched before’.³³ These patients, moreover, actively cause their own illness, and *phrenitis* is used idiomatically for ‘self-inflicted sickness’.³⁴

These examples already represent a rich selection of ethical-psychological implications of *phrenitis* as a lay concept honed to hyperbole. In addition, and as a novelistic subspecies of these, we find a narrative of *phrenitis* as cause or occasion for the death of a leader, which becomes topical and develops specific characteristics in later centuries. At Plutarch’s *Life of Alexander* 75, for example, the disease is found in the description of the death of the Macedonian leader, who dies phrenitic,³⁵ by now *kataphobos*, ‘prey to his fears’, with antecedent fever and thirst and after consuming wine.³⁶ In the *Life of Marius*, moreover, the days leading up to the death of the exhausted Roman politician are recounted, offering a ‘patient case’ that we may identify, I suggest, as a representation of *phrenitis*.³⁷ This would offer a uniquely detailed early psychological portrayal of a phrenitic patient case outside medicine. The passage runs as follows:

But Marius himself, now exhausted by toils, deluged, as it were, with anxieties and wearied (*tais phrontisin boion hyperantilos on kai kataponos*), could not sustain his spirits, which shook within him as he again faced the overpowering thought of a new war, of fresh struggles, of terrors known by experience to be dreadful, and of utter weariness . . . Tortured by such reflections, and bringing into review his long wandering, his flights and his perils as he was driven over land and sea, he fell into a state of dreadful despair and was prey to nightly terrors and disturbing dreams (*eis aporian enepipte deinas kai nykterina deimata kai tarachodeis oneirous*), in which he would always seem to hear a voice saying: ‘Dreadful, indeed, is the lion’s lair,

³³ *Whether Affections of the Soul are Worse than Those of the Body* 501a–b. In a similar spirit, on *phrenitis* between illnesses of the body and of the mind, cf. *How a Man May Become Aware of his Progress in Virtue* 10, 75a–86a.

³⁴ *Advice about Keeping Well* 5, 124b.

³⁵ On the episode, see the medical observations by Destaing (1970), offering a survey of retrospective diagnoses (including *delirium tremens* and ‘éthylisme’) and then opting for a form of malaria.

³⁶ Plutarch quotes Aristobulus here: ‘Aristobulos says that [Alexander] had just fallen into a fever, and feeling very thirsty, drank wine; as a consequence of this he became phrenitic and died on the thirtieth of the month of Daisios’ (*Aristoboulos de phésin auton pyrettonta neanikós, dipsánta de sphodra, piein oínon. ek toutou de phrenítasai kai teletēsai triakadi Daisiou mēnos*, FGrH 139 F 59).

³⁷ 45.2–5 (260.16–261.21 Ziegler-Gärtner).

although it be empty.’ And since he dreaded above all things the *sleepless nights (tas agrypnias)*, he gave himself up to *drinking-bouts and drunkenness* at unseasonable hours and in a manner unsuited to his years, trying thus to induce *sleep* as a way of escape from his *anxious thoughts (tōn phrontidōn)*. And finally, when someone came with tidings from the sea, *fresh terrors* fell upon him, partly because he feared the future, and partly because he was wearied to satiety by the present, *so that it required only a slight impulse to throw him into a pleurisy (rhopēs bracheias epigenomenēs eis noson katēnechthē pleuritin)*, as the philosopher Poseidonius relates, who says that he went in personally and conversed with Marius on the subjects of his embassy after Marius had fallen ill. (Posid. *FGrH* 87 F 37 = fr. 255 Kidd–Edelstein, Plutarch, *Life of Marius* 45.7)

The text offers no variants for *pleuritin* (πλευρίτιν), and the reading is duly accepted by editors. This nonetheless seems to be a case in which *phrenitis* (φρενίτις) – still perceived as a technical term in Plutarch’s time and unknown to most modern editors – a nosological double for *pleuritis* and easily confused with it,³⁸ is in question; we have seen Plutarch pairing the two more than once. The nightmares, insomnia, anguish and fear, and abuse of wine all belong to the delocalized, mental version of the disease sketched in [Chapter 3](#), and feature in Plutarch’s account of Alexander’s death from *phrenitis*, as we have seen. Pleurisy, by contrast, a lung inflammation associated with cold and winter, has no relevance here whatsoever. Interestingly, a similar exchange appears to have occurred in Polybius (an author Plutarch uses and repeatedly mentions) in an episode concerning another emotionally altered leader, King Agron:

When his galleys returned, and he heard from his officers the events of the expedition, King Agron was so beside himself with joy at the idea of having conquered the Aetolians, whose confidence in their own prowess had been extreme, that he gave himself over to excessive drinking and other similar indulgences, and was attacked by a *pleuritis (pros methas kai tinas toiautas allas euōchias trapeis enepesen eis pleuritin)* of which he died in a few days.³⁹

Here again we have a king overcome by excessive joy over a triumph and giving himself over to wine, finally (I propose) leading to the illness of feverish delirium which is *phrenitis*. The mental-moral profile of emotional excess is clear and symmetrical to that of Marius (and Alexander before him). A slip of the pen at some point in the tradition – or even at its

³⁸ A contemporary parallel: the (typographical?) error in Johnston *Meth. Med.*, Loeb vol. 3, p. 404 (10.932 K.), where πλευρίτις is translated ‘*phrenitis*’ on a page where *phrenitis* is also mentioned several times.

³⁹ Plb. 2.4.6.6 = fr. 126.12–18 Büttner-Wobst.

beginning, with Plutarch influenced by Polybius, or conflating *phrenitis* with *pleuritis* – seems likely.

An instance of *phrenitis* in non-Christian literature of this period, and one which shows more detailed and direct medical acquaintance, comes from Lucian (120–80 CE), where we find a poetic, satirical elaboration of the ‘armed madman’ topos based on Galenic anecdotes. *Symposium* 20.1 features a scene with a phrenitic patient closely modelled on medical passages we have already examined:

It was now, not long after this match, that Dionicus the doctor came in. He had been detained, he said, by a *phrenitis* case; the patient was Polyprepon the piper (*ton auletēn*), and thereon hung an amusing tale (*ti kai geloion*). He had no sooner entered the room, not knowing how far gone the man was, when the latter jumped up, secured the door, drew a dagger (*xiphidion spasamenon*), and handed him the pipes, with an order to play them. When Dionicus could not, he took a strap and inflicted chastisement on the palms of his hands. To escape from this perilous position, Dionicus proposed a match (*es agōna gar prokalesasthai auton*), with a scale of forfeits to be exacted with the strap. He played first himself, and then handed over the pipes, receiving in exchange the strap and dagger. He lost no time in sending these out the window into the open court (*dia tēs phōtagōgou es to hypaithron tēs aulēs*), after which it was safe to grapple with the man and shout for help; the neighbours broke open the door and rescued him.

Lucian is here producing an amalgam of different cases and details. Not only the dangerous phrenitic and the madman’s sword, but also the piper’s deranged invitation to play (compare the phrenitic, hallucinating flute-players at *Comm. Hipp. Prorrh. I* 27, 39–41 Diels = 16.564 K.) and the act of throwing objects out of the window, are elements from Galenic cases: one patient hallucinates pipers, and another throws things through the window (cf. *Symp. Diff.* 1.4.3 (224.9–226.22 Gundert = 7.60.3–62.6 K.), exemplifying the two types of mental impairment the disease might cause, according to Galen. Lucian here effectively stages the third, ‘mixed’ type of *phrenitis*, in which both aspects are combined. Lucian’s reference shows that both the portrayal of the phrenitic and the Galenic text must have been known, at least among the elite.

The passage from Lucian is similar to Menander’s use of *phrenitis* in the *Aspis*⁴⁰ in its crafting of an overloaded medical anecdote rich in picturesque pathological behaviours. Nor is it surprising that Plutarch, our other example, employs the term frequently; after all, he wrote an essay

⁴⁰ See above, pp. 58–62.

comparing mental and bodily diseases (*Animine an corporis affectiones sint peiores*), and the *Moralia* on the whole are rich in reflections on mental pathology and mental suffering as images of human philosophical weakness and existential vulnerability. In addition, Plutarch's language is rich in technical terms taken from the medical realm. But it is again worth noting that these two authors are alone among Greek writers (in contrast to the Latin examples) before *phrenitis* is taken up by later philosophers, Christian authors, theologians and the like – and very extensively in the final case. These two – or three, including Menander – limited exceptions confirm that the term and concept had a strong technical quality; the philosophers prefer *melancholia* and related terms, or more general vocabulary for mental disorders.

To summarize, the non-technical use of *phrenitis* and related terms in non-Christian literature in the early Empire is antonomastic ('mentally ill', 'acutely and fatally sick') and hyperbolic ('raving madman'). The word is employed to discuss incapacitation in examples *ex absurdo*; morally it represents the typical 'folly' of human deficiencies and lures such as greed or *arrivisme*. It inspires a paternalistic indulgence of the 'phrenetic' character of philosophically inferior interlocutors, as well as horror at the uncontrolled violence of the incapacitated 'madman with a sword' – a topos from Plato's *Republic* which we will see enjoy an immense afterlife in the lay use of *phrenitis* in the late-antique, medieval and early-modern sources, especially the Christian ones.

In no case is a precise category – *phrenitis* as opposed to other mental diseases – in question. Rather, 'madness' in general, and in particular madness of a severe, hallucinatory kind, seems to be at issue. There is nonetheless some precision and technical allure to these references, although of an aural type and empty of academic competence: the specifics of fever, hallucination, delirium and violence are implicated, but in the way in which terms such as 'schizophrenic' or 'psycho' are used today as colloquial shorthand to mean 'mad', 'needy', 'disagreeable' or 'inconsistent'. These instances show that by the first centuries CE *phrenitis* had become a staple word in Roman culture for a deadly disease characterized by derangement, with some noticeable features lodged in the imagination, and that although its medical features and implications were perhaps not known to laymen, enough was understood to make it a significant pathological symbol for the flaws and calamities that haunt human existence. This tendency will be most visible in Christian authors, who chose *phrenitis* to sketch a portrait of quintessential human toils and vulnerability to sin.

Christian (Patristic, Hagiographic, Theological) Texts and Authors

Christian authors from different eras refine *phrenitis* into a symbol for moral and spiritual degeneration in ways that are oblivious of the sophisticated medical debates surrounding the pathology and manifestations of the disease in the same period, while simplifying and exploiting its most vivid clinical traits. *Phrenitis* is mentioned with such frequency and persistence here that it is fair to take the phenomenon as a special case of metaphorical disease, which played a role in sustaining the viability of the nosological concept over the centuries and in guaranteeing its transmission to medieval and modern times.⁴¹

Key to the strength of this metaphorical construction is the fact that *phrenitis* has a resilient corporeal basis, a concrete component which works well as a vehicle for the trope. This firm location of *phrenitis* in the body, and indeed within a body–soul distinction, also holds true among Christian authors, as is explicit in the words of Theodoret: ‘The wisest among doctors address this good balance of the body as “soul”, and they derive this opinion from the affections occurring to the body, I mean epilepsy, apoplexy and *phrenitis*.’⁴² The recognition of *phrenitis* as a disease ‘of the body’ in some authors enables the allegorical extension of the category ‘phrenitic’ to include a vast group of morally and intellectually flawed individuals: ‘Every person who does not recognize the doctor (i.e. God as *Salvator*) is phrenitic.’⁴³ In these Christian reflections, various pathological details about *phrenitis* become prominent and are richly elaborated, as we shall now see.

Hallucinations

First of all, hallucinations. We have seen that derangement of the senses is especially important in clinical accounts of the disease *phrenitis*, notably in Galen. In philosophical quarters this aspect lends fitting material to epistemological reflections (What are the limits of human knowledge and of the reliability of the senses under changing health circumstances?) and

⁴¹ Alongside mental disturbance, it is important to the metaphorical elaboration of *phrenitis* that it is also seen as a severe disease *qua* severe. Isidore of Seville (sixth century CE) understands it as typically acute, *oxeia* (*Etymologies* 4.6.1), and describes it, singling out mental impairment (*impedimentum mentis*) and the gnashing of teeth (*quod dentibus infrendant*, 4.6.3). For Christian authors in Latin and Greek, references are to the miscellaneous collections edited by Geerard, Migne and Dekkers (see below, pp. 427–28), following the *LLT* (Brepolis, *Library of Latin Texts*).

⁴² *Haereticarum fabularum compendium* 83.490.37.

⁴³ *Omnis qui medicum non agnoscit, phreneticus est*, pseudo-John Chrysostom (‘Chrysostom Latinus’) – *Sermones XXXI collectionis Morin dictae (perperam olim Iohanni Mediocri episcopo Neapolitano ascripti)* 18.785.43.

ethical ones (human folly and flawed behaviour, determined by an erroneous evaluation of reality, are taken to resemble forms of phrenetic hallucination).

Hearing and vision are the most common examples of senses which can convey distorted representations, but others – touch and smell in particular, as we have seen in Sextus – can also be involved. *Phrenitis* and *melancholia* are examples of an impaired sense of touch in the discussion of intellectual error in the Christian author Origen (185–254 CE),⁴⁴ and the same is true in Rufinus’ translation of a – rather obscure – passage from Origen’s homilies: ‘Why does the sense of touch extend over the entire body? Does it perhaps illustrate, by way of a trope (*tropikōs*), *phrenitis* and melancholy or the condition characteristic of the age of infants?’⁴⁵

It is only a few short steps to turn this hallucinatory error into the hyperbolic image of more complex intellectual mistakes. Basil (fourth century CE) describes heretics who do not grasp the theological monogenetic mystery as suffering ‘something akin to those who are in the ecstatic state of *phrenitis* and see, in their fantasies, objects that are not there (*tois en ekstasei phrenitikēi horan phantazomenois ta mē paronta*)’.⁴⁶ In fact, ‘a person stricken by wine (*oinoplēktōn*) or deranged by *phrenitis* (*ek phrenitidos paraphorōn*)’ falls victim to false images by following those who say ‘He who does not honour the Son fails to honour the Father’.⁴⁷

Augustine (fourth–fifth centuries CE) makes by far the most use of the phrenetic metaphor.⁴⁸ Although he mostly devotes the trope to ethical and spiritual commentary, exercising enormous influence for centuries to come, he also considers the intellectual faculties impaired by the disease. Augustine employs *phrenitis* as an epistemological paradox, comparing the senses of these patients to those of sleepers,⁴⁹ and returns on many occasions to the phrenetic as the archetypal individual plagued by hallucinations, whose senses deceive him,⁵⁰ just as dreams can do. The association is grounded in medical debates about the *agrypniē* of these patients and the

⁴⁴ *Fragmenta in Lucam (in catenis)*, fr. 104.66.

⁴⁵ *Homiliae in Leviticum* 404.28. See also *Contra Celsum* 2.60.5.

⁴⁶ *Adversus Eunomium* 29.604.24–27.

⁴⁷ *De spiritu sancto* 6.15.45, repeated in the *Catena in epistulam ad Hebraeos (catena Nicetae)*.

⁴⁸ See Gourevitch and Gourevitch (1998), who point out that Augustine does not refer to *phrenitis* as an abstract disease label but to the ‘phrénétique’ as a type of human being (505, 511); Claes and Dupont (2017) 328 on Augustine’s medical sensibility and ‘medicalization’ of sin, 334–8 on metaphorical clusters borrowed from medicine; on *phrenitis* in particular, Wright (2020), with whom my conclusions on this topic converge.

⁴⁹ *Epistulae* 7, 34.1 § 2. ⁵⁰ *De Genesi ad litteram libri duodecim* 12.12.395.

vividness of their dreams:⁵¹ ‘For phrenitic individuals, without sleep, have their sensorial ways so disturbed in their head that they see the kind of visions sleepers see, when during sleep their attention is diverted from the sense of wakefulness and converts the images into seen objects.’⁵²

Lack of Judgement

The second cognitive flaw of the phrenitics Galen had described, impairment of the mind affecting judgement but not perception, is also exploited to construct a general charge of madness, ignorance and intellectual shortcoming in philosophical and intellectual debates, again specifically by theological authors. Phrenitics are unable to reason logically, to articulate arguments in a sound way or to judge theological and philosophical matters sensibly.

This allegorical pathologization of dissent is a typical feature of polemics in early Christianity and has been variously explored in relation to the marking of territory between ‘orthodoxy’ and ‘heresy’ or ‘heterodoxy’ in official Christian doctrine. *Mania* is also used idiomatically to represent a charge against one’s opponent of a ‘derangement’ which is both intellectual and moral-spiritual.⁵³ But *phrenitis* offered much more texture and nuance to this topos, perfectly incarnating the quintessential state in which the sick person refuses to be cured: ‘If one of those who knows how to cure these conditions wants to offer a medicine for this disease, they immediately leap away, just as those taken by *phrenitis* (*hoi phrenitidi katechomenoi*) push away the cure offered to them and flee medical treatment (*tēn iatreian*) as if it were a form of sickness (*hōs arrōstian*).’⁵⁴

Not only the Christian sides of the dispute, but also pagan parties express themselves through similar medical metaphors; the emperor Julian, for instance, accuses Christians of being phrenitic in their beliefs. This idiomatic reference to flawed reasoning as phrenitic is often trite, as in the documents of the *Council of Constantinople and Jerusalem* Anno 536: ‘The *theopaschites* [i.e. those who believe that god can suffer] [are driven] to

⁵¹ See above, pp. 28, 140, 151.

⁵² *De Genesi ad litteram libri duodecim* 12.21.411. Cf. *De cura pro mortuis gerenda* (12.14.643): ‘Very often the images during sleep are similar as for those who are awake, who have their senses disturbed, like the phrenitic or those who are maddened in some way (*sicut phrenetici uel quocumque furentes modo*).’

⁵³ See Petruccione (2016), esp. 308–09; Papadogiannakis (2012); Salem (2010) on *phrenitis* and its technical character in John Chrysostom; Wright (2016) 259–318; Wright (2020).

⁵⁴ Theodoret, *Curatio graecarum affectionum* 1.4.4–5.1. See Papadogiannakis (2012) on Theodoret’s ‘Therapeutic for Hellenic Maladies’ (ch. 1).

say the kind of things *phrenitis* generally produces (*ekeina legein haper hē phrenitis hypotithetai*).⁵⁵ So too in the polemical attack on heresy by Epiphanius (fourth century CE) a daemonic parallel is evoked: ‘Do you see how enormous is the silly nonsense of this wizard and his drunken forgetfulness? *For the things said by him change into forgetfulness, and everything he seems to say changes and is carried away, . . . like phrenitics (kathaper hoi phrenitiōntes)*.’⁵⁶

Gregory of Nyssa (fourth century CE), speaking of theological disagreements, also resorts to the vocabulary of medicine, now deeming *phrenitis* a metaphorically ‘common’ disease (*epidēmion*): ‘I do not know what I should call this evil, *phrenitis* or *mania* or another such common disease, which causes the derangement of the intellect (*tōn logismōn tēn paraphoran*).’⁵⁷ Elsewhere, the term ‘phrenitic’ is used for disciples who are not ready for catechism and should be refused instruction, as in Cyril (fourth century CE), who may have a Galenic passage in mind.⁵⁸ ‘Also the ill seek wine. But if it is given to them in an inopportune way, this causes *phrenitis*, and then there will be two evils: the patient is destroyed, and the doctor is thrown into disrepute.’ And so the pupil ‘becomes phrenitic, for he does not know what he hears, and shames the procedure, and makes a mockery of what is being said’.⁵⁹

Existential phrenitis

As we saw in [Chapter 3](#), a strand of medical discussion emphasized psychological, holistic and more eudaimonistic aspects of mental disorder with reference to the disease *phrenitis* as well. Celsus and Caelius Aurelianus⁶⁰ are the richest medical sources in this respect, but an

⁵⁵ 3.220.38.

⁵⁶ Cf. also Epiphanius, *Panarion* 3.112.1; Theodoret, *Commentaria in Isaiam*, 14.335 (fourth–fifth centuries CE); and *Haeticarum fabularum compendium* 83.424.4, *Peri Donatiston* ‘Truly to such a form of *phrenitis* (*eis toiautēn . . . phrenitin*) the wicked daemon imprisoned them in the disease.’

⁵⁷ *De deitate filii et spiritus* 46.557.16. Further, at *Contra Eunomium* 1.1.319, incompetent debaters who mix names and words in discussion are phrenitic, according to Gregory: ‘For in the common usage in our life, it is proper only to those who are drunk or those struck by *phrenitis* (*ē phrenitidos paraiaiontōn*) to be led astray towards names and use them not according to what is indicated by the sounds, but to refer as “dog”, if it happens, to a man, and again to use the noun “man” for a dog’; also *Contra Eunomium* 2.1.566.

⁵⁸ See pp. 172–73. ⁵⁹ *Procathechesis* 12.6.

⁶⁰ [Gourevitch and Gourevitch \(1998\)](#) 510–11 note the influence of precisely these medical sources on the construction of the ‘phrenitic’ in Augustine, underlining in particular the geographic proximity between the two North African authors, Caelius and Augustine, who refers explicitly to Soranus (510 n. 6). On Augustine and *phrenitis*, see also [Gourevitch \(2017\)](#) 294.

influence from Hellenistic philosophical discussions on these views is also to be considered. At the beginning of that chapter we explored the version of this eudaimonistic take on mental health visible in some passages from Middle and New Comedy: the theme of human grief, *lypē* (λύπη), was key to conveying the image of mental disorder as existential suffering. Interestingly, these themes also surface in some imperial and late-antique authors in association with *phrenitis*.

John Chrysostom (fourth–fifth centuries CE) obviously has a kind of moral wholesomeness in mind when he places disease, and *phrenitis* in particular, at the centre of a list of ‘intentional’ ills and pains for which man is responsible through his *akrasia*:⁶¹ ‘Whence wickedness? And the fully evil? Whence, you ask? Tell me, whence comes the evil of diseases? Whence *phrenitis*? Whence deep sleep? Whence want of attention? If physical diseases take their beginning from a deliberate choice, even more so do those that are ‘intentional’ (*ta proairetika*). Whence drunkenness? Not from an *akrasia* of the soul?’⁶² He continues to insist on the point by connecting his physiological determinism (fever and a lack of balance cause *phrenitis*) directly with his rigid moralism (ethical flaws cause the imbalance): ‘[Does] *phrenitis* [not come] from an excess of fever? The fever not from an imbalance of the elements in us? The imbalance of the elements not from a want of attention? For whenever we conduct one of those things in ourselves to imbalance through need or want of attention, we kindle that fire.’ The church historian Evagrius Scholasticus (sixth century CE) uses our disease, which is a ‘grief’, a *lypē*, as a full-blown allegory of spiritual malaise:

Grief, a disease of the soul and flesh, arrives (*lypē, psychēs nosos kai sarkos, tynchanei*); and it takes [the soul] as a war captive, and wastes [the body] in place. Pain is generated by opposite causes, wrath is generated by pain (*ek de lypēs mēnis*), and *phrenitis* and abuse (*loidoria*) are generated by these things. If you wish to subdue pain and wrath (*lypēn kai mēnin*), embrace the patience of love, and disseminate around yourself the joy of virtue, and let your joy not be pain for another.⁶³

Phrenitis is thus the bodily outcome of a number of existential evils and moral errors, all rooted in a *lypē*.

⁶¹ See Salem (2010) and Mayer (2015a)(2016) on mental health and *phrenitis* in John Chrysostom.

⁶² In *epistulam i ad Thessalonicenses*, 62.452.15–17.

⁶³ *Tractatus ad Eulogium (sub nomine Nili Ancyran)* (79.1104.9–16).

Dangerousness and Bestial Behaviour

Aggressiveness and physical violence are at the centre of accounts of the mentally ill from the classical era onwards in non-medical texts.⁶⁴ The well-known archetype of this is the incapacitated madman brandishing a sword at the beginning of Plato's *Republic*: should one really return a sword which belongs to him to such a man, if justice is 'giving to each his own'?⁶⁵ This proverbial sword becomes part of the representation of the phrenetic through the elaboration offered by Galen in his anecdote about a madman, possibly reflected in Lucian,⁶⁶ together with more general expressions of violence.

The motif of the brawl or duel provoked by aggressive phrenetics is standard. Galen mentioned the desire of one of his phrenetic patients to fight imaginary opponents,⁶⁷ a tendency Gregory of Nyssa (fourth century CE) turns into a prudential warning as he describes an imaginary fight:

It is as if a person suffering from *phrenitis* were imagining being locked together with someone, when he is not in fact wrestling against anyone, then striking himself with great strength, he thinks it is his opponent he is striking. Something such happens with the skilled writer, when he creates fictions we are unfamiliar with and fights against shadows which he himself formed in his own imagination.⁶⁸

The phrenetic's violence poses a challenge to those around him, and later precisely this impasse is described: 'just as those at a loss facing the implacable anger of the phrenetic do not know what they should decide'.⁶⁹

Augustine is again the most productive writer on the motif: 'some are phrenetic, are dangerous (*alii phrenetici sunt, molesti sunt*)'.⁷⁰ Unlike the converse case, the lethargic who 'dies without harming others', the phrenetic 'is to be feared by many healthy people, and especially by those who try to help them'.⁷¹ At *Sermones* 359 Augustine even concocts a portrait of

⁶⁴ See Petruccione (2016) 306–07 on dangerousness, animality and fury as typical material for invective in Christian disputes against pagan persecutors.

⁶⁵ The topos of the weapon and the madman makes an earlier – perhaps its first? – appearance in the gory self-harming hands of Cleomenes at Herodotus 6.75: 'When [Cleomenes] was in the stocks and saw that his guard was left alone, he demanded a dagger. The guard at first refused to give it, but Cleomenes threatened what he would do to him when he was freed, until the guard, who was a helot, was frightened by the threats and gave him the dagger. Cleomenes took the weapon and set about slashing himself from his shin upwards.'

⁶⁶ See above, p. 195. ⁶⁷ *Comm. Hipp. Epid. VI*, 1321.2–19 Vagelpohl.

⁶⁸ *Contra Eunomium* I.I.487.1. ⁶⁹ 3.3.47.3.

⁷⁰ *Sermones* 359, 39.1596.36. See also *De utilitate credendi* 18.36, where the phrenetic is defined as especially threatening.

⁷¹ *Lethargici sine aliena uexatione moriuntur, phreneticus autem multis sanis et eis potissimum, qui uolunt subuenire, metuendus est.*

these patients as sadists.⁷² ‘Phrenitics are destructive (*molesti*) individuals who have lost their minds, and they wander insane and furious, here and there, armed, looking for someone to kill, to blind (*insani atque furiosi armati uagantur hac atque illac, quaerentes quos occidunt, quos excaecent*).’ The opponents of Epiphanius (fourth century CE) are cast as self-harming phrenitics armed with swords in his invective *Against Heretics*: ‘A person who suffers from *phrenitis* prepares a sword against himself, and on account of his epileptic outbreak, as he cuts his own flesh, he thinks he is warding off enemies.’⁷³

Animals are also directly if figuratively evoked in this portrayal of wild violence. Thus John Chrysostom, as he lists various human flaws in their most grotesque forms, mentions animals as correlative to the ways phrenitics behave towards those who wish to heal them. They become ‘like horses who are mad for women, and fierce wolves, says the Scripture, and malicious like camels, with no compassion for the poor, no pity for those who suffer, careless of those who gather in the assembly, despising anything sacred, not honouring their memory, shunning confession, towards their healers like those who suffer from *phrenitis*.’⁷⁴

Lack of Awareness of Disease

According to Galen, phrenitics are uniquely unconscious of the place in the body where they are suffering.⁷⁵ They are characteristically unaware of stimuli such as thirst and the need to urinate, and are generally oblivious to their own diseased condition. This pathological lack of awareness offers obvious material for prudential allegory regarding humanity’s ignorance and foolish arrogance in not realizing the depth of its sin, and the limitations of our imperfect mortal state.⁷⁶

In the words of Caesarius of Arles (fifth–sixth centuries CE): ‘But now, just as those who suffer from *phrenitis* or are alienated in their mind do not realize if they are wounded, because they lack their natural senses, so too we, either made mindless by worldly desires or inebriated by vices, cannot feel how many wounds, how much grief of the soul we inflict upon ourselves by sinning.’⁷⁷ Certain categories are singled out: ‘The Pharisee, wounded with the disease of depravity, feverish with the flame of

⁷² 39.1596.38. ⁷³ *Panarion, Adversus haereses* 3.III.13. ⁷⁴ *De siccitate* 61.723.50.

⁷⁵ See above, pp. 109–10; Wright (2016) 209–10 on these as disturbances of the ‘governance’.

⁷⁶ This lack of awareness on the part of phrenitics (as well as of patients suffering from *melancholia* or *parakopē*) is already noted in Plutarch, *Quomodo quis suos in virtute sentiat profectus* 81; cf. Ahonen (2014) 205.

⁷⁷ *Sermones Caesarii uel ex aliis fontibus hausti* 108.3.35.

arrogance, as a result of his *frenesis* did not know he was insane (*per frenesim se nesciebat insanum*), and 'he commits crimes through *frenesis*, unaware of himself (*sibi nescius*), exiled from humanity'.⁷⁸ Due to his ignorance, the phrenitic cannot recognize the medicine he needs. Wine may come in again here, but in a positive sense, since the phrenitic cannot recognize its quality:

Just as the person with fever or suffering from *phrenitis* (*ho pyrettōn kai phrenitiōn*) refuses vintage wine as an enemy, while when he is in good health and strong it cheers his heart . . . , so the person who is ill in his mind (*phrēn*) and feverish with an evil disease flees an old friend as if he was an enemy.⁷⁹

This lack of awareness makes people follow the wrong leads, hence the warning 'Do not wish to see . . . Christ with your senses, so that you do not ultimately become phrenitic (*hina mē teleon phrenitikos genēi*), embracing the wolf instead of the shepherd and kneeling down in front of the evil daemons'.⁸⁰

Lack of self knowledge, *heauton agnoein*, a traditional flaw according to Greek eudaimonistic principles, receives new moral and pathological positioning with *phrenitis*. Thus Cyril of Alexandria (fourth century CE): 'For to be unaware of oneself is harder than the greatest *mania* and *phrenitis*',⁸¹ or Basil (330–79 CE): 'He does not realize this (*ouk aisthanetai*), since he is similar to drunks or phrenitics, who although they suffer the worst things, think they are removed from suffering'.⁸² In John Chrysostom this lack of awareness is equivalent to the temptations of material wealth:

Just as those who suffer from *phrenitis* could not know the state they are in (*ouk an dynainto symidein en hois eisin*), but need doctors (*iatrōn de deontai*) to deliver them from their madness; so too those taken by the oppressive raving of material wealth need other guides (*heterōn deontai didaskalōn*) in order to learn that they are raving.⁸³

In Augustine, a lack of awareness of true love is at issue: 'The things you see and regard as good are failing you. You are not healthy, you are made

⁷⁸ Peter Chrysologus *sermo* 139.38.

⁷⁹ Asterius Sophista (fourth century CE), *Commentarii in Psalmos* 13.3.4.

⁸⁰ Evagrius (sixth–seventh centuries CE), *De oratione (sub nomine Nili Ancyran)*, 79.1192.37.

⁸¹ *Expositio in Psalmos* 69.776.45. ⁸² *Constitutiones asceticae* 31.1344.34.

⁸³ *Quod frequenter conveniendum sit* 63.462.4. Cf. *Expositiones in Psalmos* 55.94.28: 'If the rich do not realize (*ouk aisthanontai*) that they are in poverty, there is nothing to be surprised at. Neither do those who suffer from *phrenitis* perceive the disease (*oude boi phrenitidi katechomenoi aisthēsēn tēs nosou lambanousi*), and for this reason they are especially pitiful and unhappy. For if they realized, they would run to the doctor; but now this is the most difficult aspect in the affection, that those who are in it are unaware that they are.'

phrenitic by an excessive fever (*nimia febre phreneticus factus es*); what you love is not true (*uerum non est quod amas*);⁸⁴ while Theodoret (fourth–fifth centuries CE) elaborates on phrenitics’ refusal of medicine: ‘just as those who suffer from the disease *phrenitis* and shake off the therapy they are offered and refuse medicine as a kind of weakness’.⁸⁵ John Chrysostom takes such awareness as the peak of illness, ‘for to be unaware of oneself is more difficult than the most serious kinds of *mania* and *phrenitis*’.⁸⁶ Such lost individuals cannot even feel their own wounds, be they moral or physical: ‘Just as those who suffer from *phrenitis* or are alienated in their mind do not realize if they are wounded, because they lack their natural senses (*non sentiunt si vulnerentur, quia naturalibus sensibus carent*), so too we, made mindless by the desires of the world or inebriated with vice, cannot feel.’⁸⁷

Pathological Joy

The misplaced, unwitting joy of the phrenitic who congratulates himself on his own madness is an important chapter in its own terms. This *dysthymia*, a trait of mental disorder the Hippocratics had already noticed in deranged patients,⁸⁸ becomes a specific qualifier for phrenitics. In them, euphoria is precisely a function of their lack of awareness of what is good or bad in their state of health, and of their lack of judgement: joy and sadness aroused by the wrong object. Various non-medical sources are explicit in this regard.

The Greek bishop Irenaeus (second century CE) chastises heretics precisely as prey to demented joy: ‘Just like those persons who fall into a fit of phrenitic illness (*quemadmodum hi qui in phreneticam passionem inciderunt*), the more they laugh, the more they imagine themselves to be well.’⁸⁹ Asterius (fourth century CE) even associates this joy with death: ‘For many prefer the lust of vanity and its pursuits . . . as a sort of *phrenitis* that brings death amidst laughter and jokes (*hōsper tina phrenitin en tōi gelan kai paizein ton thanaton agousan*).’⁹⁰ As usual, Augustine offers many examples, warning that ‘Your laughter moves more intelligent people to tears, not to laughter, as the laughter of phrenitics moves the minds of their friends who are sane to tears (*sicut mentibus amicorum sanorum fletum*

⁸⁴ *Enarrationes in Psalmos* 39.8.4. ⁸⁵ *Graecarum affectionum curatio* 1.4.6.

⁸⁶ *Expositiones in Psalmos* 55.134.49.

⁸⁷ Caesarius of Arles (fifth–sixth centuries CE), *Sermones Caesarii uel ex aliis fontibus hausti* 108.3.35.

⁸⁸ See Thumiger (2017) 361–70.

⁸⁹ *Aduersus haereses seu Detectio et euersio falso cognominatae Gnoeos* 1.16.3. ⁹⁰ *Homilies* 3.15.6.

commouet risus phreneticorum).⁹¹ The allegory of a ‘phrenesis of all mankind’ is developed in similar ways elsewhere as well: ‘But in the way a phrenitic rejoices the most in his madness, and laughs, and cries for the one who is actually sane; in the same way, dearest, we too, if we received the medicine that comes from heaven, since we too all used to be phrenitic (*quia et nos omnes phrenetici eramus*), are saved in the same way.’⁹² To know, in these cases, means to grieve, while the damned remain cheerful: ‘Often the just man who sees them cries, but they, like phrenitics, are wept for but laugh (*ipsi phreneticorum more planguntur et rident*)’.⁹³

Pathological Strength

Violence, a lack of awareness and pathological joy: all these are manifest in the body through a form of pathological strength, a paroxystic vigour which deceives some onlookers – and especially the patient himself – into believing that the phrenitic individual is also doing well physically. Many authors allegorize this deceptive sign. In Augustine’s words:

For if one presumes that these are not strengths like those of healthy people, but like those of phrenitics (*ne uires istae non sint, quales solent esse sanorum, sed quales solent esse phreneticorum*), who, although insane, think they are sane, so much so that they do not look for a doctor and actually kill him as if he were a nuisance, just as [evil people] kill Christ;⁹⁴ for no one wants to be phrenitic, even if he sees that the strength of the phrenitic is greater than that of healthy people;⁹⁵

and, in an extreme formulation, in *Enarrationes in Psalmos*: ‘For nothing is stronger than phrenitics, and they are stronger than healthy people. But the greater their strength, the nearer is death (*sed quanto maiores uires, tanto mors uicinior*).’⁹⁶

The particular strength of these patients is elaborated medically in terms of a tension, a kind of pathological tone and undesirable rigidity which, as a quality of the nerves, is very different from real strength. The spurious *Selecta in Psalmos* of Origen (second–third centuries CE) makes this clear,

⁹¹ *Contra Iulianum* 4.751.37; cf. also 4.752.24; *Sermones nouissimi* 25D.18.260.353; *Sermones* 175 (38.945.51); *Sermones* 175 (38.945.52); etc.

⁹² *In Iohannis euangelium tractatus*, 7.2.4. Cf. *In Iohannis euangelium tractatus* 7.2.4.

⁹³ Gregory the Great (sixth century CE), *Homiliae in Hiezechielem prophetam* 1.4.261.

⁹⁴ *Epistulae* 185.6.17.

⁹⁵ *De bono uiduitatis* 15.326.2; cf. *Enarrationes in Psalmos* 70.20.20, *De quantitate animae* 40 (32.1058.22).

⁹⁶ 58.7.18.

drawing a telling connection between the technical and the moral: “The source of strength and support for sacred matters is the Lord; therefore no one can be strong or firm in the things that are not in God. *Firm does not equal rigid, nor are the nerves of a phrenitic strong (ou tauton de to stereon tōi sklērōi, oude to ischyron tonois phrenitikois).*”⁹⁷ From a philosophical quarter, in his *Dissertationes ab Arriano digestae* Epictetus (first–second centuries CE) had commented on this crucial difference between real strength and rigidity or mere stiffness, which are the case for the phrenitic:⁹⁸

About those who remain rigidly in what they have decided . . . first of all, the decision made must be healthy. For I wish that in the body there should be tone/nerves, but as in a healthy person, as in an athlete. If you show me the tone/nerves of a phrenitic and brag about them, I will tell you, ‘Sir, go for a doctor. For these are not nerves/tones, but a lack of a good tone/nerves’ (*touto ouk eisi tonoi, all’ atonia*).⁹⁹

Not only is this a false form of strength, but it actually reveals that the ill are on the verge of a crisis, as Gregory explains: ‘Clearly they are similar in their senses to those of the phrenitic, as they excel in madness, but regard it as virtue; . . . and they almost think that their strength is increased as they approach the end of life through an intensification of their languor (*quasi creuisse se uiribus aestimant dum ad uitae terminum per augmenta languoris appropinquant*).’¹⁰⁰

Ethical Flaw and Human Folly

The general implication of *phrenitis* as a moral flaw is evident from the early centuries of Christian literature and is clearly connected with arguments made by the pagan authors already discussed. The folly of all mankind is a well-known topos from the Stoics onwards.¹⁰¹ This kind of discourse on *phrenitis* brings together a variety of human flaws, sins, shortcomings, emotional imbalances and wicked actions, and represents a step away from the material examined so far, in which the pathological, involuntary aspect prevailed. Here an element of responsibility and culpability is proposed, often resorting to images of turbulent mobs, the ‘phrenitic humanity’ which is out to lynch God. Dio Chrysostom (first–

⁹⁷ 12.1224.28. ⁹⁸ 2.15.2.2–3.3.

⁹⁹ See Wright (2022) 198–202 on *tonos*, and especially the ‘*tonos* of the soul’ in theological discourses of the third–fifth centuries CE.

¹⁰⁰ *Moralia in Iob* 6.16.196.

¹⁰¹ See Ahonen (2014) 109–12, (2018) 346–47; Wright (2022) 224–28.

second centuries CE), for instance, refers to the cursed pressure that a concern for fame brings to human beings: ‘But like phrenitics, [the seeker of fame] is always suspended, by night and by day.’¹⁰²

Human folly in a more universal sense is often evoked, with the phrenitic imagined as a boiling mob: ‘What then should medicine of the Church do, seeking the health of all with its maternal charity, as if burning in the midst of phrenitics and lethargics (*tamquam inter phreneticos et lethargicos aestuans*)?’¹⁰³ The anonymous *Liber de ortu et obitu patriarcharum* sketches a portrait of the mob that killed Saint Stephen, and models it on the pathological, feverish, teeth-clenching phrenitic who becomes an image of threat: ‘The enemies of God, seeing these things, “gnashed their teeth at him” . . . were looking for a way to kill him; phrenitic, furious, full of frenzy, like dogs, they were barking against the saint.’¹⁰⁴

Other common sins and vices belong here. These typically include arrogance and vainglory, summed up as forms of raving madness similar to *phrenitis*: John Chrysostom (fourth century CE) writes: ‘He is deranged, he is a daemon, like a corybant he is seized by *phrenitis* . . . in his arrogance (*eukaraphronētos*)’.¹⁰⁵ Peter Chrysologus (fourth–fifth centuries CE) identifies this mob of sinners with the non-Christian Jews:¹⁰⁶ ‘He saw the synagogue lying in the darkness of its own depravity, oppressed under the weight of its sins, feverish with perversion to the point of *frenesis* (*uitiis usque ad frenesem febrientem*).’¹⁰⁷ Caesarius of Arles (fifth–sixth centuries CE) also speaks of idolatry among the Jews as the behaviour of dissolute phrenitics: ‘This group of Jews . . . even began to make jokes, once they had drunk wine in excess, and decided to fabricate idols for themselves, and in honour of these they began to lead dances, and like *phrenitics* they were distorting their limbs in various moves (*more phrenetico diversis saltationibus membra torquere*).’¹⁰⁸ These flaws are somehow connatural to humanity, as emerges in general discussions of pathology and health, nature and its perversions. Peter Chrysologus repeats the question: ‘From where? Because this is not reason, but languor; not life, but fever; *phrenesis*, not

¹⁰² *Orationes* 66.8.5. ¹⁰³ Augustine, *Epistulae* 89.423.24. ¹⁰⁴ 64.2.

¹⁰⁵ *In Samaritanam* 59.538.26.

¹⁰⁶ *Collectio sermonum* 18.67. See also Augustine’s pupil Quoduultdeus, *De Symbolo* 2.5.32, who adopts and repeats the same patterns as his master with bitter sarcasm: ‘O blindness of the Jews! O fury of the phrenetic! (*caecitas iudaeorum! o furia phreneticorum*) Do not dismiss him, but Barabbas, which was nothing other than to say, “Let Christ the savior be killed, and let the thief be released, so that he might kill again!”’.

¹⁰⁷ In *Collectio sermonum* 38.55, Peter Chrysologus again envisages a destructive mob of phrenitics; see also *Collectio sermonum* 38.84, 90; 50.61.

¹⁰⁸ *Sermones Caesarii uel ex aliis fontibus hausti*, 103.46.5.

nature (*frenesis, non natura*).¹⁰⁹ Later on the contact with medical discourse is even closer, and vivid imagery is employed:

What is this evil? Certainly some form of fragility lurks in the flesh, boils in the veins, enters the bones, conceals itself in the midriff, burns in the blood, and bursts out into the *phrenesis* of sin (*Quod malum? fragilitas certe quaedam serpit in carne, in uenis aestuat, intrat ossa, conditur in medullis, febrit in sanguine, in uitiorum frenesim sic erumpit*). (41.32)

Emotional imbalance also belongs to the properly psychological portrayal of this ‘folly’, hence the (otherwise rare) suggestion that the excesses in these patients be approached gently, with consideration for phrenitics’ hypersensitive nature, a consequence of their inflammation, in John Chrysostom (fourth–fifth centuries CE). He proposes: ‘For this reason I summon you all to try to cure them according to your powers, speaking to them with gentleness and goodness, like those who have fallen into the disease of *phrenitis* (*kathaper tous phrenitisi peripesontas*) and been struck aside by it . . . For this reason, wise doctors cool such wounds with a sponge.’¹¹⁰ Jealousy is at stake in John’s *De virginitate*: ‘[The jealous man], struck by this madness, is in no way better than those possessed by daemons or seized by the disease of *phrenitis*.’ Elsewhere, *phrenitis* is connected with the capital sin of arrogance, *superbia*.¹¹¹

The Parable of the Doctor and the Aggressive Patient

Violence and aggression are not as characteristic of mental disorder in Greek medicine as one might expect from literary parallels.¹¹² The violence of the mentally disordered begins to be part of the ethical profile of mental suffering in imperial medicine, and it becomes characteristic of the actions of phrenitics in particular, insofar as they are affected by forms of hyperactivity, spasms and generally heightened energy. We thus often find narratives with phrenitics as central actors interacting in a disturbed way with their caregivers and even their saviours (family, friends, doctors, allegorically those who love them, the wise advice of well-meaning friends, God himself) outside medicine. In these narratives, the violence and aggressiveness of the phrenitic are central, as are his (more rarely her) lack of awareness of what s/he desperately needs in order to be cured, and the ingratitude to the doctor, seen as a nuisance and an enemy to

¹⁰⁹ *Collectio sermonum* 41.12. ¹¹⁰ *De incomprehensibili dei natura* 2.7, 48.718.15–16.

¹¹¹ *Quod uult deus, De Symbolo* 2.5.46. ¹¹² See Thumiger (2017) 265–72.

attack. The violence of these individuals against authority and caregivers is graphically described: pushing away and biting the healing hand; beatings and floggings; insults and even murder; smashing medicine flasks; and overturning tables. The support the medical portrayal of the phrenetic lends to this qualification of power relationships (religious and secular, or as part of the social hierarchy) teaches us a great deal about the developing image of medical professionals, their social reception, and the official chastising of the perceived 'mad'.

Jerome (fourth century CE), for instance, casts himself as a valuable but unappreciated advisor when he rebukes his addressee: 'Why do you try to insult others while neglecting your own flaw? Why do you assault me with your bite like a phrenetic (*quid . . . morsu laceras, quasi freneticus*), when I have always advised you well and with great care?'¹¹³ So too Augustine revels in the trope and measures the severity of the illness based on the violence of the antagonism: 'For if they had been sick in a milder way, they would not have killed their doctor, like phrenetics.'¹¹⁴ The doctor *par excellence*, Jesus, remains forgiving nonetheless:

Not forgetting who he was while on the cross, and demonstrating his patience to us and offering an example of loving one's enemies; when he saw the crowd clamouring around him, since he understood their illness, being a doctor, who understood the *phrenesis* in which they had lost their mind, he addressed his father: 'Father, forgive them, because they do not know what they are doing'.¹¹⁵

The relationship between patient and doctor is based on misunderstanding, a kind of paranoid fear and anger of the former towards the latter, producing a chain of action and reaction, aggression and containment. The asymmetry of the relationship between the two is explored by Augustine: 'Hence when the phrenetic attacks the doctor, and the doctor ties up the phrenetic . . . it is not the doctor who attacks the phrenetic, but the phrenetic (who attacks) the doctor.'¹¹⁶ Human beings are sick in many ways and turn against their benefactors: 'Deaf, blind, crippled, dull people, who did not acknowledge their doctor and wanted to kill him, lost in their mind as if through *phrenesis*.'¹¹⁷ Humanity as a mob of sinners, Jews and phrenetics are pitiful reflections of one another in this narrative: 'Just as he did to the Jews who were raging against him when he found himself there,

¹¹³ *Epistulae* 147.324.10. ¹¹⁴ *Enarrationes in Psalmos* 65.4.67.

¹¹⁵ *Sermones* 80.496.20; see also Augustine, *Sermones* 80. On the metaphor of the *medicus bonus* vs aggressive patients in Christian literature, see Mazzini (2003) 250–52.

¹¹⁶ *Contra Cresconium* 4.51.61. ¹¹⁷ *In Iohannis euangelium tractatus* 278.17.15.

so he healed those *phrenetic* people, for whom he prayed as he hung on the cross.¹¹⁸ Gregory of Nyssa (fourth century CE) compares the Christian blessing to the healing action of a good doctor on a phrenetic, as he acts by ‘keeping his gaze firm and his voice calm, like a doctor curing with his art someone who is disgracing himself through *phrenitis*’.¹¹⁹

The manipulation of the medical concept does not stop at the surface, but engages at times with key clinical themes. The well-known lack of sleep, for example, is conceptualized as an absence of the spiritual peace that only God can give: ‘Phrenitics are those who are insane through lack of sleep (*phrenetici sunt, qui non dormiendo insaniunt*)’.¹²⁰

Jesus and the Phrenitics: A Theatre of Ingratitude

A more specialized level of this imagery speaks directly about the professional relationship between phrenetic patient and medical authority, as well as about other relationships that appear to mimic this one. In Augustine, Jesus is repeatedly depicted as the self-sacrificing doctor of diseased humanity, even *made medicine* for man: ‘For that doctor of ours was not afraid to be killed by the phrenetic, and out of his own death he made a medicine for the phrenetic (*de ipsa morte sua phrenetico medicamenta confecit*)’, and ‘he made out of his own death a medicine for phrenitics (*de ipsa morte sua medicamenta faciebat phreneticis*)’.¹²¹ In particular, Jesus’ precious blood is offered as a cure: ‘For the voice of the doctor could not go amiss, despite hanging on the cross, as he was making a medicine for health for the phrenetic from his own blood (*medicamentum sanitatis phreneticis de suo sanguine facientis*)’.¹²² Jesus the doctor is dutiful and patient: ‘Did a doctor ever abandon his duty just because a phrenetic person was raving? (*numquid deseruit medicus officium suum, quia phreneticus saeuiebat?*)’ is asked rhetorically.¹²³ No. ‘He was being hit, but still cured [them]; he endured the phrenetic, nor did he abandon the patient (*patiebatur phreneticum, nec*

¹¹⁸ *Sermones* 87 (38.538.38). ¹¹⁹ *Orationes viii de beatitudinibus* (44.1217).

¹²⁰ Augustine, *Sermones* 87 (38.538.21).

¹²¹ *Sermones nouissimi* 25D.18.260. On this particular set of Christian imagery, see Nutton (2004) 306–07 with n. 105.

¹²² *Sermones* 313B.74. The image is pushed to more grotesque effects as the doctor hangs suspended from the cross: ‘I heard about a doctor hanging on the cross; to the surrounding crowd of furious phrenitics (*turba saeuientium phreneticorum*), he was saying “Father, forgive them, because they do not know what they are doing”. He made a medicine [out of this]’ (*Sermones nouissimi* 25D.18.260.361); also 77.485.18, 284.1292.24, 284.1293.16.

¹²³ *Sermones* 50, 386.1697.12.

deserebat aegrotum); he was being held, tied up, struck with fists . . . and he remained the doctor.¹²⁴

The Jews, of course, are paradigmatic of these ungrateful patients: 'For his land was Judaea, and it all perished when they crucified their lord through ignorance, phrenitics, furious against the doctor, refusing salvation/health in their madness (*phrenetici saeuientes in medicum, et salutem insania repellentes*).'¹²⁵ In particular, here as before the Pharisees are targeted as those who cannot understand the actions and duties of the charitable doctor. They

were criticizing our lord because, as a doctor, he was mixing with the sick. And they said: 'Look, how he eats with them, with the publicans and the sinners!' And the doctor replied to the phrenitic: 'There is no need for a doctor among the healthy, but among those who are unwell. I did not come to call the righteous, but sinners' (*respondit medicus phreneticis: non est opus sanis medicus, sed male habentibus; non ueni uocare iustos, sed peccatores*).¹²⁶

The medical allegory is also extended to include *lethargici*, who here represent, symmetrically to *phrenitis*, human laziness and failure to respond: 'If we do not recognize the doctor yet, still let us not rage against him like phrenitics, nor shrink away from him like *lethargici*.'¹²⁷ This net of medical imagery is highly influential, as is evident from the multiple imitations starting with Augustine's disciple Quoduultdeus (e.g. 'The blood of the doctor was spilled and made into a medicine for the phrenitic (*fusus est sanguis medici et factus est medicamentum phrenetici*)')¹²⁸ and including many other texts.¹²⁹

Not Worth Angering Oneself: Condescension to Phrenitics

The nexus of need and ingratitude involves further developments. One of these is relevant on a psychological level to the themes of deontology and professionalism in medicine. First, there is a basic paternalistic view of how human weakness and disease are to be dealt with that involves the father figure of a saviour, a savant doctor who 'knows best' and 'knows better'. This individual is altruistically interested in the well-being of patients, knows what they are suffering from and what can benefit them, and

¹²⁴ *Sermones* 175.946.16; see also *Sermones* 176.952.13; 284.1292.19.

¹²⁵ *Enarrationes in Psalmos* 96.2.27. ¹²⁶ *In Iohannis euangelium tractatus* 7.19.1.

¹²⁷ *Sermones* 87.538.18. ¹²⁸ *Aduersus quinque haereses* 7.125.

¹²⁹ E.g. Caesarius of Arles, *Sermones Caesarii uel ex aliis fontibus hausti* 142.4.6.

engages with them emotionally. At the same time, he resists the temptations of anger or impatience towards the sick, however unsufferable they might become. And most important, he has the spiritual fortitude to apply force when necessary.

This doctor figure perhaps has less in common with the image of Jesus Christ offered by the Gospels than with that of detached, institutional figures of secular power and social or intellectual superiority found in various forms (political, religious, medical) in the ancient world. For example, he is partially reminiscent of the figure of the sage Galen (and other Hellenistic philosophers before him) envisaged as the ideal guide for improving one's soul.¹³⁰ Early imperial pagan sources offer examples of the phrenitic in such contexts. In *De constantia sapientis* 13.1.3, for example, Seneca the Younger (first century CE) asked: 'Which doctor grows angry with a phrenitic patient? Which doctor takes badly nasty words coming from a feverish person overheated by illness?'; and at *De ira* 3.26.1: 'Why do you take badly the fury of an ill person, or the words of a phrenitic, or the insolent gestures of children? (*quare fers aegri rabiem et phrenitici verba, puerorum protervas manus?*)'. Likewise Plutarch (first–second centuries CE), *Biogr. fr.* 136.4: 'Just as it is best to criticize and admonish friends, if they make a mistake, when they are in good health, so we are accustomed not to fight against others or oppose them in the course of deranged or phrenitic attacks, but to accommodate and agree with them.'

In Christian authors, this detached, superior figure is identified with God, but also constitutes a recommended model of authority, and the phrenitic patient met by the condescension of the doctor engenders a rich allegorical narrative that intersects with various themes. Augustine plays a fundamental role in several of these, exploiting the medical tradition and especially Galen.¹³¹ One qualifying virtue of the doctor is his ability to suffer, bear, forgive and distance himself from the shortcomings of the patient *qua* patient, whose weaknesses and flaws belong to the pathology. Jesus interceded for humanity on the cross, just as the doctor pursues the health of his ungrateful patients: 'Phrenitics even kill their doctors, and those who have compassion not only do not grow angry with them, but

¹³⁰ See Thumiger (2020a) 17, with n. 20 on this motif, with bibliography, especially Gill (2010), pp. 243–329, 253 on the figure of the adviser in Galen; Singer (2013) 210–17, esp. 212 n. 27. This motif is found already in Seneca, *De const. sapientis* 13: the sage is to fellow-men as a doctor is to patients.

¹³¹ See Mayer (2015b) on elements of persistence in this medicalized view of spiritual salvation in continuity with pagan ethics; Grant (2010) 388–404 on early Christian ideas about mental health and therapy; Kolbet (2010).

even seek the health of those who kill them.¹³² The paternalistic model of medical interaction centred on an idea of *miser cordia*, as of endless tolerance, is foundational:

What compassion truly is, those can feel most clearly who must attend to sick people they love very much – their children or whoever is most beloved to them (*tamquam filiis uel quibuslibet dilectissimis*) – from whom, be they infants or phrenetics (*uel paruulis uel freneticis*), they must suffer much.¹³³

Basil (fourth century CE) speaks of the intellectual deficiency of phrenetics as a typical case not to be resisted or fought against: ‘If a small child (*paidion nēpion*) insults you, the offence is occasion for laughter. And when a person out of his head because of *phrenitis* pronounces dishonourable words, you deem him more worthy of pity than deserving of hatred (*eleeinon hēgēi mallon ē misous axion*).’¹³⁴ Ambrose of Milan (fourth century CE), *Expositio psalmi* 7.19.138.14 blends the figures of father, ‘good man’ and doctor, one the image of the other:

Just as the good father confronting the *phrenesis* of his son (*bonus pater in frenesi constituti filii*), when he is cursed by him, flogged, struck by blows, is not pained by his own disgrace and misfortune, but cries instead over that of the sick (son); . . . so the good man . . . suffers for him as if he were about to die, as if, hopeless, he was abandoned by doctors and wailing. And like a good doctor (*ut bonus medicus*), first he admonishes him, then . . . he does not abandon him . . . using not only the experience of his art but also the benign character of his mind (*exercens non solum artis peritiam, sed etiam mentis benignitatem*).¹³⁵

The daemons oppressing a sinner are thus fought off in the same way

a father would provide for a child who is sick with *phrenitis* – because the more the sick person (*ho kammōn*) is aggressive and kicks violently, the more he pities him and cries for him (*auton eleei kai dakryei*) – so also this one, facing the attack of the daemons who bring on these things, takes aim against the disease in him and toils with greater solicitude.¹³⁶

The friendship and understanding of peers are also invoked: ‘Those who are sick with *phrenitis* say many bad things about those close to them/those

¹³² Augustine, *Sermones nouissimi* 25D.18.260.353.

¹³³ Augustine, *De sermone Domini in monte* 1.57.1418. The Venerable Bede (seventh–eighth centuries CE) *In Lucae euangelium exposition* 2.6.1706, repurposes this discussion of *miser cordia* towards those who are incapacitated and quintessentially phrenetic.

¹³⁴ *Homilia aduersus eos qui irascuntur* 31.369.21.

¹³⁵ On this passage, see also Mazzini (2003) 250 n. 25.

¹³⁶ *De laudibus sancti Pauli apostoli* 3.1.13.

present, but those who hear them do not take offence.¹³⁷ Likewise Peter Chrysologus (fourth–fifth centuries CE) preaches that ‘A brother remains such when he harms his brother through fever, your neighbour remains such even when the neighbour commits crimes through *frenesis*, unaware of himself (*fratrem frater est in febre cum laedit, est in frenesi proximo proximus cum delinquit, est sibi nescius*).’

Also, there is a duty to kindness and assistance:

He who does not succour him with compassion, who does not cure him with patience, does not heal him with forgiveness, is not healthy, but is even more ill, has no inner parts, and demonstrates that he is alien from any human sense (*sanus non est, aegrotat infirmitus, uiscera non habet, et ab humano sensu monstratur alienus*).¹³⁸

This shows how flexibly notions of health, sickness and even anatomy were applied to shifting elements of moral invective.

‘Tough love’ and involuntary treatment

In the passages just explored, the examples of fathers, mothers, brothers and friends project an image of amiability and loving care. But there is another side to authority over the phrenetic. Commensurate to the violence these patients inflict on those who seek to help them is the violence of the confinement, chaining and involuntary treatment they receive, an equally vivid part of the allegory. This topos of ‘tough love’ offers a sobering illustration of the easy steps from compassion to condescension, control and active abuse of those deemed mentally ill. As seen above, a lack of awareness of their condition and an inability to seek help belong to the psychology of phrenetics: they are resistant to good advice, whether clinically or only metaphorically. What follows is the idea that ‘involuntary treatment’ of the disease, be it of the violent or the soothing variety, becomes necessary. Dio Chrysostom (first–second centuries CE) is aware of the need for tough methods with a phrenetic: misplaced leniency ‘would be (as crazy as if) a man who is ill and has *phrenitis*, and needs, say, to recline and have a poultice applied, were instead given a crown and anointed with perfume’.¹³⁹

Two kinds of ‘tough love’ emerge, one directed at the phrenetic and one at the lethargic, symbolic of their symmetrical moral flaws: tying up and restraining, and pressing into action, respectively. ‘And although we are in

¹³⁷ John Chrysostom (fourth–fifth centuries CE), *Ad Stagirium a daemone vexatum* 47.451.18.

¹³⁸ *Collectio sermonum* 139.38. ¹³⁹ *Orationes* 48.11.2.

this way displeasing to both kinds, by stimulating a lethargic and by tying up a phrenetic, still we are loving them both (*et quamuis molesti sumus utrique generi, et lethargicum excitando, et phreneticum ligando, ambos tamen amamus*), as Augustine explains.¹⁴⁰ He uses the verb *amare* explicitly: ‘The lethargic are stimulated (by the doctor), the phrenetic are tied up. But both are receiving love (this way) (*lethargici excitantur, phrenetici ligantur; sed tamen utrique amantur*).’¹⁴¹ This ‘true love’ must at times entail prohibition and constraint:

Who, tell me, appears to have pity for a person with fever or suffering from *phrenitis* (*ton pyretainonta kai phrenitidi katechomenon*): the one who bends over his bed, and binds him, and forbids him to take inappropriate food and drink, or the one who gives him access to neat wine, and orders him to freely give in to excess and do everything a healthy person can?¹⁴²

In Augustine the ‘tying up’ is figurative, executed through words (*phreneticos male saeuientes uerbis ligabat*),¹⁴³ while elsewhere he resorts to another – related – paradox:¹⁴⁴ when a phrenetic runs toward a precipice, a true friend ties him up and stops him. The rope becomes the symbolic prop, in this patronizing and accusatory portrayal of the sick, for the phrenetic’s propensity to self-harm. Gregory uses it to qualify the Pharisee: ‘Of his own choice the Pharisee is ultimately tied up, like a phrenetic carrying around his own rope to be tied up with.’¹⁴⁵

Phrenitics in Larger Intellectual Life and Society

Contemporary with these more pervasive, often grand narratives of an ethical and eudaimonistic kind are several smaller stories and a whole collection of anecdotes about phrenitics in popular culture. These too are

¹⁴⁰ *Sermones* 359 (39.1596.48). The tying up is wrongly (as far as we know) traced back to Hippocrates: thus Jerome (fourth–fifth centuries CE), *Aduersus Iouinianum* 1.3.222.25: ‘Don’t you consider him to be dreaming in his sleep, or taken by the phrenetic disease, deserving to be tied up in the way Hippocrates instructs us to (*arreptum morbo phrenetico, Hippocratis uinculis alligandum*)? See also Augustine, *Epistulae* 39.424.1: ‘For phrenetics do not wish to be tied up, nor lethargics to be urged into action. But the diligence of love persists in punishing phrenetics, urging on lethargics, loving both (*nam et phrenetici nolunt ligari et lethargici nolunt excitari; sed perseuerat diligentia caritatis phreneticum castigare, lethargicum stimulare, ambos amare*)’; *Epistulae* 93.449.1 to the same effect: ‘The one who ties up the phrenetic and tries to urge the lethargic into action, by being annoying to both is actually loving both (*ambobus molestus ambos amat*)’.

¹⁴¹ *Enarrationes in Psalmos* 34.2.13. ¹⁴² John Chrysostom, *In epistulam ii ad Corinthios* 61.501.4.

¹⁴³ *Enarrationes in Psalmos* 70.1.14. ¹⁴⁴ *Epistulae* 93.446.26; see also *Epistulae* 93.34.2.1.

¹⁴⁵ *Homiliae in euangelia* 2.33.4; cf. the parallel passage in Bede, *In Lucae euangelium expositio* 3.7.83. Thomas Aquinas approves (*Catena aurea in Lucam* 7.6.141).

testimony to the diffusion of the disease in concrete life, lay imagination and wider intellectual awareness. The relationship of this material to technical knowledge is even feebler and more indirect than in the case of Christian authors, but it adds important evidence to the broader picture.

A popular belief holding together these assorted manifestations might be that expressed by the late-antique grammarian Servius (fourth–fifth centuries CE) in his commentary on Vergil's *Aeneid* (*In Vergilii Aeneidos Libros*, 6.724.2). He sees *phrenitis* as a multifarious disease in which ethnic variations in disturbance of the *animus* (which is for him the same immortal entity across all beings) follow bodily disturbance (25–7): 'As we see in the phrenitic: as soon as [the disease] comes to the body, it does not rely on its own nature, but mutates according to (the body's) nature. Hence, we see Africans becoming *versipelles* (werewolves?),¹⁴⁶ Greeks lighthearted (*leves*), Gauls lazy (*pigrrioris . . . ingenii*).'¹⁴⁷ This strange point seems to confirm the embodied quality of *phrenitis* by comparison with other mental disorders, causing different syndromes and ethnic variations in different bodies. Let us turn to some of these eccentric beliefs about phrenitics.

Supernatural Phrenitics: Prophecy

A recurring strand of folk-belief about phrenitics concerns their supposed prophetic faculties, an idea perhaps derived from medical claims about their heightened sensory sensibility and disposition to fantasy. Cicero very early on said something in this regard, and in medical quarters Alexander of Tralles in particular is the first to explore the matter.¹⁴⁷

Christian theology also engages with it. Augustine is the first to refer to daemons in connection with a rationalization of the prophetic powers of the phrenitic, in a long patient case worth reading in full:

We know, moreover, of a man who, being kept at home because he was suffering from an unclean spirit, used to say when the priest set out from twelve miles away to visit him, detailing where he was through all the stages of the journey, indicating when he drew near, and saying when he entered the estate, the house, the bedroom, until he stood in full view. Although the sick man did not see any of these things with his eyes, he nonetheless could not have announced them so accurately if he had not beheld them in some fashion. *He was feverish, however, and said those things as if in phrenitis. And perhaps he truly was a phrenetic, but was thought on account of those things to*

¹⁴⁶ On the meaning of the adjective *versipellis*, literally 'skin-changing', see Ogden (2021) 5–6.

¹⁴⁷ See above, pp. 182–84, 190. Gourevitch and Gourevitch (1998) 506 also discuss this aspect and quote Augustine (*De genesi ad litteram* 14).

suffer a daemon. He took no food from his own attendants, but only from that priest. Moreover, he struggled violently against his own attendants, to the extent he was able, and calmed down when the priest alone was on his way. He yielded to that man only, and responded submissively. Yet the alienation of his mind, or the daemon, did not give way even to that priest, until he was cured from the fevers, as *phrenitics* are typically cured, and he did not suffer anything of that kind ever again after this.¹⁴⁸

In this passage the chronological relationship between *phrenitis* and daemon is not clarified or established: are they parallel affections, or does the daemon establish himself in the weakened person? Or does he genuinely cause *phrenitis*? The author seems to feel no contradiction nor any necessity to choose between the two possibilities, while the connection is retained as plausible.

Astrological Indications of phrenitis

Another important domain as we evaluate the degree of penetration of knowledge of this disease is astrology, especially the astrological traditions connected with medicine or 'iatrosophia', which associates diseases, pathological conditions and predispositions with astral conjunctions. These mentions testify on a general level to the wider popularity of the disease concept. More concretely, they tell us which associations it engendered in non-medical circles in the imperial era, environmental ones among others: a connection to summertime; participation in the wider category of mental disorder; and a link with the head, the meninges and the heart.¹⁴⁹ In his *Anthologiarum libri* the second-century CE astrologer Vettius Valens specifies that 'Capricorn is indicative of [involvement of] the sinews, the knees, internal and external spasms due to its enigmatic character; it causes dullnesses (of sight?), disabilities because of its horn, forms of *mania*, oppression by liquids, and even *phrenitis*.'¹⁵⁰ In the *Astrologica Hermetica*, (second–third centuries CE) Περὶ βοτανῶν τῶν ζ ἀστέρων we read that 'if one's birth is just before sunrise, it produces phrenitics and lethargics due to the increase of all these diseases that come from the heart'.¹⁵¹ In his *Matheseos libri* Firmicus Maternus (fourth century CE) connects *phrenitis*

¹⁴⁸ *De genesi ad litteram* 12.17. I thank Jessica Wright for having brought this passage to my attention.

¹⁴⁹ p. 180. I would like to thank Glen M. Cooper for his help with the translation of these sources.

¹⁵⁰ ix 110.31 Kroll, translation partially based on that of Mark T. Riley.

¹⁵¹ Cf. *Astrologica Hermetica* (second–third centuries CE), *De Plantis quae secundum planetarum naturam operantur*, and *De Herbis Planetarum* (187), for descriptions of phrenetics and lethargics and their therapy in astral terms.

to a variety of astrological figures, for example the sign *Pisces*, in connection with the summer: 'Whoever is born under the sign of *Pisces* will be a phrenetic fisherman, and will die in his prime (*In XII. parte Piscium quicumque habuerit horoscopum, erit piscator freneticus, et in prima aetate morietur*).' Elsewhere in the same work he mentions birth towards the final degrees of the sign *Aries* ('in the last part of the tail') as indicative of insanity, epilepsy and similar conditions (*Arietis id est in extrema cauda quicumque habuerint horoscopum, erunt insani caduci frenetici oligochronii*). He also writes that 'those who have their horoscope in the right foot of the Wolf will die phrenetic in their prime (*in dextro pede Lupi quicumque habuerint horoscopum, frenetici in primo aetatis tempore morientur*)' and that Mars and Saturn join together 'alienated, delirious people, either cardiacs or phrenitics (*alienos deliros aut cardiacos aut freneticos*'); Mercury and Venus bring together hepatics, phrenitics and melancholics; and so forth.¹⁵²

Among such 'iatromathematical' compilations of Late Antiquity, a rich tradition which preserves medical information of a more popular provenience, knowledge of *phrenitis* infiltrates into the cumulative material found in the fourth-century CE *Cyranides*. At Book 3 we find associations with the astrological sign of the Eagle, and affections of the chest, *thymos*: 'Its wings are linked to (disturbances in) the *thymos*; when its wings are cloudy, they give rise to lethargics and to hysterical and phrenetic suffocation.'¹⁵³ In the *Astrologica* (fourth century CE) a certain astral conjuncture means that 'the disease will be from the head. And this will appear to be let loose from the meninges. There will be continuous fevers, troubled sleep and a mouth like that in high fevers, and inextinguishable thirst, a troubled tongue, a feverish thorax and inflammation of the liver, pulse high and irregular. The disease will be a *parakopē* and *phrenitis*.'¹⁵⁴ And later in the same text: 'There will be fever in the body, and derangement of the mind, and *phrenitis*, and damage about the head, and burning fevers, and strong thirst, and craving for wine.'¹⁵⁵

Curious Therapeutics: Animals and Human Heads

In the early centuries of our era a number of animal remedies associated with the therapy of inflammation emerge in non-professional contexts

¹⁵² In addition, phrenetics are associated with birth under the Cynocephalus ('those born under the Cynocephalus will be phrenetic, sickly, childless and short-lived', in *Cynocephalo qui nati fuerint, erunt frenetici valitudinarii sine filiis oligochronii*).

¹⁵³ Section 1a, lines 4–7. ¹⁵⁴ *Liber ad Ammonem* (25), *Corpus Hermeticum* 3.10.2.434 Ideler.

¹⁵⁵ *Astrologica, liber ad Ammonem* 25, *Corpus Hermeticum* 3.57.2.440 Ideler.

with reference to *phrenitis*; some of these will surface later in medieval works.¹⁵⁶ In his didactic poem, the (possibly) second-century Roman author Quintus Serenus Sammonicus, perhaps to be identified with the tutor to the emperors Geta and Caracalla,¹⁵⁷ follows medical principles that are quite Galenic in their substance but also reflect popular material, including an insistence on wine as an important trigger. Sammonicus devotes an entire section to our disease (*Liber Medicinalis* 1.7.87–101), emphasizing the efficacy of applying sheep entrails to the patients' skin and offering them wool to smell, possibly to stimulate the sensitive phrenitics with its strong odour:

Furious *phrenesis* derives from an illness in the brain,
and gnashing in madness it erodes the wavering strengths,
whether by heating it devours exhausted limbs through fevers
triggered by the taste of wine or by the blast of cold wind.
It is appropriate to smear with warmed up ovine entrails
the temples of the ill person with a kind of 'medical crown' (*medica corona*).
Remember to fumigate the frenzy with unwashed wool (*inlotis . . . lanis*);
often horrible smells can work as medicine (*saepe horrendi medicantur odores*).
The disease is not always curable once manifest; therefore
most beneficial is a cure aimed at those who are going to become ill,
which is accordingly the same as curing healthy people.
The brain is purged by the chewed root of *pyrethrum*
and is also anointed with the juice which a *parva sabucus* yields,
while the humour extracted from pressed ivy is sent up the nostrils
or vinegar mixed with rue is dispatched into the brain.

A similar mixture of learned traditions and folk knowledge characterizes the text of Pliny the Elder, further confirming that in the first century CE *phrenitis* had become an element of medical cultures at all levels. At *Naturalis Historia* 24.35 we read that the seed of *agnus castus* is beneficial 'after it has been soaked in oil, when poured on the head in cases of *phrenesis* and *lethargia* (*instillatur in oleo decoctum capiti in lethargia et phrenesi*)'. Pliny also mentions cucumber seed ('for *phrenesis* as well, doses of it are administered in a woman's milk'¹⁵⁸) and various other ingredients, mostly targeting the head and often addressing *phrenesis* and *lethargia* together.¹⁵⁹ In addition, he mentions amulets made of marble ('Some also recommend white ophites as an amulet for *phrenesis* and *lethargia*'),¹⁶⁰ and confirms that phrenitics benefit from their head being

¹⁵⁶ See Chapter 7, pp. 254, 258, and compare the shock treatment of placing wild beasts or birds on the head in medieval medical sources.

¹⁵⁷ As for the dates for Quintus Serenus, Phillips (2002) believes he is versifying Celsus.

¹⁵⁸ *NH* 20.5. ¹⁵⁹ Cf. *NH* 20.51, 73; 26.15; 29.9. ¹⁶⁰ *NH* 36.11.

bandaged with warm sheep entrails,¹⁶¹ again to stimulate them with the strong smell.¹⁶² The use of fragrant substances is also recommended for the phrenitic and the lethargic, to soothe their sleep or stimulate them out of their torpor, respectively.¹⁶³

The use of animal entrails returns in the *Cyranides* (fourth century CE), which was mentioned above in connection with astrology. A passage elaborates a more complex technique: 'In *phrenitis*, it brings great improvement (*oninēsin*) if a chicken is slaughtered and, while still alive (*eti zeousa*), cut apart, and after its entrails are removed it is applied on the head of the patient and kept pressed on him.' This collection offers a useful (if messy) mixture of magical and more popular remedies, among other things. Specific stones, such as the beryl (6.7.3), are effective against *phrenitis*, and the author mentions the bird whose 'feathers, if treated with incense, can cure *lēthargos*, *hysterikē pnyx* and phrenitics. And to put it simply, anything the nature of the eagle accomplished, the vulture does the same, and for this reason it is useful' (3.9.54).

The idea of stimulating patients' heads with such extreme measures is also found in the fifth-century CE Gallic ecclesiastic Caesarius of Arles, who even proposes placing burning coals on the phrenitic's head, accompanied by a prayer: 'To heal such a phrenitic, the Holy Ghost exhorts religious men and those burning with the fire of charity, saying: "You will place coals from the fire over his head".'¹⁶⁴ The fact that *phrenitis* is a hot, feverish disease does not disturb him; the preacher may have *lēthargos* in mind or, in his lack of current technical knowledge, he may be happy with a homeopathic approach. More significant is the allegorical explanation offered by Caesarius a little later on: 'As he begins now to repent, his rational senses – that is, his head – begin to light up with the fire of charity. And he who previously was, as it were, cold and phrenitic, and harboured anger against you, set aflame by the spiritual heat of your goodness will begin to love you with the whole of his heart.'¹⁶⁵

¹⁶¹ NH 30.27 *phreneticis prodesse videtur pulmo pecudum calidus circa caput alligatus*. Cf. 29.9 on wool as 'material for fumigation (*suffitu*)' for phrenitic patients.

¹⁶² Although Pliny is sceptical about other animal remedies, he comments later in the same chapter: 'But as to giving a man suffering from delirium a mouse's brains in water to drink, the ashes of a burnt weasel, or the dried flesh even of a hedgehog, who could possibly do it, even supposing the effects of the remedy were certain? I should be inclined, too, to rank the ashes of the eyes of a horned owl in the number of those monstrous prescriptions with which the adepts in the magic art abuse the credulity of mankind.'

¹⁶³ NH 32.13. ¹⁶⁴ *Sermones Caesarii uel ex aliis fontibus hausti* 36.5.18.

¹⁶⁵ *Sermones Caesarii uel ex aliis fontibus hausti* 36.5.24.

The Legal Standing of the Phrenitic

Legal sources, together with patient cases, are perhaps the closest we can get to the reality of patients as citizens and socialized human beings. When we read anecdotal mention in Gregory (sixth century CE), for example, of attendance at what appears to be a phrenitic's sickbed in the strict sense of the word,¹⁶⁶ aside from cultural, medical-historical questions, we should remind ourselves of a set of material ones which arise concerning the jurisdictional, existential and patrimonial standing of terminal patients suffering from an impairment of the mind which only legal material can help address.

The legal issues surrounding madness in the ancient world pose rich and intricate historical questions, which have unfortunately received only limited attention. The notion of diminished capacity and incapacity is key to the legalities connected with mental disorder (and its allegories, as we have seen) and involves three domains in particular: inheritance, paternal responsibility¹⁶⁷ and the value of slaves. Reference to the validity of repentance is also included here. In the *Digesta* 21.1.1.9 (530–3 CE), for example, the jurist Ulpian reflects on a concrete question: the financial damage a phrenitic slave represents for the owner. Here a question is posed by the jurist Vivianus as to whether a slave who does not always manifest signs of insanity and sometimes speaks rationally should still be considered sane. Vivianus says that he is sane nevertheless:

For we should understand that some persons are of sound mind although they may sometimes exhibit mental defects . . . More, however, is guaranteed with reference to soundness of body than respecting mental defects. For he asserts that a corporeal defect will sometimes extend to and vitiate the mind, for example, *where a man is said to have his mind affected as the result of phrenitis (phrenitikōi)*. What must be done in a case of this kind? If the mental defect is such that attention should have been called to it by the seller, and he did not do so when he was aware that it existed, he will be liable to an action on purchase. (*ad ed. aedil. Curul.* 1.9)

The same situation is contemplated in Byzantine law. In Book 19 of the *Basilica*, the phrenitic is singled out as an example of a sick person whose psychic disturbance derives from a suffering of the body – fever in this case.

¹⁶⁶ 'A venerable presbyter, rising from his bed, approached the bed of a phrenitic in silence, and having imposed his hands on him, began to pray (*Venerabilis presbiter, de proprio stratu surgens, ad lectum frenetici silenter accessit et super eum positus manibus orauit*)' (*Dialogorum libri* 3.35.26).

¹⁶⁷ Gourevitch and Gourevitch (1998) 509–10 discuss the legal topic of the need to constrain the phrenetic patient with reference to Augustine.

The seller is not obliged to make this fact explicit in advance, since the cause of the mental disturbance in the phrenitic slave is bodily (*to psychikon apo sōmatikou synebē pathous*). But he will incur sanctions if the cause is psychic and he withholds the information (*ta aitia de tēs psychēs ean eidos ho pratēs mē proeipēi*, 19.10.1).

A different case is that found in the exposition of canon law preserved by the *Concilia Africae* (345–525 CE), which gives specific instructions for how to deal in a valid manner with the confession and repentance of someone incapacitated by *phrenitis* (*oppressus infirmitate obmutuerit uel in phrenesim uersus fuerit*), especially if he is about to die: ‘He who repents while in a state of infirmity, if the priest comes to him invited, but because he is oppressed by the illness he is afraid or falls into *frenesis*, then those who had heard him before and received his repentance/confession should give testimony [in his place]’;¹⁶⁸ his statement is thus invalid.

Conclusions

When we turn our attention to larger cultural life in the first centuries of our era, there is considerable evidence for *phrenitis* being recognized as a serious, impairing disease by intellectuals, preachers, jurists and the wider population alike. This happens, of course, at varying levels of technicism and competence, and along a wide spectrum from concrete to metaphorical. But all instances point to a fundamental development compared to the state of evidence in the classical, Hellenistic and Republican contexts, where the disease belonged to the doctrines of physicians and their discussions of patients, and almost only there. This fact in itself testifies to a wider penetration of the technicalisms of medicine and the medical profession into social life, and to the appropriation of health, especially mental health, by a variety of power discourses and cultural contexts. Conversely, it also testifies to *phrenitis* becoming increasingly known and important as a human phenomenon.

¹⁶⁸ *Concilia Africana sec. trad. coll. Hispanae* 350.321.

The Byzantine and Medieval Periods
Medical Receptions of phrenitis in Greek, Latin and Semitic
Languages (Sixth–Fourteenth Centuries CE)

A Hybrid and Widespread Body of Evidence

By the second quarter of the seventh century, the post-classical world, discussed here as receiver and source of preservation of a specific medical topic within the Graeco-Roman intellectual tradition, stretched from modern Europe and North Africa to the Middle East, and was increasingly a combination of separate centres dominated by different governments, authorities and intellectual spheres engaged in various independent yet intertwined processes of preservation, interpretation, selection and rewriting of medical thought.¹ As we read through these texts, following the changes and transformations of the nosological concept *phrenitis*, it is difficult to trace the elements of change or novelty within an intricate, slow-moving tradition.

After the seventh century, inquiry into the history of the disease *phrenitis* as diagnostic label and object of clinical attention can be pursued along two main lines: a medical tradition mostly devoted to copying and commenting on the great sources of the past, rooted in Graeco-Roman authorities but infiltrating the East via intensifying translation and elaboration activity in Syriac, Arabic and Hebrew; and the reception and dissemination of these concepts in texts that are not primarily medical but are nonetheless interested in a competent use of technical aspects of medical concepts.

The medical sources for folk culture and the concreteness of patient experience in this period are unfortunately much less generous than earlier ones, such as the works of Galen: clinical reports and individual patient cases, an important part of Hippocratic and Galenic medicine, essentially disappear in Byzantine times. As for the second category described above, aside from the intriguing parallel history of *phrenitis* as moral and metaphorical

¹ See Nutton (2004) 292–309, for a valuable overview; Temkin (1973); and the chapters in Bouras-Vallianatos and Zipser (2019), especially Nutton (2019).

concept explored in [Chapter 6](#), little clinical testimony survives to help us understand how well known and widely experienced the syndrome was. Was it a common pathological reality, whence its metaphorical-allegorical appeal? Or was it instead more of a dead *topos*, made prominent by the prestige of medical authorities and idiomatic habit, semantically effective but devoid of any connection with actuality, like ‘hysterical’ in everyday language today? And was it in many respects a sufficiently general concept that lay people could confuse it with other diseases, like ‘the flu’ and ‘a cold’ today?² The truth must lie somewhere in the middle, since the weight of tradition and cliché determined a persistence in actual diagnosis, while at the same time the flow of diagnoses and professional mentions of phrenitic patients continued, each feeding the other. We may hypothesize that the survival of doctrinal discussions of this disease entity, on the one hand, and its metaphorical, antonomastic presence, on the other, together supported its continuity, especially in light of its solid reinstatement as a key encephalic disease at the beginning of the modern era.

It is impossible, of course, to offer a comprehensive discussion of ten centuries of post-antique medicine in both halves of the Roman Empire, but coverage that is a bit more than impressionistic can be attempted. In this chapter, I focus on the following central bodies of material:

- (1) Technical references in non-medical texts (fourth–thirteenth centuries CE).
- (2) Byzantine sources (centred on two locations: Alexandria in the sixth–ninth centuries CE and Constantinople in the ninth–fifteenth centuries CE) in Greek.
- (3) Medieval sources of both Western and Eastern provenience (most notably those of the so-called School of Salerno; the activities of translation and study in the Arabic centres on the Iberian Peninsula; and work produced in universities, especially commentaries and compendia). These sources are in Syriac, Arabic, Hebrew and of course Latin.

Within such a long time frame and wide geography, there is a patrimony of medical texts which can be categorized as ‘technical’ (Byzantine Greek medical documents, Arabic medical treatises, and the Western medical tradition flourishing after the thirteenth century CE). But there are also various ‘hybrids’, in which a genuinely medical piece of information is mentioned or discussed, although outside a technical context and with no

² I thank Sean Coughlin for this suggestion and discussion.

medical purpose (be it educational or practical) or professional audience in mind,³ but also with no metaphorical colouring.⁴

The Late-Antique and Medieval Periods: Technical References in Non-Medical Texts

Before turning to the medical sources proper, we should look briefly at the diffusion of *phrenitis* as a technical concept outside medicine, as part of the popularity of medical knowledge that is increasingly apparent in the late-antique period. For example, what should we make of information such as that preserved by the author of three *scholia* on the pseudo-Aeschylean *Prometheus Bound*,⁵ which come from a commentary on the play that the editor locates possibly in Constantinople ‘in the second half of the twelfth century’ and in any case between the tenth and the thirteenth centuries CE?⁶ The scholarly comment on the tragic passage offers testimony for an understanding of *phrenitis* which is technical in its vocabulary and concepts, but simultaneously lay in its indifference to the development of scientific debates about the disease up to that point:

A *phrēn* is a membrane (*hymen*) that stretches from the *pharinx* to the hypogastric parts. It thus extended from this part to that one, like a kind of girdle that is called a diaphragm. It is in between the respiratory and the digestive parts (*esti de meson tōn anapneustikōn kai tōn threptikōn*⁷). Respiratory parts are the lungs, the heart; protective/curative parts are the spleen, the liver. As long as this membrane is safe, the animal is healthy; but when it suffers a breach, then the animal becomes deranged, and the disease *phrenitis* comes about (*mechris an oun sōizētai ho hymēn houtos, hygiainei to zōion; hotan de pathēi kopēn, tote paraphronei, kai symbainēi hē phrenitis nosos*). (Σ^{PPdYa} 881c)

The scholiast had some medical knowledge, or at least sufficient medical-anatomical vocabulary to express himself, but only an incompetent, grossly localized, ‘Homeric’ view of human physiology: a wound (*kopē*) is

³ By the first centuries of our era, medicine had achieved a high degree of professional status; Galen’s authorial posture and claims to professional pride testify to this in the highest degree. Some of these codified professional *topoi* and vocabulary items unsurprisingly leaked out into other spheres of intellectual activity, including literature, religion and philosophy. On the history of the medical profession and the development of the figure of the Hippocratic doctor, see Leven (2018); *Ecca* (2018); the many perspectives offered in Gill, Whitmarsh and Wilkins (2009); Israelowich (2015).

⁴ Thus fundamentally different from the allegories of *phrenitis* explored in Chapters 6 and 8.

⁵ *Scholia vetera* 881b, c, d Herington.

⁶ Herington (1972) 43–45. *Scholion* 881c, 211 Herington, my translation.

⁷ I thank S. Douglas Olson for this correction of the manuscripts’ θεραπευτικῶν (retained by Herington) on analogy to the next scholion (881d).

mentioned, and the view of *phrenitis* centres on the diaphragm and is thus more reminiscent of details from earlier accounts than of the description of *phrenitis* in Graeco-Roman medicine after Celsus. This shows how archaic versions of our story, or at least debris from them, continued to be carried along by the rivers of information that described the disease, despite running contrary to the dominant encephalocentric tendency in ‘official’ medicine. For the non-technical, lay part of this medical history, exceptions and dissonances such as this are an important component and perhaps actually more significant than the dominant narratives.

Some of the most interesting of these ‘hybrid’ instances go back to earlier centuries and are found in both pagan and Christian texts, where medical knowledge is on rich display outside the purposes and scope of actual medical activity.⁸ It is at this juncture between the scientific and the more broadly intellectual – here specifically theological – spheres that we can locate Gregory of Nyssa’s project in his *De opificio hominis* (fourth century CE). Gregory explains the nature of the human body and its anatomy in terms of divine teleology, and addresses *phrenitis* explicitly. Most surprisingly, he retains the chest location for the disease and refers to the stomach as the *locus affectus*.⁹ This author engages with anatomical details and has strong opinions about the localization of the affection he discusses. But he does not place himself within the mainstream affirmation of Galen’s views (*De opificio hominis* 12 (157):

We have learnt that the forms of derangement do not arise only from oppression (*karēbareia*) but also through empathy with the membranes arranged to cover the pleura (*tōn tas pleuras hypezōkotōn hymenōn*). Similarly, those competent in the medical art distinguish the illness of the *dianoētikon*, calling the affection *phrenitis*, since this is the name of these membranes. And the sensation arising from the pain in the heart is wrongly (*esphalmenōs*) suspected; for it is not a disease of the heart, but of the damaged cavity of the stomach (*tou stomatos tēs koilias drimyssomenou*), and they associate the disease with the heart through incompetence (*hyp’ apeirias*).¹⁰

⁸ Note the role of medicine and medical knowledge testified to by e.g. Aelius Aristides in the second century CE; cf. Israelowich (2012); Petridou (2015).

⁹ According to Wessel (2009), Gregory’s project was to allow some human psychological functions to the chest, as opposed to adopting a hard-core brain-centred view, making space for a holistic model to account for God’s intervention in the design and functioning of animate human life – a kind of holism in the service of Christian teleology. See Wright (2022) 37–41, 104–06. for a better assessment.

¹⁰ The underlying idea is that the gastric part of the body exudes harmful vapours, from which the diaphragm shields the upper part. (For the Platonic and Aristotelian ideas, see above, pp. 13, 34, 51). There is a parallel in Aretaeus, *Morb. Ac.* II, 3 (22.10–19 Hude) on *synkopē*: some believe this is a disease of the stomach, on the grounds that people are cured of it by eating and drinking. Aretaeus

Elsewhere (172) Gregory recounts a (rare) phrenitic case at which he personally assisted, offering a wealth of physiological detail. He takes the occasion to make a point about body–soul interaction and holism. Again, there is no reference to the brain:

I also recognized another cause of what happens during sleep when I was attending one of my relatives who was suffering an attack of *phrenitis* (*healōkota phrenitidi*). Being annoyed when more food was given to him than his strength would allow, he kept crying out and finding fault with those who were around him, alleging that they were imposing on him by filling his intestines with dung. And when his body was now rapidly beginning to perspire, he blamed those who were with him for having got water ready in order to soak him with it as he lay there. Nor he did cease crying out until the result showed the source of these complaints: for all at once copious sweat broke out all over his body, and a relaxation of the bowels made sense of the weight he felt in his intestines. This very condition which, while his sober judgement was dulled by disease, his nature endured, being sympathetically affected by his physical condition of the body, because this prevented (his nature) from being unable to perceive what was amiss, but being unable to make clear what was causing pain, due to the distraction resulting from the disease – this, if the intelligent principle of the soul were lulled to rest, not as a result of infirmity but by natural sleep, would most likely appear as a dream to one in such a situation, the breaking out of perspiration being indicated by water, and the pain occasioned by the food by the weight of intestines.

The disease operates here entirely on the level of the belly, striking the bowels in particular. The patient's imagination is involved – he has a pathological ideation regarding eviscerated intestines – but only as an intuition of the soul regarding the state of the body, not unlike what dreams do in healthy patients, as Gregory says.

In the different context of his homily *In ebriosos* (31.452), the bishop Basil of Caesarea (fourth century CE), Gregory's brother, mentions *phrenitis* alongside drunkenness. Basil offers a different, fully physiological and brain-centred explanation of the cognitive impairment that comes with drunkenness, via a comparison with *phrenitis*, which is used to illustrate corrupt pleasures and the impairment that follows excessive wine-drinking:

Disturbance in the reasoning faculties resulting from trouble arising from wine (*thorybos de dia tēn ek tou oinou tarachēn engignomenēn tois logismois*),

argues against them that it is a disease of the heart, which is affected by the stomach through proximity. (I thank Sean Coughlin for this parallel.) Cf. also Alexopoulos (2023) on this passage and on *phrenitis* in *De opificio hominis*.

and unpleasantness resulting from bitter exhalations deriving from the pleasure of drinking. In these cases, the feet are fettered and the hands are tied up as a result of the fluxes that attack them as a consequence of drunkenness. Yet even before these affections, *at the moment of drinking, the affections of phrenitics befall them (ta tōn phrenitikōn autois sympiptei pathē)*; for whenever the meninges become full of vapour, which the evaporating wine causes to rise, the head is struck by unendurable pains.

A full description of phrenitic behaviour follows. *Phrenitis* as a dangerous fever localized in the head and associated with madness, or generally as a quintessential grave ailment, appears to be established in these theological authors. Gregory's primary localization in the chest is rarer: as we have seen, in most such writers the head and especially the meninges are the *locus affectus*.¹¹ But traces of the ancient ambivalence in the meaning of *phrenes* persist, and the Greek statesman (and Byzantine emperor) John VI Kantakouzenos (fourth century CE) gives a nice example of this in the course of making a general point apparently devoid of technical knowledge. Here again the heart, not the brain, is the centre of a passing comparison:

But of course it is reasonable that the whole is larger than its parts! Otherwise, how is it that when the heart is heated or cooled, *melancholia* or *phrenitis* results, and the soul's ability to reason is damaged (*pōs tēs men kardias mallon ekthermainomenēs ē psychomenēs melancholiai ginontai kai phrenitides kai tēs psychēs apolluntai to phronein*), but if the hand or foot is inflamed, nothing of the kind happens?¹²

These examples are unrelated to medical practice or scientific research. But an assimilation of technicalisms (in vocabulary and chosen themes), as well as the adoption of certain fixed points, is nonetheless evident in them: the head (and heart) as locus; a specific pattern of behaviour; an association with abuse of wine as an ethical flaw. Examples of such 'hybrids' vis-à-vis nosology and medical knowledge continue to be found throughout the centuries. The Byzantine scientific compiler Leo the Mathematician (ninth century CE) also elaborates on the canon of Greek medical sources in his *De natura hominum synopsis*, referring to the *phrenes* simplistically as the part which, when inflamed, generates *phrenitis*: 'There are also other muscles/tissues under the other *pleurai* in the middle, referred to as *mesopleuria* and *phrenes*, through the inflammation of which people become phrenitic (*dia to autous phlegmēnantas phrenitian tous anthropous*)' (10.4.58). On the

¹¹ For the brain in Christian theological discussion, see Wright (2022).

¹² *Disputatio cum Paulo Patriarcha Latino epistulis septem tradita*, Ep. 3.4.34–38.

encephalocentric side, the eleventh-century CE Byzantine author Michael Psellus (a man of wide interests and vast erudition, who composed *inter alia* didactic poems on medical topics) speaks of our disease at *Poemata* 9.729–31:

Phrenitis is a hidden inflammation (*phlegmonē kekrymmenē*) that burns (*ekkaiousa*) the meninges that are affected or the brain (*ton enkephalon*) with unspeakable pain.

And later (*Poemata* 9.765–69):

For those who are ill there is a double principle: for their nature is affected either by phlegm growing to excess or by their bile. They have two possibilities, one towards *phrenitis*, one towards oppressive *lēthargos*.

The technical principles expressed here are those established from Galen onwards, assimilated and elaborated by a Byzantine intellectual at the turn of the first millennium. Another leap forward: the French theologian Hugues de Miramar (thirteenth century CE) was no doctor, but in his autobiographical *Liber de hominis miseria, mundi et inferni contemptu (uersio breuis)* (1.5.15.312) he wonders: ‘Does not *frenesis* often disturb your brain, lethargy your occipital bone, *apoplexia* your intellect, migraine the pia mater and the cranium? (*Nonne sepe tibi frenesis perturbat cerebrum, litargia occipitium, appoplexia intellectum, emigranea piam matrem et craneum?*)’, creating a random, faux-technical map of mental faculties, diseases and bodily parts that produces only a superficial impression of competence.

In all these authors we notice a phenomenon perhaps less explicitly accounted for by historians, located between the dominant Galenism of higher medical contexts that is rightly stressed in the classic accounts,¹³ and the centrifugal forces represented by ‘popular’, magical underworlds that enjoy a continuity of their own in their preservation of medical knowledge:¹⁴ the half-technicalism of a multitude of late-antique, Byzantine and early medieval authors, who do not, or not always, appear to be incompetent or passive readers of medicine, but who also escape dominant trends and share neither the rigour of ‘official’ scientific debate nor the philological caution of erudite translators. It is interesting that in several of these cases the chest-based account is kept alive and even tends to

¹³ Temkin’s formula (1973); see also Nutton (2004) 292–309.

¹⁴ On this, see also Nutton (2004) 294.

prevail, in counter-tendency to what Jessie Wright describes as the brain's 'critical' positioning vis-à-vis 'formulations of human nature and human identity in late antiquity' – especially in theological discourses.¹⁵

The Late-Antique to Medieval Periods: Medical Sources on *phrenitis* (Sixth–Fourteenth Centuries CE)

As for medicine in a more restricted, technical sense, the subsequent phases in the history of the transmission of *phrenitis* from the ancient Graeco-Roman world to the modern one are marked by the following key phases and components: the preservation of Galen's doctrines on the disease in Byzantine medicine, largely in the form they are given by the encyclopaedists;¹⁶ the translation of a rich corpus of texts into Syriac and Arabic by Eastern and Iberic scholars and philosophers, from the ninth century onwards; and the subsequent translation of these works back into Latin, for the use of scholars and doctors in Europe, especially from the twelfth century on and in connection with the activities of the Salernitan School of medicine, which flourished from the tenth century in southern Italy and became the major centre for medicine in Europe.

It is against the background of these movements, linguistic vicissitudes, cooperative efforts and fragmentations that we will attempt to map the form *phrenitis* maintains, develops and finally hands over to modern medical research. This search will necessarily remain partial and episodic. But its goal is to highlight core elements of permanence and continuity, as well as meaningful breaches in this development.

Late-Antique and Byzantine Sources in Greek

The vast majority of specifically *medical* sources after the sixth century follow in the tradition of encyclopaedias, compendia and commentaries based on the cornerstones of the earlier Greek tradition, especially Galenic (and Hippocratic). In his *Commentarii in Hippocratis librum sextum de morbis popularibus*, the sixth/seventh-century medical author Palladius of Alexandria comments on a physiognomic portrayal of *mania* or *phrenitis* based on the Hippocratic *facies* found in the *Prognostikon* and other Hippocratic texts. It is noteworthy, and clear, that he is conflating Hippocratic information about mental disturbance generally into

¹⁵ Wright (2016) I. ¹⁶ See Chapter 5, pp. 174–83.

a phrenitic-manic portrait, which becomes a kind of umbrella image for deranged persons:

Hippocrates tries to grasp the state of the body, for he says that we know the signs of anger/spiritedness (*thymos*): the trembling of the voice, the redness of the face, the wildness of the eyes. These features are often present in a person in the absence of anger, naturally. The art (*technē*) ought to help [us] predict that [the patient] is gripped by no other phrenitic disease than *mania* (*oute hotōidēpote allōi nosēmati tōi phrenitikōi tēi maniai echei halōnai*).¹⁷

Palladius not only discusses the profile of *phrenitis*, but also offers rare testimony to clinical interactions with actual patients. At *Commentarii in Hippocratis librum sextum de morbis popularibus* (2.113–14) he reflects on an episode relevant to the deontological aspects of a doctor's profession which has a phrenitic patient as protagonist, and reports concretely on the particular sensorial sensitivity such individuals are thought to experience. This patient is oversensitive and reactive, especially to wine:¹⁸

For if your mouth – you being the doctor – has a bad smell either from garlic or onion, then do not eat them. And if your perspiration has a bad smell, sometimes because of an unguent, make it milder using aromatic herbs, and resort to nice-smelling plants, and the patient will be very grateful. And do not risk putting yourself in the same position as the one Anitos (*sic*: Ἄνιτος is printed here by Dietz for Quintus) once was [here Palladius inserts and elaborates a Galenic anecdote in which a prominent Roman patient with fever and *kephalgia*, although not *phrenitis*, is visited by the famous physician Quintus¹⁹]. For he once drank a large quantity of wine and visited a phrenitic (*eisēlthe pros phrenitikon*). But [the patient] could not stand the smell of wine coming from his mouth, and said to him: 'The smell of your mouth really exacerbates me'. And the other replied harshly: 'I bear every day the smell of your fever, and you cannot bear the bad smell of my mouth just once!' These, however, are the favours (*charites*) one owes to patients, and they appear to be inexpensive, and they make us, as well as the patient, happy – us, because he becomes obedient to the doctor (*peithēnion tōi therapeuonti*), and him – and us – (because this leads to) the cure of his ill body (*tēn sōtērian tou paschontos sōmatos*).

Byzantine medical commentators in general perpetuate Galen's doctrine and his reading of Hippocrates with respect to *phrenitis*. The medical author Stephanus of Byzantium (sixth/seventh century CE) in his *Commentary on Hippocrates' Prognosticon* is an example. He offers remarks

¹⁷ 195 Dietz. ¹⁸ 130–71 Dietz.

¹⁹ At *Comm. Hipp. Epid. VI*, 4.10 (206 Wenkebach = 17B.151 K.).

on crocydism, giving it the hallucinatory interpretation known from Galen (1.9.27);²⁰ on respiration (1.10.101); and on urine (*In Magni Sophistae Librum de Urinis* 11.34). Urinology was an important branch of Byzantine medicine, and the theme of a specific ‘phrenitic’ kind of urine is accordingly recurrent: the seventh-century Theophilus Protospatharius comments on the quality of urines along familiar lines in his commentary on Hippocratic texts,²¹ as does Joannes Actuarius (thirteenth/fourteenth century CE) at great length in his *De urinis*.²²

The topic of the different types of *phrenitis* and their possible localizations survives and is further refined. Theophilus Protospatharius addresses it in his *De pulsibus*,²³ for example, mentioning the various versions of the disease sketched out by Galen, focussing on the pulse and reporting two versions, a primary, encephalic one and one that strikes the chest: ‘The throbbing in phrenitic diseases changes according to the form of *phrenitis*. For one kind is an inflammation of the parts around the brain (*phlegmonē tōn peri ton enkephalon*), which happens as a primary affection; another *phrenitis* is an inflammation of the diaphragm, from which the brain gets a share through sympathy.’ He also recognizes *phrenitis* as belonging to larger groups of diseases based on the humours that cause it, the localization, the patient’s age and the like: ‘paroxysms, *phrenitis*, *pleuritis* and others’ (*Comm. Hipp. Aph.* 1.12 = 17b.385 K.); ‘diseases of this age are *asthma*, *pleuritis*, *peripneumonia*, *lēthargos*, *phrenitis*, ardent fever, chronic diarrhea’ (*Comm. Hipp. Aph.* 3.30 = 17b.644 K.);

Heating and fever remain central. Paulus of Nicaea (seventh or ninth century CE) in his *Liber medicus* (10.13) defines the illness thus: ‘What is *phrenitis*? An acute derangement with acute fever, when the moisture in the brain dries up, from which *agrypnia* follows. Such an illness comes from hot and dry.’ Photius (ninth century CE) elaborates in a similar fashion, noting that the disease is caused by distension of the meninges and spoiling of the blood (*Bibl.* 130.2 Bekker) via a ‘pleonasm with heating’ (*Bibl.* 130.5 Bekker) and ‘with inflammation’ (*Bibl.* 130.6 Bekker). Leo Medicus (sometime after the late ninth century CE) in his *Conspectus Medicinae* (2.11) has a chapter ‘On *phrenitis*’, in which he defines it as ‘an inflammation of the meninges with fever: at the same time, these patients are deranged, and their heads must be soaked with *vinegar-rose*’. The historian and philosopher Michael Psellus (eleventh century CE), already

²⁰ On the obfuscation of vision, see also 1.9.60. ²¹ 2.429.26 Ermerins.

²² *De urinis* 6.2.1.2, on *phrenitis* and urine. ²³ 67.15 Ermerins.

mentioned, reflects on damaged sight with reference to phrenitic hallucination in his *Opuscula*.²⁴ His elaborations specifically concern colours:

If the vapour is overabundant, they see big/distant things; if it is yolk-coloured,²⁵ they see golden things; if it is smoky, they see white from the inflammation; and all in all, according to the shape and colour of what appears. In phrenitics, the vapours travel from the brain itself to the optical (organ?, *to optikon*); and those who experience cataract see the same way.

At *Opusculum* 55.8, we read: ‘Phrenitics are weaker after release (*meta tēn apallagēn*), because when they are released from the dry *dyskrasia* overpowering the brain and slackening their nerves, they feel the fatigue and the cleansing of their discerning faculty, and their nerves become weak as they recover moisture.’ *Opusculum* 55.142 comments on the pulse: ‘Phrenitics have a small pulse (are *smikrosphyktoi*), because the *pneuma* in their meninges is rarefied. Lethargics, on the other hand, have large pulses (are *megalosphyktoi*), because the *pneuma* thickens in them and grows heavy.’²⁶

Joannes Actuarius (thirteenth–fourteenth centuries CE) as well, in his *De diagnosi*, connects *phrenitis* to the dryness or heat of humours settling into an unbalanced mixture, a *dyskrasia*.²⁷ At *De Diagnosi* 1.7, he categorizes *phrenitis* among the diseases of the nerves that strike the brain and spine: ‘of the brain, the spine,²⁸ and the nerves connected to them, lack of perception and faulty perceptions, and forms of *paraphrosynē*, *epilēpsia*, *melancholia*, *phrenitis* and *lēthargos*; *katalepsis*, insomnia and *kōma*; forms of *tetanos* and *paralysis*; and other such problems’,²⁹ while at 1.35 he writes: ‘As the blood specifically contrives *mania* according to how it changes and settles around the brain, the black bile causes *melancholia*, and yellow bile *phrenitis*, so too variations in the quality of the settlings or risings of the phlegmatic substance cause forms of *kōma* and dullness, as well as *lēthargos* and impaired perception (*dysaisthēsias*).’ In sum, in these authors received medical tradition connects the qualifying factors of the disease *phrenitis*

²⁴ *Opuscula logica, physica, allegorica, alia* 55, 1044 Duffy.

²⁵ This emphasis on colour, which we have found in Alexander of Aphrodisias (see Chapter 5, 163 n. 101), offers a point of contact with a possible parallel to *phrenitis* in the Talmud, the *kordiakos* (although see below, pp. 282–84, for cautions and qualifications).

²⁶ A point of doctrine that is actually Asclepiadean; see Chapter 3. ²⁷ 1.33.69 Ideler.

²⁸ Of previous authors, only Asclepiades includes an inflamed spine among the affections produced by *phrenitis*.

²⁹ 1.7.10 Ideler.

with the topics of pulse, urine, overheating, fever, crocydism and hallucinations, with *loci* in the head, brain and meninges, and secondarily in the diaphragm and heart.³⁰ The emphasis on altered vision and the question of wine also recurs frequently.

The Reception of Greek phrenitis in Syriac and Arabic Medical Sources: qarānīṭis (karabitus), birsām, sirsām

The medical texts of the Syriac and Arabic tradition also largely reproduce Galenic (and to a lesser extent Hippocratic) doctrines, receiving them through the filter of late-antique commentaries and compendia (in the case of our disease, especially Orebasius, Aetius, Paul of Aegina and Alexander of Tralles).³¹ Here too, therefore, we cannot expect completely new information. But the ways in which received ideas are managed, adapted and translated into the Semitic languages and specifics of the receiving cultures, academic-scientific as well as lay, are nonetheless worthy of attention.

The questions faced by these translators and scholars reflect tensions, concerns and intellectual interests that add to the itinerary being traced here, causing it to alter direction slightly or giving voice to side-branches of the tradition that had previously been dismissed. At the same time, problems of translation allow ancient ambiguities to re-emerge and revive. As we shall see, this is the case with the ancient discussion of the *name* of our disease, the meaning of the archaic term *phrenes*, and the debate about localization that accompanies these issues.

The Name The vicissitudes of the label *phrenitis* in the choices made by translators at the end of antiquity offer a miniature of the whole story of the disease, including the ambiguity of its etymology from the very beginning with reference to its *locus affectus*, as well its overall physiological make-up. The earliest phase in this regard is represented by Syriac authors, who

³⁰ Demaitre (2013) 133–34 summarizes the situation in regard to localization of the disease in medieval medicine by observing that with *frenesis* a further element of confusion was added by the occasional application of a similar label, “*phrenitis*”, to *hypochondria* as a brain condition caused by vapours rising from the diaphragm or “the abdominal area beneath the ribs”. The confusion in the formulation reflects the state of affairs in medieval medicine, as well as our own difficulty in grappling with these shifting representations.

³¹ For an overview of sources, see Bornemann (1988).

constitute the bridge between the Graeco-Roman originals and the Arabic translations and elaborations,³² laying the earliest foundation of the reception and translation of Greek texts into Semitic languages.³³ Barry's analysis³⁴ of two tenth-century Syriac lexica in relation to the Arabic and Syriac translation of the Hippocratic *Aphorisms* offers useful insights regarding *phrenitis*. The disease is already established here as a 'swelling' in the brain of the hot kind – the 'hot *apostēma*' which will become standard in medieval discussions:

1497:16 *Pêrnītīs* in a manuscript, chronic ravings occurring with fevers, *phrenitis (sarsām)*, he introduced *phrenitis (birsām)*.

1607:3 *Prêniītīs* in a manuscript, chronic ravings that (occur) with fevers, *phrenitis (sarsām)*, which is *phrenitis (birsām)*. It is said (to be) swelling of the brain. (According to) Paul, *phrenitis (birsām)*, and according to Zakariya and bar Serošway, hot swellings that are in the head, hot swellings that happen in the head, *phrenitis (birsām)*, madness. A hot swelling that occurs in the brain, hot swellings that occur in the brain.³⁵

In these entries in the lexica, a key element is visible: the alternation between transliteration (*prêniītīs*) and two different terms, *sarsām* and *birsām*, to which we shall return. Also relevant are the entries in which the scholar comments on the occurrence of Greek *phrenos/φρενός* (from *phrēn/φρήν*):

1606:23 *Prêyas* according to bar Serošway, judgement, thought. *Prēnas* in a manuscript, diaphragm (*hijāb*). According to Paul, *the peritoneum (safāqāt) of the chest*.

Barry notes that the term *phrēn/φρήν*, which occurs three times in the *Aphorisms*, is translated in the various Syriac versions 'with a form of the borrowed Greek word' (i.e. *prêyas*), while Ḥunayn's Arabic version utilizes forms of *al-ḥijāb, diaphragm* in two cases; in the third (*Aph.* 6.18), he uses *al-kulyā, 'kidney'*, in a list of body parts.³⁶

Phrenos/φρενός in the Syriac authors thus seems to indicate the diaphragm, as well the related meaning 'mind', but is not placed in relation to

³² Barry (2016) 8–13, 13–16 on Ḥunayn's contacts with Syriac physicians and the role played by Syriac translations in his work.

³³ See Dols (1992) 38–47. ³⁴ Barry (2016) 120. ³⁵ Barry (2016) 120.

³⁶ Barry (2016) 140–41; cf. Overwien (2015) 173–74. The aphorism in question is *Aph.* 6.18 (452.1–2 Magdalaine = 4.568 L.) 'A severe wound of the bladder, brain, heart, midriff, one of the smaller intestines, belly or liver, is deadly' (*kystin diakopenti ē enkephalon ē kardiēn ē phrenas ē tōn enterōn ti tōn leptōn ē kōiliēn ē hēpar thanatōdes*); Magdalaine and Mimura both read *phrenas/φρενός* here. This episode is at the origin of an enduring intrusion 'mistakenly' implicating the kidneys with *phrenitis*. See the detective story offered by Carpentieri and Mimura (2017) regarding the scribal error involving *nephritis* and *phrenitis*, and the scholarship it engendered, and cf. Ullmann in Barry (2016) 141 n. 141; also Cooper (2019) 186 on Ḥunayn on *phrenitis*.

phren-itis. In a similar fashion, in Arabic sources the translation of the term *phrenitis* oscillates between transliteration (which results in *qarānītis*, and *karabitus* in the Latin translation of Avicenna by Gerard of Cremona, which was the most influential in the Latin West) and adoption of the two Persian words found in the Syriac lexicon, *birsām* and *sirsām*.³⁷ Literally interpreted, the first term indicates an inflammation of the chest (*bir*, ‘chest’ + *sām*, ‘inflammation’ in Persian), the second an inflammation of the brain (*sir*, ‘head’ + *sām*, ‘inflammation’).³⁸ These labels were long taken by scholars to be basically synonymous and scarcely distinguished in Arabic usage.³⁹ But Carpentieri and others have recently corrected this view, tracing instead a development;⁴⁰ here I largely follow and summarize their expert reconstruction. *Birsām* earlier described ‘two illnesses with similar symptoms. It referred to an inflammation of either the meninges (brain fever) or the diaphragm (diaphragmatic fever). Both inflammations would cause delirium with high fever and were typically fatal. In the second and later stage, the usage of *birsām* became more restricted, designating only diaphragmatic fever. Brain fever, on the other hand, came to be referred to exclusively as *sirsām*’.⁴¹

This confusion – which reproduces the differentiation Galen sketched out in *On the Affected Places* between the two kinds of *phrenitis*, one in the brain, the other in the diaphragm⁴² – originated with Ḥunayn’s reference (in the ninth century CE) to *phrenitis* with the term *birsām*. In his translation of Galen’s commentary on *Aphorisms* 6.11, on *phrenitis*, Ḥunayn offered the following commentary: ‘[Doctors] mean by *birsām* a fever from a hot inflammation occurring in the meninges or in the *ḥiğāb*, and delirium necessarily occurs with it. They call it in Greek *frānītis*. *Al-ḥijāb*, erroneously translated in the past as ‘meninges’, actually means ‘diaphragm’ (translating *διάφραγμα* or *φρήν*);⁴³ in sum, Ḥunayn is using *birsām* for affections of both the brain/meninges and the chest.’⁴⁴

³⁷ In addition to these etymologically pregnant labels, in Arabic the word *ikhṭilāt* (‘confusion’, ‘delirium’) is often used to translate Greek *phrenitis*, focusing on the confusion of the intellect (*al-aql*). See Ullmann (2002) *ad loc.*

³⁸ On the ambiguity between these two terms as recognized and discussed also by Syriac translators, see Barry (2016) 120; Carpentieri *et al.* (2018) 307 on the varying spelling.

³⁹ See Dols (1992) 57, 74–75 on this point. With Ullman (1978) 29, Dols explains the alternation with the fact that the two words often appeared together in earlier poetry. See also Jacquart (1992) 184 on how al-Rāzī uses all three terms indifferently.

⁴⁰ Carpentieri (2017) 1, mentioning Ullmann (1978) 29 and Dols (1992); Carpentieri and Mimura (2017), focusing on the Arabic commentators on the Hippocratic aphorisms; Carpentieri *et al.* (2018).

⁴¹ Carpentieri (2017) 2. ⁴² Repeatedly discussed in Chapter 5. ⁴³ Carpentieri (2017) 3–4.

⁴⁴ On this superimposition in Ḥunayn, see Carpentieri and Mimura (2017) 183–85.

Elsewhere, in fact, he speaks of a kind of ‘*birsām* that is called *sirsām*’, indicating specifically the meningitic version.⁴⁵ He then employs the chest-centred label *birsām* as the umbrella term, contrary to the encephalic focus the disease will subsequently have, perhaps because it transliterates with a precise semantic transference the Greek for ‘diaphragm’: *phrēn-itis*.

Readers of and translators into Arabic, however, early on show an awareness of the risk of confusing the two locations and anatomical parts the labels *birsām* and *sirsām* designate with their respective pathological data, and eventually discard the conflated use of *birsām* to indicate both. This move is evident in a number of Arabic authors from the middle of the tenth century onwards.⁴⁶ Consider the wording chosen by al-Kashkarī (tenth–eleventh centuries CE), by al-Rāzī (ninth/tenth century CE), and most influentially by the philosopher and physician Ibn Sīnā (Avicenna, 980–1037 CE), the author of the *al-Qānūn* (*Canon*).⁴⁷ Al-Kashkarī already distinguishes the terms *birsām* and *sirsām*, along with the diseases which ensue with their different localizations. Al-Rāzī states that the term *birsām* is used for two different diseases, one of the chest and the other of the brain, but that the second is more appropriately called *sirsām*: ‘In his *al-Hāwī fī l-ṭibb*, Rāzī states that *birsām* is used for two diseases: one is *shawṣa*, a kind of pleurisy or inflammation of the chest, and the other is an inflammation of the brain, which is properly called *sirsām*.’⁴⁸ *Birsām* and *sirsām* correspond here, respectively, to *pleuritis* and *phrenitis* proper, articulating once again the ancient parallelism – although elsewhere some confusion remains.⁴⁹ Ibn Sīnā, finally, clarifies the distinction between the names at greatest length. When he discusses *Qarānītīs* (*karabitus* in the Latin transliteration) among the diseases of the head in Book 3 of his *al-Qānūn fī l-ṭibb*, or *Canon of Medicine* (3.I.3), he criticizes the use of *birsām* and *sirsām* as synonyms as linguistically incompetent (2:76).⁵⁰

Book 3, *fann* 1, *maqāla* 3

Qarānītīs refers to a hot swelling of the membranes of the brain, either the tender or the tough one [i.e. the pia and the dura mater], without damaging it. But if the brain is damaged, it might swell. The physicians who think that the brain itself does not become swollen are mistaken. They adduce that

⁴⁵ Hunayn, *Comm. Hipp. Epid.* VI 306, quoted by Carpentieri (2017) 3.

⁴⁶ Carpentieri (2017) 2–3. ⁴⁷ Carpentieri (2017) 2–5.

⁴⁸ Carpentieri (2017) 9; Jacquart (1992) 187–88. On *phrenitis* in al-Rāzī’s patient cases, see Álvarez Millán (2015) 80 with n. 71.

⁴⁹ See below, with n. 56.

⁵⁰ Translation by Ignacio Sanchez, whom I thank for all his help with the Arabic text here and throughout this chapter. On this passage, see Jacquart (1992) 182–85; Carpentieri *et al.* (2018) 297–98.

everything that is tender, like the brain, or hard, like the bones, does not expand, and therefore the brain does not swell. This statement is wrong, because tender and viscous [organs] expand, and bones also swell. Galen has confirmed that, and I will explain this in the chapter on teeth, but now [it is enough to] say that everything that is nurtured expands and grows with nourishment and, similarly, it must expand and grow with residues: this is the swelling.

Therefore, if the brain becomes swollen, *qarānīṭis* and *sirsām* are the names that refer specifically to the swelling of the membrane of the brain when [the swelling] is hot. This [name] might occur in some places referring also to the body of the brain (*jawhar al-dimāgh*); this is a specific use of the term transferred from the name of the symptom that [the swelling] brings about, namely delirium (*hadhayān*), mental confusion (*ikhtilāṭ al-‘aql*) and burning heat (*ḥarāra muḥriqa*). The common [use of] the name is associated with the symptom, the technical use with the swelling.

The transfer of this name is similar to the adoption of the name ‘forgetfulness’ (*nisyān*), which is a symptom, when used to refer to a disease that necessarily presents itself with [this symptom]: the cold *sirsām*. When the term *sirsām* is used in a general sense, it also refers to the *sirsām* of the brain, which is this [disease].

People unacquainted with the vocabulary⁵¹ believe that *birsām* is the name of this swelling and that *sirsām* refers to a milder form of it; but it is not like that. *Birsām* is a Persian word: *bir* means chest, and *sām* means swelling. *Sirsām* also comes from Persian: *sir* means head, and *sām* means swelling, illness. *Sirsām* is the disease caused by fevers and by the burning mixture [of humours] in the mouth of the stomach, and it might also be caused by swellings in the outer parts of the head or in the external membrane (*ghishā*).

Sirsām occurs together with *birsām* as a result of the sympathetic relationship with the diaphragm (*bi-mushāarakat al-ḥijāb*), its swelling and that of all the muscles of the chest. There is one caused by the swelling of the bladder, the uterus and the stomach.

Due to common use of this term, the authors disagree in their descriptions, just as they disagree about [the term] ‘lethargy’ (*litharghus*), which is the cold *sirsām* called forgetfulness (*nisyān*). However, the real *sirsām*, according to the technical use of the name, is [the disease] we have described. It is possible that the brain becomes swollen along with it due to sympathy (*mushāaraka*) or transmission (*intiḡāl*). In this case, there is great damage and it kills in four days. If [the sick person] goes beyond [this time],

⁵¹ Later the translator of Avicenna into Latin, Gerard of Cremona, uses the more recherché term *prenomina* here. For Carpentieri et al. (2018) 311–12, this shows that Gerardo holds the original discussion of *sirsām*, *birsām* and *karabitus* in Avicenna in high regard and is striving to render it as appropriately as possible.

he will survive, but most of those who die of *sirsām* die due to the damage to their breathing capacities (*nafs*).⁵²

In sum: *sirsām* is found in lay usage indicating a swelling/abscess of the brain which can be accompanied by fever and have multiple origins and causes, with the involvement of stomach, bladder or womb; most prominently, it can affect the membranes of the brain or its external part, but also the body of the brain itself; and it manifests itself in multiple versions (e.g. the hot one under discussion and the cold one, oblivion or ‘lethargy’). *Birsām*, on the other hand, is specific to the chest. For Ibn Sīnā, there is no gradation of severity between the two, but only a shift in localization; *birsām* can in fact occur together with *sirsām*, with the second becoming the umbrella term.⁵³ But ‘real *phrenitis*’ is used in medical language to refer to an inflammation of the membranes of the brain, sometimes with involvement of the brain itself.

Another eleventh-century source in Arabic, the dictionary *Kitāb al-Mā’* by an author apparently from Oman, al-Dhahabī,⁵⁴ preserves important parallel information in the entries for *Birsām*, *Sirsām* and *Qarānītis*. The dictionary is largely based on Ibn Sīnā, of whom the alleged author was a student, but is interesting for how it centres the perceived connection between the membranes of the chest and those of the brain to explain the derangement common to both pathological forms: the term used is *ittiṣāl*, which indicates a concrete anatomical ‘bridging’ between brain and chest, and is much stronger than *sympatheia*, which Galen had used in *On the Affected Places* and elsewhere in his accounts of the type of *phrenitis* which involves the diaphragm as well as the brain.⁵⁵ Discussing the disease the Greek sources call *phrenitis*, he writes first at 1:203–04:

B.r.s.m

al-Birsām, an Arabized Persian word, means chest-swelling because *bir* means chest in Persian, and *sām* means swelling. This is a warm swelling in the membrane (*hijāb*) between the liver and the stomach which provokes

⁵² Jacquart (1992) 183 (my translation) recognizes important ‘Galenic echoes in the discussion of the nosological category separate from the symptoms (cf. *MM* II.2 = 10.81–85 Kühn). Avicenna . . . follows Paul of Aegina and defines *qarānītis* as an inflammation and tumefaction of the meninges, and by extension as an affection of the brain.’ The term *nafs* is here translated physiologically, as ‘breathing’, by Ignacio Sanchez (following Ibn Sīnā’s consistent use, as well as Gerard of Cremona’s translation into Latin, *moriuntur propter impedimentum in spiritu*). But the term may refer to the material (mortal, for Ibn Sīnā) soul or spirit, as for Dols (1992) 75.

⁵³ On this point, see Dols (1992) 74–75.

⁵⁴ See Bachour (2017) for the information on this source: the author was a physician or well versed in medicine, and was a traveller across many regions of the Islamic world.

⁵⁵ See above, Chapter 5, pp. 104–06.

delirium (*hadhayān*) due to the connection (*ittiṣāl*) of this membrane with the membranes of the brain (*ḥujub al-dimāgh*).

This could be caused either by unmixed blood (*dam ṣirf*), given that its symptoms are spasm (*tamaddud*, which translates the Greek *syntaxis*, ‘rigidity’ or ‘tension’), redness on the face, an intense pulse (‘*izm al-nabd*’), and shortness of breath; by blood with yellow bile (*dam ṣafrāwī*), given that its symptoms are great distress (*shiddat al-nakhs*) and pain, intense fever and accelerated pulse; or by blood with black bile (*dam sawdāwī*), in which case the symptoms are great distress, a dry mouth, strong fever, and coarseness and blackness of the tongue. It is lethal in most cases.

As for blood with phlegm, it rarely causes this [disease]; its symptoms are intense pain, a light fever and slight distress. In general, this is one of the swellings proper of the membranes.

...

Those called *mubarsimūn* (i.e. affected by *birsām*) are persons affected by melancholic delirium/delusion (*al-waswās al-sawdāwī*).

Then again, our *phrenitis* returns as *sirsām* later at 2:286–87, as the hot variety of meningeal swelling (the cold one being *lēthargos*) – and, only by extension,⁵⁶ of the body of the brain as well. The membraneous nature of the *locus affectus* is central for this author in the definition of *birsām* and *sirsām*.

S.r.s.m

Al-Sirsām: there are [two kinds] of it, the cold one, called *l.th.gh.r.s* in Greek, and the warm one, which is the *qarānītīs*.

The cold *sirsām* is a disease called after the name of its symptom, because the translation of *l.th.gh.r.s* is forgetfulness (*nisyān*). Many physicians have been wrong about it, for they did not know that the disease that results from cold swelling is only a symptom of it; rather, they believed that this disease was one and the same as forgetfulness.

[*Sirsām*] can be phlegmatic (*balghamī*), since its cause is the phlegmatic matter inside the skull and inside the conduits of the brain. Its symptoms are a mild headache, light fever, abundant salivation and yawning, whiteness of the tongue, laziness in answering, confusion of the mind and unavoidable forgetfulness. The eyes [of the sick] are completely open and fixed [on a point]. Treatment of it consists of the evacuation of the matter with enemas and pills; sometimes bloodletting is in order, because it reduces the matter.

As for the warm *sirsām*, this is the one called *qarānītīs*, which is a swelling of one of the membranes of the brain or of both of them. This is the proper *sirsām*, but [the name] may be figuratively applied (‘*alā sabīl al-majāz*’) to the swelling of the substance of the brain.

⁵⁶ On this point this author disagrees with Ibn Sīnā; see above, pp. 238–39.

It may be caused by fine blood (*dam raqīq*), since its symptoms are constant fever with heaviness of the head, redness in the eyes and face, and an intense pulse. This is treated by bleeding the cephalic vein and relaxing the nature [of the patient's body], cooling the head with rose-water, rose-oil or something similar.

Another cause is [blood] with yellow bile, since its symptoms are an intense hot fever, insomnia, lightness of the head, yellowness of the face, an accelerated pulse and delirium (*hadhayān*).

Treatment of it consists of evacuating the yellow bile by administrating barley and pear water, and cooling the head with rose water and gourd peel.⁵⁷

Finally, the dictionary also discusses *Qarānītis* as a separate item:⁵⁸

Qarānītis.

This is the Greek name for the hot *sirsām*, which is a swelling in one of the membranes of the brain or in both of them. This is the real *sirsām*, but [the name] might be figuratively applied to a swelling in the body of the brain (*jawbar al-dimāgh*).

This disease might be caused by fine blood (*dam raqīq*), in which case the symptoms are constant fever, heaviness of the head, redness in the eyes and face and an intense pulse. This is treated by bleeding the cephalic vein, relaxing the nature [of the body] and cooling down the head with rose-water or rose-oil.

Another cause could be the yellow bile, since its symptoms are an intense hot fever, insomnia, lightness of the head, yellowness of the face, an accelerated pulse and delirium. This is treated by evacuating the yellow bile, administrating barley water and pear water and cooling down the head with rose water and gourd juice.

Later Arabic commentaries continue to articulate the distinction between the two versions of the disease, one centred in the brain and the other in the chest. As Carpentieri shows, ‘Abd al-Laṭīf al-Baghdādī (twelfth century CE), for example, paraphrases Ḥunayn’s text, but writes ‘inflammation in the meninges of the brain *or* in the *ḥijāb*’, conflating the two locations. So too the Syriac physician Ibn al-Nafīs (twelfth century CE) points out that ‘when delirium happens because of an inflammation, if the latter is in the brain, it is called *sirsām*; if it happens in the chest, it is called *birsām*’; the derangement common to both is emphasized here. A similar statement differentiating between brain and diaphragm is found in Ibn al-Quff:⁵⁹ ‘in the meninges, and that is called *sirsām* . . . an inflammation of the

⁵⁷ Ibn al-Dhahabī, *Kitāb al-Mā’*, 1:203–04, 2:286–87, translated by Ignacio Sanchez, whom I thank again.

⁵⁸ Ibn al-Dhahabī, *Kitāb al-Mā’*, 3:201. This editor vocalizes it *qarānītās*.

⁵⁹ Carpentieri (2017) 6.

diaphragm, and this is called *birsām*' (ii.2). According to this text, the diseases that derive from the ailment – one an inflammation of the 'membrane called the *afraǧmā*', namely *birsām*, the other of the membranes of the brain or in the whole brain, namely *sirsām* – are very similar, but their localization and manifestations differ: 'On the one hand, in *sirsām* delirium precedes shortness of breath, whereas in *birsām*, the opposite occurs. On the other hand, *sirsām* does not cause a fever as intense as *birsām* does' (iv.50).⁶⁰

In sum, the Arabic commentators and scholars, reading the Greek sources afresh and from outside the long tradition of chest–brain dualism, turn their attention to the philological problem posed by *birsām* and *sirsām* as if it were mostly a point of vocabulary. The ambiguity or ambivalence between chest and head, however, continues in the centuries of translation and commentary that follow, with different authors returning to the point, at times misunderstanding the terms and variously glossing the relationship between pathology of the brain and pathology of the chest (*pleuritis*, for which *bar-sām* is still used in Arabic today) which *birsām* and *sirsām* spell out.⁶¹

The Disease Phrenitis is still firmly associated in this period with mental disturbance. The ninth-century Christian Syrian physician Ibn Serapion (Yaḥyā ibn Sarafiyūn) speaks of the association between *phrenitis* (*quarānītis*) and mania (*maniya*), 'especially severe madness (*al-junūn al-hā'ij*)',⁶² since they can cause similar pain. While other key symptoms are common – insomnia, anxiety, delirium, a firm pulse – *phrenitis* is distinguished by fever. Proposed therapies include massages ('the lower limbs should be massaged and the stomach moistened, and the patient bled and purged with a potion made of *myrolaban*' – the plant *Terminalia chebula*, native to India and South-East Asia and a late addition to the *materia medica*), embrocations and anointing the head. In addition, there is a relational-psychological expedient, the recommendation of contact with persons towards whom the patient feels reverence and shame, 'lest his derangement increase and become habitual' (*al-Ḥāwī*, i.208).⁶³ The final point remains an isolated one: as Dols observes, these authors

⁶⁰ Carpentieri (2017) 6.

⁶¹ See e.g. McVaugh, Bos and Shatzmiller (2019) 55–57 on the problems posed by *al-sirsām*, recognized by some but not all readers as *frenesis*, in the translation into Latin and Hebrew of Avenzoar's *Regimen sanitatis* 28.

⁶² Dols (1992) 58.

⁶³ On a similar psychotherapeutic point, see Caelius Aurelianus (Chapter 3, pp. 75, 90–93).

generally agree with a humoral aetiology for mental disorders, so psychotherapeutic measures are not systematically suggested.⁶⁴

Al-Rāzī is credited by some scholars with a persuasive account of *phrenitis* (*sirsām*) as ‘meningitic’ disease.⁶⁵ But some of these retrospective identifications have become conventional without having been examined in depth.⁶⁶ The case of *sirsām* as equivalent to meningitis is one phase of ‘delimitation’ of the disease *phrenitis* in the course of its history: its restricted assignment to the brain, synchronically, and its retrospective identification by medical historians with the inflammatory disease ‘meningitis’. In the *Book of Cases*, Álvarez Millán, for instance, writes: ‘Three patients are said to suffer from meningitis (*sirsām*), one of them accompanied by *pleurisy* (*shawṣa*), another by hiccups.’⁶⁷ Four patients are described as suffering from *birsām*, which appears to correspond here to pleurisy.

In his *Divisions* (*Taqāsim al-ʿIlal*),⁶⁸ al-Rāzī also devotes a chapter to swellings of the brain, addressing the hot and the cold ones, *phrenitis* and *lēthargos*, respectively. The former can originate in a condition of the blood or bile (reflecting the doctrine also followed by Byzantine medicine). The pathological signs differ as a consequence: with the first there is continuous fever and redness of the face and eyes, a rapid pulse and swollen veins. With *lēthargos* the fever is more intense, and there are convulsions, intense delirium, pain in the head and swollen eyes. Surprisingly, however, both variants are called *birsām*, not *sirsām*.

Pathologically, an important theme addressed by this author is the distinction between swelling of the brain and swelling of the meninges. Quoting from Jacquart’s paraphrase from the *Discussion of the Differences between Diseases* (*Kalām fī l-furūq bayna al-amrad*), a text of dubious attribution,⁶⁹ the physician sees both states as morbid, hence the

⁶⁴ Dols (1992) 59.

⁶⁵ For a retrospective validation of this interpretation of *sirsām* in the work of al-Rāzī, see Meyerhof (1935) 334, 350. See also Dols (1992) 57–58 for a summary of al-Rāzī’s chapters 9 and 10, devoted to lethargy and *phrenitis*; Jacquart (1992) 184–86.

⁶⁶ Álvarez Millán (2015) 77; 67 n. 44, 80 is an example. On the one hand, she explores the symptomatology of *sirsām*, which is centred in the head and involves some standard phrenitic signs, but on the other hand she diagnoses it employing the modern labels ‘meningitis’ or ‘meningism’. (The latter mimics the former without actual inflammation of the cerebral membranes.) See also Adeli Sardo’s 1999 translation of Avicenna’s *Qānūn* from the Arabic into English, which opens the paragraph on *phrenitis* by translating *karabitus* as ‘encephalitis’.

⁶⁷ Álvarez Millán (2015) 77. ⁶⁸ Quoted and discussed by Jacquart (1992) 185.

⁶⁹ Printed in Qatāya (1978) 41–43, quoted in Jacquart (1992) 186–87. This work was attributed to al-Rāzī by Qatāya and, in a second edition by Ramziyya al-Araqjī, to Ibn al-Jazzār; it was certainly not written by al-Rāzī. On the problems involving the work, see Saba (2019) 45–54. I thank Ignacio Sánchez for clarifications in this regard.

unavoidable mental confusion and fever. But they are distinguished by their localization and signs. The first, which strikes the brain, is obvious: pain is felt from the start, accompanied by oppression/heaviness, and is penetrating. Worsening mental confusion, combined with a palpitating pulse and a lighter fever, follow. Some authors, writes al-Rāzī, nonetheless deny that the brain matter can swell due to its viscosity. As for the second variant of the disease, when the meninges are affected, there is 'intense pain from the start, extending to the forehead and the cranium; the pulse is hard, like the teeth of a saw; fever is acute, but mental confusion comes long after the pain and is lighter'. Fever and confusion are thus in an inverse relation, reflecting the degree of the brain's involvement, of which confusion is the direct consequence.

This issue also touches on the differentiation between *phrenitis* and *mania*, as posed in another question of the *Furūq*: 'What is the difference between *maniya* (*mania*) and *qarānīṭis* (*phrenitis*)?' They share the same localization in the brain, the hot matter and the confusion of the spirit; but they differ in signs and causes. *Maniya* is caused by inflamed bile, *qarānīṭis* by putrid blood or bile. As far as signs are concerned, there is no swelling or fever in *maniya*, and despite the heating, the brain matter is not damaged; in this case, therefore, there is corruption of the language only in the sense of an inability to combine words. In *qarānīṭis*, on the other hand, even the combination of letters fails due to the involvement of the brain matter, and the patient can only articulate sounds.⁷⁰ Fever and alteration of the brain are again central to the definition; information about language is also important and reveals the criticality of the brain to the affection. In *mania*, only the heat increases, whereas in *phrenitis* the working of the brain is altered by the swelling. We thus pass from the milder delirium of the manic to the phrenitic's more extreme inability to articulate words by combining letters, from a derangement of judgement to a deeper modification of the senses in their entirety.

Language is also discussed in *al-Ḥāwī*, where al-Rāzī describes an evolution in the course of the disease over time. At the beginning, words are disorderly; then the patients cease to speak; and at the end, in the most acute phase, they have no voice at all.⁷¹ More generally in terms of the pathological picture, at *al-Ḥāwī* I:200 al-Rāzī lists prodromic signs as well as proper manifestations of the disease: the first are a light fever on the surface of the body, a face congested with blood, continuous insomnia, disordered words, intense sadness, indolence, continuous movement in

⁷⁰ Jacquart (1992) 186, quoting Qaṭāya (1978) 47–49. ⁷¹ *Al-Ḥāwī* 1, 10. Cf. Jacquart (1992) 187.

bed, redness of the eyes, lacrimation, coldness of the extremities, feeble emission of urine, a hammering feeling in the temples, buzzing ears, pain in the heart, a swelling of the *hypochondria* and a fixed gaze. Once *sirsām* is established, there is acute fever, a small and frequent pulse, crocydism, substantial insomnia, confusion of the senses on the fourth day, a burning feeling inside accompanied by anger and fury; the patient has a fierce look in his eyes, stretches out his hand, no longer speaks and shies away from light. In the acute phase, diarrhoea appears along with a swelling of the eyes and face, trembling hands and an irregular pulse, until at last the *hypochondria* become sensitive, the tongue swells and the patient loses his voice. Intriguingly, there is no reference to crocydism, and the question of hallucinations gets less emphasis than in the ancient authors.⁷² But the richest and most comprehensive account is found in Ibn Sina's *al-Qānūn fi l-ṭibb* (*Canon of Medicine*), discussed below.⁷³

A Twelfth-Century Syriac Source: The Book of Medicines

So far, the landscape we have surveyed has mostly consisted of official trends in professional medicine or elevated intellectual life in late-antique and medieval times. As we consider this evidence, however, we should bear in mind that it is in many ways partial and unbalanced in terms of geographic and political proximity to the cultural centres of the time and their significance in subsequent reception in the history of medicine. Ancient historians are generally plagued by a lack of access to alternative narratives provided by less institutional or decentred environments. Sometimes, however, ancient sources that at first glance appear directly derivative of central authors in the canon offer access to bodies of knowledge far from the mainstream perspectives which dominate historiographies of medicine.

This is partially the case for the main Syriac medical source available to us, the so-called *Book of Medicines*. The Syriac manuscript of this text was presented to the scholarly world by Ernest Wallis Budge, who discovered it in 1884 in Mesopotamia and had it copied and published with an English translation⁷⁴ as

⁷² Jacquart (1992) 187, who comments that, compared to the ancient legacy on which al-Rāzī is elaborating, he leaves an impression of a lack of consistency and precision in his nosological description.

⁷³ Pp. 261–73.

⁷⁴ See Budge (1913/2009) xl–xli on the discovery and transcription of the manuscript; Bhayro (2013) 126; Bhayro and Rudolf (2018) 116–17; Bhayro (2019) 171–73.

a series of Lectures upon human anatomy, pathology, and therapeutics . . . which were translated from Greek into Syriac by a Syrian physician, who was probably a Nestorian . . . He may well have been attached to one of the great medical schools, which existed at Edessa (Urfa) and Âmid (Diarbekîr) and Nisibis, in the early centuries of the Christian era.⁷⁵

The manuscript was composed of three parts, schematically – and inadequately⁷⁶ – described in Budge's first publication as the first 'scientific', the second 'astrological' and the third 'popular, sympathetic or magical'.⁷⁷ The first part (chapters 3–21) interests us here, since it contains what initially appears to be discussion of straightforward medical topics. These are organized *a capite ad calcem*, thus with head affections at the very beginning. The author refers to Hippocrates as an authority and calls the brain the 'head' or 'governor', but also sees the heart, together with the liver, as a key organ for other functions. The discussions are followed by recipes which appear to come partially from ancient Mesopotamia.⁷⁸ This first part also contains a lengthy discussion of *phrenitis* which seems at first glance to derive in a straightforward fashion from the relevant sections on *phrenitis* in *On the Affected Places* (5.4).⁷⁹

If the dating of at least part of the text to the early centuries of our era is accepted by most scholars, recent work has persuasively challenged the neat picture in which the recognizable Greek sources and the Eastern astrological and pharmaceutical elements of the later parts remain as separate as oil and water. An 'intrusion' of astrological elements, for example, in the 'scientific' section has been noted; according to Bhayro, the text is thus best described as a twelfth-century stratified compilation, in which Graeco-Roman elements from earlier medical translations into Syriac are blended with 'local', possibly much more ancient Mesopotamian material in a more complex manner than simple juxtaposition (let alone interpolation of so-called 'popular' elements).⁸⁰ As such, the book would offer an example of syncretism between Western medical material and a much older tradition

⁷⁵ Budge (1913/2009) v.

⁷⁶ See Bhayro (2013) 127, 141 on the Orientalism of this opposition between Western science and Eastern magic, and what might even be described as the 'antisemitism' of a certain scholarly posture towards non-Greek medical cultures (Bhayro and Rudolf 2018, 118–20); Asper (2015) 40–42 for an alternative discussion of the relationship between Near Eastern and Western science.

⁷⁷ Budge's schematization; he concludes that 'most, if not all, the "exact" sciences are derived from Greek sources' and that 'the first part is, then, unquestionably a translation from a Greek work of great antiquity composed probably in Alexandria' no later than the second or third century CE.

⁷⁸ See the Introduction (v–clxxvii) to Budge (1913/2009).

⁷⁹ See Schleifer (1926a), esp. 70–73 with a table of *loci paralleli* with sections of *On the Affected Places*; Schleifer (1926b); Schleifer (1927) 224–25, and before him Brockelmann (1914) 186–88; Löw (1916). See also Bhayro and Rudolf (2018) 126 on how to make profitable use of *Quellenforschung* in this case.

⁸⁰ Bhayro (2013) 126; Bhayro and Rudolf (2018).

going back to ancient Babylonia.⁸¹ It is in this light that we will consider the *Book of Medicines* as at least in part a specimen of an ongoing alternative medical tradition beginning much earlier, which elaborated and assimilated Greek material while reshaping it in different directions from those of the Galenism dominant in later European medicine.

This topic is interesting for the reconstruction of *phrenitis*, because the text offers an account of the disease in which the proportion between ‘head’ and ‘chest’ is reversed. At first sight this presentation reflects the organization of the topic of *phrenitis* in Galen’s *On the Affected Places*,⁸² the key source of this passage (and indeed the entire book): there *phrenitis* was discussed at length in the section about the diaphragm, not the brain, in contradiction to the general presentation of the disease by Galen as encephalic. Thus the author of the *Syriac Book of Medicines* discusses the head and its diseases in chapter 3 (the **first chapter** preserved in the manuscript we have).⁸³ In stark opposition to the tendency first of official imperial medicine, then of encyclopaedic sources, and finally of Arabic readers of Greek medicine nearer in time to the compilation of the Syriac book, *phrenitis* is not included in this chapter, although the discussion focuses on the brain as source of the impairments in the ‘spirit’ or ‘soul’ which cause *inter alia melancholia*, epilepsy, fear and vertigo. *Phrenitis* is found only in chapter 13, as an important topic within the discussion of symptoms and injuries to the lungs (‘Of the symptoms of the injuries that take place in the lungs, and in all the organs of the breast’, 241, p. 216, folio 104a). This straightforward adoption of *On the Affected Places* 5.4 as an exclusive source by the Syriac author (motivated perhaps to a large extent by the popularity and practicality of the work, as opposed to other texts by Galen) results in a presentation which resonates with a more Eastern, ‘cardiocentric’ or ‘enterocentric’ – as opposed to neural and encephalic – representation of human psychic life. Notwithstanding the complexity and sophistication of the discussions of the brain in the early chapters (which largely reproduce Galenic ideas and principles of humoral medicine⁸⁴), *phrenitis* is ultimately framed by the Syriac compiler as a chest disease, located just after ‘pleurisy’ (‘the disease which is called perforation’, 250, p. 225, folio 108b) among the ‘perforations of the lungs’ produced by

⁸¹ Bhayro (2013); Bhayro and Rudolf (2018).

⁸² Galen decided to discuss the ‘main’ *phrenitis* of the encephalic kind only briefly in *On the Affected Places* 3.9 (8.177–79 K.) and to offer the full pathological profile instead at 5.4 (8.327–32 K.), where the chest is considered.

⁸³ For a list of contents, see Budge (1913/2009) xli–li.

⁸⁴ See Schleifer (1927) 215–29 for the comment on this, and the obvious source in *Loc. Aff.* 5, 8.327 K.

‘abscesses in the moving membrane of the chest . . . accompanied by fever and by stabbing pain’. Among its symptoms are short breath, a hard pulse and coughing (251–54, pp. 226–29, folios 109a–10b). Following Galen’s argument in *Loc. Aff.*, there is also a section within the section devoted to the chest (253–54, pp. 228–29, folio 110a–b) that treats inflammation of the brain, reproducing the persistent duality in the approach to the disease. Galen’s authority in that treatise, however, is concomitant rather than causal to the choice of the Syriac author, who ‘selectively’ emphasizes the one chest-centred account of phrenitic derangement in Galen, sidelining the much stronger encephalic elaboration in his work, as well as in other authors of the imperial era. In line with an Eastern Mesopotamian representation of the human body, the disease is here primarily assigned to the chest, reversing the structure that dominates the medical sources from Hellenistic medicine to Avicenna.⁸⁵

Let us consider the text (Book 13, pp. 226–29, folios 109a–10b) a bit more closely to illustrate these points.⁸⁶ First a discussion of etymology is introduced: ‘All the early physicians have called the lower boundary of the chest *parnôs*, because when an abscess exists in it, the understanding (or knowledge) of those who suffer is injured.’ In the Greek original at this point, Galen has a crucial sentence: ‘or because it came to them simply like that’. Galen’s point is that the name is randomly assigned and has a lay origin. The Syriac author omits this dismissive second point, validating the involvement of the chest in disorders of the reasoning faculties as fact rather than as a misperception. The word *parnôs*, continues the author, translated into Syriac means

that by means of which we carry on the process ‘of thought and the process of making calculations’ [*sic*] . . . Some have called it the diaphragm, others the ‘understanding’, for they thought that this filled the need for boundaries in animals, because it distinguishes and defines the ferocious (or wrathful) part of the soul, which is situated in the heart, from the lustful portion, which dwells in the liver.

Here, again the author translates *phrenes* (his *parnôs*) as ‘understanding’, taking seriously a cognitive implication of the term which had been dismissed by Greek physicians as early as Hippocrates.⁸⁷ These are subtle variations inserted within what is fundamentally a faithful translation or

⁸⁵ Something similar can be said about Maimonides’ rendering of the same Galenic source; see below, pp. 279–81.

⁸⁶ Where not otherwise specified, I rely on Budge’s translation, which I have cleared of archaisms. I thank Peter Pormann for his help and discussion of individual points.

⁸⁷ See Delaini (2018) 88 on this ‘malinteso’ (misunderstanding) of the Syriac author with reference to the diaphragm: ‘[He] points out in fact that some call the diaphragm by this name, while others call

paraphrase of Galen, but they are telling as to the retention of the heart/chest as the focus: the part the ancient physician indicated with *phrenes* receives a new, unquestionably cognitive value as *parnôs*.⁸⁸

In sum, for all its compilatory characteristics and ambiguities, this text preserves traces of an Eastern reception of and syncretism with a ‘canonical’ Western topic (using ‘Eastern’ and ‘Western’ in the somewhat simplified way described above): cognitive disturbance and the disease *phrenitis*. The most interesting feature is not the content itself – the information it preserves is Galenic at its core, as we have seen – but how it arranges and positions that content and engages with it. Although the sources and authorities may have been largely the same for many centuries, the emphasis was on different points and different body parts in different regions (or different genres, or for different audiences). The Syriac book is perhaps best understood as a small but meaningful example of resilience in the face of the hegemony of Greek science on the part of an Eastern and in part much older medical tradition,⁸⁹ in whose Babylonian beginnings diseases in many ways similar to *phrenitis* had been observed and described but had generated very different representations and arguments (as can be seen in the evidence offered by Scurlock, although her strong claims of affiliation are flawed in various ways⁹⁰). This local Eastern medical tradition, in many ways independent of the slow but steady developments of Graeco-Roman science in an encephalocentric direction, put more emphasis on the inward parts⁹¹ and on the heart–chest localization of

it “understanding” (*tar itâ*), thus apparently ignoring the double sense in Greek of the term *phrên*, which means “membrane” but also “thought, intelligence” (my translation).

⁸⁸ As well as a made-up Greek appellation, *pronoos*/πρόνοος, coined by Budge. Budge’s odd translation of the Syriac transliteration of *phrenes* with the non-existent Syriac word *parnôs* and the faux-Greek term πρόνοος is patently misleading; see Schleifer (1927) 225, who recognizes φρένες here.

⁸⁹ This is not the place to discuss Greek debts to the riches of Babylonian medical knowledge, which should not be presented in terms of ‘borrowing’ or ‘translation’: see Asper (2015) for a fair discussion.

⁹⁰ Scurlock (2004) 27–29. She categorizes several Hippocratic descriptions of chest disease involving the *phrenes* as ‘*phrenitis*’ in order to use them as firm parallels for Mesopotamian pathological descriptions and to argue for a direct derivation of our disease from the Assyrian *setu* (‘heat of the sun, dehydration’) and more generally from the multifarious forms taken by the ‘hand of a ghost’, a Mesopotamian cause for a variety of syndromes. Cf. Geller (2003). On the more general issue of establishing narratives of derivation or affiliation between Eastern and Western histories of science, see Appendix 1; Asper (2015), with 24 n. 20, with a summary of arguments.

⁹¹ Reflecting a more general cultural preference. Cf. the eccentric account of human emotional life found in an Arabic text ‘ascribed to Galen’ discussed by Biesterfeldt and Gutas (1984), which focuses on the ‘malady of love’, a fragmentary bit of evidence surviving in different versions (see 4 n. 22 for the references), in which thoughts and emotions are variously located in the viscera of the torso: ‘A person can be said to be in love in the full sense of the term only if, should his lover leave him, his imagination, thought, memory, heart and liver are preoccupied with the lover, so that he cannot eat or drink because his liver is too busy, nor can he sleep because his brain is too busy imagining (him/her), thinking about (him/her) and remembering (him/her)’.

vital processes and disorders at the expense of the head in its representation of mental life and health.⁹² More generally, this tradition did not adopt a localizing view of human health, to which it seemingly preferred a de-centred, compositely organized model of the living body endowed with a greater holistic and metaphysical appeal.⁹³ As such, it found an ideal textual interlocutor, among those available from Greek science, in the diaphragmatic and organ-based discussion of *phrenitis* offered by Galen in *Loc. Aff.* 5.4.

Medieval Medicine in Latin Europe

The next phase in our reconstruction of the transmission of the disease *phrenitis* and of the history of the questions and themes that accompanied it is an examination of teachings and writings in medieval Europe, especially in its intellectual centres in the Iberic peninsula and the Scuola di Salerno in southern Italy, with their philological and medical activities of Arabic–Latin translation and commentary.⁹⁴ Although some ancient medical texts were translated into Latin as early as the sixth century CE, it is with the school of Salerno and the rise of scholarly work in Arabic and Jewish contexts in Spain that activity in this language is stimulated and revived in an important way, especially beginning in the eleventh century and reaching a peak in the twelfth, in parallel with the rise of university-based medical learning.

Salernitan Medicine and Other Medical Authors We begin with the texts in the *Collectio Salernitana* collected by De Renzi and others.⁹⁵ *Frenesis* is discussed in the third volume, in the *Regulae Urinarum Magistri Mauri* (vol. 3, pp. 32–34 *De frenesi*). The author on urinology has assimilated a number of different categories of *phrenitis*, as already noted. In particular, he distinguishes between the ‘true and proper’, *vera*, deriving from accumulation of bile in the anterior ventricle of the brain (*de colera in anteriore*

⁹² Mind with an encephalic location is conceived ethically, as the seat of virtue; mental health in the sense of cognition seems to gravitate around the heart instead. See Delaini (2018) 97–8 on this difference posed by Eastern images of the living body.

⁹³ See Wee (2020); cf. the picture of the reception of medical ideas in late-antique Iran sketched out by Delaini (2018) 81, 88.

⁹⁴ A valuable survey is offered by Laharie (1991) 127–29; see 208–10, 219–23 on therapies.

⁹⁵ De Renzi (1852–59). On the formats and genres in this collection, see Montero Cartelle (1997–98), (2010).

cellula capitis ad apostema collecta), and the *non vera*, deriving from blood, phlegm, black bile, smoke rising upwards (*de sanguine vel flegmate, vel melancholia vel fumositatibus petentibus superiora*) or other humours. The text offers a detailed discussion of the variation in urine colour in each case, as well as of the possible cures. Symptoms are summed up thus: pain in the head, alienation due to the abundance of fumes affecting the brain (*alienatio mentis propter multitudinem fumositatum inficientium cerebrum*), wakefulness, movement of the eyes caused either by madness or by the severe obfuscating vapours which, passing through the eyes, corrode them and force them to move (*motus oculorum vel propter insaniam, vel propter acutas fumositates, que, dum per oculos transeunt, mordicant ipsos et moveri compellunt*) – an interesting double explanation which adds a psychological factor to the received Galenic one – movements of the hands to protect the face, as if in reaction to someone attacking the patient (*manuum frequens motio ad faciem, tamquam si aliqui ab extrinsecis lesionem inferret*), and irrationality. These are all commonplaces, but the assimilation of the ideas into the pragmatic observations of a *Regula urinarum* is worth noting.⁹⁶

Philosophically more striking information is offered in the vocabulary referred to as *Alphita*.⁹⁷ Under *fren*, this medical lexicon preserves an intriguing entry (217.41–46 García González):

The term *fren*, or *frenes*, means ‘membrane’; hence the ancients up to the time of Plato used the term *frenes* for what we call today the *diafragma*, and Plato is said to have invented this term *dyafragma*. Thus the two membranes which cover the brain, namely the *pia mater* and the *dura mater*, are called the *frenes*, and hence the *apostema* which occurs in them is called *frenesis*, and (the brain) is called *fren*, *frenis* (*fren, vel frenes, interpretantur pellicula; unde antiqui ante tempus Platonis vocabant frenes, quod nos hodie dicimus diafragma, et dicitur Plato fuisse primus inventor huius nominis dyafragma; inde dicuntur due pellicule quae obvolvunt cerebrum frenes, scilicet pia mater et dura mater; et inde dicitur frenesis apostema factum in eis, et dicitur hic fren, huius frenis*).

García González comments that ‘any membrane which covers an organ was identified as much with the *dyafragma* < Gr. διάφραγμα . . . as with the *pia mater* and *dura mater*’. But he does not comment on the paretyymology

⁹⁶ P. 33. Cf. the *Regulae Urinarum Mag. Joannis Platearii Salernitani*, vol. 4. 409–12 De Renzi in Coppho’s *Ars medendi*, where the concept of the pale urine of the phrenitic is found again: ‘white and thin urine, green at the edges, signifies *phrenitis*’ (*urina alba et tenuis, cuius circulus est viridis, frenesim significat*) (412).

⁹⁷ De Renzi, vol. 3, 1 says that the treatise was already well known in the twelfth century. García González (2005) 47 concludes that the glossary was composed at the beginning of that century; see 46–58 on the origin and date of the work.

the author might be offering,⁹⁸ of *dya-* as opposed to *dia-fragma*, in which the prefix is seen to allude to the duality of the meningeal membranes.⁹⁹ He also cites a parallel from another lexicon, the *Clavis Sanationis* of Simon of Genoa: ‘*Frenes*, in Greek *dyafragma* (*frenes grece dyfragma (sic)*)’ and ‘*Frenitis*, *frenesis*, actually *rabies*; this is not the name of the disease, but of the symptom itself, for the disease is the apostema that precedes as a result of overheating (*Frenitis, frenesis, ipsa rabies, hoc nomen non est morbi sed ipsius accidentis, nam morbus est apostema quod ex calido antecedens*).’¹⁰⁰ This reference reveals other phenomena in this stage of the history being traced here: the separation of disease from symptom and the creation of a ‘set of symptoms’ designated ‘phrenitic’, which becomes the repository of the rich patrimony of patient observations the tradition preserved.

In line with this creation of a phrenitic ‘semiotic’, in the *Practica Maestri Bartholomaei*¹⁰¹ several details which recur in our disease are scattered throughout a comprehensive discussion of affections of the head/*caput* (*De doloribus capitis/De dolore capitis qui fit ex sanguine/De dolore capitis ex melancholia*, followed by *De cephalea*, *De emigranea*, *De inflammatione cerebri* 372–74). This is offered before any mention of *frenesis*, despite the rich nosological discussion of the disease in the section *De diversitate egritudinum*, demonstrating the creation of a nosological phrenitic-encephalitic ‘type’. That *dolor capitis* is in many details similar to a form of our *frenesis*, even if the standard markers are not emphasized. Instead, it seems to constitute a purified, more general version of it, cleansed of idiosyncrasies, sometimes accompanied by fever, caused by blood or by some humour. Most telling is what follows, where pain in the head is said to be caused by heat or obstruction (*aliquando ex calore, aliquando ex opilatione*), ‘depending on the case’.

After a paragraph on *scotomia*, at 374–77 Bartholomaeus treats the maladies described in *De frenesi*, *De mania* and *De litargia* as all implicitly localized in the head. (The diseases which follow are organized *ad calcem*.) *Frenesis* is defined thus: ‘a swelling in the brain or in the meninges of the brain in the anterior part of the head, accompanied by acute fever, with the following signs: a quick and thick pulse, strength of the limbs, a rapid convulsion of the face and eyes (*est autem frenesis apostema in cerebro vel in meningis cerebri anterioris partis capitis cum acuta febre, cuius hec sunt signa: pulsus velox et spissus, fortitude membrorum, velox conversio vultus et*

⁹⁸ Or, at any rate, on interpreting the plural *phrenes* (as in the two diaphragmatic lobes) as alluding to the *pia mater* and *dura mater*.

⁹⁹ García González (2005) 431 *ad loc.* ¹⁰⁰ <http://www.simonofgenoa.org/index.php?title=FAQ>

¹⁰¹ De Renzi, vol. 4, 321–406. From a fifteenth-century manuscript.

occulorum)'. It is important to note his concept of swelling, which we have already encountered, and which is a defining feature of the humoral and tumoral explanations of our disease (and others) in medieval medicine. The reference to a 'swelling' or 'tumour' represents a fundamental new development in the way *phrenitis* and the group of diseases to which it belongs are represented. The Greek term *apostēmal* ἀπόστημα, 'tumour, abscess', is not used in Galen for *phrenitis* and is in general not central in earlier medicine;¹⁰² it becomes so in medieval times, when it features in standard definitions of the disease.

After the definition, Bartholomaeus continues with the usual therapeutics. At the same time, some eccentric elements mostly encountered in non-professional late-antique sources resurface,¹⁰³ notably the application of animal parts to the top of the shaved head: a sheep's lung (*pulmo pecorinum*), the warm flesh of a cockerel (*caro galli calida*), young deer (*capriole calida*) or a kitten that has been cut open and placed on top. Practical information about the ideal location and activity for patients in everyday life is also offered: a dark bedroom (*in lecto obscure iaceant*), a peaceful setting free of loud chattering, and no excessive variation in the images to which the patient is exposed (*non utantur publicis hominibus confabulationibus, nec voces varias audient, nec diversa videant*).

Although this is the chapter dedicated to *frenesis*, the author attributes phrenitic details to a variety of other diseases apart from the general section on *dolor capitis*. At 339–421, the various paragraphs devoted to fevers accommodate many elements which compare well with the idea of *frenesis* in this period. This is particularly true of the discussion of summer fevers and of quartan fever caused by bile.¹⁰⁴ There is a fever *ad insomnietatem* (346) and later, at 359, also a separate 'fever caused by red bile (*febrium ex colera rubea*)' accompanied, like *phrenitis*, by 'a quick, thick, hard pulse (*pulsus velox et spissus et durus*)'. Types of *apostema* are discussed separately, at 367 (*de generibus apostematum*), but with no specific mention of the head or brain as *locus affectus*. These duplications in pathological categories pose no problem for our purposes: this medicine does not need to comply with the requirements of 'economy' and cogency of modern medical manuals and operative diagnostics. But it is instructive that the 'building blocks' which constitute the disease *phrenitis* in the medieval period begin to emerge separately from one another, as elements in a semiotic with its

¹⁰² Although we find it already as early as the Hippocratic *Aph.* 7.36 (4.586 L.).

¹⁰³ See Chapter 6, pp. 220–21.

¹⁰⁴ For example, *de dieta febrium in estate nascentium* (341), *de quartana notha que fit ex collera* (344).

own joints and pieces: fever, brain, apostema, humours, vapours, summer seasonality, mental aspects, the head.

Along similar lines, in his *Egritudines totius corporis* (vol. 4, 415–505 De Renzi, also organized *a capite ad calcem*, at 469–70) Copho discusses the ‘cephalic disease’ (*cephalico*), which appears to be his ailment that comes closest to *phrenitis*. Here too we see *frenesis* begin both to expand into a general category of brain inflammation and to fragment into the variety of its symptomatic units. The *cephalicum* disease has various natures, Copho says, physiological but also psychological, such as anger (*ira*), but he will concentrate on the type caused by bile (‘We shall speak of the one which is caused by humours’, *dicamus ad presens de illa que fit de humoribus*, 469). He then discusses the nature of the brain in Galen as exposed to the action of different humours in different parts: the front to blood, the back to phlegm, the right side to bile, and the left to *melancholia*. The cause can be *privata* (*idia*, primary) or *remota* (secondary), and the manifestations can vary depending on all these points. At 470, Copho mentions the possibility of the disease having an origin even in the womb, for female patients; this is the apostema of the womb encountered elsewhere, as in stomach and liver variants.

A fundamental text for teaching in the medical school of Salerno was the *Pantegni*,¹⁰⁵ the main source of medical knowledge in the twelfth and thirteenth centuries, surpassed in importance, from the second half of the thirteenth century onwards, only by Avicenna’s *Canon*. The *Pantegni* opens with an initial theoretical section (*theorice*). At Book IX.iv and v of this section, it takes up the topics of ‘hot *phrenitis*’ (*frenesi calida*) and ‘cold *phrenitis*’ and lethargy (*et [frenesi] frigida, . . . lethargia*).¹⁰⁶ The former is defined as ‘either coming from a hot complexion suffered by the brain or its membranes; or deriving from a hot swelling/tumour (*apostema*) in the membranes of the brain itself or in the brain; or from an abundance of bile in the veins (*in venis*) of the brain’. Different degrees of pain, *dolor*, are observed, depending on the kind of *frenesis*. A full set of possible physiology is thus indicated, all located in the brain: swelling, heating and humoral overgorging in the brain’s vessels. The idea of tumour or swelling

¹⁰⁵ The *Pantegni* was a manual adapted from Arabic into Latin by Constantinus Africanus in the late eleventh century, and circulated widely (‘widely copied in the Islamic world (and . . . translated into Hebrew and Urdu)’; see Jacquart and Burnett, 1994, vii). It consists of two parts, one theoretical and one practical, reflecting a similar division in its source, the *Complete book of the medical art* (*al-Kitāb al-Kāmil fī l-Šinā‘ah al-Ṭibbiyya*) by the tenth-century Persian (but Islamic) author ‘Alī Ibn al-‘Abbās al-Majūsī (Haly Abbas). Cf. Treneer and Horden (2017) 67 on this text.

¹⁰⁶ On lethargy in medieval sources, see also Laharie (1991) 134–35.

is also confirmed as central: one of the earliest central pieces of Medieval medical education, the *Articella* (which contained the translation of Galen's *De Arte* known as the *Microtegni* or *Tegni*, and was used as a textbook and reference manual from the thirteenth to as late as the sixteenth century) contains in its so-called *Isagoge*¹⁰⁷ an illuminating discussion *de modis apostematum*, 'about kinds of swelling/tumours', that clarifies the topic in detail.¹⁰⁸

Regarding signs of *phrenitis*, the *Pantegni* mentions continuous fever and 'strong heat to the touch (*calor vero fortis in tactu*)', especially on the head and face compared to the rest of the body (*tactus capitis et faciei est calidior in tactu qual totius corporis*). Patients experience mental alienation and a state of restlessness (*alienatio habetur mentis vigilie*), and sometimes 'sleep accompanied by hallucination/dreaming (*somnus cum imaginatione*)'. Phrenitics 'are startled, with violent movements and screaming (*fucitantur cum fortitudine et clamore*)'; their tongue becomes thick and black, and 'they pick fleeces from their clothes due to the corruption of their imagination (*accipit de vestimentis fiosculos propter imaginationis corruptionem*)'; 'sometimes their eyes lacrimate, and they present a discharge, occasionally of the dry kind (*eorum oculi aliquando lacrymant et lippi sunt aliquando sicci*)'. When the illness arises through a swelling/*apostema* caused by blood, all the symptoms appear, including laughter and sleepiness, red eyes and alienation; the heating is severe; and the patient's face is not particularly red, but is dry due to citrinity. Those who suffer from the bilious swelling/*apostema* present all the above-mentioned symptoms but accompanied by 'anger, quarrelsomeness/tendency to pick fights and perfidy (*cum ira contentione et perfidia*)'. If the swelling/*apostema* is caused by black bile, on the other hand, the same symptoms are found, but 'along with vanity and a perpetual state of lightness, alienation and

¹⁰⁷ Literally, 'Introduction'. The collection formed around the synthetic exposition of classical Greek medicine written in Baghdad by Hunayn bin Ishāq, known in the West by the Latinized name Ioannitius. His compilation was based on Galen's *Ars medica*; it thus became known in Europe as *Isagoge Ioannitii ad Tegni Galieni* (Hunayn's *Introduction to the Art of Galen*). In medieval times several versions of this anthology circulated among medical students in manuscript form, typically including Galen's *Tegni* (*Ars Medica*), Hippocrates' *Aphorisms* and *Prognostics* with Galen's commentaries and *Regimen acutorum*, and the book *De Urinis* by Theophilus Protospatharius. Between 1476 and 1534 CE, printed editions of this *Articella* were also published in several European cities, making it one of the fundamental references of medieval and early Renaissance medical education and practice.

¹⁰⁸ Four basic kinds of swelling, with relevant signs, are described: one caused by blood, called *flegmon* (*ex sanguine et dicuntur flegmones*); one caused by red bile, called *herispile* (*ex colera rubea et dicuntur herispile*); one from coagulated phlegm, called *undimia* or *cimia* (*ex flegmate quod est coagulatum et dicuntur undimie vel cimie*); and one from black bile, called *cancer flegmonum* (*ex colera nigra et dicuntur cancri flegmonum*).

excessive fear, suspicion and wailing (*cum vanitate et levatione assidua alienatione nimia timore suspicionem et plorationem*).

Constantinus mentions the pulse as well, along lines by now familiar to us. He then moves on to the chest version of the disease, devoting particular attention to it:

There is also another *frenesis* which is born in the brain from the swelling/*apostema* of the diaphragm (*nascens in cerebro ex apostemate diaphragmatis*) because of the link with the nerve¹⁰⁹ which descends from the brain (*propter colligantiam nervi ex cerebro discendentis*). This *frenesis* has all the above-mentioned signs; in this case, however, they are not as severe. Fever is more serious around the whole body; moreover, heating arises due to the vicinity of the affected place to the heart,

and the *hypochondria* are heated as a consequence. Constantinus elaborates significantly on this expansion towards the chest and the lower torso. In the final paragraph, we read of

another kind of *frenesis* caused by heating of the liver in the diaphragm rising to the brain and its membranes because of their interconnections (*ex calore epatis in diaphragmate ad cerebrum et eius pelliculas ascendentem propter colligantias eorum*). A form of alienation also results from the powerful heating when the smoke caused by fever rises, and the head is damaged as a consequence.¹¹⁰

Noteworthy here, in comparison with the Graeco-Roman sources being elaborated, is the greater inclusion of psychological types, moralized qualities and the hydraulics of humoral overgorging.

If the theoretical (*theorice*) part of the *Pantegni* articulates fine psychological and anatomical distinctions within *phrenitis*, the practical part (*practice*) perhaps reflects a more composite provenience: while the first ten books appear to be a fairly faithful version of Constantine's Persian source,¹¹¹ the *practice* suggests the assimilation and incorporation of a variety of other material. For *frenesis*, consider 655, where Book 5 *de passionibus membrorum interiorum* begins. The sections *de frenesi* and *de frigida frenesi* are found at vii and viii, where therapy is mostly described

¹⁰⁹ Here, as before, I translate *nervus* with 'nerve', despite some doubt about the precise anatomical identification.

¹¹⁰ Cf. William of Conches (eleventh century CE), *Dragmaticon Philosophiae* (6.17.7): 'For this reason nature has created in that part of the body visible openings, lest the smoke remaining there might cause *phrenesis*; and it is possible for you to observe this in the top of the head of people a bit after they have died (*unde natura in illa parte patentiora creat foramina, ne fumus ibi remanens phrenesim generet; et hoc in testa capitis diu mortuorum potes perpendere*).'

¹¹¹ See above n. 105.

along known lines: phlebotomy, and clysters in case of stypsis. Here too, the use of animal parts is mentioned as a therapeutic measure: Constantine recommends tying the organs of a recently slaughtered sheep to the patient's head (*pulmo recens pecoris capiti alligatus valet*) and stimulating his or her sense of smell with aromatic substances, along with the usual caution about wine, and prescriptions for the use of vinegar in various preparations. These details offer a glimpse of the enduring subterranean flux of ancient therapeutics, which remained at the periphery of professional medicine but were never completely eliminated. Constantine also discusses the cold variant, *de frigida frenesi*; here too, at the end, the stimulant use of animal organs is mentioned.

Another key text within the *Pantegni* is the *Viaticum*, a practical treatise of travel medicine similarly popular in its time, although less ambitious in its intellectual scope. In the first book, Constantine describes a number of therapeutic measures, starting from the external portions of the head with affections of the hair and skin (e.g. dandruff). At 754 (I.18) some indications *de frenesi* are found. The disease is again qualified as a hot swelling or tumour in the meninges and sometimes in the brain matter (*suba*), 'which is the worst and most damaging case (*quod pessimum est et molestissimum*)'. It is said to arise perhaps from two causes, one centred in the brain and involving the ascent of burning red bile (*ex incensione cholerei rubri cerebrum ascendentis*), the other involving blood and, intriguingly, the heart and the blood it contains (*de sanguis ebullitione in corde*).

In the *Viaticum*, dire symptoms (*terribilia accidentia*) are listed more synthetically than in the texts by Constantinus already discussed: 'excessive thirst, dryness of the mouth, blackness of the tongue, a sense of unease, disturbance, anxiety, excessive despondency (*sitim nimiam, oris siccitatem, nigredinem lingue, asperitatem, molestationem, angustiam, nimiam defectio-nem*)', as well as sudden changes in external appearance, in the direction of redness or icterus, depending on the humoral cause. Constantinus also points out that *frenesis* can derive from another illness (*alia passione nascitur*) involving the diaphragm, stomach or womb via a sympathetic connection (*vel est ex diaphragmate apostemate; vel ex stomachi passione; sive ex matrice; et quorum colligantia per nervos cerebrum patitur*). There is also an analogy and possible association with *mania* and melancholy, perpetuating a conceptualizing 'psychiatric' move alongside the powerfully anatomical account. The therapeutic section addresses phlebotomy, dietetic recommendations and in some cases clysters.

Among the general medical compendia, one of the most influential was the *Compendium medicinae* by Gilbertus Anglicus (c. 1250s CE), possibly

‘the first great Latin survey of medical knowledge to have been composed after the arrival of Greek and Arabic texts in western Europe’.¹¹² At xxvii, in the section *de medicatione frenesis* and *de frenesi* Gilbertus defines the disease as an ‘inflamed *apostema* born in the anterior portion of the brain or its membranes (*apostema ignitum in anteriori parte cerebri vel eius pelliculis natum*)’. He also discusses the Greek name: ‘It acquired this name from the *frenes* (*a frenibus*), which surround the brain (*quod cerebrum circumvolitant*).’ This slight variation – from the *frenes* as any membranous part in the body to their being identified precisely with the meninges – is extremely significant, because it shows that the ‘membrane-like character’ of the part has become at least as important as its location. In the archaic world, the *phrenes* were the chest, lungs and heart, that is, a general area of the body. Then they became the diaphragm; then, in parallel with this, the soul and mind, and thus the brain as seat of soul and mind; then any membrane (diaphragm, spinal, meninges); and here specifically the membranes of the brain. Closing a circle of functional transmigration, the mental faculties have thus moved from chest to head via the vehicle of this histological item – no matter how inert, secondary and irrelevant its actual role in the body – or perhaps precisely because of this neutral, flexible quality of the Greek *phrenes*.

Gilbertus also distinguishes among different humoral causes and different types of *frenitis*: *vera* and *non vera*, and occurring in the body of the brain or in its membranes. As for symptoms, he mentions the common derangement, wakefulness, anger and fury, restlessness, disorderly tossing of oneself around, and being suddenly startled (*alienatio; vigilie; ira et furor; inquietudo iacendi; inordinatio et proiectio, et erectio subita*). But he points out that there are also variations depending on the causes. He also speaks of the pulse, the urine ‘thin and white (*tenuis et alba*)’, and the waxy discharge from the eyes, in line with other authors of the period. A whole chapter is devoted to the cause of the blanching of the urine (218–19), with detailed specification of the consequences of heating in various parts of the body, while in the course of offering a general account of the physiology of *phrenitis*, he elaborates much more than others on the pathology, anatomy and histology of the brain. Consider folio 101, where Gilbertus explains why moisture accumulates most in this body part:

This happens for two reasons. One, because of the great number of veins which go to the head, through which there is a rheumatism of the inferior

¹¹² And one which is widely copied and translated in local languages in the following centuries: [McVaugh \(2010\)](#) 295.

part, as is clear in the anatomy (*per quas reumatismus fit inferius, ut in anatomia apparet*). The other cause is that the brain is in a state of continuous motion, and (its matter) is spongy (*spongiosus*). Hence, like a vacuum cup (*velut ventosa*), it will attract the humours which are mostly subject to attraction, and the hotter the brain becomes, the stronger will be its power of attraction (*virtus attractiva*).

This argument is unique in the medieval material I have seen, and curiously evokes both Asclepiades' corpuscular theory of *phrenitis*,¹¹³ where the inflamed, overheated part creates a void to which the particles are swiftly attracted, almost 'sucked', causing a clogging of the passages through which they travel, and the Hippocratic idea that the head might work as a 'cupping instrument'.¹¹⁴ In this way, Gilbertus offers one additional anatomo-pathological element to the itinerary of the disease on its way to becoming an meningo-encephalitis, by focusing on the blood vessels. It is thus no coincidence that he mentions Aristotle earlier (218, folio 101)¹¹⁵ or that he refers to anatomy and the positioning of the veins in the head as especially important, while also mentioning the liver as a possible locus of co-affection for *phrenitis*. The process of 'suction' described here, moreover, recalling Asclepiades, is another modality of explanation that emerges to rival the principle of humoral and 'gaseous' movement through the body.

Also particular to this discussion is the importance of food as a moistening and heating agent, as well as the role played by pain, *dolor*, in exacerbating the pathological movement of humours and the illness that follows (219, folio 101). At 221 (folio 102) Gilbertus offers some indications regarding therapy, involving massage, applications to the head and dietetics; we also read that the head should be shaved for the applications. The application of animal viscera found elsewhere is recommended here as well: 'Suckling kitten/cubs should be cut open in the middle through their back, or a chicken or the lung of a ram, and after the intestines have been extracted, they should be applied on the forehead while still warm (*catuli findantur lactantes per medium ex parte dorsi vel pulli vel pulmo arietinus, abiectis igitur intestinis applicentur fronti calidi*).' Phlebotomy is discussed as

¹¹³ See Chapter 3.

¹¹⁴ Cf. the Hippocratic *De Morbis IV* 35 (87.27–28 Joly = 7.548 L. 'The head, being hollow (*koilē eousa*) and positioned above like a cupping instrument (*hōsper sikyē*), draws up (*helkei*) the phlegm'), on which see Wright (2022) 70–71.

¹¹⁵ Aristotle is a very important presence in Gilbertus's work; see McVaugh (2010), esp. 297–301 on his intellectual profile.

well. Here too, a change into lethargy is contemplated (222, folio 103) and said to be lethal.

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In the Iberic context, the translations produced in the Toletan tradition include a fundamental one in this period: the eleventh-century *Canon* (*al-Qānūn*) by the *Ibn Sīnā* already mentioned, Latinized as Avicenna (980–1037 CE). This work was translated from Arabic into Latin by Gerardo da Cremona in the twelfth century and after that became a standard reference work in university teaching.¹¹⁶ The doctrine put forward in the *Canon* was fundamentally humoral and accordingly identified madness with an imbalance of humours, or with a localized alteration in the imaginative faculty (at the front of the brain), in the rationality (in the central brain) or in the memory (at the back of the brain). *Phrenitis* is recognized as one of three key kinds of madness, together with *mania* and *melancholia*, reflecting the traditional tripartition first observed in Celsus.¹¹⁷

Avicenna plays a special role in this story due to the extraordinary importance and wide dissemination of his *Canon* in Europe for centuries, especially after its translation into Latin.¹¹⁸ I accordingly offer a detailed account of the section devoted to *phrenitis*, named *karabitus* (from the transliteration into Latin of the Arabic *f-r-ā-n-ī-t-s/qarānītīs*,¹¹⁹ which in turn transliterates the Greek *phrenitis/φρενίτις*), by summarizing the Latin translation in dialogue with Dols's faithful summary of the same text from the Arabic original; I thus quote the Latin and occasionally give the corresponding Arabic term based on Dols.¹²⁰ This text deserves such detailed consideration because of its massive importance in shaping Western medicine and psychiatry.¹²¹

¹¹⁶ On Avicenna, see Pormann (2013); Chandelier (2018). ¹¹⁷ See Chapter 3.

¹¹⁸ Cf. Treney and Horden (2017) 66. See also Dols (1992) 74–75, with 74–77 on Avicenna and 86–87 on the Greek sources for his third Book, on mental disorders, especially Paul of Aegina; Carpentieri et al. (2018) on the comparison between the Arabic and Latin vis-à-vis *phrenitis*.

¹¹⁹ The variations in the Arabic transliteration of φρενίτις from *qarānītīs* to *f-r-ā-n-ī-t-s* (perhaps pronounced *farānītīs*) are due to the easy confusion in the Arabic spelling between f-r (فـر) and q-r (قـر); Gerardo here appears to have failed to recognize the Greek *phrenitis* behind the Arabic label and mistaken q-r for f-r, hence the *qarānītīs/karabitus* label. I thank Simon Swain for these clarifications. On *qarānītīs* as a mistake deriving from a corrupt manuscript that in turn engendered *karabitus* in Gerard's version, see Carpentieri et al. (2018) 296 n. 14, 306.

¹²⁰ The English translation from the Arabic by Adeli Sardo (1999) is of only limited reliability here, at least as far as terminological subtleties are concerned.

¹²¹ Dols (1992) 74–75 and 76–77. I have used the Latin text of Gerard's translation (*Liber Canonis Totius Medicinæ*, reprinted *Medicinæ Historia*, 1971) printed in Venice in 1527. Translations are my own.

In the third part of the *Canon*, devoted to ‘diseases of the bodily parts’, Chapters 3–5 deal with inflammations of the brain. *Karabitus* is found in Chapter 3, with discussion of symptoms and treatments. The disease is placed first, at the very opening of the chapter on swelling/abscess of the head, *de apostemate capitis*. First a definition is offered:

karabitus is called a hot swelling/abscess (*apostema*) in the membranes of the brain, the thin and the thick one [i.e. the *dura mater* and the *pia mater*], without involving the body of the brain itself, although an abscess to it can sometimes also occur (*dicitur karabitus apostema calidus in velamine cerebri subtili et grosso, absque corpore: quamvis corpori ipsius quandoque accidat apostema*).

Here Avicenna disagrees with the opinion expressed by others, that ‘what is soft like brain, or hard like bone, cannot expand, and what cannot expand, cannot have an abscess’: the brain too, in his opinion, can suffer *apostema*.¹²² He offers a terminological discussion, already commented on above: the term *sirsām* is properly applied to the disease suffered primarily by the meninges, and sometimes by the brain as a whole.

As for pathology, Avicenna believes that most patients (*plurimi*) die due to an impediment ‘in their breathing capacities (*propter impedimentum in spiritu*, Arabic: *nafs*)’.¹²³ He also proposes a regional account of the affection of the brain,¹²⁴ in which ‘the abscess has different locations according to different parts of the brain (*apostema hoc habet loca diversa secundum partes cerebri diversas*)’, and distinguishes two cases: that of two co-suffering parts and involvement of the brain as a whole. Here Avicenna is elaborating on Galen’s nosological tripartition at *Loc. Aff.* IV, 2 (8.226–27 K.): there are two simple kinds of *phrenitis* (with lesions of the senses and with damage to judgement, respectively) and a third which is a combination of them. Avicenna adds another kind, which involves memory, and also mentions carphology as a form of hallucination due to a lesion in the anterior portion of the brain.¹²⁵ When the central region is damaged, impairment in reasoning follows involving delirium and speech impediments; when the posterior portion is struck, patients forget what they are looking for or

¹²² See Jacquart (1992) 182 on this medical controversy, the objection being that, ‘because of its softness and viscosity, the brain cannot undergo any swelling or tumefaction’.

¹²³ Dols (1992) 75. See also Carpentieri *et al.* (2018) 308.

¹²⁴ On the history of this subdivision, see Siraisi (1987) 211–12.

¹²⁵ Jacquart (1992) 190: crocydism and seeing ghosts go together (Aanun III 1.3.2. ed. Bulaq p. 46, Jacquart 1992, 190 n. 31). On the subdivision of the so-called ‘internal senses’ in the medieval philosophical tradition (Latin, Arabic and Hebrew), see Wolfson (1935). On Galen’s discussions of damage to the different parts of the brain and *phrenitis*, see above pp. 175–76.

what they have just asked; when all parts are involved, all these signs appear together. Avicenna thus elaborates considerably on Galen and creates a theory of the ‘cerebral localization of the internal senses’ endowed with more complexity than those of his predecessors.¹²⁶

For Avicenna, the cause of *phrenitis* (*eius . . . principium*) is of course humoral: blood, pure yellow bile, pure red bile or bile burnt black, which is the most dangerous (*sanguis, aut citrina cholera pura, aut rubea pura, aut adusta trahens ad nigredinem, et est vehementer malum*). Relief is offered by purging, which takes various forms: sweating (*sudore*), epistaxis (*fluxu sanguinis ex naribus*) or venesection on the head can help resolve the condition, as can opening the cranium to allow the congestion to be released. Later on, bleeding through haemorrhoids is also said to be helpful (*et karabitus quidem multotiens resolvitur per hemorrhoides cum fluunt*¹²⁷).

As for the relationship between *karabitus* and other diseases, Avicenna mentions the possibility of a change from pneumonia (*permutatio ex peripleumonia*) or, often, from ‘false’ to ‘real’ *karabitus* (*non verum in verum*). Some indicators can predict how hopeful a case is: ‘a reasoning disposition which combines laughing and crying together (*permistio rationis composita ex fletu et risu*)’ is dangerous, while ‘continuous laughter (*risus aroonati*¹²⁸)’ can be a hopeful sign. Some doctors are said to claim that there can be an illness without fever similar to *phrenitis*; in regard to this, Avicenna describes a severe disease¹²⁹ characterized by great anxiety (*fortis inquietudo*), yawning (*oscitatio*), restlessness – ‘s/he cannot stay still, and at times attempts to climb the walls by jumping (*habens eam non tolerat quietem, et fortasse saliendo ascendit parietes*)’ – strong laughter, suffocation and thirst. Such patients cannot drink without suffocating (‘when s/he drinks water, s/he chokes on it and spits it out’, *cum bibit aquam strangulatur ea et expellit ipsam*). ‘The day (when this final symptom occurs?) is fatal, according to opinion’; should the disease last for four days, no one escapes. At this point, ‘it happens that the patients’ faces turn dark, as do their tongues; their eyes are frozen/fixed (*accidit ut ipsorum facies nigrescant: et lingue: et sint ipsorum oculi congelati*)’; and their behaviour expresses fear and weakness (‘the disposition of those in fear’,

¹²⁶ Jacquart (1992) 190–91.

¹²⁷ On the traditional idea of a beneficial effect of haemorrhoids, see Thumiger (2017) 104 n. 67.

¹²⁸ On this term for ‘continuous laughter’, see Carpentieri et al. (2018) 310, 319.

¹²⁹ Compared to rabies by Dols (1992) 75, for whom Avicenna ‘gives a general description of what appears to be rabies’ – a strange claim, since the signs are quite in line with ancient descriptions of mental disorders in general, fevers and *phrenitis* in particular. Rabies and *frenesis* are considered in parallel in the entry *fren/frenes* in *Alphita* (see above, pp. 252–53).

dispositiones timentium). Death follows, as ‘their movements slacken (*ipsorum lenientur motus*)’, ‘their strength recedes, and their pulse weakens (*cadunt eorum virtutes et pulsus*)’. Death often occurs through suffocation (*cum strangulatione*) and is spasmodic: ‘You can see the patients running about, and then suddenly collapse and die (*vides eos currentes, deinde vides post illud eos statim cadere et mori*)’. In this version of the disease, without fever, as noted, a sympathetic reaction takes place between the brain and another ‘organ of higher functions’, such as those of respiration. This feverless variant is a syndrome which also accommodates the chest manifestations that belong to *phrenitis*, suggesting a coaffection of brain, throat and chest.

Avicenna then moves on in [chapter 2](#) to describe the signs common to all kinds of true *karabitus* (*signa autem communia speciebus ipsius veris*). These are intermittent alienation (*alienatio*); an ‘aversion to talking or a lack of any desire to do so’ (*abominatio loquere, et pigritia ab ea*); intellectual confusion (*permistio intellectus*); and obsessively inspecting one’s fingertips (*inquisitio extremitatum*). Corporeally, ‘the extremities are cold, and there is agitation (*extremorum frigus, et agitatio*)’ and a ‘tension on the surface of the bones of the chest (*extensio ossium pectoris ad superiora multa*)’, perhaps what ancient sources called ‘tension of the *hypochondrium*’;¹³⁰ tremor; troubled sleep (*somnus inquietus*), from which patients emerge abruptly; and they cry out both when they are sleeping and when they are awake (*clamant, et quandoque dormiunt, et quandoque vigilant*). Patients are prey to nightmares, visions and voices. ‘Their sleep is most troubled; it is disturbed by hallucinations and by awful, unspeakable dreams, with spasmodic movements and mixed with shouting’ (*commotus cum fantasiis, et somniis corruptis terribilibus, et eius excitatio est permista cum vocibus*). They are also immoderate and uncharacteristically ashamed, bold or angry (*verecundia, et audacia, et ira ultra consuetudine*). They ‘avoid the sunlight and shrink away from it (*abhorrent radios, et avertunt se ab ipsis*)’, ‘move their tongues about frantically and twist them (*agitant lingue eorum vehementer, et stringunt eas*)’, and their voice often falters (*multotiens abscinditur eorum vox*). They yearn for water, but drink only a bit (*et desiderant aquas, et bibent ex ea parum*). Their extremities are cold (*infrigidantur eorum extremitates*); their urine tends to be thin and clear (*ipsorum autem urine sunt declinante ad tenuitatem et subtilitatem*); and their pulse is hard

¹³⁰ Sardo’s translation from the Arabic offers ‘the head of his ribs near the abdomen is stretched a great deal upward’ (91).

'because of the nervous nature of the swelling in a hard part (*propter essentiam apostematis in membro nervosam duro*)' and spastic.

The preceding signs are psychological: 'forgetfulness of the context surrounding' the patient (*oblivio rei propinque*), 'sadness for no reason (*tristitia sine causa*)', 'bad dreams (*somnia mala*)', and considerable affection of the head (which is called *soda*), 'oppression and bloating (*gravitas et repletio*)'. In previous stages, 'a yellow complexion, a transfixed state of wakefulness and troubled sleep (*citritas faciei, et vigilie prolixae, et somnus inquietus*)' are noted. The upsurge of bile towards the brain causes exacerbation, as the toxic humour revolves through the veins and drenches the brain matter, causing a sensation of pain which begins in the back of the head, where the neck joins the head; dry eyes; and lacrimation from a single eye. Often 'these patients' veins are a vivid red (*veni ipsorum forti afficiantur rubedine*), and 'sometimes their nostrils bleed (*distillationes sanguinis ex naribus*)'. Their eyes often itch (*plerumque fricant oculos suos*), and 'their body tends to a maximum of relaxation, in most of the body with the exception of their hands (*declinant ad quietem et requiem in maiori parte corporis nisi in manibus*)'.

This is the notorious crocydism, which Avicenna joins other authorities in describing: those who suffer from *karabitus* grope/search the air with their fingers or pick at their hair. 'This happens mostly when their eyes are shut, sometimes accompanied by spasmodic movements of the pupils and moaning (*fit illud plurimum cum clausione oculorum. Et quandoquam fit cum pupillatione et querela*)'. The patients become lazy about speaking (*pigri fiunt in loquendo*) and do so only weakly, and can run out of control or lose awareness of their physiological functions, such as passing urine or the sense of pain, so that they do not react to touch ('They are unable to say if they feel pain in one of their limbs, and if someone touches them suddenly in one of the sore limbs, s/he does not realize it', *obliscunt doloris, si est in membris ipsorum: immo si aliquis de membris ipsorum doloris impetuose tangit, non percipiunt ipsum*). For Avicenna, this phenomenon has to do with the localization of the abscess in the frontal part of the head (*in parte anteriore*), which affects the imagination: 'Patients begin to pick hair and flocks from their clothes, or to try to remove flecks of straw or the like from walls, and they imagine fantastic objects they do not find (*incipient colligere villos ex vestibus et paleas et que sunt similia illis e parietibus; et imaginant aliquas fantasias que non inveniunt*)'.

Later Avicenna also describes a set of symptoms that precede 'true' *sirsen* (folio 144, col. 2, end).¹³¹ Intriguingly, these strike the chest: they originate

¹³¹ See pp. 170, 251, 264 on this.

‘in the diaphragm and in the musculature of the chest (*ex partibus velaminis distinguentis, et lacertorum pectoris*)’ and resemble the signs of *birsēn* and *pleurisis*: ‘a piercing pain in the side when inhaling, asthmatic breathing, a thumping pulse, and an incessant dry cough, followed by large quantities of sputum once the part is abundantly moistened (*dolor pungitius in latere apud anhelitus: et strictura anhelitus, et pulsus ferrinus, et tussis plurima sicca, deinde humectatur quam plurimum, et expuit*)’. There is fever, and the heat tends towards the chest, causing ‘tension above the chest bone (*extensio ossium pectoris ad superiora*)’; there is spasm as well. In all these matters, Avicenna makes nuanced distinctions between *sirsēn* (the Latinization of *sirsām*) *vera, non vera, manifesta*, *birsēn* (the Latinization of *barsām*) and *karabitus*. These cannot be summarized or quoted in full, but include lacrimation from the eyes, which materializes the hallucinations these patients experience (‘their eyes exude tears, and a dense residue’, *distillant oculi eius, et lippitudinem*). What matters most is the nosological stemma he is drawing, the multiple aetiologies and manifestations alongside the double localization, and the regional subdivisions within the inflammation of the brain.

Avicenna’s account also includes ‘sketches’ of such patients’ character and physiognomy. With pure red bile (*ex cholera rubea pura*), for example,

their character shows a certain rapacity and a melancholic prowess and boldness in discussion, almost as in those who want to pick a fight, and their noses become sharper, as do their extremities; and there is a strong tension upwards in their foreheads (*ingreditur in mores eorum rapacitas, et melancholie proprietates et audacia in disceptando, et est quasi in forma eius qui vult litigare, et attenuantur nares eorum, et proprie ipsarum extremitates: et accidit eis in frontibus eius attractio fortis ad superiora*).

With burnt bile (*ex cholera adusta*) there are ‘signs common to daemonic possession and quarrelsomeness, accompanied by deeper respiration and groping with the hands (*signa ut quod communitas accidentium accidit cum demonio, et rixa; et spiritus magnificatur; et magnificatur inquisitio*)’. ‘Their eyes are troubled, and the cause is *sibare* – indeed, the condition is almost equal to *sibare* proper (*et sunt oculi eorum perturbati, et eius causa est sibare, et est quasi ipsa*)’.

What *sibare* is, is explained in a discussion at the end of the section (*de sibare*). The Arabic name indicates daemonic possession that comes with a bilious, hot *sirsēn* (*dicitur sibare demonium superfluum, accidens cum sirsēn calido cholericō*) whose signs are a combination of those we have seen already, including alienation and confused reasoning. When *sibare*

appears, the signs of sleep disturbance and insomnia follow shortly thereafter: agitation, hyperventilation and forgetfulness; inconsequential responses; dull, red eyes. A sensation spreads to the back of the head; there is pain caused by the vapours and involuntary weeping. With fever, a parched, dried tongue and then an inability to speak appear. The patient should be kept moist, and 'it is necessary to restrain the patient by binding his limbs' (50).¹³²

In terms of therapy, in [chapter 3](#) Avicenna offers a compendium of the known pharmacological remedies, but also other bodily interventions and soothing measures. First he mentions 'phlebotomy of the capital region' (*flebotomia ex cephalica*) aimed at opening an outlet for the humours. He specifies the various cautions to be applied when phlebotomizing the forehead or the hands, difficult operations which might produce conflict with the patient. Massage with rose oil and vinegar, the *oxyrrhodinum* mentioned by Greek doctors, and other cooling treatments are mentioned; various applications with specific herbs are also suggested (e.g. *emplastrum ex foliis senticis*). The suggestions regarding the ideal environment for the ill found in Celsus, Aretaeus and Alexander of Tralles are mentioned by Avicenna as well: a quiet house, clean air, no images or decorations which might provoke the imagination or damage the membranes of the brain.¹³³ The fragrance of 'cooling flowers' is beneficial,¹³⁴ as is the company of 'friends, especially close and sympathetic ones, but also people before whom the patient might feel ashamed (*amicos suos prudentes sibi caros, et misericordes eius: et ex quo verecundetur*)', since their presence invites calm. Sleep should be induced through means such as opium, poppy syrup and other applications. Clysters can also serve to draw matter downward by purging, as can foot massages with hot water, as well as binding, constraining and cupping. Various nutriments are recommended: oxymel, cucurbita, herbs, grains, fruits considered cooling, or restorative items such as goat or human milk. Embrocations are also suggested. Tying

¹³² The name *sabari* suggests an association with *sabara*, 'to bind, fetter, shackle', according to Dols (1992) 94.

¹³³ 'And let him rest in a dwelling of mild temperature, with pure air, and without any picture or figure (to be seen). For by himself he is keen to indulge in imagining (pictures and forms), and this is one of the causes damaging his brain, and the membranes of the brain' (*et fac eum quiescere in domo temperata in aere puro in quo non sunt picture neque forme. Nam ipse diligit intueri imaginatines earum, et illud est ex eis que ledunt cerebrum eius, et velamina ipsius cerebri*). On these soothing measures, see Dols (1992) 158 n. 139, tracing them to Celsus and Aretaeus. Key testimony on *phrenitis* in particular is that of Alexander of Tralles, who unlike Galen offers a full account of various therapeutic measures.

¹³⁴ Such as *nenufar* (water lily), *viola*, *et rosa*, *et canfora*.

the patient up can be helpful at times. Avoiding certain meteorological extremes is also advised; these include ‘open air and malignant hot winds, as well as the heat, the days of the Dog (the summer) and the sun, in order to avoid relapses (*ab aeribus, et ventis malis, et calidis, et canicularibus diebus et sole ut non incurrat recidiva*)’. Soothing baths are useful to promote sleep, which is key to recovery; the consumption of lean meat is as well. To these universal cures for *phrenitis*, Avicenna adds others that depend on whether the patient is affected by the bilious or the bloody type of *charabitus* (*aliud cholericum, aliud sanguineum*). A combination of pharmacological, dietetic and bodily interventions is described for each, although these will not be surveyed here.

In Avicenna’s account – which, as noted, remained a standard in European medical education for centuries – the encephalic interpretation is central, and its backbone is the Galenic material. Avicenna’s loyalty to this version of the story is maintained despite his otherwise complete support of the Aristotelian, cardiocentric view of the human body and his disregard for Galen as a ‘philosopher’. This compromise reveals *phrenitis* as a perspicuous illustration of another phase in the competition between these two systems in the development of modern medicine, biology and science, in which the encephalocentric model is integrated and ultimately prevails.¹³⁵ At the same time as Avicenna depicts an encephalitic *phrenitis*, he also insists at length on the involvement of the chest, lungs and viscera (following Galen’s presentation in *On the Affected Places*¹³⁶), expands on the ethical-characteriological aspects of the disease and inserts foreign elements, such as references to a kind of rabies and to the daemonic ‘*sibari*’.

Quite different in this respect are other fundamental Arabic medical texts from the same period, such as those authored by the Andalusian Ibn-Rushd (*Abū l-Walīd Muḥammad Ibn Aḥmad Ibn Rushd*, 1126–1198 CE), known as Averroes, a royal physician at the Almohad court and author of a number of medical treatises, and by his friend and collaborator Ibn Zuhr (Avenzoar). Averroes’s *al-Kulliyāt fī l-ṭibb* (‘*General Principles of Medicine*’, Latinized in the West as the *Liber Colliget*¹³⁷), written around 1162 CE, is

¹³⁵ On these tensions and their resolution in Avicenna, as well as the debate on cardio- and encephalocentrism from sixth-century Alexandria onwards, see Strohmeier (2019) 219–20. See also Chandelier (2018) 182–83 on Averroes’s conciliation of Aristotelianism, although maintaining respect for Galen’s clinical and therapeutic practices; Forcada (2019) 237–38 on how the Aristotelianism of Averroes’s medicine ‘was . . . overshadowed by Galen and the Galenism of the *Canon* in Europe and the Muslim world’.

¹³⁶ Commented on already at pp. 151–58.

¹³⁷ The Latin translation of the *Colliget* by Hyeronimus Syrianus in the thirteenth century also became an important medical textbook in Europe, although it was less influential than Avicenna’s *Canon*.

the more medical text. For the history of *phrenitis*, however, it is of little help: it mostly discusses general principles of physiology, elaborated in an Aristotelian frame, rather than nosology, and does not thematize the diseases of the head as of particular medical importance.¹³⁸

The title of the *Colliget*, with its general scope, is complementary to that of the *Kitāb al-Taysir* ('*Book of Simplification Concerning Therapeutics and Diet*') written by Avenzoar on a commission from Averroes himself; the two men collaborated and their texts are best understood together. An instance parallel to *phrenitis* is found in the first section of the *Taysir*,¹³⁹ *de egritudinibus capitis*. Here *caput* is given a literal, concrete meaning, indicating a firmly tangible localization.¹⁴⁰ (Thus dandruff, lice and other affections of the hair are treated here.)¹⁴¹ At 1.3.5 (folio 4) discussions relevant to our topic begin, regarding 'inflammation of the meninges (*de apostematibus paniculorum capitis*)' and at 1.3.6 (folio 5) 'of the brain and the *rethe mirabilis*' (*de apostematibus cerebri et rethe mirabilis*, folio 6).

Two kinds of swelling or *apostemata* are found here. The first, 'in the membranes of the head', happens 'with no external cause (*absque causa extrinseca*)'. It can strike the external membrane in the cranium or the harder, internal one, called the *dura mater*, and is caused by acrid humours (*ex humoribus acutis*); excruciating pain, red eyes and disturbances of the senses and the intellect follow. For both cases, phlebotomy and specific diets are recommended and described in detail, taking up the majority of the space devoted to the disease. Suffering, lack of sleep and oppression are mentioned, but no specific clinical element connects the passage to *phrenitis* in a detailed way. The next section, 'on the apostemata of the brain (*de apostematibus cerebri*)', opens with the key point that the brain's own substance produces the humour which causes the swelling (*apostema procreat in sua propria substantia*). This is a particularly serious disease, which can also involve the so-called *rethe mirabilis*. Its symptoms are implicated by one another and unmistakable (*inseparabilia et certa*), in the same way that darkness and clouds (*umbrositas et nebulositas*) inevitably

¹³⁸ Averroes also discusses the signs of *apostemata* among the *aeiritudines* at 34 (folio 72), and the signs concerning the brain at 3 (folio 67). On the 'generalities' of Averroes' *Colliget*, see Tamiani (1994); Delgado (2012); Pormann and Savage-Smith (2007); Chandelier (2018) 166, on Averroes's re-establishment of Aristotelian positions in his discussions of Galen.

¹³⁹ Avenzoar, *Taysir* Folios 2–44 (1542).

¹⁴⁰ This datum is found in other Arabic texts, Avicenna and the *Pantegni*: at 1.1 *de furfuribus capitis*, 10 *de lendinibus*, 12, etc.

¹⁴¹ Curiously, Avenzoar is reported to have been no fan of Avicenna's *Canon*; see the anecdote recalled by Chandelier (2018) 164 n. 27 regarding his use of the *Canon* as scrap paper to write prescriptions for his patients.

accompany rain, a meteorological simile which underlines the determinism of the account and the strength of the corporeal semiotics: ‘a reddening of the white of the eyes (*rubedo albedinis oculorum*)’; ‘swelling of the eyelid ... with difficulty of movement ... acute fever (*grossities palpebrarum ... cum difficultate motorum ... fortitudo febris*)’. All this is quite compatible with our *phrenitis*; on the other hand, the passage is neatly encephalic, devoid of the elements which make *phrenitis* a disease and a human experience with a mental component.

The discussion of *phrenitis* proper appears at 1.14 (folio 12), *de sirsen calido cum alienatione*. Avenzoar first distinguishes a proper *phrenitis* from one deriving from other diseases. Only once the disease has fixed itself in the brain does it require dedicated care (*postquam in cerebro confirmata fuerit indigent cura speciali et propria*). Its causes are acidic and mordent humours and the vapours they generate as they rise from the stomach to the head. A strong, hot fever can also generate the disease. These two types require different treatments.

In the centuries that followed, Avicenna’s text acquired enormous influence in medical and university quarters, as already noted. The *Concordanciae* by the thirteenth-century medical author Jean de Saint-Amand, for instance, a key reference work in medical education at the Faculté de médecine in Paris for over two centuries thereafter,¹⁴² offers at the lemma *Frenesis* (136 Pagel) seven statements which emphasize precisely the points Avicenna included as key in his account of the disease.¹⁴³ The sheer number of copies and commentaries on the *Canon*, moreover, testify to its importance. Space allows for mention of only one notable specimen of this academic and scientific activity, the commentary by the medical master of Padua and Perugia, Gentile da Foligno (d. 1348), called ‘*speculator*’ for the fineness of his theoretical engagement with medical problems. Gentile was the best-known doctor of the fourteenth century and, with Taddeo Alderotti, the key figure of medical scholasticism in the Middle Ages; his lengthy commentary on the whole of Avicenna’s *Canon* became an important instrument for the use of this influential text by teachers of medicine, students and practitioners. If we look at how Gentile reads and explains the section of the *Canon* devoted to *karabitus* (*phrenitis*), and the

¹⁴² The influence is notable in the work of Pierre de Saint-Flour, whose *Colliget florum medicinae* (later also known as *Concordances*), composed in the second half of the fourteenth century, elaborates (and reshapes) the material in Saint-Amand; see Jacquart (1995).

¹⁴³ See McVaugh (1990) 64–66 on the epistemological and didactic qualities of the *Concordanciae* (the second part of the *Revocativum memoriae*; the title *Concordanciae* may be later, as explained by Jacquart 1995, 173) as index, encyclopaedia and commentary.

way he raises questions and objections, we get a good sense of which points were extracted and discussed as central to our disease, as well as what the matters of contention were and which passages were seen to require further explanation.¹⁴⁴ At folio 55,¹⁴⁵ Gentile begins by commenting on *apostema* as an essential element of *charabitus* (*phrenitis*) and on its pathological significance *per se*. He then notes a number of *dubia* – points where questions, uncertainties or objections arise – for instance, ‘he is uncertain whether there could be *phrenitis* without *apostema*’ (*dubitat utrum charabitus possit esse sine apostemate, dubium 1*). A look at the *dubia* Gentile proposes is instructive for reconstructing the agendas of contemporary scientists and physicians. He points out that there are two types of *charabitus* (*dubium 1*), one ‘real’ (*verus*), in which there is continuous fever and *apostema*, and another not ‘real’, involving no alienation of a continuous kind and similar to the state which occurs in fevers. This second kind is caused by vapours exhaled from the stomach or the belly: the continuity of fever, the alienation and the differentiation between real and non-real *phrenitides* are confirmed as central themes. Gentile also discusses the matter (*materia*) of the brain and the nature of the *paniculi* (meninges) in order to ask whether these too can suffer a ‘hot’ affection.¹⁴⁶ In fact, they are made of *materia frigida* or are *membra frigida* (*dubium 2*), and Gentile remarks that *charabitus* is most often caused by ‘hot, thin matter (*materia calida et subtili*)’, a histological point that acquired importance from Rāzī onwards, as already noted.¹⁴⁷

Next Gentile asks which membrane is more exposed to *apostema*, the so-called *pia mater* or the *dura mater* (*in subtili scilicet pia matre an in grosso, dubium 3*), and whether an *apostema* can occur in the brain matter as well (*dubitat utrum charabitus sit apostema solius paniculi; vel etiam sit apostema substantie cerebri, dubium 4*). He also asks which of the two types should be regarded as worse (*dubium 5*), exposing and discussing Avicenna’s views on all these points at length (folios 55–56). Gentile’s arguments and distinctions cannot be recounted in detail here, nor would they add much to the discussion. What is notable is how the terms of the discussion vis-à-vis this disease increasingly coalesce around anatomically localizing,¹⁴⁸ histological-biochemical topics (to use anachronistic terms): the shape and

¹⁴⁴ On Gentile and the commentary on Avicenna’s *Canon*, see French (2001), 220–53 for remarks about the signs of diseases, mentioning *karabitus*, ‘frenzy’, several times.

¹⁴⁵ Gentile da Foligno. *Tertius Can. Avic. cum amplissima Gentilis Fulgi. expositione*. Venice, 1522. The relevant sections for *phrenitis* are at folios 55–65 of the edition used here.

¹⁴⁶ In Averroes and *Liber Teisir* there is also a distinction between ‘pain in the head due to moisture’ and ‘pain in the head due to dryness’ (*dolor capitis ex humiditate* and *dolor capitis ex siccitate*) (folio 4).

¹⁴⁷ See below, pp. 238–39. ¹⁴⁸ See also folio 58 on the localization at the base of the neck.

texture of the affected parts, the hot or cold quality, the humours involved. Gentile devotes *dubia* 6–10 (folio 56) to the latter question, reflecting on the humours mentioned by Avicenna for *phrenitis* – *cholera pura*, *rubea*, *citrina*, *sanguis cholericus* or bile mixed with *phlegma* – comparing Avicenna's views with those of Avenzoar, offering a glimpse into the ongoing debates about humoral determinations. *Dubium* 11 discusses the different possibilities for extinguishing or resolving *phrenitis*, including bleeding from the nose or the belly and sweating (folio 56), while *Dubium* 12 treats lethargy and its conversion into *phrenitis* (folio 57); conversion from peripleumonia was discussed previously (folio 56).

Of the themes addressed by Gentile, some involve clinical aspects, such as the behaviour of these patients. At folio 56, for example, he speaks of the continuous laughter, and at folio 57 of the restlessness and yawning (*inquietudo et oscitatio*) of phrenitics, as often discussed by medical authors. He also mentions their 'climbing the walls' and their pathological drinking and thirst. These signs of distress and overheating are described one by one and dissected in the section on signs (folio 57): alienation and disturbance with talking (*abominatio loquae et pigritia ab ea*), confusion (*permistio intellectus*), as well as a variety of physical symptoms (*de signibus eius communibus*). Among the latter, the insistence on the agitation of these patients stands out: *agitatio*, *spiritus agitatus*, *tremor membrorum*, etc. Gentile also focuses on the psychology and moral existence of phrenitics (folio 58): they shout and jump due to awful dreams (*propter terribilia quae in somniis videntur . . . excitantur cum vocibus propter terribilia somnia*), and physical suffering causes morally flawed behaviour, such as shamelessness (*inverecundia*) due to the damage to their judgement (*propter errore extimative*), or boldness and anger due to overheating (*audacia et ira propter fervorem caloris*). A lengthy passage is also devoted to the patients' pathological relationship to drinking water (folio 58). At folio 59, Gentile returns to the topic of hallucination and crocydism, offering a highly detailed explanation of the process of the obfuscation of the eyes as body part. Here he is reproducing Avicenna, of course, but he further materializes and localizes the cognitive, psychological datum – the confused imagination of these patients – formalizing this corporeal version of *phrenitis* even further, while populating it with more and more details.

This dense commentary illustrates the process of preparation, so to say, of the nosological datum *phrenitis* for its final meningitic outcome in modern medicine.¹⁴⁹ Other features perpetuate traditional elements while

¹⁴⁹ Symbolic of this is the *lipa*, the discharge of fat from the eyes discussed by Avicenna and others – a strikingly concrete, tangible sign of the disturbed eyes of the overheated, hallucinating phrenitic.

corroborating this development, especially the reference to the chest. Folios 59–60 accordingly contain a discussion of *birsen*, *sirsen* and *pleuritis*, and of the communalities of the two membranes (cerebral and diaphragmatic/pleural) as a vehicle for pathological similarity. This again confirms the relevance of the histological connection, as well as the interest in the distinction between ‘real’ and ‘false’ *phrenitis*, and the relationship of the disease to lethargy. At folio 62, in the middle of various observations on Avicenna’s therapeutics of *phrenitis*, Gentile devotes a section to the ideal *domus*, the domestic environment which should be offered to soothe these patients, and to light and darkness, while also mentioning sleep, phlebotomy, embrocations, *oxyrrhodinum*, massages, dietetics and all the usual topics.

In conclusion, the main points Gentile extracts, by choosing specific lemmata in Avicenna, offer a telling picture of what is preserved in the tradition, studied, elaborated and taken for granted in this period. No great new ideas are found here. But the traditional elements are by now fully digested, so to speak, and assimilated with both intense scrutiny and a translation of old – sometimes millennia-old – doctrinal intricacies into living medical practices. Since these texts continue to circulate as key medical materials for centuries, they offer solid confirmation of how *phrenitis* persists, despite other changes, as a consistent set of signs and symptoms, but simultaneously advances along a trajectory of greater and greater embodiment, still keeping chest and head together and touching on key topics of psychological and ethical life.

Two Medical Masters: Arnau and Bernard

A unique perspective on medieval reflections on mental health comes from two other authors who were not part of the established teaching syllabus, the Valencian (or French?)¹⁵⁰ medical doctor Arnau de Vilanova, author of the *De parte operativa* (c. 1306–08 CE), i.e. ‘on the practical, operative part of medicine’, a work not intended for university teaching but more theoretical in scope;¹⁵¹ and Bernard de Gordon, master of the faculty of

While the ‘tear running down from one eye’ comes from Galen’s *On the Affected Places* (5.4, 8.330 K.), the importance of its coagulated desiccation can be seen as a suggestive illustration of the developing embodiment of this particular form of mental illness.

¹⁵⁰ Arnau was active in the territory of the Crown of Aragon and was master in Montpellier. On this work, see Salmón (2017b); McVaugh (1990) 64–68 on his role in introducing the ‘new Galen’ to medical studies.

¹⁵¹ See Salmón (2007), (2017b) on Arnau’s production and on the structure of his *De parte operativa* (2017a); McVaugh, Bos and Shatzmiller (2019) 55 n. 90. On Arnau and the brain, see also MacLehose (2018).

medicine at Montpellier, who authored a *Practicum* or *Lilium medicinae* (1305 CE).

Only the initial part of Arnau's *De parte operativa*, entirely devoted to damage to and disorders of the mental sphere and related cures, survives. For us, this section of Arnau's work is important as an extensive attempt to organize a kind of 'psychiatric manual' complete with a form of classification and conceptualization of the diseases of the mind. Arnau devotes a chapter to *frenesis* at the very beginning of the collection, followed by lethargy. The text first offers its own version of how to tackle the problem of the name of the disease and its oscillating indication between brain and chest in the Arabic terms *birsām/sirsām*:

The Greek term *Frenesis* properly corresponds in Latin to a lesion of the membranes or *pelliculae* and the like. The term is thus attributed indifferently with a change of name, despite its seeming meaning, to any hot *apostema* of the membranes, those of the head as much as those of the chest, *because it is by the affection of either of those that that highest and absolute damage to the human individual, which is the loss of reason, occurs (unde per antonomasiam attribuitur apostemati calido pellicularum indifferenter, tam capitis quam pectoris, quoniam ex utraque passione causatur illa summa et absoluta hominis lesio que est amissio rationis).*¹⁵²

It is worth noting that this author, unlike Avicenna, but in line with other medieval texts,¹⁵³ stops well short of dismissing the ambiguity in the name as merely a linguistic problem: derangement, the gravest damage a living being can suffer, can be caused by *either* meninges or diaphragm. He then proceeds to explain the Persian origin of the terms *barsām* and *sirsām*, and how the name *karabitus* (or variations of it) arose from the different vocalism of the Arabic when the Greek φρενίτις was translated into that language.¹⁵⁴ The fact that the double localization is here an ontological point and no longer a question of nomenclature is confirmed by what follows: 'The true kind of *frenesis* is the one of the head, but one of the chest

¹⁵² My translation of Salmón's text (with thanks to him for his help and corrections).

¹⁵³ Compare here also the *Syriac Book of Medicines*.

¹⁵⁴ 'In Persian, however, they use two specialized terms, and in fact they call the *apostema* in the membranes of the chest *birsēn*, and the one in the membranes of the head *sirsēn*. But *karabitus* is the way in which the name *frenesis* got corrupted among the Arabs, because of the polyvalence of the letters they write in their language [. . . , so that] by the same letter in the same expression *frenesis* or other terms, namely *karabitis* et *karabita*, can well be represented' (*persice tamen propriis vocabulis dicuntur, nam tale apostema in velaminibus pectoris nominatur birsēn, in velaminibus capitis sirsēn. Carabitus autem est nomen frenesis corruptum apud arabes, propter uniformitatem literarum quibus scribitur apud eos, unde punctis deficientibus, que vices gerunt vocalium, eadem litere in eadem dictione scripta eque bene possunt representare hanc dictionem frenesis et aliam, scilicet carabitis et carabita*).

is also known under this name, and occasionally, following a comparable kind of *apostema*, there is one in the womb or stomach (*Species frenesis vera est capitalis, nota est pectoralis et interdum ex simili apostemate in matrice vel stomacho*).¹⁵⁵ The possible involvement of other parts of the body is made clear, and the ranking of the variety in the head as *vera* and that in the chest as *nota* offers a telling commentary on the possible understandings of *phrenes* discussed in the early chapters of this book. The true damage is that in the centre of mental life, but that in the chest and the illness that results from it is ‘notable’ (*nota*, ‘well-known, widely recognized’, *sc.* in medical authorities).¹⁵⁵ The importance of chest and stomach resurfaces when Arnau summarizes the causes of the disease: alongside any external factors ‘which generate or exacerbate the hot humours, or move them towards a place of collection (*que humores calidos aut generant aut acciunt aut movent ad locum collectionis*)’, there are antecedent humoral causes but also constitutional ones (‘a weakness . . . a bad disposition’, *debilitas . . . mala dispositio*). These are localized elsewhere than in the head, especially in the heart, which can exude acridic vapours and hot humours upwards (*potius cordis, mandantis acutum vaporem aut calidum humorem*), with dire consequences for the head.

The mention of the heart as a source of impediment to the centre of cognition through harmful exhalations – not only the direct involvement of the *cor*, but the adoption of the narrative of *De partibus animalium*,¹⁵⁶ whereby the ‘south of the body’ invades the purity and operative clarity of the ‘north’, impairing it – is a noteworthy Aristotelian insertion.¹⁵⁷ Additional damage can be done by other fluids and humours, such as boiling blood (*sanguis fervens*) in the membranes or various biles and vapours. When these are excessive, they cause illness by accumulating and being further compressed (*coartatus/coartata*) into pathological places, especially within the membranes.

The signs Arnau recognizes are the well-known ones, which dominate in Galen and are transmitted by the encyclopaedic authors (although in his case mostly filtered through Avicenna): ‘daemonic alienation, with false and interrupted laughter; violent distress; sticking out the tongue, and blackness of the tongue; whitish and very watery urine; a spasmodic, frequent, trembling pulse (*alienatio demoniaca, cum falso risu et interpolato*;

¹⁵⁵ This is reminiscent of the use of the words in the *Anonymus Londinensis*, who conveniently placed the damage in the *logistikon*, abstractly conceived. See [Chapter 2](#).

¹⁵⁶ Cf. above in [Chapter 2](#), pp. 43–44, 51.

¹⁵⁷ The image goes back further, to Plato *Ti.* 69d–70b: the neck was created to keep the heat generated by the heart from affecting the brain. (I thank Sean Coughlin for this observation.)

inquietudo vehemens; emissio lingue eiusque nigredo; urina alba et maxime aquosa; pulsus spasmosus, frequens, tremulus'. He then discusses the change into lethargy, as well as the signs of 'apostema of the body of the brain' (as opposed to the membranes) and 'of the anterior and middle part'. These manifestations are partly familiar to students of ancient medicine from the portrayal of distress already found in the Hippocratic authors:

disappearance of the coloured part of the eye and display of the white; choice of a supine position when lying down; swelling of the belly and extension of the bones of the chest (*occultatio nigredinis oculorum et aparicio albedinis; electio decubitus resupini; inflatio ventris et extensio ossium pectoris*); decrease in febrile inflammation; insensibility to the fever in the patient; blackness of the body (*sedatio febrilis inflammationis; insensibilitas febris apud patientem; nigredo corporis*).

There is a reference to the pulse, familiar from imperial nosology onwards, and again 'tremor, much throwing of oneself around; grinding of the teeth; twisting eyes and neck (*tremor; multitudo ictigacionis; stridor dentium; tortio oculorum et cervicis*)'. The classic resolution occurs through a release of fluid: 'Signs of resolution of the disease through haemorrhage through the nose or haemorrhoids or menstruation or bleeding from the womb: abundant evacuation through the above-mentioned parts, with recession of the alienation and recovery of the correct pulse'.¹⁵⁸ Arnau also mentions conversion into other illnesses: lethargy, of course; 'ethic' fever (with daily oscillations, associated with *phthisis*), *ethica febris*; spasm; and in the case of *apostema*, of the substance of the brain in its anterior or middle part (*in apostemate substantie cerebri et partis anterioris aut medie*).

Bernard de Gordon's *Practicum* or *Lilium medicinae* (1305) achieved great fame and diffusion, becoming required reading for medical students at Montpellier and being widely consulted elsewhere.¹⁵⁹ He opens his treatise with fevers, and within this topic mentions in the first place *frenesis* as an example of the dangerous ardent kind. The dedicated section is found at 216, in *de passionibus capitibus*, Particula II, xxii, *de Phrenesi*. Here the disease is defined as *apostema calidum in panniculis cerebri generatum*, 'a hot *apostema* originating in the membranes of the brain'; its cause is pure bile and the boiling of blood in the heart or liver (*causa est cholera pura, aut ebullitio sanguinis in corde aut hepate*). Localization, concreteness and a focus on the body seem to prevail, as *phrenitis* increasingly becomes *swollen, hot, organ-based and tangible*, and the heart–brain cooperation is maintained in varying forms.

¹⁵⁸ On this topic and its tradition, see [Carpentieri and Mimura \(2017\)](#).

¹⁵⁹ See [Demaitre \(1980\)](#) on Bernard de Gordon, esp. 51–59 on the *Lilium medicinae*.

The text becomes especially interesting when Bernard discusses the concomitant causes: here the accent is heavily on ‘heating’ in all its manifestations and possible vehicles. Youth, the summer season – the Dog Days in particular – staying out in the sun without a hat, as well as eating warm or warming food, can all play a role as concomitant causes.¹⁶⁰ Bernard also recognizes the two kinds of *phrenitis*. There is a *phrenitis vera* that arises ‘from pure red bile or burnt red bile, or vapour rising from blood boiling in the heart and liver, as it gathers in the membranes of the brain and in the substance of the marrow (*in substantia medullari*)’, and a *non vera*, of multiple localization and aetiology (‘from yellow bile, or following fevers of different kinds, as well as *apostema* of the lung, the diaphragm, the stomach, the liver, the womb and so on’, 216). In the first case, the signs are ‘continuous fever, alienation, wakefulness, thirst, blackness of the tongue, disorderly movement of the feet and hands, agitation of the whole body, continuous talking and terrible furious symptoms’. In the second case, the *non vera*, the signs are milder in their course and intermittent: *omnia sunt remissa, et aliquando quiescent*. There is a ranking of severity among these various types: *deterior* is the one in the *substantia* of the marrow, followed by the one in the *pia mater*, then the one in the *dura mater*. The worst is the kind caused by burnt and not-burnt red bile; then the one caused by blood; then the one caused by yellow bile. Especially certain signs of impending death are urine that turns white after having been coloured, continuous alienation and a wakeful state, urine retention and spasms. Finally, two visible symptoms are mentioned which are also not found elsewhere in the ancient and medieval material, but appear in modern medical cases:¹⁶¹ if the tibiae are extended and the patient cannot bend the leg (*conduplicare*),¹⁶² and if a vesica appears in the thumb. In these cases, the physician is advised, ‘Best to run!’ (*medicus igitur confestim fugere debet*).

The cure Bernard proposes consists of phlebotomy, various cooling measures, limited food intake and a light diet, and again the application of the viscera of slaughtered animals, cockerel or goat lungs, to be extracted from the back while the animal is still alive (*de gallo et de pulmone arietis et quod per*

¹⁶⁰ *Causae autem coadiuvantes, sunt, ut quia iuvenis cholericus, et tempus aestivum, et quia laboravit in diebus canicularis, et stetit in sole calido capite discooperto, et ieiunavit ed comedit cibaria calida et alia consimilia, quae corpus calefaciunt et desiccant.*

¹⁶¹ See Chapter 7, p. 332.

¹⁶² Retrospectively this corresponds to Kernig’s sign in current medicine (I thank Paolo Trezza for this suggestion): ‘in the supine position the patient can easily and completely extend the leg; in the sitting posture or when lying with the thigh flexed upon the abdomen the leg cannot be completely extended; it is a sign of meningitis’ (<https://medical-dictionary.thefreedictionary.com>, accessed 1 April 2023). But compare the pain in the leg discussed by ancient authors, above p. 27 n. 18.

dorsum extrahatur animali vivente). A cold environment and cold water are helpful (*domum . . . frigida, et aspergatur aqua frigida*). In the case of extreme behaviour (218), patients should be tied up to prevent them from doing harm to themselves or others. In some instances, *phrenitis* can combine with ‘wolf-like *mania* (*mania lupina*)’, with dire consequences: the patient climbs walls and the like (*et tunc accidentia terribilia, quoniam ascendit parietes et similia*).

These two works effectively reflect learned medicine from the first half (Gilbertus) and late thirteenth century (Bernard). Both were very popular in their time and enjoyed a wide manuscript diffusion, and were translated into the vernacular and then widely printed in the Renaissance, representing the background against which modern anatomists set their own understanding of *phrenitis*. As these two examples show, then, medically speaking in the course of the Middle Ages *phrenitis* is confirmed as a strong nosological label, while simultaneously becoming a salient collection of symptoms independent of a diagnosis.

Phren(es) and phrenitis in Jewish Communities and Andalusian Judaean-Arab Sources

Arabic translators and medical authors form the largest non-Latin corpus of testimonies to the reception of Graeco-Roman medicine in the medieval West. But an important role in this history, inextricable from the Arabic tradition as a whole, is played by philosophers and medical thinkers from Jewish communities, who also mediated and transmitted Greek medical doctrine, studying it in Latin or more often Arabic versions.

A glimpse into the Andalusian Jewish milieu is offered by the glossary compiled by Marwan ibn Ġanah (Rabbi Jonah, tenth/eleventh century CE), the so-called *Kitab at-Talkhis*.¹⁶³ Here the entries for *phrenitis* and *phrenes* are clarified in an interesting way combined with what appears to us to be greater confusion. Entry 795 Bos *et al.* (folio 67r,13–v,2), first of all, shows that here as well controversy about the meaning of Greek *phrenes* is alive, inviting comparison with the *Alphita* entry:¹⁶⁴

Frinās (*phrenes*/φρένες) is the midriff (*ḥijāb*) known as *diyāfrāghmā* (*diaphragma*/διάφραγμα, diaphragm). Plato applied this term to feeble-mindedness. It was called *frinās* since they assumed that if (the midriff) is afflicted by swelling or fever, a man becomes mentally confused and it causes an absence of mind. They therefore thought that this is the seat of the mental faculties. Galen disagreed with this (idea) – from Ahrun’s book.

¹⁶³ Bos (2020). ¹⁶⁴ See above, pp. 252–53.

Note the ambivalence regarding the localization – the midriff – and the pathology, ‘feeble-mindedness’, which Plato identified with *phrenes* neither in the *Timaeus*, to which this passage refers, nor anywhere else. The disease *phrenitis*, this superimposition suggests, is automatically evoked by the term *phrenes* and the mention of the related body parts. At 899 Bos *et al.* (folio 76r, 4–8) Marwan ibn Ġanah defines the term *phrenitis* itself, *Qrānītus*: ‘*qrānītus* (*sic*, i.e. *phrenitis*/φρένιτις) is the midriff (*hijāb*), called *qrānītush*, which can be translated “the mind” (al-‘aql), Aristotle said this in his *Book on Animals* (*Kitāb al-Ḥayawān*). From Galen’s *Book on the Crisis* (*Kitāb al-Buḥrān*): *Qrānītus* is an inflammation of the brain (*waram al-dimāgh*) in the Greek language. The Persians call it *birsām*.’ Here again, *locus* and affection are confused,¹⁶⁵ and *qrānītus* – which derives from the disease name – is said to be the diaphragm and figuratively the mind. The brain is omitted from the definition of the disease; the early, imprecise term *birsām*, with its reference primarily to the chest, is brought in instead. The swelling of the brain known to us from other medieval sources as *sirsām*, on the other hand, appears at entry 1002 Bos *et al.* (folios 81v, 14–82r, 2): ‘*shirsām* (*phrenitis*) is a swelling (*waram*) occurring in the brain which is caused by either heat or cold – from al-Rāzī’s *Kitāb al-Taḡsīm wa-l-tashjīr*. From (Galen’s) *Book on Causes and Symptoms* (*Kitāb al-‘Ilal wa-l-a‘rād*): Hot *phrenitis* (*shirsām*) is a mental confusion which occurs in combination with fever, if the brain is affected by a swelling.’¹⁶⁶ The vast majority of these Jewish texts are not translated into European languages, but one of the most representative is available in a recent edition, the *Medical Aphorisms* of the Andalusia-born Sephardic scholar Moses Maimonides (twelfth century CE).¹⁶⁷ This work, originally written in Arabic possibly when Maimonides was living in Cairo,¹⁶⁸ is an important complement to the general picture I am sketching: as Bos reiterates, it was widely read and copied for centuries and enjoyed ‘great popularity in medieval Western Europe. In the thirteenth century it was translated into Latin . . . Until the

¹⁶⁵ See Bos *et al.* (2020) *ad loc.*: ‘Ibn Janāḥ’s sources in fact failed to distinguish between φρήν (supra no. 795), the midriff, which was assumed to be the seat of the emotions and the mind (‘aql), and the disease called *phrenitis*/φρένιτις.’

¹⁶⁶ At 1023 we again find the ‘cold *phrenitis*’: ‘†Al-ūirghus† (recte al-litarghus I, *lēthargos*/λήθαργος, lethargy) is a “cold *phrenitis* (*shirsām bārid*)”, according to al-Rāzī’s *Taḡsīm*’ (folio 84r, 1–3, 1136–37 Bos).

¹⁶⁷ In Bos (2004a, 2007, 2011, 2016, 2017). As Bos (2004b) xx describes the work, it ‘is constituted by twenty-five treatises comprised of approximately fifteen hundred aphorisms that are drawn for the most part from the work of Galen, covering every field of medicine’; cf. also Langermann (2019).

¹⁶⁸ For details, see Bos (2004b) xx–xxi, xxv–xxvi. The original composition in Arabic testifies to the close connection between these linguistic communities in medieval Andalusian culture.

fifteenth century the *Aphorisms* was, as Muntner remarks, “the most widely known and wanted repertorium of Galen”.¹⁶⁹ In addition, Maimonides’s *Aphorisms* became influential in Jewish circles through two major Hebrew translations.¹⁷⁰ This evident popularity shows that the Greek medical corpus not only circulated among Jewish doctors and intellectuals, but was meditated upon and abridged for practical use,¹⁷¹ and that in these communities too *phrenitis* was recognized and perpetuated as a useful nosological concept and a concrete clinical reality by practitioners and students.¹⁷²

Phrenitis is mentioned nine times in the *Aphorisms* in a relevant manner, in connection with a general prognosis (Treatise 6), the pathological topic of swelling (Treatise 9) and the general definition of diseases (Treatise 23). At 6.11 (3 Bos) Maimonides discusses the connection between melancholy and *phrenitis*: ‘Sometimes melancholic delusion and *phrenitis* occur together. An indication of this is that at one point [someone suffering from it] talks continually; for this is a symptom of *phrenitis*, while at another point he is continually silent, for this is a symptom of melancholic delusion.’ At 6.37 (9 Bos) the author offers a description of the disease and a summary of its chief symptoms. Just as in the *Syriac Book of Medicines*, the apparent source is Galen’s *On the Affected Places* 5.4,¹⁷³ where diaphragmatic *phrenitis* is found. This is perhaps the most significant aphorism for our purposes – a firm, numbered list of items is selected with respect to *phrenitis*:

The signs of *phrenitis* are sixteen: sleeplessness or disturbed sleep, delirium manifesting itself gradually, acute fever which never subsides, short-term memory loss, lack of thirst, very aggressive and insolent behaviour displayed by the patient, deep and intermittent respiration, a small and hard pulse, picking flocks from garments or straw from walls, roughness of the tongue, pain in the back of the head, a dry discharge from the eyes and an acrid tear streaming from one eye, drops of blood dripping from the nose, acoustic hallucinations, loss of the sensation of touch throughout the body even [when the patient is touched] with force, and the patient lies prostrate and is

¹⁶⁹ Bos (2002) 140, quoting Muntner (1957) xiii. ¹⁷⁰ Bos (2004b) xxv, xxi.

¹⁷¹ Bos (2004b) xxvii; see xxii–xxvi on the style of abbreviation, clarification and commentary in which Maimonides presented the Galenic and Hippocratic material for his readers; Bos (2002).

¹⁷² ‘*Medical Aphorisms* enriches our knowledge of Maimonides’ activity as a physician, the transmission of classical Greek learning to both Europe and the Middle East, medieval Hebrew and Latin translation techniques, the medieval reaction to Galen, the interplay of medicine and philosophy, and the cosmopolitical character of medieval Islamic medicine’ (Bos 2004b, xxvii).

¹⁷³ This passage goes back to *Loc. Aff.* 5.4 (8.330 K.); cf. Bos (2004a) 102 *ad loc.*

unresponsive to questions. All these symptoms can occur simultaneously, but sometimes only a majority thereof.

At 6.53 (12 Bos) the diaphragmatic implications are mentioned, again following Galen's *Loc. Aff.* 5.4:

Contraction of the *hypochondria* is a special sign of an inflammation of the diaphragm and appears from the very beginning. Similarly, when *phrenitis* has been established, the *hypochondria* contracts at the very end. During an inflammation of the diaphragm, respiration is variable; sometimes it is shallow and frequent, while at other times it is deep and similar to groaning.¹⁷⁴

At 9.17–19 (63 Bos) Maimonides thematizes *phrenitis* and lethargy as mirror-image diseases caused by a swelling, called a tumour in Bos's translation:

The cold brain tumour, namely lethargy, and the hot one, namely *phrenitis*, have in common that in the beginning both should be treated by phlebotomy and by the application of rose oil and vinegar in order to expel the harming humour – whatever humour it is – from the head. [This should be done] although one disease goes with sleeplessness and the other with torpor. Hereafter, one should try to calm [the person suffering from] sleeplessness and to awaken and stimulate the person who suffers from torpor.¹⁷⁵

At 23.62 (51 Bos) Maimonides reaffirms the seminal Galenic and traditional distinction between *mania* and *phrenitis* based on fever: 'Madness/*mania* is a chronic mental confusion without fever, whereas *phrenitis* is a chronic mental confusion with fever.' In medical and philosophical Jewish circles, then, *phrenitis* was assimilated as a medical concept, following standard Galenic authorities, but leaving ample room for a chest-centred account.

¹⁷⁴ See also 23.67 (53 Bos), where Maimonides summarizes again from *Loc. Aff.* 5.4: 'Mental confusion that arises from *phrenitis*, which is an inflammation that occurs in the brain or its membranes, does not happen all at once, but little by little, and does not subside during the decline of the fever. But mental confusion occurring in the case of ardent fevers and caused by [illnesses] affecting other organs happens all at once and subsides when those illnesses have passed their climax. An exception is the case when the mental confusion is consequential upon an inflammation of the diaphragm, for then it is closely related to the mental confusion that is consequential upon *phrenitis* and that does not subside [immediately] after the [illness] has reached its climax.'

¹⁷⁵ Cf. 9.18 for therapy: 'When a brain tumour reaches its culmination, one should rub the head of the person whose illness is accompanied by sleeplessness and delirium with a salve made from poppy, while the corner of the nostrils and face should be rubbed with substances that cool the brain. If someone's illness is accompanied by torpor, one should heat the thick humor'.

Talmudic Medicine

With the exception of the *Syriac Book of Medicines*, with its composite history, in all the Arabic sources, whether Islamic or Jewish, examined so far it is easy to recognize a core that is fundamentally a form of reception – and elaboration – of Graeco-Roman medicine. It is thus appropriate to speak of them all in terms of an ‘Andalusian’ or ‘Judaeo-Arabic’ milieu. If we consider instead the testimony of Jewish medicine preserved by the Talmud over the course of several centuries and from a much earlier period (300 BCE–500 CE), we find a richer (if problematic) intercultural parallel to *phrenitis*:¹⁷⁶ the disease *kordiakos/qordiakos*. Scholarship flags this as a parallel to our disease, although the need for anthropological caution is sometimes recognized.¹⁷⁷ At first sight, the label evokes the ‘cardiac disease’ mentioned in Celsus as explicitly contiguous to *phrenitis*, and described by Caelius Aurelianus at *Morb. Ac.* 2.30 (240–88 Bendz). This disease is accompanied by fever, is localized in the heart and/or stomach (or more generally in the viscera of the torso), and is accompanied by hallucinations.

To examine the description in more detail, we must consult the section on *kordiakos* in chapter 11 on ‘Mental Disorders’ of Preuss’s edition of *Talmudic Medicine*.¹⁷⁸ The discussion of the disease opens with a legal note: the actions of the *kordiakos* patient have no juridical consequence, since he finds himself in a state of ‘semi-consciousness’. The cause highlighted is related to wine: ‘According to Mar Samuel, this illness occurs when a person is overcome by new wine from the vat.’ Preuss swiftly identifies the disease ‘with the *morbus cordiacus* (*sic*) of the heathen physicians’, referring especially to Caelius Aurelianus, and describes the Talmudic instance, assigning wine an important role and listing confusion and babbling among the symptoms. What we find in the Talmud, however, is only partially superimposable on the Graeco-Roman cardiac disease, and other readers have challenged the simplistic transliteration on which Preuss relies. Hankoff interprets this as instead an ‘ancient description of organic brain syndrome’, seeing it as ‘one of the earliest references to what is currently known as *delirium tremens*’,¹⁷⁹ and directly references *phrenitis* (*phrenesis*, *phrenisy*, *frenesis* or *phrensy*)¹⁸⁰ as a parallel. As he

¹⁷⁶ See Kotttek (1996) on Talmudic medical terminology and its Graeco-Latin influences.

¹⁷⁷ I thank Lennart Lehmhaus for bringing this example to my attention, and for his advice and help on this topic. Cf. Kotttek (1996) 2924–25 on this disease.

¹⁷⁸ Preuss (1911/1978) 320–21.

¹⁷⁹ Hankoff (1972) 233; he may be influenced by the identification of *phrenitis* with delirium at the turn of the twentieth century, for which see Chapter 9.

¹⁸⁰ Hankoff (1972) 233.

summarizes the disease, it manifests itself in ‘a state of confusion’ in which the patient experiences ‘dizziness, and from the discussion of his conduct and mental incompetence, seems to be like a madman or one who has had his throat cut and is unable to speak’¹⁸¹ (i.e. he cannot speak and is considered legally incapacitated as a consequence). Specific to this condition among other forms of madness are two aspects: an inability to distinguish colours¹⁸² and, most important, curability after a short time, which differentiates it from the grave, often fatal course of *phrenitis*. Causes are new wine, but also a daemon. In Hankoff’s view, the pathological resemblance or parallel with the syndrome of *delirium tremens* are precise, while the cardiac, chest-centred echoing in the label must be eschewed *in toto*: despite the similarity of the names, he takes them to have no etymological relation. Instead, the Talmudic label *kordiakos* might be a corruption of *crocydismos*, the well-known phrenitic sign.¹⁸³ For Rainbow, the daemonic account rather than a bodily localization is the explanatory element:¹⁸⁴ *kordiakos* is for him the actual name of a spirit. A Greek origin for it might also be plausible, referring to the suffering heart when the mind is oppressed by a daemon: ‘the act of ravishing the heart,¹⁸⁵ . . . not the heart itself . . . a daemon who was capable of acting to harm a person’s mental and moral faculties’.¹⁸⁶

In conclusion: *kordiakos* is a disease that involves crocydism, confusion and a loss of cognitive capacities; is linked to wine drinking; and brings inflammation and fever. It strikes the viscera or resembles ‘brain fever’, and its name seems to contain a reference to the heart. We cannot identify it with certainty with any item outside the Talmud, although one might acknowledge an aural connection between the label *phren-itis* and the illness *cardiac* or *crocydism-os* (carphology, crocydism): they share some symptoms and the involvement of alcohol. The final point, the implication of wine and other alcoholic beverages, is an association to which modern readers are drawn when navigating the uneasy waters between body and soul in discussions of pathology: *delirium tremens*, wine and intoxication are immediately understood as interfaces between the two. As we shall see, *delirium tremens* and alcoholism are one of the outcomes of ancient

¹⁸¹ Hankoff (1972) 235. ¹⁸² On colours, see p. 234 above on Michael Psellus.

¹⁸³ Hankoff (1972) 150.

¹⁸⁴ Rainbow (2008) 257; see 258 for more interpretations; Rosner (1977) 60–4; Lehmann (2015) 84–85.

¹⁸⁵ As formulated in *Song of Songs* 4:9 and translated into Greek with *kardioō* καρδιόω, following the reconstruction of Rainbow (2008) 263.

¹⁸⁶ Rainbow (2008) 264.

phrenitis in modern pathology. Perhaps *kordiakos* offers an early instance of the same co-implication.

The Talmudic testimony is intriguing for a parallel it offers to the ambiguities in the *Syriac Book of Medicines*, especially its selective categorization of *phrenitis* in the chest with the involvement of other viscera. *Kordiakos* also features a symptomatic correspondence with *phrenitis* (crocydism, madness, hallucination, the reference to wine, the legal questions); a localization in the chest *and* attribution to brain fever; and a strange name that – depending on the interpretation – may involve the heart or daemons (a daemon sitting on the chest being an important Mesopotamian source of illness generally, and of mental illness in particular, as already noted). These elements of Mesopotamian medicine are integrated via the influence of Arabic and Jewish readers into the core¹⁸⁷ European medical curriculum – most notably, the daemonic variation of *phrenitis*, the *karabitus* named *sibari* described by no less of an authority than Avicenna.

Conclusions

We have followed the traces of our disease in a variety of Byzantine and medieval sources in Greek, Latin, Syriac and Arabic (Eastern, North-African and Iberian). The complexity of these interlacing traditions evades quick survey. But for the purposes of our nosological biography, we can draw some conclusions about this phase of the medical history of *phrenitis*, from the seventh century CE to the beginning of the early-modern era, focusing on a number of key developments, which reflect developments in scientific and medical culture more widely:

- The concept *apostema*, ‘swelling’ or ‘tumour’, becomes central, accompanying if not replacing that of inflammation.
- There is a thematization of ‘texture’ or, anachronistically expressed, of the histological quality of the *locus affectus*; the starting point is the question, possibly stemming from a remark in Galen, of whether not only the membranes but also the body of the brain, despite its viscosity, can undergo swelling. In most sources, *phrenitis* is precisely the inflammation and swelling of the membranes of the brain, the *pelliculae*,

¹⁸⁷ As well as into its periphery: Dols (1992) 100–01 mentions Mukbilzde Mum’min’s account of diseases of the head in Turkish (fifteenth century CE) in his *Zahire-i-Muradiye*. The discussion of cerebral illnesses, following Avicenna, presents a category called *sersam* (and a type of *sersam* is *phrenitis*, *tiz sersam*, i.e. ‘swelling of the brain’); one named *phlegmon*, an inflammation of the brain taken from Paul of Aegina; and third the daemonic *sibari*, which involves madness and agitation.

foregrounded for their meningeal nature, their being ‘membranes’. It is important to note this involvement of the membrane *qua* membrane alongside that of the membranes of the brain *qua* encephalic; through this histologic communality, a link with the diaphragm, as well as with other membranes of the body, such as that of the spine, is reaffirmed. This is important because it (1) is a striking way to keep the *phrenes*/diaphragm in the equation; (2) inaugurates a holistic approach to pathology as striking what we would call a certain kind of ‘tissue’, as opposed to a certain *locus* in the body; (3) revives the heritage of the great ‘delocalizing’ narratives of the forgotten past, Caelius and Asclepiades *in primis*, with their moral and psychological implications.

- In addition to the histological concreteness of the account, there is a visible progression towards physiology and anatomy, and away from psychology. Blood and humours, brain and membranes, heart and other organs are involved – the eyes, the stomach, the womb, even the heart and the liver, as well as parts such as the nerves and blood vessels. Within this turn, a cardiocentric, Aristotelian line of inquiry is activated, as well as a new materialistic turn, to which the body closely and minutely examined is central: *lippitudo* (the fat discharge from the ocular cavity), the behaviour of the eyes, the complexion, epistaxis, blackness of body and tongue . . . *phrenitis* is more and more concretely painted on the body and identified by material symptoms, from the traditional heat and fever, to white urine, to new details such as the patient’s convulsed leg.
- Taxonomy becomes an increasingly flexible instrument: many subgroups and types of *phrenitis* are recognized. *Phrenitis* can be *vera* or *non vera*, on varying accounts; the *apostema* can be hot or cold, generating *phrenitis* or *lēthargos*; there are subgroups or similar and parallel diseases, such as *sibari*, erysipelas and rabies, as well as ramifications of humoral and physiological aetiologies and of ventricular or brain localizations; and various types strike different organs, such as the diaphragm or the heart, but also the *pleurai*, liver, stomach and womb.¹⁸⁸ The hydraulics of humours and other fluids play a central role, and these fluids are listed schematically with their respective consequences: blood, fumes and vapours; red bile, burnt red bile, yellow bile, ochre bile; boiling and putrefied blood.

¹⁸⁸ This extension is also noted by Laharie (1991) 129: ‘medieval *frenesis* is an even broader and more fluid concept than in antiquity, and which encompasses multiple affections’.

- In parallel with this pathological expansion, the idea emerges that, while the *apostema* is the real, antecedent disease, the label *phrenesis* or *phrenitis* should only designate its symptom, or even only the part affected. In the Semitic lexical examples, for instance, there is a recurring linguistic confusion between ‘affected part’ and ‘disease’.
- Some eccentric elements return or persist: the use of animal viscera and the reference to daemons and prophecy.

The name and etymology of the disease are constantly interrogated. The question regarding the name *phrenitis*, its connection with *phrēn* (as in ‘mind, diaphragm, heart, brain’) is posed again and again, and answered with the ancient Aristotelian and Platonic arguments. In some cases (Avicenna, the *Alphita*) the brain is emphasized. In others the diaphragm/heart/chest is kept in focus, combining neo-Aristotelian influences with Eastern or Semitic ethnic roots (as most visibly in the Syriac *Book of Medicines* and the example from Rabbi Jonah’s lexicon). In all instances, at any rate, the *phrenitis* ‘tag’ is corroborated and re-advertised by these discussions.

The Construction of the Phrenitic in Larger Society From the Medieval to the Early-Modern Period

Metaphors of *phrenitis*

In the medieval era and up to modern times, narratives of ‘madness’ and derangement are maintained in a variety of genres: in popular culture, from satirical texts to tragedy, and in serious literature, including theological invective, pastoral texts and philosophical expositions. *Phrenitis* is a stable presence in these metaphorical, symbolic or hyperbolic presentations of mental health, especially in moralizing and exemplary applications. The key themes and forms are those which have already emerged in [Chapter 6](#). In the case of Christian texts especially, this continuity is also to be understood in the light of traditional authority, in which Augustine is a central figure (although other models as well exerted an important influence).

Phrenitis as a Flaw of Reason

Phrenitis as a flaw of reason, an epistemological shortcoming, continues to be part of a long tradition of theological and philosophical arguments throughout the Middle Ages. Nicephorus I (ninth century CE) uses *phrenitis* to describe flawed, invalid argument: ‘For what is more foolish or mad than such things (*ti gar ēlithiōteron toutōn ē manikōteron*)? Because not even people who are afflicted by the disease *phrenitis* would make such remarks.’¹

The Byzantine philosopher Michael Psellus (eleventh century CE) engages polemically with his opponents by resorting to the Galenic account: ‘Some phrenitics . . . keep their sense perceptions intact (*tas aisthēseis diasōizousi*), only their reasoning being damaged (*tēs dianoiās monēs blabeîs*)’ (*Opuscula psychologica, theologica, daemonologica* 27.20–21).

¹ *toiauta gar oud’ an hoi nosōi phrenitidos halontes parephthegxanto* (*Refutatio et eversio definitionis synodalis anni 815*, 33.199.17–20).

In a passage of his *Poemata* he chastises melancholics and phrenitics for their delirious opinions in particular: ‘For you are *phrenitic* (*phrenitiis*) and ill (*noseis*) in your unrestrained speech, or to put it more precisely, in your slander (*loidorian*)’ (21.254). The same parallel returns in the English Cistercian monk Aelred of Rievaulx (twelfth century CE), who elaborates on a classic account of dreaming:² ‘In sleep, when we are asleep in our body, the soul, being itself incapable of sleep, [finding itself] deprived of the sensorial stimulation through which it engages with bodies in real life, at this time is naturally taken to fantasies of bodies . . . as often happens to the phrenitic’ (*Homiliae de oneribus propheticis Isaiae* 2.6.32).³ Misunderstanding of God is also similar to mental obfuscation through *phrenitis*: ‘But the visions I saw, I saw not during dreams, nor in sleep, nor in *phrenesis* (*non eas in somnis, nec dormiens, nec in phrenesi*), . . . but . . . through the purity of my mind, . . . according to the will of God’ (thus the Benedictine scholar Hildegard of Bingen (eleventh–twelfth centuries CE), *Scivias. Protestificatio* 43); and so on.

The phrenitic and the drunk are coupled to exemplify flawed argumentation by William of Conches in his cosmological dialogue *Dragmaticon philosophiae* (eleventh–twelfth centuries CE) 2.6.7: ‘I am afraid that you will hear a philosopher who is always phrenitic before lunch and drunk afterward. For it is proper to the phrenitic and drunk that they appear to see everything moving through the commotion of their brain; hence he says that the earth was moving with all its buildings.’ The phrenitic has no judgement; his disease is the folly of trusting an enemy ‘who wants to cut our throat’ in the twelfth-century CE epic poem *Troilus* attributed to Albert of Stade.⁴ More subtly, William of Ockham (thirteenth–fourteenth centuries CE) distinguishes between individual and action. Phrenitics cannot have real agency: they are capable of action, but not of *virtuous* action ‘because it is obvious that every exterior act can be initiated by a phrenitic or a furious person, who cannot however commit any virtuous action in the present’.⁵ The philosopher also explores the pathological imagination of the phrenitic in relation to previous experiences in a more technical sense: ‘Fantasies sometimes result in an act of imagination and speech without any previous such

² Hippocratic and Aristotelian; see Thumiger (2017) 295–308.

³ See the 12th-century ps.-Augustinian text *De spiritu et anima* 24.797.69 for the same idea.

⁴ ‘Is it not overt that they share in the same *phrenesis*, in their desire to slit our throat?’ (*Illis uniri non est manifesta phrenesis, | Intendunt nostram qui jugulare gulam?*, 1011).

⁵ *Quodlibeta septem*, 1.20, p. 101.38.

act, just as is clear for phrenitics and those who rave' (*Quodlibeta Septem* 3.20, p. 282.31).

The flawed senses of the phrenitic remain a topos in medieval epistemology and technical philosophical discussions; this is clear from the frequent use of the concept by Thomas Aquinas (thirteenth century). In his commentary on Aristotle's *Metaphysics*, phrenitics are those whose 'organ of *phantasia* is damaged' and who thus fall into error.⁶ The comparison with sleepers returns a number of times (e.g. at *Quaestiones disputatae de malo* 3.9.79), and *dormientes et phrenitici* ('those who are asleep and phrenitics') become common philosophical exempla of flawed perception.⁷

The particular suitability of *phrenitis* for invective in philosophical and theological disputes, with their characteristic combination of intellectual and moral evaluation, ultimately carries over into the modern debates of theological Protestantism. Jean Calvin (sixteenth century) laments his opponents' 'calumnies or, rather, deliriums of phrenitics (*phreneticorum deliria*)'.⁸ Lawrence of Brindisi (sixteenth–seventeenth centuries CE) expands the moralizing metaphor to attack Luther and his followers: '*phrenitis* is typical of a mind that has no hope of health (*phrenesis mentis est prope desperatae salutis*); for it is touched by no care for just and honest virtue, none for the common good, but only for its own interest, someone who loves himself too much, who does everything only to please

⁶ In *Aristotelis libros Metaphysicorum* 4.14.693. At *In Aristotelis librum De memoria et reminiscencia* 2.314.22, Aquinas speaks in a similar sense of what follows a lesion in the imaginative organs (the front ventricles? See also *De Sensu et Sensato*, 2.2: 'hence through the lesion of the organ of imagination the individual is not only hindered from understanding occurrences [which come to him] anew, but also from reflecting on those which he had previously conceived of, as it appears clearly in the case of the phrenitic (*et inde est quod laeso organo imaginationis impeditur homo non solum ab intelligendo aliqua de novo, sed etiam considerando ea, quae prius intellexit, ut patet in phreneticis*)'.

⁷ See also Thomas Aquinas, *Quaestiones disputatae de potentia* 6.3.13.1; *Quaestiones disputatae de malo* 3.3.9.11 'but if the reason is impaired, the senses numbed . . . as happens in the visions of sleepers, and as in phrenitics (*ut in visis dormientium accidit, et ita in phreneticis*)'; *Quaestiones disputatae de malo quaestio* 3.4.83; for later traditions of the same idea, Jean Buridan (fifteenth century CE) '*sicut est de habentibus fantasiam lesam, ut in freneticis*', *Lectura Erfordiensis in Aristotelis Metaphysicam* 1–v1 7.135.38.18; the phrenitic is someone who has false perceptions, 'who sees a straw and thinks it is a snake, or hears a small sound and perceives it as an uproar' (*Quaestiones in Aristotelis De anima secundum textum uulgatum a Georgio Lokert* (2.27.650.73). This feature becomes the main marker of the phrenitic in Jean Gerson (fourteenth–fifteenth centuries CE): 'We have had experience of many cases of people who, although awake, speak like those who are dreaming, saying barely anything that makes sense; the doctors call this affection *phrenitis*, common people call it *phantasia* or revelry, in French *reverie* (*hanc passionem phrenesim medici, vulgus phantasiam vel reveriam, gallice reverie*)' (*Opera doctrinalia* 449.3.2.217.3, *De consolatione theologiae*).

⁸ *Christianae religionis institutio* 1.17.6.

himself.⁹ And elsewhere: ‘But, which is worse – although feverish like a phrenitic, he is convinced he is healthy when he is close to death (*sed, quod peius est, febricitans hic phreneticus est, sanus sibi esse videtur, cum morti proximus sit*).’¹⁰ Thus (Luther), like a phrenitic who raves against the doctor, rose against the Roman Pope (*sed tanquam freneticus in medicum insaniens insurrexit in Romanum Pontificem*) and attacked his judge with a thousand accusations, insults, calumnious charges.¹¹ Speaking against the Lutherans generally, Calvin in turn said: ‘The Lutherans . . . are vertiginous men, Cyclopes, a faction of arrogant giants, phrenitics (*frenetici*), prodigious beasts, blind, desperately shameless . . . stupid and pompous *and at the same time unaware*.’¹²

It is worth noticing, when we consider these early-modern (post-medieval) references, that we are now operating within a historical context in which *phrenitis* has become firmly established in medical studies and practice as a brain inflammation, deprived of spiritual appeal and considered through the impartial lens of a morally neutral medical assessment. The discourses of theology, however, preserved the early Patristic use, safeguarding the elements of continuity in the appeal of this ‘common disease’, as Gregory of Nyssa had referred to it almost 1200 years earlier.

The Phrenitic Enemy

Theological invective, in fact, brings philosophical and moral flaws together. On the topic of heresy, Rudolf of St. Trond (ninth–tenth centuries CE) spoke of ‘simony, | which is the disease of *phrenesis* | and so fertile a cradle, | that it is a source of all kinds of heresy’.¹³ The Belgian abbot Philip of Hareng (eleventh–twelfth centuries CE) in his *De silentio* made *phrenitis* a centrepiece of his critical vocabulary, one of the keywords in the text, evoked again and again to the point of redundancy: ‘Nor will I offer the hellebore necessary to purge such a *phrenesis* (*phrenesi necessarium purgationis helleborum non apponam*)’ (56.1053.25) and so forth. An even more extended example is the polemical booklet by Rather, bishop of Verona (ninth–tenth centuries CE),

⁹ *Hypotyposis ecclesiae et doctrinae Lutheranae* 1.2.8.2.

¹⁰ *Dominicalia (Sermones ad tempus post pentecosten pertinentes)* 8.4.

¹¹ *Hypotyposis Martini Lutheri* 5.13.4.

¹² *Hypotyposis ecclesiae et doctrinae Lutheranae* 1. prae. 10: *Calvinus itaque Admonitione Tertia ad Ioachimium Westphalum de Lutheranis ita pronunciat* (77).

¹³ *Carmina authentica et/vel dubia, Poema ‘Nicolai alter homo’*, 83.

entitled *Phrenesis cuiusdam Ratherii*, or *The Phrenesis of a Certain Rather*, the ironically self-deprecating title is aimed at his opponents Rodbert and Baldric, who had accused him, Rather, of all people, of being phrenitic. In the words of a commentator, ‘He ultimately hints that *phrenesis* is a literary madness, which all *literati* share in the eyes of lesser men who lack their higher wisdom.’¹⁴ Rather mentions *phrenesis* obsessively to support his invective in the text, always along the same lines: ‘O sick phrenesis! O phrenitic sickness, seated close to the judgement of the wise man! (*uesana Phrenesis! o phrenetica prudentis iuxta arbitrium uesania!*, 13.209.394)’ and so on and so forth. These idiomatic uses are so frequent and abundant as to approximate *phrenitis/phrenesis* to a general meaning ‘madness’, ‘illness’.

Phrenitis as Existential Malaise

With its general meaning as ‘acute, deadly illness’ in a corporeal sense, *phrenitis* is easily used as a symbol of a more universal existential malaise. Such a state of moral and psychological prostration is intended by Radboud of Utrecht (ninth–tenth centuries CE), bishop and biographer of the Anglo-Saxon missionary Saint Boniface, in the *Vita Bonifatii Moguntini (uita secunda)* when he writes in praise: ‘He restored to health those whom anger had turned phrenitic, hatred cephalargic, error scotomatic, impiety insane, arrogance epileptic, indolence lethargic, and all the passions of an erring mind, as much through the surgery of penitence as through the medicine of consolation’ (76.22). The nosological category and existential, emotional disturbance are here strictly connected. Radboud’s contemporary Odo of Cluny (ninth–tenth centuries CE), whose poem *Occupatio* speaks of the redemption of Christ, mentions *frenesis* in the same spirit as a false sovereign, a ‘*pseudobasilla*’, which subdues the world and turns men’s minds to chaos (5.297–99). The Byzantine scholar Joannes Tzetzes (twelfth century CE) even pictures himself as a metaphorical ‘phrenitic’, lost in a kind of nihilistic spleen: ‘Content with only bread and water and the most basic clothing, always deranged and mad from *phrenitis*, I repeat the words of Pindar and Solomon, “*vanitas vanitatis*” and “What is someone? What is no one? Human beings are the dream of a shadow”’ (*Epist.* 19.36.13).

¹⁴ Reid (1991) 244.

Phrenitic Violence and Dangerousness

The paradigm of dangerousness – towards themselves and others – that marks ‘folk’ *phrenitis* as an active, visible behavioural disturbance in the early centuries also persists. Peter Damian (eleventh century CE), *Epistulae* 44.28.5 paints the destiny of a person affected by *phrenitis* in dark and tragic colours: ‘When he falls into a state of *phrenesis* and a condition of bestial fury, he hurls himself with immense fierceness away from the grip of the hands trying to hold him back, away from the chains, in all directions, and where the vortex spins most rapidly, there he dies, submerged by the gaping mouth of the foaming waters.’ These ill men are like beasts in their violence: ‘As his wife, with many others, assisted him as he lay in bed, he began to wail deeply, to emit barks (*ululatus emittere*), and as the *frenitis* became evident, to snort with muddled noises (*garrire*)’ (*Epistulae* 72.355.4). Bernard of Clairvaux (twelfth century CE) elaborates on the ‘dystonic’ aspect (as we might call it, with some anachronism) of self-hatred in these pathological cases, another feature of the phrenitic’s lack of awareness: ‘The phrenitic hates his own flesh (*sic nimirum odit et phreneticus carnem suam*) when he tries to move his own hand against himself, since the judgement of reason is asleep’ (*Sermo de conversione ad clericos* 5.4).

In *Epistularium* 12.419, Guibert of Tournai (thirteenth century CE) suggests that one use a soothing manner with the violent phrenitic, while in *De morte* he describes such a patient as a threat to family and neighbours: ‘When the bile prevails, when the acute fever raves, do we not see the phrenitic become most ill? He grinds his teeth, wounds his own parents, strikes with his fists, attacks those who approach him with bites’ (131.274).¹⁵ The sword as symbolic prop returns, now for self-harm, in William of Auvergne (twelfth–thirteenth centuries CE), who describes the multifarious drive to death in such patients: ‘We see phrenitics throwing themselves on swords, and indeed looking for heights from which to hurl themselves, water to drown in, and fire to immolate themselves’ (*Sermones de communi sanctorum et de occasionibus* 46.162.80).¹⁶ The sword dilemma, in which the weapon in the madman’s hand is compared to the riches which corrupt our soul, is posed again at *Sermones de sanctis* 93.319.55: ‘If God takes away your

¹⁵ Rupert of Deutz (eleventh–twelfth centuries CE) also uses the image of the barking beast in the *Commentaria in euangelium sancti Iohannis* 13.719.291 when he describes ‘these strong phrenitics who, howling, tied up the doctor’.

¹⁶ *Videmus enim freneticos in gladios impingentes, et eos nec non precipicia et aquam ubi se inmergant et ignem ubi se ardeant querentes.*

riches and the like, he does so like a friend who takes a sword away from a phrenitic friend, so that he does not kill himself.¹⁷ Aggressiveness is physical and – via allegory – verbal: ‘like evil phrenitics who bite with their teeth – which means, with offensive, harsh words – when people come to cure them with punishments and similar measures’ (*Sermones de communi sanctorum et de occasionibus* 16.57.14). The Czech Protestant theologian Jan Hus (fourteenth–fifteenth centuries CE) elaborates even further on the ethical implications of the sword motif:

It is an action of greater compassion to take away the sword from a phrenitic who wants to kill himself, than to give a sword to a persecuted person to defend himself from someone who wants to kill him. Because it would be worse if a man were to die at his own hand in such a way, than if one were killed by another; the first case would be deserving of condemnation, the second deserved and right. (*Defensio articulorum Wyclif, lectio* 2.204.790)¹⁸

Animals

We have already encountered the dangerousness of the phrenitic represented as beastly behaviour, with biting and barking. Animality, a reduction to a feral state, belongs to the general imagery of irrationality and violence. William of Auvergne (twelfth–thirteenth centuries CE) is the first author in the sources preserved for us to refer to a real animal as ill with *phrenitis*: ‘An unrestrained horse (*equus effrenatus*), blinded by its own voracity, not only erupts into *phrenesis* through excessive fatness; an untamed horse runs away uncontrollable, meaning it does not obey the bit, and even turns its teeth against men’ (*Sermones de tempore* 263.462.53). In this image of the noblest animal, the horse, becoming ferociously deranged and ‘impatient to bite’, *effrenatus*, we can hypothesize an aural connection between *frenus* (‘restraint’, ‘bite’) and the *phrenitis* group of pathological terms – as is evident in another discussion of an *equus frenosus*, the pseudo-Augustinian *Liber quaestionum veteris et novi testamenti*

¹⁷ To the same effect, William of Auvergne, *Sermones de tempore* 85.318.27; and *Sermones de communi sanctorum et de occasionibus* 87.301.12, a parable in which the sinner is likened to a pauper who mishandles the money offered to him: ‘Likewise he came with money to liberate the captive, but the phrenitic poor (*frenetici pauperes*) broke the sack and squandered the money, nor did they want to be redeemed or liberated (*nec redimi seu liberari uoluerunt*).’

¹⁸ Suicide and self-harm are of course sensitive themes in Christian ethics. The first instance of this pattern in our survey, however, as mentioned above (p. 202, n. 65), is the gory self-harming of Cleomenes when he was allowed access to a weapon, as narrated at Herodotus 6.75.

(115.37). This text draws extensively on medical sources on *phrenitis* to sketch the hippiatric image: the animal suffers from a bodily imbalance involving fever, boiling blood, overheating and derangement, by which its body is impaired, *frenatur corpus*. We also read: ‘The soul should lead the body. If, on the other hand, the body releases the soul so that it may go where it likes, it sends it off to destruction, as a *frenosus* horse does an inept rider (with a Platonic image – *praecipitat eum sicut equus frenosus neclegentem sessorem*).’¹⁹

There is additional interest in the fact that our disease, unique among ancient forms of mental disorders, seems here to be able to affect animals as well, even if so far only figuratively.²⁰ Horses are most at issue, being the animal that was most prized and scrutinized in late-antique and especially Byzantine agronomic and veterinary writings, as the various *Hippiatrica* testify. In general, however, the point is that *phrenitis* has a physiological core which involves human beings and beasts alike. In the verses on *phrenitis* by the French reformer scholar Jean Gerson (fourteenth–fifteenth centuries CE), several parallels with animals explicitly return (*Opera poetica* 153.489):

When the affection disturbs the brain, the man becomes *fatuizans*,
finally it exacerbates, he suffers, and *phrenesis* emerges.

...

Not otherwise I saw them lead a horse,
in this way, pushed by the goad, a bull or a boar raves,
and the affection hits one’s judgement with the level of inebriation.
Not in a single way do the fumes of wine impact the person.
One is silent, one speaks, one is furious, one laughs piously,
one is awake, one sneezes; there is no rule.

The corporeal physicality of this disease seems to root it especially in biological, animal existence, something that finally becomes explicit in the modern development of a veterinary *phrenitis*.

Phrenitic Flaws of Character

In popular culture, *phrenitis* thus remains a metaphor for human flaws – individual as much as shared. It also maintains richly characterizing moral features which, although they connect only tangentially with the medical

¹⁹ Szantyr (1970) agrees with my medical interpretation of the passage.

²⁰ I will return to this point in Chapter 9, where I discuss the veterinary development of *phrenitis* in the modern age.

portrayals, concur with them in suggesting the survival of the disease in the collective consciousness.

Disease and Euphoria: Freneticus gaudet in insania

Augustine and other Church Fathers had reflected on the misplaced joy and grief of mental disorder. Thus John Chrysostom: 'If they do not realize, but rejoice, do not be surprised. For the manic and those who suffer from *phrenitis* also commit many injustices, and do pitiful things, for which others weep for them, but they themselves laugh and revel in what happens.'²¹ The theme returns in various Christian authors: 'The phrenitic rejoices greatly in his madness, laughs and cries over the one who is sane' (Sedulius Scottus, ninth century CE),²² while the derangement of these 'phrenitics' is a kind of ecstatic dance according to Philip of Harveng (twelfth century CE): 'Made prey to his internal *phrenesis* . . . he raves like a bacchant in the incurable oblivion of his damaged conscience.'²³ Such is the dross of humanity: 'In hay there is chaff, in metals there is slag, and in oil lees. And so also among us there are people who rejoice while they do evil and exult in the worst things, and like phrenitics, laugh in wickedness and about their wickedness.'²⁴

The image of grotesque joy can be more picturesquely elaborated, as in William of Auvergne's (twelfth–thirteenth centuries CE) paradoxically festive portrayal: 'There are phrenitics who, while they are on their way to the place of martyrdom and to the infernal gibbet and such, sing, laugh, and rejoice and so forth, just as *spingatores* (musicians), singers and the like do.'²⁵ Phrenitics are like professional entertainers, their merriness forced and unnatural: 'Who would say that he who laughs and raves in the joys of the phrenitic is blessed, just as these *coreatores* and *expingatores* are? For

²¹ *In epistulam ad Romanos* 60.418.40 MPG. The passage is elaborated in Georgius Monachus (ninth century CE), *Chronicon* 648.14 de Boor, where cheerfulness verges on the paroxysm in the case of self-harm; cf. William of Auvergne (twelfth–thirteenth centuries CE) *Sermones de tempore* 22.74.

²² *Collectaneum miscellaneum* 24.

²³ *De silentio* 97.1147.38. Cf. Ælred of Rievaulx (seventh–eighth centuries CE) *Sermones* 24.37: 'They all weep – except those who, like phrenitics, laugh (*Omnes gemunt, qui non more phreneticorum gaudent*'); Peter Damian (eleventh century CE) *Carmina* 4.2: 'Those who deserve to be wept for with rivers of tears instead raise their horns to the highest level of arrogance, and considering their own *phrenesis* a kind of strength, they laugh at the sane people who are crying for them (*Phrenesim robur putantes sanis rident flentibus*'); Beatus of Liébana (eighth–ninth centuries CE), *Commentarius in Apocalipsin* 3.3.83: 'But often the just man cries as he sees them, but they as phrenitics are cried over, and laugh.'

²⁴ Guibert de Gembloux, *Epistulae Guiberti* 37.117.

²⁵ *Sermones de communi sanctorum et de occasionibus* 8.27.44.

their laughter is that of the phrenitic.²⁶ It is the doctor's and the philosopher's task to recognize the gravity of the situation: 'The philosopher accordingly says: "The phrenitic sings and laughs, but the doctor cries and weeps" (*ridet et cantat freneticus, sed plorat et luget medicus*).²⁷

Strength in Wickedness: The 'male fortes phrenetici'

Just as they are deceived in thinking of themselves as happy, so too phrenitics foolishly trust in the great strength the disease gives them. Julian of Toledo (seventh century CE) preserves this concept: 'For phrenitics usually think of themselves as stronger in their vigour, when nature itself appears to have just reached its lowest point of damage. But they do these and other such things not moved by vital sense but by a mortal dissolution of a morbid kind (*non uitali sensu permoti, sed mortali dissolutione iam tabidi*).²⁸ The eleventh–twelfth century CE author Olbert of Gembloux calls this a *phrenetica uel energumena insania*, which belongs to the arrogance of human reason;²⁹ phrenitics are 'too strong for their own good (*male fortes phrenetici*)', killing their doctor, according to Rupert of Deutz, also eleventh–twelfth centuries CE.³⁰ The behavioural disturbance caused by *phrenitis* suits crowds, typified as it is as an expression of senseless and passive, yet violent strength, and humanity as a whole is metaphorically presented as a phrenitic mob acting with uncontrolled strength: 'Theatrical crowd, phrenitic crowd, where are you rushing to? (*Turba theatrica, turba phrenetica, quo properatis?*; Bernard of Cluny, twelfth century CE).³¹

Phrenitis, Vices and Emotions

Intense emotions are a trigger of affections as well as accompanying them; *lypē* was in fact an early keyword in narratives about phrenitic characters.³² John Peckham (thirteenth century CE), for instance, uses *phrenitis* to make sense of anger: 'As in sleep or in *phrenesis*: for such wicked enjoyment is close to *phrenitis*, as is clear from the anger that comes from that

²⁶ *Sermones de communi sanctorum et de occasionibus* 60.215.60.

²⁷ Thomas of Chobham (twelfth–thirteenth centuries CE), *Sermones* 23.289.

²⁸ *Historia Wambae regis* 6.92. ²⁹ *Inuentio, miracula et translatio Ueroni Lembecensis* 845.98.

³⁰ *De sancta trinitate et operibus eius* 27.1473.

³¹ *De contemptu mundi* 1.402. Cf., in the same spirit, *Reimbaldu Leodiensis* (eleventh century CE), *Libellus de schismate Anacletiano* 4.5; Petrus Lombardus (eleventh–twelfth centuries CE), *Collectanea in omnes Pauli apostoli Epistulas, Ad Corinthios* 14.23.

³² See above, pp. 59, 78, 200–01.

enjoyment.³³ So too William of Auvergne (twelfth–thirteenth centuries CE): ‘Likewise anger is an acute fever, from which a spiritual *phrenesis* derives’,³⁴ and Guibert of Tournai (thirteenth century CE): ‘Halt, *phrenesis* of anger (*cessa, ire phrenesis*)! Because the fervour of anger spares no one, heals no one.’³⁵ The physicality of anger is especially evident in Lawrence of Brindisi (sixteenth–seventeenth century CE), who describes health in a traditional manner as a matter of harmony between components, with *phrenitis* offering a fitting humoral metaphor: ‘The spirit affected by anger is a rabid dog, a fiery snake, a man suffering from *phrenitis* (*homo phrenesi laborans*).’³⁶

Emotional vices and despicable behaviour supported by emotions are also parallels to *phrenesis*: William of Auvergne turns to ‘avarice and arrogance and so forth, which are almost a continuous state of sleep, like *phrenesis* and the like’,³⁷ while Antonius Bonfini (fifteenth century CE) uses *phrenitis* to qualify the folly of adulterous behaviour: ‘What illness, what *phrenesis* could be greater?’³⁸

Specific temptations or strong drives may be in question. Sexual attraction and human lust, under the influence of a disproportionate sexual impulse, are compared to the lack of discernment in phrenitics: ‘From excessive sexual intercourse a man becomes blind and sometimes frenetic because of the voiding of his brain (*ex nimia eius frequentia homo efficitur cecus et quandoque freneticus ex vacuacione cerebri*)’,³⁹ while in a piece of fantastic anthropology we read of a strange people who practise cannibalism, gluttony, licentiousness and every sort of absurdity. They ‘suffer this without realizing, because of themselves and because of daemons living inside them, like those who suffer from *phrenitis*’.⁴⁰

Phrenitis in Narratives of Power, Control and Authority

Attacking the Doctor

This non-technical life of *phrenitis* tells us a great deal explicitly about institutional roles and power relationships. The ancient topos of the antagonism to medical figures and their advice was honed in Christian

³³ *Quaestiones de beatitudine animae et corporis* 8.20. ³⁴ *Sermones de tempore* 305.624.19.

³⁵ *De septem uerbis Domini in cruce prologus* 215.70. ³⁶ *Quadragesima* 4.2.4.

³⁷ *Sermones de communi sanctorum et de occasionibus* 80.276.18.

³⁸ *Symposion de uirginitate et pudicitia coniugali* 1.479.43.27.

³⁹ Arnoldus Gheyloven (fifteenth century CE), *Gnotosolitos paruus* 4.5.241.184. Compare Jean Gerson, *Opera poetica* 138.192, ‘The poison of carnal love causes this *phrenesis* as well (*Causat et hanc phrenesim carnalis virus amoris*).’

⁴⁰ Nicephorus Gregoras (fourteenth century CE), *Historia Romana* 3.397.

literature into its own allegory, which persisted throughout the centuries. The same images return in medieval theology, where the popular portrayal of the violent madman armed with a sword, a whip or the like continues to be emphasized as an attack on the doctor or caregiver. Thus John of Damascus (seventh–eighth centuries CE): ‘He came to those who hated, pursued those who were fleeing, did not readily blame the harsh, did not turn around the whip, but like the best of doctors, although insulted (*hybrizomenos*) by a phrenitic, even if spat upon, struck with blows, he brought healing.’⁴¹ Michael Psellus (eleventh century CE) elaborates on the pathological body: ‘like a *phrenitis* patient who blames or even whips the doctor, as [the doctor] handles his wounds, and presses on the swollen part with his fingers, and drives away the illness’.⁴² The divine help is refused: ‘And so, oh diseased, oh wounded, may the great doctor, the Samaritan doctor (*medicus magnus, medicus samaritanus*), kindly and patiently forgive you as you exasperate him, as if through *phrenesis*, and push away his hand (*quasi per impatientissimam frenesim exasperas eum et manus eius repellis*), while throwing against him the ignorance of your words.’⁴³ More pictorially vivid still, the phrenitic breaks vials and wastes fragrant ointments: ‘[Jesus] found the men to whom he had been sent, which is the Jews, to be phrenitics, and they broke the alabaster vial of the ointment that was to heal them, by whose scent people are saved (*alabastrum unguenti sue sanationis frugerunt ex cuius odore gentes sanati sunt*).’⁴⁴ And ‘when he saw the phrenitics raving against the doctor with their teeth and nails, he imposed the salvific poultice of his words (*salutiferum cathaplasma uerborum*) on their heads and hearts (*capitibus eorum et cordibus*).’⁴⁵ Phrenitics behave like feral beasts to the doctor,⁴⁶ while the world itself, the *mundus*, acts like a mad patient: ‘He came like a doctor, and was torn to pieces

⁴¹ *Homilia in ficum arefactam* 96.577.20.

⁴² *Theologica Opusculum* 59.79. See also Rupert of Deutz (eleventh–twelfth centuries CE), *Commentaria in duodecim prophetas minores* 3.104.16: the doctor is beaten as he offers medicine.

⁴³ Twelfth-century anonymous *Contra litteras cuiusdam presbyterorum coniugatorum causam defendentis* 249.14.

⁴⁴ William of Auvergne (twelfth–thirteenth centuries CE), *Sermones de communi sanctorum et de occasionibus* 87.301.5; cf. *Sermones de tempore* 47.184.26.

⁴⁵ *Sermones de sanctis* 2.12.26; note the meaningful, if passing reference to the two localizations of *phrenitis* as an object of medical attention.

⁴⁶ William of Auvergne (twelfth–thirteenth centuries CE), *Epistularium* 54.75: ‘Not only do they not allow any help to be brought to them, but even attacking their healer with insults, they repel [the doctor] like kicking, feral beasts?’

by this world as if by a phrenitic (*ipse enim ueniens sicut medicus a mundo uelut frenetico dilaceratus est*).⁴⁷

The hand is a centre of dramatic attention. The act of biting the helping hand is a particularly iconic representation of the phrenitic confronting the doctor: ‘in the manner of a phrenitic, not only rejecting but even trying to bite the hand of the doctor (*ac, more phrenetici, non solum repellens, sed et mordere tentans medici manu*)’.⁴⁸ There is also the *topos* of the sinful hand: ‘He will see how diseased is that hand of his . . . while until now it seemed to him to be healthy and strong, just as if his hand, made insane through the violence of disease, like a phrenitic one, *should begin to beat the true doctor*.’⁴⁹ The zenith of pathetic (and baroque) elaboration on this theme is the ungrateful violence against another body part, the nourishing breast: ‘For bad children bite the breast – namely the preacher – killing their nurse, who is like a drinking cup for them, like phrenitics who maul the hand of the doctor, or like a rabid dog which devours the hand of someone offering it bread.’⁵⁰ Perhaps Jean Gerson’s (fourteenth–fifteenth centuries CE) combined allegory surpasses them all: ‘Which doctor will cure those who turn the health-giving antidote into a poison for themselves, who use the surgical knife as a death-bringing sword for cutting their own throat, who then rise up, like phrenitics, against the doctor and push him away with fists, kicks, sticks and pieces of wood?’⁵¹

Figures of Care and Authority

The doctor is identified, of course, with God or with spiritual guidance generally; in this figure, benignity and coercion are combined. Rather of Verona (ninth–tenth centuries CE) can thus rhetorically ask: ‘Who sends away a beloved child who is oppressed by *phrenesis*, without tying him up or even locking him up?’⁵² A recurring feature of this aggressive paternalism is the logical schism between ‘loving the patient’ and ‘hating’ the disease, the sin not the sinner, etc. Thus Philip of Harveng: ‘Feeling compassion and embracing the phrenitic, he only failed to love the *phrenitis* (in him)

⁴⁷ *Sermones de tempore* 13.40.3.

⁴⁸ Bernard of Clairvaux (eleventh–twelfth centuries CE), *Sermones in die paschae* 2.9.

⁴⁹ Rupert of Deutz (eleventh–twelfth centuries CE), *In Deuteronomium* 1091.1108.

⁵⁰ William of Auvergne, *Sermones de tempore* 257.442.17. The same image is used by Stephen of Bourbon (twelfth–thirteenth centuries CE) in his *De diuersis materiis praedicabilibus* 3.5.6; see also Philagathus (twelfth century CE), *Homiliae* 34.3.2; Bernard of Clairvaux, *Sermones super Cantica Canticorum* 42.34.24, 5.1.107.64.

⁵¹ *Corpus epistularum: Epistulae ad Iohanem Gerson datae* 30a.130.8.

⁵² *Praeloquia* 4.9.112.236. On Rather and his literary production, see Oldoni (1991).

(*miserans et amplectens phreneticum solam illius phrenesim non dilexit*).⁵³ Brotherhood is also invoked as an image of condescension: ‘Since we recognize that those who inflict wounds on us are labouring under *phrenesis*, we shall defeat the diseases of the furious and their bites by means of the virtue of patience, and we should strive to remain silent, insensible, facing our brother (*insensibiles fratri quasi mortui taceamus*).’⁵⁴

Jesus can also be doctor and medicine, however, in a quite concrete sense, as in the Christological elaboration preserved by Henry of Lancaster in his allegorical *Livre de Seyntz Medicines*.⁵⁵ In a digression, Henry prescribes a cure for a phrenitic – which is Christ himself: a freshly killed cockerel should be placed on the head, offering maximum contact with the skull covering the diseased brain. The bird is equated with the bloodied Christ, whose blood is a sign of human ingratitude but also balm, medicine and so forth:

Now if I am to be cured of this delirium, I shall have to take this cockerel, thus prepared, and place it on my weak head, to lift my spirits and to put me in my right mind . . . And the red cockerel is you, most sweet Jesus, who are, as I have said beforehand, physician and remedy, so that I beg you, dear sweet Master, that I might firmly think upon the red cockerel and through its power recover my wits in such a way that I think of nothing unless it be in you or of you or for you.

Pity, Condescension, Restraint

Paternalism and condescension are important iatrogenic emotions and attitudes in care relationships, which are revealing of the nature of medical interactions. John of Damascus (eighth century CE) develops the idea of the phrenitic’s inferiority to and dependence on the doctor, despite his apparent resistance to medical care, which should be disregarded: ‘When a small child insults you, you deem the insults worthy of laughter; and whenever a person out of himself with *phrenitis* says dishonourable words, you regard him as worthy more of pity than of hate.’⁵⁶ So too Sedulius Scottus (ninth century CE): ‘The doctor is annoying to the raving phrenitic, and the father to the disobedient son; one by trying to tie him up, the other by trying to kill him (*molestus est medicus furenti frenetico, et pater indisciplinato filio; ille ligando, iste caedendo*).’⁵⁷ Force and restraints are the

⁵³ *De silentio* 64.1077.4. ⁵⁴ Guibert de Gembloux, *De morte sermo quintus* 131.279.

⁵⁵ See Yoshikawa (2009) 71–82.

⁵⁶ *Sacra parallela*, 96.93.29 MPG; cf. also Roger Bacon (thirteenth century CE) in *Opus maius* I.II.6.5, who asks: ‘Which doctor, in fact, would anger himself against a phrenitic? (*Quis enim frenetico medicus irascitur?*)’.

⁵⁷ *Collectaneum miscellaneum* 40.4.

other face of this medal: Michael Psellus emphasizes the involuntary nature of the necessary cure, proposing an authoritarian approach to these patients and the spiritually ill in general: 'Then it was right (*dikaion ēn*), as with phrenitics, to cure these too this way *against their will* (*akontas*).'⁵⁸

Children, fathers and mothers are central actors here: 'But like a most indulgent father towards his most beloved son who is labouring under *phrenitis*, so is he (God) towards his enemies.'⁵⁹ William of Auvergne, by contrast, shifts the point of comparison to motherly love, a social emotion rarely dignified by higher virtues in ethical discourses: God is 'just like a pious mother with her phrenitic son, who ties him up so that he might not rage against her or others with his illness.'⁶⁰ All in all, the Christian God is of course the highest model of resilience with sinners. Thus, Lawrence of Brindisi (sixteenth–seventeenth centuries CE): 'However Christ does not grow angry with him, like God against Moses and Aaron, but feels the utmost compassion, like a pious father or a most pious mother, who sees her most beloved child taken by *phrenesis* and insane.'⁶¹

Among Protestant Christian writers, John Wycliff (fourteenth century CE) seems to question the rightfulness of this involuntary treatment of another, even if this is a slave or a phrenitic: 'A phrenitic must agree to be bound so as not to cause damage to himself; and so too any servant must agree (*freneticus debet velle obligari ne inferat sibi damnum; sic debet quilibet servus velle*).'⁶² In the same text, Wycliff discusses an anecdote in which 'Petrus' is phrenitic and poses a danger, and 'Paulus' intervenes to stop him, again constructing a sword scenario: 'Given that Petrus is phrenitic and has a sword, and wants to manically attack another; and that Paulus is however nearby, seeing that there is no other better way to stop him, would it not be according to the rules of charity that he should take the sword away from Petrus against his will?'⁶³

⁵⁸ See also, commenting on Augustine, Alexander of Hales (twelfth–thirteenth centuries CE), *Summa theologica* 3.680.1.30 and 3.681.2.8, on coercing phrenitics and lethargics into a 'loving care', and elsewhere on the phrenitic rushing towards a precipice (Alexander de Hales et alii, *Glossa in quatuor libros Sententiarum: glossa in librum secundum* 44.5.420.9).

⁵⁹ Ælred of Rievaulx (twelfth century CE), *De speculo caritatis* 3.4.233.

⁶⁰ *Sermones de tempore* 34.139.27, and again at 184.196.68: 'The saints weep for these joys of the world, for the foolishness of the phrenitic, as a mother does for her insane son kept in chains (*sicut mater de insano filio et ligato*).'

⁶¹ *Sanctorale* 9.609.10. ⁶² *Tractatus de civili dominio* (1.32.1.231.16)

⁶³ 3.14.3.260.6; cf. also *Tractatus de mandatis diuinis* 1.23.328.12 on the same theme: to love the ill or blind is to forbid them to consume harmful food, or to make sure they do not fall from a precipice, and so on.

The theme of love for phrenitics expressed through acts of coercion even develops into a case study for the philosophical discussion of free will, as reflected upon by Alexander of Hales (twelfth–thirteenth centuries CE),⁶⁴ and later by the Dutch Catholic theologian Cornelius Jansen (sixteenth century CE), who also finds the phrenitic a pertinent case study for ethical discussions of judgement and free will.⁶⁵ Several of these themes were already in place in early Christian morality and hagiographic preaching; the image of the phrenitic persists as an antonomastic subject of these suggestions and narratives, adapting its profile to changing morals and philosophies, and retaining an exemplary character sometimes approaching a caricature.

Individual and Prominent Patients

After Alexander the Great, as we have seen,⁶⁶ individual cases of *phrenitis* continue to be recorded by historians. Procopius (sixth century CE) recounted the story of one of the men of Justinian's general Belisarius, Koutilas, who was wounded in the head during the Gothic wars. 'The surgeon who was caring for him removed the weapon from his head, perhaps unwisely; when this happened, Koutilas fainted. When his membranes began to be inflamed, he was struck by *phrenitis* and died soon afterward.'⁶⁷ A wound is here the mechanical cause of inflammation of the membranes and *phrenitis*, a rare account of our disease fitting a military context.

In general, when more high-ranking individuals become phrenitic, greater emphasis is laid on grief and distress than on mechanical or material causes. This is also the case with the Eastern Roman emperor Justin I (518–27 CE); several testimonies are preserved regarding him. Evagrius Scholasticus refers to the emperor's illness as due to a difficult turn of existential circumstances: 'Once Justin heard the news, being incapable of

⁶⁴ *Glossa in quattuor libros Sententiarum: glossa in librum secundum* 41.6.395.22: 'Will follows the judgement of reason; but this is not there in the phrenitic at the time; therefore, there is no will; therefore, his sin is involuntary (*Voluntas sequitur iudicium rationis; sed tale non est in frenetico secundum tempus: ergo nec voluntas; ergo suum peccatum non est voluntarium*)'; cf. 41.9.397.13. The phrenitic is almost by definition recalcitrant to authority: Bernard of Siena (fourteenth–fifteenth centuries CE), *Sermones de diuresis* 8.7.451.12 typifies the phrenitic, somehow politically, as the individual for whom it is natural to resist control: 'The person with scabies hates the razor, the thief light, the child his teacher, *the phrenitic any constriction*, the adulterous woman her husband, and the obstinate sinner the light of correction (*Scabiosus rasorem odit, fur lucem, puer magistrum, freneticus ligamentum, adultera maritum et obstinatus peccator lucem correctionis*).'

⁶⁵ *Augustinus* (tomus primus) 8.9.480A.53. ⁶⁶ Pp. 303–04. ⁶⁷ *Wars* (6.2.25).

healthy or sound thought because of this typhus and cancer, and unable to humanly bear this combination of events, he fell into a state of *phrenitis* and *mania*, understanding nothing of what happened afterward.⁶⁸ The Byzantine scholar and theologian Joannes Zonaras (twelfth century CE) also recalls Justin's death after he fell out of grace and became ill, explaining: 'Because of this pain, for these reasons, he fell prey to the disease *phrenitis* and suffered pain even in his feet.'⁶⁹

A noblewoman mentioned by Geoffroy of Auxerre (twelfth century CE) in his *Vita prima sancti Bernardi Claraevallis abbatis* 4.33 is also said to have fallen ill with *phrenitis* after a personal loss: 'Having incurred a *phrenitis* because of her pain at the death of her husband (*cum post obitum uiri sui prae dolore phrenesim incurrisset*), and having remained in this state for a long time, she was being held in chains and was taken to the same holy father in the above-mentioned town'; his blessing healed her. The Byzantine historian Ducas (fifteenth century CE) also mentions *lypē*, 'grief', as a cause of *phrenitis*-like disturbance to describe the humiliating disappointment and subsequent illness of the statesman Leontarios: 'Having heard these things and having failed to catch his prey, like a lion with his head held low and dragging his tail in the dust, keeping it slack, through pain just as if he had become prey to *phrenitis*, keeping his head down, he stood there until the attack had finished.'⁷⁰

In these examples, an excessive emotional reaction is often the cause or trigger for *phrenitis*. As in the case of Justin, so too in several others as well the exceptional character or prominence of the patient may play a role. Galen is the illustrious precedent of a 'great man' falling prey to a disease which affects the mind but remains firmly embodied and is thus more dignified, one might say, than possession by *mania* or *melancholia*. There are other cases of the death of a notable person where an existential *phrenitis* is involved. I argued above that Plutarch's account of the death of Marius, in which existential crisis and wine were involved, might be such a case. In his biography of Saint Poppo (ninth–tenth centuries CE), Onulphus of Hautmont (tenth–eleventh centuries CE) describes the saint's death from *phrenitis*, mentioning a state of growing despair (*languor in dies crescente*).⁷¹ A comparable anecdote is found in John Zonaras (twelfth century CE), where it is again attributed to the final episode in the life of Alexander the Great: 'Having washed himself, and having travelled towards Media with the intention of taking some rest, and having spent

⁶⁸ *Historia ecclesiastica* 207.6–11 (sixth–seventh centuries CE). ⁶⁹ *Epitome historiarum* 13–18.

⁷⁰ *Historia Turcobyzantina* 24.12.11. ⁷¹ *Vita Popponis Stabulensis* 296.25.

the night there in a village, and the following day as well, he began to run a fever. Becoming severely feverish and thirsty, he drank some wine and died from *phrenitis*⁷²; several of the sources for Alexander's death mention fever and wine drinking, elements which match other accounts of leaders' deaths.⁷³ Nicophorus Gregoras (thirteenth–fourteenth centuries CE) reports similar circumstances in the death of a Byzantine emperor, dwelling specifically on his *phrenitis*:

As the king was proceeding against it at dawn and stopped around Nikaia, a terrible disease struck: I do not know if it should be defined as *phrenitis* or as epilepsy. It precipitated his *hēgemonikon* into a sense of oppression and narcosis, such as people whose brain is not in good health suffer when lightning strikes, when the environment is wetter and colder, and the brain brings about a flash before their eyes, and they find it impossible to bear these feelings and changes.⁷⁴

Exceptionality in a negative sense marks the phrenitic death narrated by William of Tyre (twelfth century CE), a homicide committed by a depraved individual, Robert. In his case *phrenitis*, envy and hatred work together to produce the crime: 'The above-mentioned Robert, the author of so many crimes, was sick with an extended illness; and once his convalescence had begun, taken by a violent *frenesis*, he descended unawares into such impious evil.'⁷⁵ Even Erasmus of Rotterdam, finally, complains of having been falsely reported to have died phrenitic, a prank he recalls in a letter discussing his intellectual conflicts with some opponents: 'The rumour was spread that I was so offended by that book of the Strassburger that I became phrenitic and died of it; nor do I doubt that this story was spread deliberately.' The medical importance and learned tradition behind this disease, and perhaps its antiquity pure and simple, lent it a patina of solemnity which made it, among other things, a good narrative expedient to qualify the ends of kings and criminals, one of the places where medical and scientific prominence intersected with popular culture and historical projections, the former maintaining intelligibility by a wider public in this way, the latter acquiring lustre and credibility.

Folk Portrayals of Phrenitic Character

Intelligibility is confirmed by other anecdotes, not aimed at edification, where phrenitic patients are evoked. Consider this bit of information preserved in the *Gesta Romanorum*, a collection of tales and anecdotes of

⁷² *Epitome historiarum* 1.303.15.

⁷³ See above, pp. 193–95.

⁷⁴ *Hist. Romana* 1.49.23.

⁷⁵ *Chronicon* 20.25.

mixed provenience dated to the thirteenth century CE. This story is allegedly exchanged between two famous characters from the Gospels:

We read in a book about the colloquium of Peter with Jesus: 'I once saw five men, whom I thought were phrenitic (*quos quidem freneticos arbitrabar*). I saw one eating the sand of the seashore so avidly that it came out of both his ears. I saw another standing in a sulphureous pit full of pitch, from which an unbearable stench exhaled, who for all his efforts could not satisfy his mouth with this smell. Third, I saw one lying down in a burning furnace, who could not get enough of the ardent heat, from which he was trying to catch the sparks to devour them. I saw a fourth, who was sitting on the pinnacle of the temple in order to catch the wind, and he always kept his mouth open, so that the wind could pass through it. I saw the fifth, who was taking anything he could get with each and every limb into his mouth and gobbling it up, and was continuously laughing at the other four. Many people saw these five men and were amazed at how they could behave in these ways.'⁷⁶

Phrenitis seems to have become a colourful container for a variety of behavioural oddities, where megalomaniac enterprises, self-harm, nonsensical behaviour and, overarching everything, laughter and amazement at the spectacle are the common frame.⁷⁷ Other anecdotes have *phrenitis* as curse or punishment.⁷⁸ On the whole, these medieval popular tales show *phrenitis* infiltrating the consciousness of lower strata of the population. Not only non-professionals with some knowledge of medicine, or upper-class intellectuals, or clerics and churchgoers, but even the audience of folk tales – these groups would of course often intersect – would immediately understand the reference, at least on a general level.

A final popular theme emerging within this material is again prophecy. The thirteenth-century CE author John Peckam recognizes that 'the souls of phrenitics, when they are close to departure, sometimes see what others cannot (*animae etiam freneticorum, cum sint prope separationem, vident aliquando quae alii videre non possent*)',⁷⁹ and even Thomas Aquinas

⁷⁶ 164.547.15.

⁷⁷ A popular reference to *phrenitis* is even found in the comic medieval poem (eleventh century CE) *De Unibove* or 'About One-ox'. The peasant Unibos is a trickster figure; the tale celebrates his adventures as he finds a treasure and overcomes his antagonists, who perish in the end from an attack of 'deadly *phrenitis* (*sub capitali frenesi*)', throwing themselves off a cliff – a leitmotif of phrenitic self-harm we have already noted (*Versus de Unibove* 21548).

⁷⁸ For example, Iacobus de Voragine, *Legenda aurea* 1472.464.36, where the *phrenitis* of those responsible cannot be healed until St Stephan and St Lawrence are buried together; cf. Juan Gil de Zamora (thirteenth–fourteenth centuries CE), *Legendae sanctorum et festiuitatum aliarum de quibus ecclesia sollemnizat* 705.105.

⁷⁹ *Quaestiones de anima* 2.72.348.13.

(*Summa contra Gentiles* 3.154) mentions the belief, partly rationalizing it: there are evil spirits (*maligni spiritus*) which can operate in human beings through various wonders, and prophecy is one of them. These daemons cannot really foresee the future, but one of their skills is that they can grasp premonitory signs of things better than people can. Through their characteristic sensitivity, phrenitics easily become a vehicle for this daemonic talent:

Now [the evil spirits] sometimes predict, indeed, by impressing the imagination, either during sleep, as when they show the signs of certain future events through dreams, or while one is awake, as is apparent in the case of people in a trance or in phrenitics, who foretell events to come (*sicut in arreptitiis et phreneticis patet, qui aliqua futura praenuntiant*).

Astrology

Astrological beliefs are maintained in evident continuity with the previous tradition. The Egyptian astrologer Rhetorius (sixth–seventh centuries CE) draws a strong connection between *phrenitis* and the sun, resorting more to technical mathematical calculation than to the iconography of constellations: ‘The sun in the eighth degree causes an earlier death of a father, and also makes some *phrenitic*.’⁸⁰ The schematizations of the astrologers are sometimes also telling in regard to surviving concepts of the disease: in his *De zodiaco*, the Byzantine Joannes Camaterus (ninth century CE) sees *phrenitis* straightforwardly as a ‘pathos of the *phrenes*’, connects it with ugly behaviour and the action of daemons, and associates it with the early moon:

If mistress moon should come early,
while one is writing the horoscope at that time,
it predicts false words and thefts
and an infelicitous flight and a black-skinned goddess.
You could say it is daemons, or a bad fear;
it indicates magic, nonsensical words,
and the disease phrenitis or a pathos of the *phrenes*.⁸¹

The astrological tradition refers to *phrenitis* also in the later Arabic Abou Ma’shar al-Balkhî (Apomasar, eighth–ninth centuries CE).⁸² In a discussion of Cronos and its influences, we read: ‘If [this star] is spoiled [at the time of setting], it causes *phrenitis* and longer-lasting diseases’. Elsewhere, ‘if

⁸⁰ *Capitula selecta* 163.2 (p. 186).

⁸¹ *De Zodiaco*, 875–81. I thank Glen M. Cooper for his help with astrological matters.

⁸² *Albumasaris de revolutionibus nativitatium* (58.23 Pingree).

Aphrodite acts in conjunction with Ares, they indicate a terrible and acute disease such as *phrenitis* and the like' (156 l. 12). Hildegard of Bingen (eleventh–twelfth centuries CE) traces a parallel between lunar phases and the health of the brain, whereby the sun and the moon exert a direct influence on human health: 'When the moon is waxing, the human brain and the blood are subject to increase in the same period . . . The individual falls into *phrenesis*, to such an extent that it appears more indomitable than beasts.'⁸³

Legal and Canonical Aspects

The phrenitic had been already identified with the quintessentially incapacitated in earlier juridical texts. Turning to family law, Peter Damian (eleventh century CE)⁸⁴ asks whether someone who becomes phrenitic should maintain custody of another person:

For if a powerful king wants to grant custody of his young child to one of his princes, and afterwards, having fallen into a fury, this person salivates and exudes abundant mucus from his nostrils, and wants either to throw himself into a fire as a result of phrenitic temerity (*frenetica temeritate*) or to roll himself like a pig in a slough soiled with filthy mud, should [the king] not straightaway decline, and custody be revoked?

Thomas Aquinas⁸⁵ returns to the topic of repentance with reference to canonical rulings, discussing the extreme unction for phrenitics: 'Hence we read in the *Con. Carth.* iv . . . that if a sick person who looks to repent is afraid because he is oppressed by the disease or has turned phrenitic (*vel in phrenesim conversus fuerit*) as the priest is invited to go to him, those who had heard him should give testimony.'⁸⁶

Problems of moral and spiritual accountability are posed by sleep and *phrenesis* in another discussion of canon law, where Thomas Aquinas proposes that a defect in one's state of health might compromise the effect of baptism.⁸⁷ 'When baptized, the person receives at the same time as charity also prudence and all the other virtues.' But interference might occur there: 'with the exception, perhaps, of some baptized people, like children, or people of wicked disposition, like idiots or phrenitics (*sicut . . .*

⁸³ In her *Liber diuinorum operum*, pars I, visio 2, cap. 32 (commentarii). ⁸⁴ *Epistulae* 108.198.6.

⁸⁵ *Summae theologiae tertia pars* 80.9.14.

⁸⁶ In the *Decretum magistri Gratiani* 2.26.6.8 the same situation appears, in which the phrenitic appears to typify incapacitation.

⁸⁷ In *Quaestiones disputatae de uirtutibus de uirtutibus cardinalibus quaestio unica* 2.3.1.

morionibus et phreneticis).⁸⁸ By virtue of suffering from a bodily disease, conversely, the *phrenitic* is regarded as functioning under extenuating circumstances. For Alain of Lille (twelfth–thirteenth centuries CE), our disease might mitigate the guilt for a sin, although not excuse it completely, as in the case of homicide: ‘It alleviates capital sin, but does not excuse it (*peccatum plenarie non excusat set alleviat*).’⁸⁹

Associated with this is the opportunity to interfere with the phrenitic’s free will, which has legal consequences, aside from posing philosophical questions. In the twelfth-century CE summary of canon legislation *Decretum magistri Gratiani*, several references are made to *phrenitis* and incapacitation, including the well-known anecdote: ‘If someone meets an enemy who has turned phrenitic due to dangerous fevers (*periculosis febribus freneticum factum*) running towards a precipice, should he not exchange evil for evil and let him go, rather than tie him up as someone deserving to be corrected and looked after?’ (2.23.4.37).⁹⁰ The anecdote in Humbert of Romans (twelfth–thirteenth centuries CE) about a man who, lest he fall prey to *frenesis*, completes his will in advance, gives money to charity and organizes all his business, ought to be understood in a similar spirit.⁹¹

The information about the ‘insanity defence’ available to defendants in medieval criminal cases, finally, such as those from thirteenth- and fourteenth-century England analysed by Butler, confirms the trend.⁹² A certain Anabella, wife of William Carter of Bulcote, for example, killed her own child but ‘was in a frenzy and feverish’ and generally out of her mind.⁹³

The Phrenitic Falstaff

We should conclude with another element, medical and popular, which had begun to emerge in late-antique medicine and progressively shaped some lay receptions of the disease: indulgent consumption, especially of wine and, connected with this, drunkenness, gluttony and debauchery generally. Wine is discussed as an element of dietetics and therapy by the Hippocratics, of course,⁹⁴ and various physicians in the subsequent

⁸⁸ *Summae theologiae prima secundae* 77.7.3.2. ⁸⁹ *Summa* ‘*Quoniam homines*’ 2.3.170.

⁹⁰ See Zuccotti (1992).

⁹¹ *Exemplum de infirmo qui timet de frenesi et ideo ante condit testamentum, facit elemosinas et ordinat omnia* (*Tractatus de dono timoris, Tractatus de habundantia exemplorum ad omnem materiam* 4.64.567).

⁹² Butler (2010); see also Pfau (2021) and Turner and Vandeventer (2010) on similar questions.

⁹³ National Archives, Kew, Surrey England, preserving medieval legal cases, quoted by Butler (2007) 73, 78 n. 11.

⁹⁴ See Gourevitch and Demigneaux (2013); Thumiger (2017) 220–28.

tradition mention it as a powerful and potentially dangerous remedy, especially when mental disorder is involved. Galen seems to consider wine a possible trigger for *phrenitis*, as we have seen, and the debate about its suitability as a cure for the disease was divided between a few who would prescribe it in some cases, and those who find it too risky for oversensitive patients. For Galen, wine is like the doctor, powerful but as good as the precision of its use, while Caelius Aurelianus explicitly takes it as a differential factor for distinguishing the real phrenitic from the intoxicated individual.⁹⁵

In the survey of non-technical texts discussed in this chapter and in Chapter 6, wine abuse occurred in the cases of several prominent patients, a number of whom died in *phrenesis* while combating drunken grief – a concession to their high-class status, that through self-inflicted intoxication they remain more responsible for their own phrenitic state of health, as opposed to being entirely passive victims? Wine and drunkenness are a correlative and quite overt instance of the excesses and extremes generally displayed by the phrenitic, in whose portrayal drunkenness, *ebrietas*, is often included.⁹⁶

Thus Rupert of Deutz: ‘You drank powerfully, you mixed your drunkenness strongly, you forceful men, phrenitics (*Potenter bibistis, fortiter ebrietatem miscuistis, uiri fortes, uiri phrenetici*).’⁹⁷ Michael Psellus (eleventh century CE), by contrast, describes phrenitics as people who do *not* drink wine (perhaps because of their susceptibility to it): ‘For if someone who drinks only water . . . (this is the same as saying someone with dropsy or *phrenitis*)’,⁹⁸ while Peter Damian posits a group of ‘utterly miserable inebriated people, who boil like phrenitics, lose memory from their mind, think nothing good’ (*ebriosi miserrimi | infremunt ut phrenetici | mentis perdunt memoriam, | nihil boni excogitant*).⁹⁹ The traditional topos is not left unused by reformers like Jean Gerson (fourteenth–fifteenth centuries CE) with his colloquial reference to inebriation or *phrenitis* as he mounts a critique of the state of the Church: ‘just like a phrenitic or someone seduced by the worst inebriation of evil passions (*tamquam freneticus vel ut pessima malarum passionum ebrietate seductus*)’,¹⁰⁰ while in Jean Calvin (fifteenth century CE) the respite given by the anxious thoughts of one’s conscience are like sleep for the phrenitic or the drunk, who are comatose and troubled at the same time, vexed by nightmares.¹⁰¹

⁹⁵ See pp. 86–87. above. ⁹⁶ See pp. 193–94. above. ⁹⁷ *In Isaiam* 1487.1240.

⁹⁸ *Oratoria minor* 30.59. ⁹⁹ *Carmina* D5.28. ¹⁰⁰ *Opera magistralia* 102.12.301.41.

¹⁰¹ *Christianae religionis institutio* 1.3.226: *somno ebriosorum aut phreneticorum, qui ne dormientes quidem placide conquiescunt: quia diris et horrificis insomniis continenter vexantur.*

The motif of wine runs through the whole tradition. But one of the most picturesque instances came early, in Caesarius of Arles (fifth–sixth centuries CE). In his *Sermones Caesarii uel ex aliis fontibus hausti*, Caesarius had forged an exemplary caricature of the bad Christian, a kind of crass, drunken phrenitic (16.3.5):

For what kind of Christian is such that he hardly comes to church, and when he comes, he does not stand in the church and pray for his sins, but either talks about indictments or causes litigation and fights; and if he finds a seat, he drinks to the point of vomiting, and after he has got drunk, he stands up like a phrenitic and dances insanely in a diabolical way, jumps around and sings disgraceful words of carnal and lustful content?

We are far away here from the technical precision offered by medical texts, and fully in the realm of comic moralism. Yet the seeds of some of these forms of derangement were already present in the medical material. This inclusive profile and stereotype of ‘phrenitic’, with its extreme colours, buffoonish touches and popularization, is more than a simple curiosity. Instead, it illustrates an important point about the nature of disease survival: it is by virtue of such transverse discourses and elaborations that a nosological concept finds a vehicle through history. This is evident in the grotesque portrayal of gluttony and excess sketched by the medieval German satirist Sextus Amarcus (eleventh century CE), who in the third book of his *Sermones* speaks about the vices of luxury, greed and other overindulgence (3.1.70):

The glutton demands now a hen and now rice, and a fish is stuffed with hare for him, and cheese with eggs, yet refusing to be sated, he licks up a thousand foods. Nor does that phrenitic whirling foster any less unstable people (*nec minus instabiles frenesis colit ille*), such as the greedy man who prefers money to life when tasting a [poisonous] mushroom, henbane, aconite or hemlock.¹⁰²

True, it is not *phrenitis* as nosological concept that is evoked here. But neither is this yet the ‘frenesy’ of modern clichés about careerism, the consumerist life and so on. The technical term is used hyperbolically to qualify an ethical flaw or to evoke a character, a typology of flawed *Mensch* that the audience could recognize.

Perhaps the grandest and loudest picture of this ‘hybrid’ phrenitic in our tradition, returning to the comic, iambic construction which took its first steps in Roman poetry, is Shakespeare’s Sir John Falstaff, the buffoonish

¹⁰² Translated by Ronald E. Pepin.



Figure 8.1 'Last scene in the life of Sir John Falstaff' (Shakespeare, *Henry V*, act II, sc. iii). From an etching by George Cruikshank (Robert Brough, *The Life of Sir John Falstaff: A Biography of the Knight from Authentic Sources*. Illustrated by G. Cruikshank, 1858).

character who features in *Henry IV (Part I and Part II)*, *Henry V* and *The Merry Wives of Windsor* (see Figure 8.1). Falstaff's debauchery and his ultimately deadly illness are interwoven with medical accounts of *phrenitis* in their popularized version. He is fat as a consequence of his gluttony, drunken, and at once cowardly and smug. He is also wildly cheerful and engages in morally dubious behaviour involving money, women and wine. From the start, his health is in the spotlight. His urine is unhealthy,¹⁰³ and he speaks of his state of health (and that of Prince Hal, his fellow in crime) in the following 'phrenitic' terms:

This apoplexy, as I take it, is a kind of lethargy, an't please your lordship, a kind of sleeping in the blood, a whoreson tinglin' . . . it hath it original from *much grief*, from *study*, and perturbation in the *brain*. I have read the cause of his effects in Galen, it is a kind of deafness. (my italics)

¹⁰³ Cf. *Henry IV, Part 2*, Act 1, Scene ii.

The casual mixture of medical suggestions from the tradition we have examined – the lethargy, the comatose blood, the excessive stimulation through study, the grief, the tingling – is given technical legitimacy by the reference to Galen. To us, it shows that Shakespeare or his audience would see these words as active references to current medical knowledge about *phrenitis* and enjoy the comic effect. Falstaff's character is painted in terms of pathetic neediness, and his 'grief' finally explodes when he is repudiated by Prince Hal, now king, and forced to detach himself from his pathological double.¹⁰⁴ Falstaff will die, seemingly out of grief and rejection. The scene of his death has received much comment and suggested Socratic parallels. But no reader has thus far recognized in the pathological details and Hippocratic elements reported 'before a tavern', of all places, by the inn-keeper, Mistress Quickly, the literary elaboration of the final moments of a phrenitic (*Henry V*, Act II, Scene iii):

... for after

*I saw him fumble with the sheets and play with
flowers and smile upon his fingers' ends, I knew* 15
*there was but one way; for his nose was as sharp as
a pen, and a' babbled of green fields. 'How now,
sir John!' quoth I 'what, man! be o' good
cheer.'*

...

I put my

hand into the bed and felt them, and they were as
cold as any stone; then I felt to his knees, and 25
they were as cold as any stone, and so upward and
upward, and all was as cold as any stone.
NYM They say he cried out of sack.¹⁰⁵
HOSTESS Ay, that a' did.
BARDOLPH And of women. 30
Hostess Nay, that a' did not.

Falstaff has crocydism, hallucinations and delirium; he yearns for wine and women – or no longer does so? – and displays the typical face, or Hippocratic *facies* of those who are about to die.¹⁰⁶ Not only is his portrayal enriched with technical language and concepts from the Hippocratic and Galenic traditions, widely present in the literary language of the period and

¹⁰⁴ *Henry IV, Part I*, Act v, Scene v. ¹⁰⁵ I.e. sherry.

¹⁰⁶ For a summary of the Hippocratic *facies*, see Thumiger (2016) 641–43. In regard to the compulsive hand movements, Verghese (1985) notes the medical relevance of the description: 'There is strong evidence that the death of Falstaff in Shakespeare's *Henry V* is a vivid description of the typhoid state.'

in Shakespeare's style, but he offers an incarnate illustration of how deeply and widely this panoply of flaws, weaknesses, bodily ailments and mental shortcomings had been absorbed by lay culture.¹⁰⁷ As a result, this phrenitic portrayal – unnamed as such – is efficiently understood by theatre-goers as a plausible medical counterpoint to the tragicomic narration about old age, bodily and mental decline, moral depravity and so on and so forth.

In the reception of a general audience at the turn of the seventeenth century, in conclusion, a moral-medical narrative of the phrenitic was acquired, complete with physiological and anatomical details. The element of wine and drunkenness, marginal or conventional in the ancient sources (but returning from Seneca the Younger onwards as part of the figurative, picturesque fresco of the raving, acrat, ill-willed phrenitic), will be isolated as a subtype of medical *phrenitis* in modern times, in the key final phase in the life of our disease: the *frenitis potatorum*, or *gin-phrenitis*,¹⁰⁸ sustained and partly anticipated by the popular stories analysed here.

Conclusions

From the early centuries of our era, *phrenitis* (with its different labels: φρενίτις, *phrenesis*, *frenesis*, *phrenesis*, *frenesia*, *frenzy* and cognates) gains a space of its own in the collective imagination at a variety of levels, technical and lay. Outside medicine, we find it across the whole range, from documentary sources, folk contexts and various non-medical genres (legal writing, astrology, comic works, lower 'popular' medicine, hagiographic narratives) to more elevated contexts (prudential, theological, philosophical, patristic). Of all ancient mental diseases, *phrenitis* becomes the quintessential spiritual and ethical ailment, more present and insisted upon than any other. This metaphorical and ethical *phrenitis* is endowed with a repertoire of characteristics modelled on 2,000 years of Greek, Roman and post-classical clinical observations and theoretical elaborations. Its strongly codified bodily portrayal (fever, hallucinations, visible behaviours, etc.) works to corroborate its allegorical reliability, allowing further discussion of key ethical topics such as voluntariness, responsibility, incapacitation and the

¹⁰⁷ Compare another great example in the theatre of this period, Lope de Vega's farce *Los locos de Valencia*, dominated by the expedient of pretend madness in the service of sexual romance, and centred on a madhouse: 'Valencia has a famous hospital | where the phrenitics are cured | with great cleanliness and salubrious skies' ('tiene Valencia un hospital famoso, | adonde los frenéticos se curan | con gran limpieza y celo cuidadoso') (1.115-17).

¹⁰⁸ See [Chapter 9](#).

like. Its rich and vivid manifestations, moreover, are striking and pictorial – the spastic movement, the aggressiveness, the grinding of the teeth, the foaming at the mouth, the frenzy, the hallucination – ever increasing the clarity of the syndrome. Some elements are emphasized and heightened, such as violence, dangerousness and bestial behaviour; a reluctance to accept help and complete lack of awareness; dysthymic joy and supernatural strength; and mob-like behaviour, which fits the topos of the deranged mob of Jews who executed Jesus, aggravated by foolish laughter and cheering at the height of their own misfortune. At the same time, a pathologization of the socially marginal becomes apparent. When Thomas Hobbes wrote that by his time, the sixteenth and seventeenth centuries CE, phrenitics had so to speak ‘replaced’ the possessed (by daemons),¹⁰⁹ he was lucidly exposing both the physiological turn in the understanding of this particular pathological experience and the identification of a state of metaphysical exception, possession, with a medical state of affairs.¹¹⁰

However difficult it is to make firm claims about the societal penetration of a medical concept, from what I have just described we can be certain that, from the early centuries of our era to the beginning of modern times, intellectuals and upper-class readers throughout the Empire and in medieval and early-modern Europe knew *phrenitis* as a key, dangerous disease. We can imagine that most well-read laymen did as well, if we can trust genres such as satire and Christian sermons. Moreover, throughout the medieval period we can infer that religious audiences and the general populace would understand, if not the technical details, at least the general profile of *phrenitis* as an acute, feverish, deranged pathology that caused people to behave uncontrollably, in a beastly and undignified way, with a causal and phenomenal location in the brain and the humoral body but also in the chest, or *phrenes*.

¹⁰⁹ A daemonic sub-type of *phrenitis* was not simply a popular feature in medieval times, but must have become commonplace in medical discussions too, to judge from the remarkable account of *sibari* in Avicenna (see pp. 268, 284 above, and p. 283 for other parallels and the Eastern influences possibly at work).

¹¹⁰ ‘In the primitive church there were many daemoniacs, but few phrenitics and lunatics. Nowadays instead there are many phrenitics and lunatics, but no daemoniacs. This does not derive from the nature of things, but is due to the *change in the use of names*’ (*Leviathan IV, De regno tenebrarum* 45.480.24).

*Phrenitis in the Modern and Early-Modern Worlds
Anatomy, Pathology and the Survival of Graeco-Roman
Medicine (Sixteenth–Nineteenth Centuries CE)*

Introduction

Medicine in the century between the Renaissance and the modern era cannot, of course, be summarized or introduced in a brief section. In this chapter I shall instead focus on the central components of the medical cultures in Europe in the early-modern and modern periods and the various ‘communities’ of practitioners¹ relevant to the history of *phrenitis*.

First, there was the rise of anatomical studies and anatomo-pathology, with post-mortem examination becoming an important component of the assessment of disease. This is surely owed to a large extent to new activity in the field of anatomical dissection.² As Nutton warns, however, these developments should not be greeted triumphalistically as a new empirical overcoming of the dogmatic authority of ancient books.³ In fact, Hellenism remained a fundamental force in the shaping of medical research and its textual outputs, and dictated its heuristic and clinical agenda. The observations of Du Laurens, Boerhaave and Morgagni on dissected bodies and patient post-mortem examinations were still guided by and openly appealed to the guiding light of Hippocratic and Galenic medicine.⁴

¹ Using the helpful expression of Siraisi (1990) 187.

² Weber (2006); Nutton (2017) on Vesalius, (2022) 245–77 on anatomy and the study of the human body in the Renaissance.

³ See Nutton (1995) 184–85, (1997), (2008), (2017) 11–22, (2019) 472–75 on the ‘flexibility’ of Galenism and the compromises between the ‘new’ science of the body with its doctrines and constraints, (2022) 68–74 on the role of printing and medical communication in Renaissance medicine, 94–120 on the ‘rediscovery of ancient medicine’, 213–44; Siraisi (1990) 188–93, (2004) on this ‘medical humanism’ and the importance of rhetoric and philology in Renaissance medicine, (2000) on ‘anatomizing the past’; Hirai (2011) on the various forms of the reception of Galen in medical Humanism; Nutton (2022) 1–8 for an introduction regarding periodization and the scholarly status quo.

⁴ On early-modern medicine, see also Siraisi (1990), (2004), (2007); on medical practices, see Nutton (2001).

The move to reconcile these ancient authorities with the results of autoptic observation of actual corpses is evident on a clinical-pathological level, where ancient examples were made to illuminate present illness, as we shall see. But it is also apparent in the philology of anatomical vocabulary, which discussed and compared the ancient nomenclature and its mapping of the body with contemporary accounts of physiology and newly discovered Greek texts, as part of a wider campaign to overcome the medicine of the Middle Ages and reconnect to the authority of the Greeks. This campaign also played out in the creation of a new medical vocabulary based on rediscovered Greek works or new Latin translations of them.⁵ *Epistola* 11.3 of the Ferrarese doctor and humanist Giovanni Manardo (1528) offers a perfect illustration of this, as he compares Latin, Greek and Arabic terminology for the abdominal organs and the throat in its relation to breathing and swallowing with the respective physiological ideas, ‘justifying’ the accounts of the *antiqui* and localizing them on the sensible body he can physically touch.

On a broader cultural level, in this period interest in mental disorder as an event that strikes exceptional personalities – princes and geniuses – remained alive, and *phrenitis* had a stake in this as well.⁶ At the same time, there was the madness of lesser people, where the known categories of weakness and moral debasement were perpetuated.⁷ Here too, the rich casuistic offered by the works of the great Hippocrates and Galen remained the main grid against which cases of derangement and fever were read by physicians.

When it comes to recognized aetiology and clinical framing, one version of *phrenitis* dominated in an overt fashion: encephalic fever, or inflammation of the brain, possibly with involvement of other parts, dry and heated in kind. This was caused by various factors, which could be endogenous

⁵ On this, see Nutton (1995), esp. 195–97.

⁶ See the key work by Midelfort (1994) on ‘mad princes’ in German contexts; Brann (2002) on genius and derangement in Renaissance thought, mostly under the umbrella of melancholy.

⁷ Again see Midelfort (1994) 9–18 more generally on madness in the Renaissance, with reference to *phrenitis* as diagnosis (83), and Midelfort (2013/2021); Deroux (1998); Brann (2002); Biotti (2002) on legal and social aspects, along with Labarca (2021); Mellyn (2017) for a general introduction, and Mellyn (2014) monograph on madness case studies in the context of fifteenth–seventeenth-century Tuscany, 142 and 148–50 on the schematization of mental illness and *phrenitis*, 145–53 for important remarks on language as informative of mental illness in the wording of the sources we use; Haskell (2011); Goodey (2011) on features of the construct ‘intelligence’ in early-modern Western culture; Gowland (2016); Liebeskranke (1995) on Van Foreest and sixteenth-century medical approaches to mental illness. For narratives with a wider chronological span, see Leibbrand and Wettley (1961) 181–280; Stuart (2009) on violent crime and the insanity (melancholy) defence in eighteenth-century Germany.

but also seasonal and determined by lifestyle. For the pathological details, the portrait of reference was still that offered in Galen's *On the Affected Places* 5.4,⁸ through which lens the huge Hippocratic repository of observations on feverish and deranged patients was read and reorganized (as explored below). To this strongly embodied and localized account only one alternative emerged, and a radically different one: the delocalized, vitalistic, holistic option represented by the thought of Paracelsus and especially by Paracelsianism, which also connected, at least in part, to strands of ancient thought, the 'delocalizing' doctrines treated in [Chapter 3](#).

Phrenitis and Anatomy: 'Anatomizing the Past'

Already between the fifteenth and the sixteenth centuries, anatomo-pathological perspectives and an interest in post-mortem autopsy can be seen to emerge. The 1507 *De Abditis nonnullis ac mirandis morborum et sanationum causis* of the Florentine Antonio Beniveni⁹ is considered a founding moment for the discipline of anatomo-pathology, independently followed by other inquiries, such as Nicolò Massa's *Liber introductorius anatomiae* (1536). Both already offered a wealth of observations on the pathological state of patients' bodies, now 'sensed' as objects and constituting material evidence in the context of anatomical inquiry. These early explorations in anatomo-pathology are for the present inquiry on the history of a specific disease more relevant than the – much more famous – *De corporis humani Fabrica* of Andreas Vesalius (1543).

Among the patient cases and anatomo-pathological descriptions by Beniveni, occasion is found for a discussion of *phrenitis* as disease, with clinical examples, at XCIC (154–55 Weber). The case is entitled 'A girl is driven mad and dies because of heated matter which overflows her head (*ex calidori materia caput inpetente furit ac moritur puella*)'. Beniveni introduces the mental disturbance with a general discussion of madness and fever which reproduces, if imprecisely, the tripartite structure offered by Celsus when he spoke of the 'three kinds of madness (*tria genera insaniae*)'.¹⁰ In fact, he surprisingly distorts that famous passage of *De medicina* 3.18, where *phrenesis/phrenitis*, *furor/mania* and *tristitia/melancholia* (the acute, the longer and the longest kinds of *insania*, respectively) are evoked, writing:

There are three kinds of madness, all acute . . . One is when in a fever attack or at the peak of fever the patient is delirious and speaks nonsense, but once

⁸ See above, pp. 104–06. ⁹ See [Weber \(1994\)](#), (2006).

¹⁰ See above. Celsus is an important ancient source for Beniveni; see [Weber \(1994\)](#).

the fever is removed, s/he immediately recovers. The second, which the Greeks call *phrenesi*, is always accompanied by *dementia* . . . the mind is always agitated by hallucinations (*mens . . . semper imaginibus agitur*). The third kind is lethal and dangerous, namely when the patient not only is continuously delirious, but everything s/he does, s/he does violently, with great force (*impetu quodam et violento motu*).

The Celsian model has a different taxonomy in mind;¹¹ Beniveni is here concerned with the behavioural variations that accompany fever, always acute in kind and seemingly dominated by delirium, hallucinations and violence.

The girl Beniveni mentions is an historically important figure, no less than the daughter of Lorenzo il Magnifico (probably Luigia/Luisa). She becomes deranged, *furens*, and the doctor is accordingly summoned in the middle of the night. He finds her throwing herself around violently, tearing to pieces everything she can get hold of – her own hair, arms and hands, as well as those of others, biting and scratching until she is tied up. Once recovered, she fails to follow the prescribed regime (as women, especially elite women tend to do – *ut est ingenium mulierum, praesertim nobilium*); she then falls ill again and dies. Beniveni's interpretation is that the illness was caused by 'burning matter . . . which rose to her head, and with its heat and movement made the girl mad'. This particular case is not accompanied by post-mortem dissection – the status of the patient perhaps prevented this – unlike several others in Beniveni's work. But the overarching category for Luigia's deadly illness is fever and overheating, and the patient's mental disturbance is a direct function of her physiology. Already from the beginning of the sixteenth century the concretization and anatomization of *phrenitis* is conspicuous, with its strong link with fever and overheating, and the dominant localization in the head.

Sixteenth–Seventeenth Centuries: phrenitis and the Flourishing of Anatomopathology (André du Laurens and Daniel Sennert)

In line with the 'anatomizing the past'¹² visible in Beniveni's revisitiation of Celsus, I focus here on two discussions of *phrenitis* which further reflect the elaboration and new understanding of ancient medical ideas about the disease between the sixteenth and the seventeenth centuries, by André du Laurens (9 December 1558 – 6 August 1609) and Daniel Sennert (25 November 1572–21 July 1637), the first centred on the

¹¹ Although Weber (1994) prints it at 272 as a *locus parallelus*. ¹² Siraisi's (2000) expression.

diaphragm and brain locations, the second granting a key role to the blood and meninges.

While du Laurens's *Historia anatomica: controuersiis, obseruationibus*, published in 1599/1600, had a predominantly anatomical-descriptive rather than pathological focus, in his subsequent *Controversiae anatomicae* (Liber IX, *Quaestio* IIII) we find an instructive chapter *De phrenitide diaphragmatica* with a *Demonstratio anatomica*. The initial focus in the first is on the diaphragmatic location, a choice that takes us back to Galen's *On the Affected Places* 5.4.¹³ In fact, du Laurens faithfully reproduces Galen's approach at the opening of the *Quaestio*:¹⁴ under the heading *de phrenitide diaphragmatica*, he distinguishes the 'primary' *phrenitis idiopathica, quae ab inflammatione meningum contingit*, from the 'secondary' *phrenitis diaphragmatica/sympathica*, and describes their respective symptoms (respiration, pulse and so on), while at the same time mapping the disease anatomically onto his own professional observations.

This fresh anatomization of *phrenitis* is given a central place in the argument. After initial treatment of the diaphragmatic type, the localization in the brain is discussed in terms fundamentally reflecting the structure of Galen's exposition, but corroborated, concretized and enriched with what appear to be autoptic observations of the tangible body part, as the preceding detailed anatomical description of the *diaphragma* shows. Galen firmly retains his place as key authority, but the ancient text is inscribed on the human body, which now lies before the scientist, thus receiving reconfirmation and a deeper meaning.

The second example of 'anatomization' of the past is offered by the renowned German academic and physician Daniel Sennert, who discusses *De phrenitide* in his *Practica Liber* I, II, vii (1635).¹⁵ Sennert too follows the authority of Galen, but relies on other parts of the corpus which prioritize the brain as the key *locus affectus* in *phrenitis*, especially the fundamental *Commentary to Prorrhethicon I*, to which he refers explicitly. *Phrenitis* is thus defined by Sennert as 'properly intended, an affection of the membranes of the brain (*proprie membranarum cerebri affectio*)'; the diaphragmatic name it received in antiquity is returned to the status of an accident.

At the beginning of Sennert's discussion we find a key move already seen in the Medieval *practicae*, but here with an unprecedented degree of explicitness: that by which phrenitic symptoms begin to be 'spread'

¹³ Like Galen in that passage, in fact, in the preceding *De diaphragmata – Caput* IIII (458) du Laurens had surveyed in great detail the history of the *phrenes* as an anatomical and mental term, from Plato and Aristotle, to Hippocrates in *De morbo sacro* (now duly adding Galen himself to the gallery).

¹⁴ *Quaestio*, pp. 458–59. ¹⁵ *Operum Tomum Tertium, Practicae Liber* I, II, vii, p. 87.

among various pathological forms – headaches, *apostemata* and the like. There is an overlap between nosological concept, *Phrenitis* with a capital P, so to speak, and a phrenitic phenomenology that can arise under various circumstances. Sennert writes: *phrenitis* can be ‘understood in two ways (*dupliciter considerari*): either as a disease, which is, as an inflammation of the membranes of the brain . . . or as symptoms (*ut symptomata*), namely as a damaged functioning of the ruling [mental] faculty (*depravata actio facultatum principum*)’ (p. 87). We see here an explicit understanding of the disease as an abstract notion and of its manifestations as carrying multiple significances and combinatory power.

Another point of theoretical interest is the Galenic distinction between lesions in the imaginative faculties and in the power of judgement, described in the famous case of a patient throwing objects out of a window.¹⁶ Sennert poses a *dubium* of great modernity in its psychological relevance in this respect (following the objection advanced by the medical writer Eustachius Rudius): When one of the two faculties suffers, must the other also be affected? What is the link between the twin functions of representation and judgement?

The rest of Sennert’s discussion focuses, first of all, on causation: *phrenitis* is an inflammation of the meninges (*membranarum cerebri inflammatio*) following an overgorging with bilious blood and its fumes. Pathological differences are only in the manifestations of the disease, not its cause, which is only one. This pragmatic approach supersedes the medieval distinction between a plurality of pathogenic humours and places blood at the centre as a unifying element, in line with progress in the knowledge of heart and blood physiology in this period as a result of William Harvey’s studies of the heart and its workings. (Harvey’s *De motu cordis* was published in 1628) Blood, variously spoiled, is always the cause (*omnis phrenitis . . . est a sanguine*), but different kinds of corruption can have different outcomes:

milder and with cheer, or with a slight propensity for sleep . . . from pure blood; more ferocious, if mixed with pale bile; even more ferocious, and with most tenacious wakefulness, if mixed with yellow bile (*mitius et cum risu, ac levi in somnum propensione . . . a sanguine puro; . . . saevius, si pallida bilis admisceatur; adhuc saevius, et cum pertinacissimis vigiliis, si flava bilis admisceatur*)

¹⁶ See Chapter 5.

and so forth. *Phrenitis* varies depending on the intensity of the causal factor (*pro causerum vehementia*), affecting different faculties accordingly.

This account clearly expresses a 'biochemical' (as we might put it) interpretation of the disease and its variations. Not only different causes in terms of substances, but different *loci* affected by them determine different versions of the disease. Here, however, it is no longer the diaphragm/brain controversy¹⁷ or alternative which takes centre stage, but the 'histological' question of the substance of the brain. For Sennert, like others before him, the body of the brain can sometimes become involved, although the primary locus of *phrenitis* is in the membranes.

Sennert's discussion of diagnostic signs is also sophisticated in how it distinguishes between *signa* of the disease 'impending (*imminentis*)' and 'already present (*praesentis*)'. The former are the well-known visible signs noticed on the face (such as redness), as well as delirium, hypersensibility, hallucinations, irascibility and aggressive glances. The disease present is manifest in continuous fever, delirium and a state of insomnia; to this list Sennert adds jumping about and being highly reactive, on the one hand, and being prey to torpidity and excessive stillness, on the other. By means of these symptoms, for him and in agreement with Galen, *phrenitis* can be differentiated from *melancholia* (by fever), from *lethargus* (by insomnia), from other forms of delirium (by its continuous character), and from inflammation of the diaphragm (by the quality of respiration).

Therapeutic measures (*curatio*) involve purging via venesection, soothing sleep induced with hypnotic substances, curbing mordent humours and cooling body parts that might be suffering (the heart, liver and even genitals). Soothing measures are also considered. Dietetic recommendations mostly quote Celsus and his psychotherapeutic proposals: modulation of light, diversion, consolation and constraint when necessary. The ancient material, in conclusion, including Celsus' notably non-anatomical account of *phrenitis*, is thus reshaped and adapted to a new, highly corporeal model,¹⁸ which gives both blood and encephalic pathology a central role and has their effects involve different body parts.

¹⁷ In his historical excursus, Sennert mentions the *karabitum* and *calidum sirsen* of the Arabs in this sense, but omits their interest in *birsen*, the chest version of *phrenitis*, which seems to have disappeared entirely from his account.

¹⁸ For instance, the *Quaestio* appended at p. 89: *an cerebrum, an verum membrana eius in phrenitide inflammetur?* ('Can the brain itself can be inflamed in *phrenitis*, or only its membrane?'). Sennert then moves on to distinguish among types of inflammation of the brain depending on the substance in question and its effects.

Seventeenth and Eighteenth Centuries: phrenitis in the works of Boerhaave, Van Swieten and Morgagni

Fundamentally the same lines of development are visible in the works of anato-mo-pathologists at the beginning of the modern era, as I shall illustrate through three central examples: the *Aphorismi de cognoscendis et curandis morbis* of the Dutch scientist Herman Boerhaave (1668–1738), in which *phrenitis* is discussed (*Pars II. Morbi Interni, Acuti, Chronici* 771); reflections on that text by Boerhaave's colleague Gerard van Swieten (1700–72), who compiled a *Commentaria in Hermanni Boerhaave aphorismos de cognoscendis et curandis morbis* – for our purposes, the two are best read in dialogue with one another – and the *De sedibus et causis morborum per anatomen indagates libri quinque* of Giovanbattista Morgagni (1682–1771).

First, the criterion of fever is now dominant. In his *Aphorismi* (1728), Boerhaave includes *phrenitis* among the *morbi acuti febriles* and recognizes a second type of the disease, which can be identified with almost any fever (*ferè omnis morbus acutus cum febre*) and strikes a variety of locations in the chest: the 'side', the pleura, the lung and the diaphragm, which is said to be 'the worst' case (*quae pessima*). Boerhaave also offers an overview of the various classifications of types of the disease current in his time:¹⁹ *phrenitis* can be 'real' (*vera*), but also symptomatic (*symptomtica*), or akin to other diseases (i.e. *variolosa*, *morbillosa*, *verinosa*, *aphrodisiaca*), without fever (*apyrta*), linked to heat (*calentura*), caused by grief or pain (*a dolore*), or linked to rabies (*hydrophobica*). These many sub-types contain a number of by now familiar implications: the true vs false disease; the cluster of symptoms; the delirious affection deriving from entirely different diseases; the variety without fever, the variety that follows pain, and the variety linked to rabies.

Van Swieten's comments on this first part (*ad* 771) is a rich excursus, which begins by discussing the label and etymology of the disease. He explains the suffix *-itis* as indicating inflammation and adds: 'They accordingly called the disease of that *corporeal* part, from which human understanding depends (*illius ergo partis corporeae, unde humana sapientia pendet*), *phrenitis* . . . for which reason Pliny too referred to it as an "illness of understanding (*sapientiae aegritidinem*)"'.²⁰ He elaborates on Boerhaave's observations with close reference to ancient authors, especially Galen and Hippocrates, but also Celsus, Caelius and Asclepiades. The modality

¹⁹ Cf. the variations offered by Sauvagesius's *Nosologia methodica*, *Clas. III Ordine II Genere x*.

adopted is that of free retrospective diagnosis: like Galen before him,²⁰ Van Swieten reads Hippocratic patient cases, but also other ancient tales (for example the summer epidemic fever in Abdera described in Lucian's *Quomodo historia conscribenda sit*),²¹ as straightforward examples of *phrenitis*. There is a meaningful confidence in the way the semiotics of this disease, as understood by the anatomo-pathologist, appear to be beyond controversy or debate: every sign in the ancient patient, every ancient remark or bit of therapeutic advice, is explained – made to make sense – in the light of contemporary science and in terms of a new image of the physiology of the human body, in which the account of the nervous system, blood circulation and a view of psychology in which the brain is defined, via a remarkable expression (*ad 773*), as the 'seat of our humanity (*unde humanitas nostra pendet*)',²² are all taken for granted and treated as beyond explanation.

At *Aph.* 771, Boerhaave distinguished *phrenitis vera* and *symptomatica*. In response, Van Swieten (23) takes the occasion to elaborate at length on the topic of transference, *metastasis* in the *phrenitis* of the symptomatic kind: the inflammation migrates from an organ to the brain, with some localizations more dangerous than others. For example, 'It was shown there that filth/residue gathering around the praecordia can impair all the functions of the brain'. Along similar lines, at *Aph.* 772 Boerhaave sketched a distinction between 'antecedent' and 'present' elements in the state and behaviour of *phrenitis*. The first are heating, powerful pains of the inflammatory kind inside the head, abundant blood, red eyes and face, trouble sleeping and mild delirium. But there are also potential triggers, such as youth and exposure to heat (*adulescentia . . . calidorum usus, insolatio*), as well as elements of lifestyle, habits and character (wakefulness, anger, grief, aggressiveness or quarrelsomeness, sudden forgetfulness, dryness of the whole body, especially the head, and floccillation; *vigiliae, ira, moeror, protervia seu ferocitas; oblivio subitanea; siccitas totius, maxime cerebri; collectio flaccorum*). Van Swieten comments on each element of this semiotics and pathology, beginning with those that characterize the *vera phrenitis*: heat; intense pain in the head, inflammatory in kind; excessive blood (*calor, dolorque internus capitis ingens, et inflammatorius; sanguis copia nimia*), connecting the engorgement of vessels with inflammation of the brain. There are also aspects of individual constitution, the *dispositio*

²⁰ See above, pp. 122–23. ²¹ See Appendix 1.

²² Compare the similar point in Arnau on the 'highest and absolute damage to the human individual, which is the loss of reason', see p. 274 above.

inflammatoria, a kind of pathological vulnerability in certain patients. Then come the observable details: red eyes and face (*rubor oculorum, faciei*); the important marker of disturbed sleep (*somni turbulenti*); and the presence of a milder grade of derangement (*desipientia levis*). As for age (*adolescencia*), youth (*flos aetatis*) is confirmed as a factor, along with exposure to heat (*calidorum usus*); van Swieten notes with regret that youths full of hope (*optimae spei iuvenes*) fell prey to inflammation due to excessive consumption of wine and spirits (*vinis generosis vel & spiritibus fermentatis liberalius haustis*) and then died of *phrenitis*.

In a direct way, meteorological heating (*insolatio*) can be responsible: the warmth absorbed by the head causes the blood to coagulate, producing a fatal *phrenitis*. This is even more so in the case of individuals who are asleep, which is most dangerous. Van Swieten recalls the case of two reapers who were otherwise quite healthy (*messores sanissimos certe & robustissimos*) but died within two days after having fallen asleep under the sun on a stack of hay.²³ Wakefulness (*vigilia*) too affects the brain and the blood, making it thicker.

A most intriguing development is offered by emotional causes in their physiological effects, which are definitely marginal in ancient medical literature and here betray the influence of popular culture. *Ira* is defined as a 'short bout of fury (*brevis furor*)', and the similarity between the actions of an angry man and those of a phrenitic have the power of an argument: the complexion, fiery eyes and pulse are the same. Grief too can have adverse consequences. Van Swieten repeats one of Boerhaave's examples, that of a woman (as is typical in these portrayals of pathologized grief):

The famous Boerhaave saw this in a widowed woman, who had lost, along with her husband, any hope of raising numerous offspring, but who, despite being conscious of her misfortune, seemed to be managing to bear her grief. But when she seemed to take to bed with a slight fever, she then turned to the doctor with a fierce reply (*ferox*), despite being a woman of the sweetest manners (*placidissimorum morum matrona*) when she was healthy, and within two hours she began to rave, and tearing her clothes into shreds started to run naked around her room (*furibunda, laceratis vestibus nuda, per cubiculum decurebat*).

²³ Van Swieten also offers a biblical parallel, Judith's husband Manasses at Judith 8:2–3, who died of sunstroke: 'And Manasses was her husband, of her tribe and kindred, who died in the barley harvest. For as he stood overseeing them that bound sheaves in the field, the heat came upon his head, and he fell on his bed and died in the city of Bethulia' (trans. King James Version).

Van Swieten compares the *phrenitis* of this bereft woman to the Hippocratic patient at *Epid.* 3, 17, case 15 (110–11 Jouanna = 3.146 L.), the wife of Dealkes,²⁴ who became feverish and flocillated obsessively ‘as a consequence of grief (*ek lypēs*). The subsequent signs equally belong to character, at least in part: ‘arrogance and even ferocity, sudden amnesia, flocillation (*protervia seu ferocitas, oblivio subitanea, collectio floccorum*)’ – the latter being a sign of disturbance of the senses (*turbari sensorium commune*). Aggressiveness is especially serious if out of character for the person, according to the well-known principle that sudden radical change is always bad. Aridity, especially of the brain, is dangerous (*siccitas totius, maxime cerebri*); to be *humidum et molle*, ‘moist and soft’, is a general mark of physical health in any animal, in the depths of the viscera as much as on the surface.

The symptoms of *phrenitis* that originate elsewhere and are then translated to the brain, so-called *symptomata* (27), are similar to fever in the brain. It is interesting that van Swieten corroborates the point by tying in Hippocratic parallels not previously associated with *phrenitis*, notably the bold man in Larissa suffering from fever and derangement, and who will die, presented at *Epid.* 3, 17 (98–99 Jouanna = 3.118–20 L.). On the second day this patient felt a sudden pain in the leg (*de repente femur dextrum doluit*) followed by derangement. The pain grew milder, but then death ensued. The adoption of the odd delocalization of the sympathetic affection in the leg to the brain (which might make sense on a contemporary medical understanding²⁵) nicely represents the radicalization and concretization of the bodily symptom of *phrenitis* that ultimately transforms it into a non-psychiatric item. Van Swieten is so persuaded by the meaningfulness of this that he quotes a parallel from his own clinical experience (27): ‘I saw a similar case in a woman whose left leg was overcome by extremely sharp pain when a continuous fever arose (*cui oborta febre continua acutissimus dolor sinistram suram occupabat*).’ Here too, just as the pain abates, derangement follows, after which comes death.

As in other cases in which pain arises, such as in the side, what is happening is understood as a ‘bad transference to the brain (*mala metastasis ad cerebrum*)’ that occurs precisely when the original ailment seems to improve. The pain produced by *peripleumonia* and *pleuritis* is a key example of the same process. For certain manifestations, Van Swieten

²⁴ I discuss this in [Chapter 2](#), pp. 124–25; the designation of this patient as phrenitic is not originally Hippocratic but a later interpolation known as spurious already to Galen.

²⁵ See below, pp. 329–32 on this sign.

offers parallels from the medical past (Hippocrates), but also from classical culture (e.g. Lucian),²⁶ which are in turn set in dialogue with his own observations.

On the topic of floccillation and the sudden nature of the phrenitic attack, Van Swieten mentions a case reminiscent of a Galenic description,²⁷ that of a ‘gardener who, on the third day of a “real” *phrenitis*, in the course of which he was silently delirious and was picking flocks, in the blink of an eye jumped out of bed and ran very rapidly up to the top floor of the house. The wretched man would have jumped straight from the window, if his wife had not rushed to hold him back; and as she was fighting with her husband and calling those nearby for help, the patient managed to hurl himself forth and died immediately thereafter’ (*hortulanum tertia die phrenitidis verae, in qua tacite tanto delirabat, & floccos carpebat, uno momento lecto exiliisse, & celerrimo cursu adscendisse in superiorem domus partes; deque fenestra praecipitem se dedisse miser, nisi uxor advolans retinuisset; dumque illa cum marito luctatur, & vicinos in auxilium vocat, convellitur aeger, & moritur subito*).

All these instances illustrate the complexity of the dialogue with ancient sources, a dialogue that plays out in the territory of doctrine as much as that of clinical cases, and is traced on the limbs, flesh and blood of living (and deceased) patients. Galen’s more theoretical but also clinical observations, as well as the many depiction of phrenitics as self-harming and hurling themselves down from windows or cliffs, all contribute to and sustain the nosological account.

There is also an interesting detail concerning sputum. In Galen, this sign is connected to damage to the *proairetic* function, the physical ability to control oneself.²⁸ In Boerhaave we find instead ‘frequent and *undignified* spitting at those around (*sputatio frequens et indecora in adstantes*)’, with a reference to propriety and behaviour that is nonetheless an elaboration on the corporeal event. Van Swieten too is interested in this behavioural aspect in his commentary *ad loc.* (34):

But when patients project sputum against people around them, this is a sign of the greatest aggressiveness (*summae proterviae signum est*) and an extremely clear sign of delirium in well-mannered individuals (*in bene moratis certissimum delirii iudicium*). For if a fierce reply from a moderate man is a bad sign in disease, all the more so such undignified spitting (*indecora talis sputatio*).

²⁶ Quoted at Van Swieten 30. The passage is discussed in Appendix 1. ²⁷ See Chapter 5, 146–47.

²⁸ See above, pp. 115–16.

Here too Van Swieten refers to this pathologization of *mores* or judgement – and lack thereof: ‘All voluntary actions which lack or overstep measure or dignity are signs of *phrenitis* (*omnes actiones voluntarias, quae praeter modum ac decorum deficient, vel exsuperant, phrenitidis esse signa*).²⁹

The inspection of corpses, as noted at the beginning of this chapter, is a key part of this project of anatomization of health and the ancient medical tradition all in one. At 775, Boerhaave describes and discusses in close detail the cadavers of phrenitic patients. These are said to display inflamed meninges, gangrene, abscesses and rotten, ‘sphacelous’ brains, as well as mordent ichor (i.e. the liquid which surrounds the meninges). These observations also articulate a distinction between *phrenitis vera* and *paraphrenitis*.

The therapy for the disease, finally, is arduous. For the form with *varices*, purging helps (779) and can be accomplished through haemorrhoids, *alvi fluor*, pain in the chest with coughing or general haemorrhage. The real kind, *phrenitis vera*, requires extremely rapid measures to curb the inflammation of the arteries leading to the brain: venesection; purging; cleansing of the nostrils, eyes and ears; shaving the head; and various methods of refrigeration. For sympathetic *phrenitis*, finally, topical remedies are mostly recommended.

In the work of the Italian anatomist Giovanbattista Morgagni, the development of the concept of *phrenitis* through practices of post-mortem inspection is especially evident. Morgagni’s *De sedibus et causis morborum per anatomen indagatis libri quinque* (1761) discusses pathology on a clinical case basis, reserving key space for the post-mortem examination of patients. In its *Epistola Anatomico-medica VII* we find the *Sermo . . . de phrenitide, paraphrenitide, & delirio*. This by now fully blown, case-specific, dissectional and autoptic approach is a wonderful illustration of how hardwired the once ‘mental’ disease *phrenitis* has become: it is now visible in the inanimate body, inscribed on it despite its lifelessness, evident in the state of the meninges and brain and their secretions and accompanying substances, as well as reflected in the state of other parts of the body. Morgagni presents nine cases, all of which end in death: (1) a young man, *adulescens*, *Ep. VII, 2*, ill with fever and delirium, who dies after seven days; (2) an approximately 35-year-old adult man, *vir*, who dies after ten days, having suffered pain in the chest with fever (*in thorace, cum febre*); (3) a porter, *bajulus*, ill with ardent fever and delirium, who passes quickly; (4) another 35-year-old *vir* suffering from fever, delusions and a rapid pulse; (5)

²⁹ Here quoting Jacques Houllier.

a *senex* of 80 years, who dies after the fifteenth day with fever, delirium and convulsions; (6) a potter, *figulus*, of 70 years, in whose case Morgagni offers a portrayal enriched with aspects of character and lifestyle; (7) a worker weakened by a professional malaise: the dust from the hemp he worked, we are given to understand, damaged his respiratory tract and affected his voice, causing *phrenitis* (*vir procerus & macilentus ex cannabis carminatione, quae ars eius erat, thoracis inflammationis obnoxiosus*); (8) a *mulier* who was confined to bed due to a blow to the head (*ex ictu capitis . . . decubuerat*); (9) an old man, *anus*, suffering from fever and delirium.

When we look at these cases collectively, the autoptic post-mortem observations make it evident that the disease is seen as meningitic and inflammatory. The membranes are the important *locus affectus*, central in several cases but also accompanied by other elements. In (1), for example, thick, blackened blood accompanies the gelatinous matter under the cranium and the laceration of the meninges at its base, with a milky serum produced. In (2) the pain is in the torso, and the affection appears to first affect the lungs, where pulpous concretions are found in the cadaver. Morgagni describes this as a *peripneumonia* with ‘translation’ to the head. In (3) the pain is in the head from the start, and the autopsy shows gelatinous concretions between the blood vessels of the meninx.

After the presentation of (4), Morgagni inserts a long excursus on the vexed question of whether the brain as well, or only the membrane, could be inflamed in cases of *phrenitis* – a general matter of contention we have already encountered.³⁰ He answers in the positive, reinforcing the point with evidence from his own observations and those of many other doctors regarding pathologies of the body of the brain in such phrenitic cases, in which it appears, for example, to be sphaelous or full of black marks. The damage, he concludes, may in some cases strike the brain, even if the vast majority of cases affect the meninges. In case (5), the torso and its contents are under scrutiny instead during the autopsy. The patient’s entrails are still hot to the touch (*calentia . . . viscera*) at the time of the post-mortem examination, despite the cold room; the intestines are reddened, the liver dark, and there are observations about the *pericardium* and the *cor*.

The potter, *figulus*, discussed in (6) bears an interesting resemblance to some ancient patients in the details regarding his lifestyle, as Morgagni describes it, as well as to popular portrayals of phrenitics: hilarity, heavy drinking and a general state of anxiety (*natura hilaris, potor strenuus, post animi curas*). The potter complained of pain in his side and breathing

³⁰ Van Swieten discussed this as well: see below, pp. 322–35.

problems, and his dissection closely details the structures in his torso. Morgagni inserts an excursus here (12) to account for this case of *peripneumonielpleuropnumonie* with delirium, framing it within a cluster of similar cases, all fatal, that occurred in the winter of 1754, and explaining them all as examples of *paraphrenitis*. The case described in (7) is even more explicit about the role played by lifestyle: the professional activity of this patient, hemp-carding, is indicated as a plausible factor in his respiratory tract ailment, accompanied by vomiting and delirium. The patient's *phrenitis* is *ferox* in kind, and his breathing gravely disturbed; the autopsy shows damage to the lungs, inflammation of the diaphragm, and distention of the vessels of the meninges. In his commentary, Morgagni indicates dust (*pulvis*) as the causal factor for the formation of tubercles in the lungs, and the lungs are indicated as a possible origin of *phrenitis*, although with qualifications. In (9) as well, finally, the belly (*venter*) is at the centre of the autoptic inspection.

For practical examination, then, Morgagni accepts a localization of the disease between lungs and brain as unproblematic (just as Galen in *On the Affected Places* had already understood localization to be a complex affair); this has no consequence, since the localization of mental life is no longer part of the discussion. Delirium is not an activity of the hegemonic function located in the brain, but is now pragmatically approached as a symptom, a manifestation, which can have various causes. Giving double or multiple *loci* is then a move whose relevance is entirely symptomatic and concrete: this is Hippocratic – extremely Hippocratic, in fact, coming full circle by entirely eliminating the ‘mind’ of the phrenitic as a problem of nosology.

What's in a Leg? Text-Based Medicine, Clinical Observation and Human Experience

The role of Hellenism and ‘humanistic medicine’ (and the dissent against them) in the forging of medical ideas and practices in early-modern and modern Europe is a central topic for the understanding of the medical cultures of the period.³¹ Discussion usually emphasizes the doctrinal, ideological and textual net of references and reception, while less attention is given to the body of medical actors – in this case, the patient – as an element in this trade. I want to offer here precisely this: the case of a rather unexpected body part in our disease, the *leg* of the phrenitic.

³¹ See [n. 1 in this chapter](#) for an introductory bibliography.

In the Hippocratic *Coan Prenoitions* 76 (122 Potter = 5.600 L.), we read that ‘Forms of derangement (*parakrousis*) with trembling and with groping with the hands are phrenitic (*phrenitikai*); in these cases, pains in the calves (*hoi kata gastroknēmiēn ponoī*) lead to a disturbance of the mind (*gnōmēs paraphoroi*).’ This leg-sign is also discussed in the Hippocratic *Prorrh.* I, 36 (79.5–6 Polack = 5.519 L.), although without specific reference to *phrenitis*. At *Comm. Hipp. Prorrh.* I, 3 (49–50 Diels = 16.584–86 K.), commenting on this lemma, Galen wrote:

Pains about the navel accompanied by trembling may involve some disturbance of the mind, and at their crisis these patients pass a great quantity of wind and with pain. The pains in the calf of the leg in such cases are disturbing to the mind. Still, the pains that afflict the calf in these patients are not indicative of derangement. For this reason, those who support this claim urge us to understand an implicit ‘when they recede’, that is, ‘when they suddenly and unexpectedly disappear’; and they cite the case included in the third book of the *Epidemics*, the man who was lying in the garden of Dealkes, about whom Hippocrates first declared that ‘he had pain in his knees and calves’, and that once these receded, he says, the derangement came.³² . . . The fact that pains in the calves produce derangement when they recede, although it is not said in the text that these pains stop, constitutes an absurd attempt at explanation. For in this way we can decide to drag in whatever contrary idea we wish, so that even if we find ‘pain in the head’ written, we can understand it as being not present but in remission, as also in the case of cough and difficult breathing, and tinnitus in the ears and anything else.

Galen dismisses the notion that the sign should be specific to derangement, much less *phrenitis*, and ridicules the idea that it should be considered so when ‘in remission’. He might be quoting from memory and confusing this case with another in *Epidemics* 3,³³ that of a bold man in Larissa, in which the cessation of pain in the leg is indeed associated with derangement. But Galen’s slip or expression of personal opinion is unimportant here. What matters is instead the tenor of his discussion and his reference to a category of reader who had a different opinion on the matter (*hoi boēthountes tēi rhēsei prospakousai*). This shows that mention of the leg-sign was seen as noteworthy, and that pain in one leg as a manifestation of mental disturbance was a significant point for the Hippocratics³⁴ and attracted discussion by readers in Galen’s time.

³² *Epid.* 3, 1, case 3 (67.7–10 Jouanna = 3.42 L.) On the fifteenth day: ‘acute fever; completely delirious; no sleep; pain in knees and legs (*gounata kai knēmas epoōdynōs eichen*)’.

³³ *Epid.* 3, 17. Case 5 (98–99 Jouanna = 3.118 L.)

³⁴ Most explicitly, cf. *Coac.* 31 (112–14 Potter = 5.590 L.): ‘a convulsion during a fever, along with pains of the hands and feet, is a malignant sign; also malignant is the onset of a pain from a thigh (*kakoēthes*)’.

If Galen's engagement with this detail can be explained by his devotion to the Hippocratic text, with which he is always in dialogue, the fact that this element pops up in Van Swieten's discussion in *phrenitis symptomtica* is more striking. At *Comm. Aph. Boer.* 772 (27), as we have seen, the Dutch physician speaks of the *metastasis* that can cause the disease to move to different parts of the body in this type of *phrenitis*, and recalls the passage Galen also had in mind (although no *phrenitis* is explicitly mentioned there):

There is a notable example [of metastasis in *phrenitis*] in Hippocrates (*Epidem. 3 aegrot. 5* Tom. 9. Pagina 299).³⁵ For a bald man in Larissa suddenly felt a pain in his right thigh, and already from the first day an acute ardent fever came upon him. On the second day, the pain in his thigh remitted somehow, but without any other positive sign: the fever intensified, the patient could not sleep, the extremities of his body were chilled. On the third day, the pain in his thigh subsided completely, but alienation of the mind arose, with much throwing himself around. On the fourth day, around noon, he quickly died.

At this point, Van Swieten adds a case of his own:

I saw a similar case in a woman, for whom the sharpest pain arose in her left thigh after the rise of fever; they had applied a cloth drenched in wine spirit to the affected part, and after two hours, while the pain in the thigh had disappeared, she was raving in the worst way. Shortly afterward she died with convulsions, on the second day of the disease. (*Similem casum vidi in muliere, cui oborta febre continua acutissimus dolor sinistram furam occupabat: applicuerant autem lintea spiritu vini madida parti dolente, & post bihorium, dolore furae evanido, delirabat pessime; paulo post convulsa periit secundo morbi die.*)

We find this same sign in one of the child patients with *phrenitis aestiva* in a clinical report from over a century later, Samuel Gee's observations in *Saint Bartholomew's Hospital Reports* of 1876. He opens with a Hippocratic epigraph:

In fever an attack of pain in the thighs is bad.

de kai ek mērou hormē algēmatos); nor is pain of the knees a positive symptom (*all' oude gounatōn ponos krēgion*). Pains of the calves are also malignant, and sometimes cause derangement of the mind, especially if the urine contains suspended material.⁷

³⁵ The case is *Epid. 3, 17, case 5* (98–99 Jouanna = 3.118 L.): 'Second day. The pains in the thigh subsided (*tou mērou men hyphiesan hoi ponoi*), but the fever grew worse; the patient was rather uncomfortable and did not sleep; extremities cold; copious and unfavourable urine was passed. Third day. The pain in the thigh ceased, but there was derangement of the intellect, with distress and much tossing about (*tou mērou men ho ponos epausato, parakopē de tēs gnōmēs, kai tarachē, kai polys blēstrismos*).⁷

He then describes the case he had treated:

This pain in the thigh was an early and a marked sign in the case of W.P. On the first day of his illness he complained of much pain in the left thigh; on the fourth day there was no pain; on the sixth day complained of much pain in left thigh, but positively no signs of periostitis, phlebitis, arthritis, embolus, or any other disease there. I have noticed the same symptom early in typhoid fever.

Gee then moves on to mention a fifteen-year-old boy who also suffered from headache and fever. At some point, ‘delirium, and begun to complain of left thigh’. The pain is scrutinized and no other cause for it found; this patient too died. Gee concludes with explicit reference to the authority of both Hippocrates and van Swieten: ‘This early pain in the thigh would seem to be a condition different from that which sometimes happens to the end of a typhus, typhoid fever, and *peripneumonia*, . . . whether the patient described by Hippocrates and van Swieten suffered from the same kind of disease, I will not take upon myself to say.’³⁶ Making medical sense of the sensation of pain in the thigh with *phrenitis* and derangement is not obviously the point; it might be a fantasy, or a localization of the muscular and joint aches that typically accompany fevers, or one of the signs that modern medicine ascribes to meningitis, such as versions of ‘panneuritis’ (or ‘polyneuritis’), stiffness of the neck or Kernig’s sign (the inability to bend the leg at the knee). But deprived of any explicit anatomic-pathological specificity, what is this painful leg about in literary terms? For us, at the end of our history of *phrenitis*, and especially in light of Gee’s concluding statement of *aporia vis-à-vis* the nature of his predecessors’ cases, it makes an important point. Human bodies are constructed, in a very literal sense, of history and of texts; indeed, they are texts.³⁷ There is a rationalized and less interesting version of this point: the educated physician will project his reading onto the patients he visits, or patients will try to fulfil the expectations of the physician’s erudition. But there is also a deeper sense, according to which the physical experiences of the living human body express themselves through clusters of tropes, some cultural, some social, some textual, some more or less constructed. The bio-medical, with its relatively predictable and – at least theoretically – replicable and controllable chains of reaction, is only one of many equal possibilities.

³⁶ We may add to the list Bernard de Gordon and his warning about phrenitic patients who cannot extend their tibiae (see above, p. 277).

³⁷ See Osborne (2011) on some of the intersections between bodies ‘seen’ and ‘written about’ in the way the ancient (classical) world is understood and studied.

Alternative Accounts

So far, the account of *phrenitis* in early modernity has dealt with its ‘anatomization’ and materialization, its development into a bodily disease with inflammation and fever. The story would not be complete, however, if we did not also allow space for a different approach to this classic piece of ancient medicine of the mind, namely the ‘holistic’ and ethical themes which received attention in the works of Graeco-Roman medicine (and prevailed in folk discussions). These play a role in the survival of the disease in twentieth-century psychiatry, as I explore in [Chapter 10](#) under the category ‘stress’.

Renaissance Medicine and phrenitis Delocalized: Paracelsus and his Influence

Here we come again to a kind of ‘minority report’ in the history of our disease: if the dominant textual scholarship and medical teaching on *phrenitis* (and generally), as well as learned therapeutic practices in the period from the second half of the fifteenth century onwards, are undeniably rooted in anatomical pathology and based on the authorities of classical medicine, alternative narratives exert an important influence on a variety of medical and natural sciences, and this is reflected in the itinerary followed by *phrenitis* as well. A key personality in this chapter of the story is the Swiss doctor and thinker Theophrastus von Hohenheim, known as Paracelsus (1493–1541).³⁸ Paracelsus elaborated a vast body of doctrines about disparate aspects of natural science, anthropology, theology, astrology and medicine, with Hermetic and alchemic influences among other things. The significance of his work in the development of modern science cannot be overestimated; within medicine and in the restricted area of nosology, he is notable for expressing himself against the ‘errors of medicine’ from which the authority of ancient doctors, Galen especially, is not immune,³⁹ and against the very idea that diseases should

³⁸ On Paracelsus on mental disorders as ‘neuplatonische Variationen’ to the dominant trends, see [Leibbrand and Wertley \(1961\)](#) 206–21; also [Nutton \(2022\)](#) 286, and 278–302 generally on Paracelsus and Paracelsianism.

³⁹ Cf. the tirade in the preface to the book *Paragranum* (63–105 Weeks): ‘You after me, Avicenna, Galenus, Rhazis, Montagnana, *Mesuë*, etc; you after me, [and] not I after you. You of Paris, you of Montpellier, you of Swabia, you of Meissen, you of Cologne, you of Vienna, and you from whatever else lies on the Danube or the Rhine . . . Not a one of you will remain in the hindmost corner upon whom the dogs will not crap!’ (75–77); ‘It is therefore to be concluded that healing is what defines a physician and that results are what define the master and the doctor. Not the emperor, not the pope, not the faculty, not *privilegia*, nor any university whatsoever’ (87); on the ‘revolutionary’ force and self-presentation of Paracelsus, see [Nutton \(2022\)](#) 278–79, 283–89.

be located in the body or are curable through traditional pharmacology or purging. Thus Paracelsus vehemently opposes received medicine altogether and does so with conspicuous radicalism.⁴⁰ Disease for him is best accounted for in terms of bodily forces (*spiritus*) and universal energies and in terms of their harmony and disharmony, substances and life style, and environmental circumstances; 'disease' itself as status is deeply questionable. In his judgement, effective cures should be based on the principle of similarity rather than allopathy,⁴¹ and on the employment of precise 'chemical' substances. Holistic and moral factors come into play in the portrayal of pathology, bringing Paracelsus in this respect closer to folk conceptions of mental illness as a marker of an existential status, that of the sinner or the weak. When it comes to the history of psychology, then, it is no surprise that Ellenberger, the great historian of psychoanalysis, saw in Paracelsus an important predecessor in the development of dynamic psychiatry, especially via Mesmer's theory of animal magnetism and trance-inducing therapeutic practices at the end of the eighteenth century.⁴²

If we summarize Paracelsus' approach to pathology as psychosomatic, delocalizing,⁴³ interpreting the body as a complex ensemble of semiotic fulcra, and holistic in its emphasis on the connections between micro- and macrocosmic forces, we can easily see the rupture his take on such a heavily somatized disease as *phrenitis* represents. For example, in the *Paragranum* (74 Weeks):

The great chief illnesses, *apoplexia*, *paralysis*, *lethargus*, *caducus*, *mania*, *phrenesis*, *melancholia*, id est, *tristitia*, and their kind cannot be healed by the decoctions of the apothecaries. For no more than meat can be cooked in snow, no more than that can such medicine become effective through the art of the apothecaries. For just as each sphere has its own mastery pertinent to it, in this same sense you should seek to understand the diseases in the manner that they have their particular arcana, for which reason they should be given their particular *praeparationes*.

The body's state is determined by the behaviours of its spirits; the *mercurius* moves following different paths, one of which, the *sublimatio mercurii*,

⁴⁰ See Christie (1998) 277–78 on how 'as a matter of historical development ... the itinerant Paracelsian body also through time advanced from the popular margins of European society, from the streets, highways and inns to the courtly summits'; Wear (1995) 310–22.

⁴¹ Christie (1998) 279–80.

⁴² Ellenberger (1970) 66, 720, 730. On magnetism and 'invisible diseases' in Paracelsian medicine, see Schott (1998); Christie (1998) 201.

⁴³ See Christie (1998) on chemistry and the body of Paracelsus.

causes *mania* or *phrenesis*. Another Paracelsian causative framework for *phrenitis* is *tartarus*, an alchemic-transformational-digestive concept, the ‘pathogenic embodiment of a failed or aborted process’ (*Paragranum, Tract. IV*, 569 Weeks).⁴⁴

So you should be aware that outside of the brain, *tartari* of its kind are found in consequence of the fact that a stomach is present and functioning in that particular region. From this result *phrenesis* [and] *mania*, and many *vesaniae* of the kind [also] occur *which the physicians have accounted for as if they were in the blood and with other explanations of the kind, though it is all false*. How it is that more things of this sort are common, will be written of further in another context.

If this pathological doctrine remains marginalized from the main discourses and practices of official medicine, by the end of the sixteenth century Paracelsianism is capable of exerting an important influence⁴⁵ and contributes to the rise of the ‘Vitalism’ that took hold in the French academy in the eighteenth century, centred on the University of Montpellier.⁴⁶ It also influences the development of dynamic psychiatry and psychoanalysis, and is visible in some of the outcomes of *phrenitis* in the twentieth century: the affection of ‘stress’ or ‘stress syndrome’, as we shall see in [Chapter 10](#).

An earlier representative of this strand of thought regarding *phrenitis* is the 1765 article *Phrénésie* in the *Encyclopédie* (12: 530). The author engages, on the one hand, with the contemporary encephalic understanding – *phrenitis* is in fact defined as ‘continuous delirium or corruption of the functions of the brain, caused by inflammation in the vessels of this organ, accompanied by a fever of the intermittent or putrid kind (*délire continuuel ou dépravation des fonctions du cerveau, causée par une inflammation dans les vaisseaux de ce viscere, accompagnée d’une fièvre synoche ou putride*)’:⁴⁷

The cause has always been seen as concerning the brain and its membranes. These parts are in fact affected by an inflammation produced by heated, dried and boiling blood, as Hippocrates (and) the greatest doctors in

⁴⁴ Weeks (2008) 19.

⁴⁵ Wear (1995) 316–25 on the rise of Paracelsianism and iatrochemistry; Nutton (1997) 158.

⁴⁶ On vitalism, holism and ancient medicine, see Holmes (2020); on vitalism and psychopathology, Huneman (2008).

⁴⁷ In addition, but along similar lines, see Berrios (1999c) on *Délire* in the *Encyclopédie* in its relationship to ancient *phrenitis*. This entry (translated by Berrios 1999b) also emphasizes a holistic, delocalized account of the bodily seat of mental life, albeit focusing on the brain, which is addressed histologically: ‘Because ideas consist in vibrations of brain fibres, their nature will vary according to the length, thickness and tension of the said fibres and also to the harmony of the vibrations’ (Berrios 1999b, 536).

antiquity recognized, and with them the simplest of the people thought it came from thick blood which is carried to the head, and that thin, watery urine, combined with a feverish state, announces a forthcoming *phrenesis*. It thus appears that *phrenesis* is caused by the transfer of some humour from one place to another, or by a transfer of the feverish matter to the brain.⁴⁸

On the other hand, his interpretative frame is holistic and systemic: the inflammation is just one form of the disease that can affect different localizations (head, chest, etc.), and the cause is the clogging up of the vessels around the brain: ‘Dissections show that *phrenesis* is not caused by inflammation of the meninges, nor *paraphrenesis* by that of the diaphragm, but by varicose engorgement of the vessels of the brain and meninges; it is sometimes with inflammation in the forms, and other times without inflammation.’⁴⁹ We recognize here, on the material level, a strong analogy with the account Asclepiades offered.⁵⁰ And as in Asclepiades, the holistic, delocalized story leaves room for psychological and holistic causation: ‘Thus all the causes that lead to the engorgement of these parts are those of *phrenesis*. Thus sorrow, the strong and continuous application of the mind to the same subject, pain, strong passions, such as anger, fury, love, the excesses of uterine fury, are all causes of *phrenesis*.’⁵¹ Despite still referring to the familiar descriptions of *phrenitis* by the Greek doctors, the presentation here is open to a more holistic model of the body, shows a unique concern with psychological aspects, and is interested in psychotherapeutic remedies. Indeed, its themes and authorities connect to a large extent with those discussed in Chapter 3, especially Celsus and Caelius Aurelianus, and resonate with this psychosomatic vein regarding pathology proposed by Paracelsus and developed through Paracelsianism.

⁴⁸ ‘La cause a toujours été regardée comme propre au cerveau & à ses membranes. Ces parties sont alors affectées d’une inflammation produite par un sang échauffé, desséché & bouillant, comme l’ont reconnu Hippocrate, les plus grands Médecins ensuite, & avec eux les plus simples d’entre le peuple ils ont pensé qu’elle venoit d’un sang épais qui se portoit à la tête, & que l’urine tenue & aqueuse dans un fébricitant, annonçoit une phrénésie prochaine. Ainsi il semble que la phrénésie a pour cause une métastase qui se fait de quelque humeur d’une partie sur une autre, ou un transport de la matiere fébrile dans le cerveau.’

⁴⁹ ‘Les dissections apprennent que la phrénésie n’est pas causée par l’inflammation des meninges, non-plus que la paraphrénésie par celle du diaphragme, mais par l’engorgement variqueux des vaisseaux du cerveau & des meninges; elle est quelquefois avec une inflammation dans les formes, & d’autres fois sans inflammation.’

⁵⁰ See Chapter 3, pp. 63–68.

⁵¹ ‘Ainsi toutes les causes qui disposent à l’engorgement de ces parties, sont celles de la phrénésie. Ainsi le chagrin, la forte & continuelle application de l’esprit un même sujet, la douleur, les passions vives, telles que la colere, la fureur, l’amour, les excès de la fureur utérine, sont autant de causes de la phrénésie.’

Phrenitis *Delocalized: Strong Emotions*, crapula, immoderatio

The general, dominant tendency in the pathological authors of the early-modern era, as we have seen, is nonetheless to tie *phrenitis* firmly to physiology around the following points: inflammation, fever and histology. The body as matter is at the centre: observed in life, cut open and delved into in death, with its colour, texture and condition scrutinized as telling a story.⁵² The affected mind, the delirium, is a consequence of the bodily state. Is there any space left, then, for the ethics of mental disorder, whereby *phrenitis* is associated with immoderate habits and character flaws?

The moralizing discourses about the ‘phrenitic man’ (and mental illness in general), often popular and approximate, also had an important impact on medical views of the disease, although this part of the story is progressively submerged in the modern period. The behavioural and existential focus in the discussion ‘of Phrensie occasioning self-killing’, for instance, in John Sym’s 1637 *Lifes Preservative against Self-killing*, seems to be a rarity: ‘The seventh motif occasioning self-killing, is phrentick distemperatures; which are either voluntarily contracted and entertained, as in violent passions of love, anger, and the like; whereby some kill themselves; or else they are involuntary, and such as man is but passively affected with.’⁵³ In the majority of cases, however, *phrenitis* is more and more firmly positioned as a pathology among bodily diseases.

But there are two areas in which the ethical dimension of the disease is still integrated into the medical outlook, and one of these is especially important for the afterlife of the disease. First, there is the role of the emotions as trigger, as we have seen: anger can lead to *phrenitis*, as Van Swieten recognized, and other exacerbating emotions, such as grief, can as well. Second and more important, there is alcohol abuse. Excessive consumption of wine and spirits recurs as a cause of the disease, and an early picture of what will eventually be ‘delirium tremens’⁵⁴ seems to be sketched in its wake: the *phrenitis potatorum*, or *phrenitis* caused by potato-gin.

⁵² On the ‘birth’ of modern histology (and histo-pathology) and its eventual integration with anatomy (and anatomo-pathology), see Maulitz (1987).

⁵³ Sym (1637/1963) 113–14.

⁵⁴ Defined as follows in current medicine: ‘*Delirium tremens* is a severe form of alcohol withdrawal. It involves sudden and severe mental or nervous system changes. *Delirium tremens* can occur when you stop drinking alcohol after a period of heavy drinking, especially if you do not eat enough food’ (<https://medlineplus.gov/ency/article/000766.htm>, accessed June 2023). Main symptoms are ‘nightmares, agitation, global confusion, disorientation, visual and auditory hallucinations, tactile hallucinations, fever, high blood pressure, heavy sweating, and other signs of autonomic hyperactivity (fast heart rate and high blood pressure)’. See <https://emedicine.medscape.com/article/166032-clinical>, accessed June 2023; cf. Berrios (1999b), (1999c) on delirium and its relationship to *phrenitis*.

The syndrome still called *delirium tremens* today was fully described for the first time by Thomas Sutton in 1813.⁵⁵ At the very beginning of his *Tracts on Delirium Tremens*, Sutton acknowledges the similarity between his pathological object and *phrenitis*, but emphasizes the differences when it comes to treatment, hence the need to find a novel pathological approach for this type of inflammation of the brain. Even before his explicit conceptualization (and distinction), however, the role of wine and drinking in some cases of *phrenitis* had been emphasized, and hallucinatory, distressed, ‘frenetic’ and tremulant manifestations were part of the disease from its ancient beginnings. An illustrative description of this stage of the story is offered by Wilhelm Ecke in his inaugural dissertation *Delirium cum tremore Potatorum* (1845), whose opening nomenclature exposes yet another version of the cluster of illnesses now being formed under the umbrella of *phrenitis*: ‘*delirium tremens* (Sutton); *Meningitis seu Phrenitis Potatorum*; *Oenomania* (Rayer) *Delirium Vigilans*; *Delirium cum tremore potatorum*; *Mania a potu*; *Encephalitis tremefaciens* (J. Frank), Säuferzittern; Gehirnentzündung der Säufer; Säuferwahnsinn; Zitterwahnsinn’.⁵⁶

These two aspects – strong emotions, especially connected to aggressive behaviour, and excessive consumption of wine or spirits – were not part of the sphere of causation of *phrenitis* in the ancient tradition, although they were sporadically mentioned as exacerbating elements. And since they are soft, ‘behavioural’ features, it is at first sight surprising to find them gaining ground now, within this modern, starkly embodied, and restricted version of the disease as ‘brain fever’. But if we step away from the medical material and consider the testimony of larger cultural discourses, a consistent picture begins to emerge. We have explored in [Chapters 6](#) and [8](#) how theology, sermons and popular expressions such as drama and satire exploited, elaborated and distorted the medical construct *phrenitis* in the service of a moralizing or parodic discourse. This multifaceted ‘phrenitic’ was largely characterized by excess (in alcohol, food and sometimes desire for wealth and sexual pleasure) and aggression, with violent and dangerous behaviour, all integrated with the medical themes most apt to theatricalization of the illness *phrenitis*: shouting, trembling, groping about in the air, hurling oneself around, fever, hallucinations, a lack of self-awareness and delirium. Most important, this human character became the object of what was judged an appropriate stigma and disapprobation, a speculum of

⁵⁵ Sutton (1813) 1–77. See Bynum (2000); Porcel and Shutta (2015) on this late chapter in the history of *Delirium tremens*.

⁵⁶ Ecke (1845) 9.

human flaws: lack of awareness of one's situation, *akrasia*, an absence of dignity and a pitiable inability to control oneself. All these traits kept *phrenitis* alive as a cultural concept and were absorbed in the Victorian (and subsequent) condemnation of the drunken wretch, as well as in various discourses on alcoholism and addiction generally.⁵⁷ In this way, the popular, 'irrational', non-scientific public discourse is shown to be inseparable from and as important, in the development of medical concepts, as the erudite doctrine of learned doctors and their continuity with an authoritative ancient past.

Towards the End: Embodied Forms of the Disease in the Eighteenth–Nineteenth Centuries

Towards the turn of the eighteenth and in the nineteenth century, finally, the dominant nominal account of *phrenitis* definitively became the physiological one, with the disease touching on key instances of embodiment in pathology. In the dominant systems of classification, which offer the best sense of operational categorization, *phrenitis* is now fundamentally an inflammation, whose localization and symptomatic focus determine different subtypes. In the eighteenth-century discussion of the Edinburgh physician William Cullen, the *Synopsis nosologicae medicae* (1769), which became standard for scholars and practitioners in the following century and a half,⁵⁸ *phrenitis* is described as a *phlegmasia* seated in the head, with the following subtypes: *Classe I, Ordine II, Phlegmasiae, Genere X, Phrenitis* (*Synopsis Nosologiae Methodicae*); for the *idiopathica* kind, *vera, cephalgia inflammatoria*, and *siriasis*; and for the *symptomatica* kind, *synochi pleuriticae, synochi sanguinae, verminosa, epidemica, traumatica*. Philippe Pinel, finally, one of the last great systematizers to include *Frénésie* in his categorization, in his *Nosographie philosophique ou méthode de l'analyse appliquée à la médecine* (1797/1802–03) places *phrenitis* within the *Classe Seconde*, the PHLEGMASIES (xxxix, genre xxiii), which can be caused *inter alia* by sun exposure, strong emotions, other circumstances (physiological or morbid) or alcohol consumption, and are accompanied by fever and cognitive damage.

⁵⁷ See on this topic Valverde (1998), and the contributions in Brodie and Redfield (2002); Pruitt (1974) and Krasnick (1985) on medical approaches to drinking in Victorian times; Hands (2018) for a comprehensive discussion; and Shears (2020) for hangover as a cultural construct between illness, shame and punishment (especially 33–68, 139–70).

⁵⁸ See Cullen 1785. In the 1800 English translation *Nosology: or, a Systematic arrangement of diseases, by classes, orders, genera and species*.

University Research

Both medical university research and clinical observations testify clearly to this inflammatory development. Two inaugural dissertations, some sixty years apart and unworthy of much notice except as nominal testimony to this state of affairs, offer a glimpse of the accepted vulgate and *status quaestionis*, from the Netherlands (the *Dissertatio medica inauguralis* of the physician Michaëlis Jacobus de Vries, 1757, written in Latin)⁵⁹ to Maryland (John Hooper's *Inaugural essay on phrenitis*, 1815).

The first, de Vries, relies fully on the ancient Galenic distinction between *phrenitis vera* or *idiopathica* and *phrenitis symptomatica* or *paraphrosyne*, with symptoms 'wild and persistent wandering together with high fever and a tense wrist (*pulsus durus*): these are the three symptoms that characterize *phrenitis*'.⁶⁰ In terms of localization, '*Phrenitis* involves an inflammation of the brain, including the dura mater and pia mater, and also of the brain substance' (III, 6). The anatomo-pathological teachings of Morgagni, Boerhaave and Van Swieten are repeated as assimilated, and now provide the main narrative for *phrenitis* for intellectuals, scientists, operating clinicians and students alike. The disease is fixed and canonized as meningo-encephalitis, and the pathological conception juxtaposes to it a variety that affects the brain in a secondary manner, starting from a variety of other organs in the body, including the diaphragm in particular.

The second text is a degree thesis from Maryland submitted in 1815, the *Inaugural Essay on Phrenitis* by John Hooper, which offers a further sample of this state of medical opinion, in this case written in English. Hooper's opening words show a perfect rewriting of Hellenism in terms of modern anatomo-pathology and experimental method: 'By dissection, *it has been discovered*, . . . the disease consists either in an inflammation of the brain, or of the membranes investing that organ.' For this doctor fresh from medical school, the ancient medical construct of brain *phrenitis* is the incontrovertible pragmatic result of a momentous discovery for which post-mortem, anatomic autopsy is to be awarded the credit.

The second interesting feature in the change of perspective is the section on symptoms. First, Hooper opens directly with a focus on the subjective feelings and personal disease experiences of the patient, now made to 'make sense' and to correspond to the conclusive evidence the dead body will offer. In its first phase,

⁵⁹ See Schlesinger (2011a, 2011b). ⁶⁰ Here and throughout, my translation of the Latin.

Phrenitis most commonly commences with a *sense of fullness* in the head, flushing of the countenance, and turgescence of the face and eyes, pulse full and not greatly different from its natural state; though sometimes, when there is much fever, the pulse is quick and hard . . . *impatience of light and noise*; constant *watching*; and sooner or later *delirium*. As the illness progresses, the countenance acquires a peculiar *fierceness*. Many of the organs of *sense* now become impaired . . . respiration is generally slow, and difficult . . . the stomach is frequently oppressed with bile, and the skin and urine completely tinged yellow.⁶¹

The disease progresses in the second stage, exacerbating the signs: ‘enlargement of the capillary vessels’ and deterioration, so that ‘we discover a pallid countenance, dilated pupil, strabismus, sick stomach’.

As for causes, Hooper distinguishes the exciting from the predisposing ones. Exposure to the sun and ‘exercise in warm water’⁶² are mentioned as triggers, as well as ‘the passions of the mind and certain poisons’, by which he means intoxicating substances, although ‘their mode of action is not well understood’. For Hooper, the interpretative grid is vascular: there is ‘general increased action of the arterial system’ leading to an accumulation of blood in the brain. Antecedent causes predisposing the patient, on the other hand, are ‘fatigue of body and mind, and suppression of usual evacuations’, as well as ‘marsh miasmata’, which can induce ‘general debility of the system’. A sense of inexplicability nonetheless remains imbedded in the picture of the disease; not only are the physiological effects of strong emotions or substances ill understood, but *phrenitis* ‘sometimes arises from causes with which we are unacquainted. Sometimes it is symptomatic of fever and sometimes from a peculiar disposition of the atmosphere.’

In both De Vries and Hooper’s expositions – not outstanding ones, which basically reflect the views circulating in medical faculties between the eighteenth and the nineteenth centuries – ancient doctrines and modern anatomo-pathology are blended into a fairly homogeneous amalgam. But we should not forget that these professional doctrines both shape and gain life from the actual patients in whom *phrenitis* is diagnosed in the final century of its existence, patients who actually suffered the disease in their living bodies. A look at the stories of some of them is unavoidable, if we are to understand the relevance of medical/textual history to the actuality of human life. The following phrenitic cases from American and British contexts, intriguingly, share a remarkable (if upon reflection

⁶¹ Hooper (1815) 7–8. ⁶² Hooper (1815) 9.

unsurprising) feature: while moulded on the lived experience of actual people, and thus positioned chronologically in the modern era (1807, 1838, 1849 . . .), by comparison with coeval anatomical or theoretical writings, the reports on clinical activities appear more conservative – better put, they display a more direct continuity with the ancient narratives. If the anatomopathological studies evolve more rapidly away from ‘Hellenistic’ authorities, the clinical observations and patient cases still readily rely on and in turn maintain agreement with the ancient physicians vis-à-vis the signs displayed by the human beings seen and touched, and possible remedies to relieve their conditions.

Clinical Observations

Over the course of the nineteenth century, *phrenitis* remains an operationally useful diagnosis, observed with a good degree of consistency in patients. Consider the ‘apparently idiopathic *phrenitis*’ described in a 1819 communication by the Halifax physician Robert Paley, which refers to a case from 1807 and largely follows an ancient narrative.⁶³ The patient is reported to have had a sore throat, and after a month a severe headache, which initiated the illness proper and lasted for twelve days; the case concluded with recovery, thanks to a felicitous decision to let blood and meanwhile support the patient with wine. The signs exhibited were a shooting pain through the head, a furry tongue, vomiting, ‘turgid vessels’ on the ‘tunica conjunctiva of the right eye’, sensitivity to light and sound, and delirium. He continued subsequently to suffer from delirium, fever, unsettled sleep and a comatose state, and the involuntary passing of faeces and urine, all accompanied by excruciating pain. The initial phase of therapy included washing the head and extremities, and later bloodletting from the templar artery. On the final day before recovery, there was an ‘unpleasant sensation in the right ear, which proved to arise from the bursting of an abscess’, with discharge of matter.⁶⁴ Both respiratory and head ailments thus characterize this case, and both description and therapy closely reflect ancient Greek *phrenitis* and its remedies.

Another case, described by a certain Robert Howard in an 1838 issue of *The Lancet*, is of ‘premature parturition preceded by *Phrenitis* and accompanied by peculiar symptoms’, in Heptonstall in Yorkshire, and is interesting for its reference to antecedent mental distress.⁶⁵ The patient, Mrs Waterhouse, was ill for twenty days in July. Her personal patient history referred to mental

⁶³ Paley (1819). ⁶⁴ Paley (1819) 225. ⁶⁵ Howard (1838).

disturbance, a previous state of 'violent mental agitation, alarm and surprise' which occurred some twenty days before, with 'excito-motory organs . . . disordered, but more especially the uterus'. Various unpleasant symptoms followed, including 'neuralgic tremors, pain in the head, uneasiness about the back, hips, and inferior part of the abdomen'. The use of the term *phrenitis* in this case evidently identifies a neurological and mental set of symptoms, rather than the inflammatory disease with fever, in this case connected with pregnancy. The illness, it is said, was resolved by the early birth of the child, in the twenty-second week of pregnancy; it died two hours after delivery. In the course of the illness, the woman suffered what the physician calls 'spurious parturient pains' and encephalic distress: signs of 'pain in the anterior lobe of the right hemisphere of the brain', 'headache', 'cephalgia . . . flushing of the face, some redness of the conjunctiva, with an aversion to noise . . . the least movement of the head increased the pain, and noise created confusion in her mind; her urine passed involuntarily'. The therapy, as in the Halifax case, included bloodletting, silence and rest (dimming lights and the like), and opening a blister on the patient's neck. After her state had worsened (headache, nausea, perspiration), at the disease-peak her state appears to have resembled the most traditional 'phrenitic' state: 'A somewhat formidable symptom presented itself . . . an appearance of profound thought on the part of the patient, accompanied by an occasional lateral shaking of the head; tremors of the hands were also observable'. A psychological remark offered by the author here is most evocative of ancient female patients afflicted by a *lypē*, as he judges that the anxiety of the pregnant woman played the decisive role: 'The *alarm* seems to have been the origin of this complex and apparently dangerous affection', together with 'a highly nerveless and irritable state of the system'.

Lifestyle and a predisposing constitution are also now updated and integrated into patient observations. William Adams was a phrenitic patient described in an 1849 communication in *The Medical Times*, 'a weaver from Dumfries aged forty-two, of spare make and dissipated habits. He is admitted on 3.08.1848 with fever, soon head symptoms and petechiae over the body.' He seems to recover, then worsens again: 'On the 26th he is declared convalescent . . . on 1.09 suddenly, without any visible cause, a state of stupor supervened, from which he was partially aroused by counter irritants and stimulants.' Then came tremors, rigidity of the joints, laboured respiration and involuntary urination; he died on the 3rd of September. The report is accompanied by an *a capite ad calcem* post-mortem examination which appears to expose a meningitic inflammation: the dura mater appears thicker and tougher than natural; the thorax and abdomen are inspected for

abnormalities; the pus and tissues are examined ‘under the microscope’. In particular, the author points out that the damage to the cranium appears to him disproportionate to the mildness of the symptoms, a remark which shows a professional expectation about how the disease, in its gravity and fatality, should be ‘inscribed’ on the body, in histological correspondence with the patient’s behaviour.⁶⁶

The second case in this report involves a certain Berney Gallocher, a phrenitic ‘labourer, from Ireland, aged twenty-two’, admitted on 1 August 1848 with a continued fever of a week’s duration. As in the previous case, he seemed to recover, but then worsened again. Most suggestively for us, the focus of his perceived ailment was not the head but the chest: ‘He appeared to be very nervous . . . he complained of nothing except a slight pain in the epigastric region.’ Then he had a violent crisis, with heightened symptoms: ‘On the 12th day he was very delirious; broke the window; threw his clothes out; and was reckless of danger, his skin was hot; and the pulse 120 . . . 13th day. He was violently delirious till four o’clock AM, when he became calm. The eyes were sunk and the features sharp.’ Despite these symptoms, the patient survived and after almost two and a half months was dismissed as cured.⁶⁷

These are all adult cases, and all are fatal or very serious. A report from 1857⁶⁸ focuses instead on an ‘unprecedented number of cases of *phrenitis* and meningitis, occurring in children under five years of age’. The author does not describe the illness, which seems to be sufficiently understood by its label as *phrenitis*, and his implication is that it involves derangement. (‘Intellect’ is said at some point to ‘return’.) Instead, he focuses on the therapy, and especially the ineffectiveness of traditional purging methods in several cases (leeches, prussic acid for vomiting); he suggests instead means of cooling the head, ‘enveloping the body in a blanket wrung out of hot mustard and water’, ‘quietude and exclusion of light’. Many instances ended in death until the doctor, as a last resort, turned to bichloride of mercury (a highly poisonous substance long used *inter alia* to treat venereal diseases) combined with a diuretic treatment, which apparently resolved many of the cases.

Our most detailed and narratively complete set of cases is a group of patients from the end of the nineteenth century described in the *Saint Bartholomew’s Hospital Reports* (1876).⁶⁹ The author, Samuel Gee, opens

⁶⁶ Barker (1849) 38.

⁶⁷ Barker (1849) 39. Note the Galenic element of the window, for which cf. above, pp. 195, 320, 326.

⁶⁸ Jackson (1857). ⁶⁹ Gee (1876).

with a statement which indicates both the strongly somatized approach to the pathology, and the semiotic and antiquarian status the label *phrenitis* had by then acquired. Gee writes explicitly that he ‘cannot call these . . . cases by the name of meningitis, for that is an anatomical term, and the anatomical proof is lacking here. Wherefore I choose the name *phrenitis*, for that is a *semeiotic term* [my emphasis], suited to my present purpose.’ The name, he explains, was given by the Greeks to ‘(1) a disease of the mind, with a continuall madnesse or dotage, which hath an acute feauer annexed, or else (2) an inflammation of the braine, or the membranes or kells of it, with an acute madness, which causes madnesse or dotage’. The label he chose to give in his title, *phrenitis aestiva* (‘of the summer’), is ‘simply because they all happened in hot summer weather, and because I believe that there is more than a mere coincidence herein’.⁷⁰

The study reports on four cases, children between 22 months and 6–7 years, all in good health ‘until attack of *phrenitis*’. Gee is a systematic thinker as well as a clinician, and his detailed reports are accompanied by a summary of recurring circumstances he regards as relevant. The children, first of all, fell ill in the summer; at least two were exposed to the hot sun for many hours. The attack struck variously the gastric area (‘L.S. vomited in the evening; fit of convulsions, and was relaxed in her bowels’; R.M. ‘vomited once’; E.C. ‘vomited . . . the bowels became relaxed’ – repeatedly) and the head (‘headache and pains in her feet’ for R.M.), causing chills and weakness, and a comatose state (W.P.), while one patient ‘became exceedingly cold’ (R.M.).⁷¹ The pathology, both bodily and mental, is related in a detailed manner. R.M., for example, was at some point ‘passionately screaming out at the top of his voice in fancied talk with persons not present, noise almost continual’.⁷² This is a girl of 22 months. The course of the illness is characterized by heating, fever, problems with speech, weakness of the limbs and, at the end, deafness and unintelligible speech which persist after the recovery: ‘three years afterwards, totally deaf; speech has become thick and unintelligible except to nearest friends; can read; well-grown; slight squint; mother thinks he has not quite the proper use of his legs’.⁷³ E.C., a girl 6 years and 5 months old, dies only 19 hours after the attack. She vomits continuously, falls asleep, and ‘on awakening was mildly delirious, talked nonsense, picked at bed-clothes’. Later there was deep coma, livid lips and ‘skin everywhere injected, mottled, livid’; here as before, the reference is perhaps to one reliable visible sign or complication of meningitis on our contemporary

⁷⁰ Gee (1876) 5. ⁷¹ Gee (1876) 7–8. ⁷² Gee (1876) 8. ⁷³ Gee (1876) 9.

understanding, *septicaemia*. The girl dies comatose, with dilated pupils, and the post-mortem confirms the presence of blood clots in the brain and meninges.⁷⁴ W.P., a boy between 6 and 7, died on the fifth day after the initial attack of the disease. He had phases of unconsciousness and was from the beginning half-comatose and unresponsive, with a throbbing in the heart and arteries. On the fifth day, 'a few small papulae and blotches of no very characteristic appearance upon the skin'.⁷⁵ Delirium, coma, dilated pupils and distress followed; at the end, 'pupils remained unequally dilated, the larger one insensible to light'.⁷⁶

As already noted, Gee's work is remarkable for its combination of clinical detail, theory and taxonomy – all elements of contemporary hospital medicine in similar cases – and for what one could almost call an exquisitely poetic reference to ancient medicine. At the end of his exposition, Gee offers a methodological statement worthy of careful attention:

After writing out my notes, I turned to the '*Epidemics*' of Hippocrates, Books I and III. There I found cases resembling mine as closely as cases could, *causus* and *phrenitis* are the names given to them . . . the diseases of Thasos are illustrated by the diseases of London. To seek to make the facts of Hippocrates tally with the intellectual abstractions of our textbooks and systems of medicine shows ignorance of his method. His *causus* and *phrenitis* are merely the names of symptoms common to many diseases.⁷⁷

These words show an awareness of the impossibility of perfect retrospective matching, on the one hand, but also an acknowledgement of underlying deeper validity despite the opposition between ancient concreteness and modern 'abstraction', on the other. The move to allow such validity is to describe the Hippocratic construct *phrenitis* not as a disease but as a cluster of events: Gee shows instinctively and unreflectively how pathology appropriated the ancient material at the price of fragmenting it into blocks, converting its actualized understanding into 'symptoms'. He accordingly continues: 'It is remarkable that nearly all the histories which Hippocrates narrates in the first and third book of "*Epidemics*" are instances of *phrenitis*; and this combination of symptoms (high fever and delirium) seems to be the chief bone of resemblance between his cases.' He then lists and scrutinizes the symptoms in a summary which works well as a final concentrated portrayal for us:⁷⁸ fever and heat in the head; 'delirium and *phrenitis*', noting that infants seem less exposed to delirium, having

⁷⁴ Gee (1876) 9–10. ⁷⁵ Gee (1876) II. ⁷⁶ Gee (1876) II. ⁷⁷ Gee (1876) 12.

⁷⁸ Gee (1876) 13–22.

convulsions instead; comatose state and lethargy, here understood as a symptom and consequence of heat-stroke; convulsions; rigors; coldness of extremities and lipyria (interior burning accompanied by severe cold in the extremities); lividity; pain in the thighs; shaking/throwing oneself about; a throbbing heart and arteries; vomiting; diarrhoea or constipation; crocydism; insomnia; rash; symptoms 'of an affection of the base of the brain and cervical cord', such as 'pulse infrequent and irregular; unequal pupils; internal squint of right eye; deafness; cervical episthotonus';⁷⁹ *tache cérébrale*.⁸⁰

In line with this 'symptomatisation' of *phrenitis* is the dilation of pathological consequence into the future of the recovered patient. Gee emphasizes the permanent impairment suffered by those who survive:

The two children who escaped with life did not completely recover. L.S., one year after her illness, was in a state which may be best expressed by the word dementia . . . R.M. was left absolutely and permanently deaf; and three years after his illness there were other and slighter sequelae, squint, an infrequent and irregular pulse, and some unsteadiness on the legs.

To illustrate the extent of the possible damage, Gee refers to two additional cases, again children, H.R. and L.O. Both survived, but ten weeks after the first was still 'very restless; does not look very idiotic; less clean than he was, probably deaf; speaks a great deal, but what he says cannot be understood'. The second child ten months after recovery was affected by 'general paralysis; walks feebly, like a child just beginning to walk; arms clumsy and weak; . . . mind seems right, but she is less lively than before her illness; speaks distinctly; subject to nightmare'.

*Infective phrenitis: An Epidemic Occurrence in Neumünster
at the End of the Eighteenth Century*

One final fundamental theme in modern pathology intersects our story: that of infectiousness and epidemic waves. In his discussion of *phrenitis*, Morgagni mentioned a cluster of cases of *paraphrenitis*, all fatal and similar among themselves, which occurred in the winter of 1754. As *phrenitis* is more and more often compared to inflammation with high fever of various kinds, it makes sense that aspects of epidemic should come to notice for

⁷⁹ Abnormal posture where the back becomes extremely arched due to muscle spasms.

⁸⁰ Gee (1876) 19. *Tache cérébrale* designates a congested streak produced by drawing the nail or another sharp object across the skin, lasting to to 15 minutes, concomitant of various nervous or cerebral diseases.

phrenitis, and we are lucky to have a full case study to illustrate this: the epidemic witnessed and described by the German physician Ferdinand Saalman in 1788 in his *Descriptio Phrenitidis et Paraphrenitidis Monasterii in Westphalia circa Medium mensis Martii grassari incipientium vere contagiosarum earumque factae curationis* (*Description of Phrenitis and Paraphrenitis at Neumünster in Westphalia, around mid-March, of the truly contagious beginnings of its attack and the measures adopted towards their cure*).

The disease here called *phrenitis* is highly infectious and dangerous; it is described closely and is embedded in the socio-material circumstances of an urban proletarian population. With its translation of the *Coan Praenotions* in an appendix and its wealth of clinical observations, this booklet is both the first available document on *phrenitis* as an infectious disease and yet another instance of the coexistence of skilled crisis medicine, classical erudition and analytic thinking. The *Descriptio* is in fact a marvellous witness, far from both university faculties and the private study, to human suffering in the course of the events in Münster, Westphalia in March to June of 1788.

In Saalman's own words, the epidemic was terrifying, 'ravaging [its prey] in a way horrible to behold, devastating with beastly fierceness (*horrido spectaculo eviscerans, ferinaque rabie devastans*)' and of frightening contagiousness, and reached beyond immediate contacts. Indeed, the disease was 'disseminated far and wide, and able to expand . . . through transference (*late disseminatum, translatumque . . . propagetur contagium*)'.⁸¹ The first onset of this *phrenitis* was accompanied by fever, vertigo and migraine, a heavy head, backache and an odd relaxation of the limbs, and a desire for sleep, but a sleep brief and anxious, which brought no repose (*fugitivus, pavoribus distinctus, insomniisque deliriis, nec recreans*). Next came forgetfulness, delirium and deafness; 'a sense of strangulation (*strangulatorius sensus*), especially in women';⁸² a feeling of disturbance and ill ease around the diaphragmatic area and the heart (*anxietas . . . circa praecordia*); then open delirium, with blood-shot, tear-filled eyes (*sanguinolenti oculi & lacrymosi*) and deep breathing. The stomach was also involved, occasionally with icteric signs, the yellowish appearance of the body, sometimes with worms (*quibusdam alvus fluida biliosa est cum copiosis vermibus & lubricis & ascaridibus descendentibus*).

⁸¹ Saalman (1788).

⁸² Explicitly by analogy with hysteria: *qui hysterico affectui simillimus est*, Saalman (1788) 4.

Many elements of the general portrayal do not surprise: the acute, fatal quality of the disease; the busy hands, hypervigilant eyes and acute hearing; the coughing, white urine and diarrhoea; the grave tremor and wheezing breath, signalling disturbance in the lungs; and the fluctuating fever. The clinician's interest has left aside the brain – a part he cannot observe, much less cure – as locus of affection or seat of causation, and focuses on the vital functions whose actions he can concretely observe and monitor: breathing, evacuation and movement. But he adds observations of the psychology of the patients, their 'sort of additional anxiety caused by the exacerbating disease (*anxietate quoque aliqua ob malum quoddam ingruens*)', fretfulness (*morositate*) and 'a type of atypical irascibility (*iracundia quadam inconsueta*)'.⁸³

As far as prognosis is concerned, elderly patients were more at risk than the young or infants, as were those with antecedent illnesses. Violent trembling, bilious discharges, abrupt changes, and sudden disturbance of the eyes and face, accompanied by bouts of anger, as well as the quality of urine, copious sweating and clenching of the teeth were observed. The well-known crocydism returns ('deeply engaged and intense search for straws and pieces of wool', *profundae et sollicitae palearum & floccorum venationes*), along with delirium and angst ('delirium about the things which usually occupied them when they were healthy', *deliria de rebus, quas sani agitare confuerant*).⁸⁴ Imminent death is announced by various signs, several of them of Galenic or Hippocratic memory: a more rapid succession of exacerbations, torpidity (*sopores*) and the regurgitation of fluid through the nostrils.

Unlike the *dissertationes medicae* and the anatomico-pathological treatises, Saalman's work (like the clinical cases we have surveyed) stresses human, even personal detail at its finest. The chest-respiratory ailment is in this case foregrounded, and the subjective experiences of psychological distress, the repeatedly described terror and anger, are visibly at the centre of the account.⁸⁵ In the spirit of his profession as community doctor, Saalman insists on the contagious quality of the epidemic,⁸⁶ for him caused by putrid matter coming from dead animals – matter that can be 'volatile salts, oleaginous, fetid stuff (*salia volatilia, oleosa, foetida*)' – affecting healthy bodies.⁸⁷ There is also a socio-urbanistic dimension to his analysis: he finds the initial cause of the contagion mostly in the filth of proletarian homes and the 'most unsuitable and dirty objects' used every day by the poor (the

⁸³ Saalman (1788) 8–10. ⁸⁴ Saalman (1788) 12–13. ⁸⁵ See also Saalman (1788) 16.

⁸⁶ Saalman (1788) 17–22. ⁸⁷ Saalman (1788) 18.

curtissima & spurcissima supellectile egeni populi); he had noticed from the start that the poorest individuals appeared most susceptible.⁸⁸

In addition, Saalman further qualifies the categories most affected: people who travel, those who attend the sick, and so forth.⁸⁹ Only at page 22 does he address the meningitic frame: *cerebri & meningum inflammatio* is central for *phrenitis*, of course, but there might be other latent inflammations, such as of the liver. A number of corpses of the dead in fact had swollen, dark, gangrenous parts in the lower body, with livid areas. Despite the contagious causation, in cases of *paraphrenitis*, lifestyle and morals also played a role: Saalman insists that abuse of food and wine (*crapula*) and debauchery generally, beginning in youth (*pregressa iuvenilibus in annis intemperantia*), favour the disease.⁹⁰ Like the other *phlegmasiae*, this *phrenitis* leaves behind it a predisposition to future attacks.⁹¹

Four new nosological elements thus pop up here that the history of medicine had not yet included in *phrenitis*: the environmental element (the ‘marshes’ and animal carcasses); its possible contagiousness; the predisposition to recurrent attacks;⁹² and the demographics. In an appendix at the end,⁹³ some statistical information which had been added in the aftermath of the event is offered: there were over 450 cases in Neumünster between April and June that year, 32 of them fatal. Patients mostly had a specific profile: old or elderly, or weakened by excessive consumption of wine, and male. The treatise concludes with praise for the immortal Hippocrates and his prognostic genius, and with selected passages from the *Coan Prenotions* which most closely match Saalman’s own observations about the unhappy fate of the Westphalian victims of the epidemic.

Of Horses and Men: Veterinary Parallels

I have mentioned somatization and have illustrated it through anatomopathological doctrines, patient cases and clinical reports at the turn of the modern era. The label *phrenitis* becomes more and more pathological, localized and corporeal, its nature inflammatory and neurological rather than psychiatric, and psychological only in its side-effects. The disappearance

⁸⁸ Note also Saalman’s equation of poverty and dishonesty: ‘Poverty is well said to be foul, because foul is the way of living of the poor, foul is their home, foul their tools, and everything else which is needed for an honest life style is deeply lacking among the plebs (*egestas recto cognomine dicitur turpis, nam turpis est egenorum vivendi ordo, turpis eorum casa, turpis supellex, & alia omnia, quae ad honestam regulam in vita humana requiruntur, in vulgo penitus desunt*)’ (20).

⁸⁹ Saalman (1788) 22. ⁹⁰ Saalman (1788) 25. ⁹¹ Cf. Hooper (1815) 10.

⁹² Cf. also *Pantologia. A new (cabinet) cyclopædia* (1813) ad loc. ⁹³ Saalman (1788) 32–45.

of the disease from the mind and its movement into the body also occurs by means of the involvement of the ‘animal’ in its sphere of action. From the end of the sixteenth century, in fact, a veterinary concept *phrenitis* emerges and is variously described, with a wealth of parallels to the human affection – a final stage towards the allocation of *phrenitis* ‘to the body’.

Ancient veterinary science developed relatively late as a separate discipline, and its relationship to medicine was also established later. In earlier stages, it belonged instead to agronomy and mostly concerned itself with the care of cattle, hunting dogs and other useful domestic animals, or of animals such as horses that had an obvious military use. In the Byzantine period, veterinary science developed more and more as a separate branch of medicine, in particular for horses in the case of hippiatrics. In no case, however, were mental disorders such as *melancholia* attributed to animals (nor would we have expected them to be). Epilepsy, *hydrophobia* or rabies, and *opisthotonos* are as far as veterinary science typically goes with what are, on our understanding of the matter, neurological diseases in animals.⁹⁴ Mentions of *mania* and *phrenitis* – as manifestations of disorder in terms of variation in intensity rather than quality – are sometimes referred to, but metaphorically and outside technical texts. Thus in Chapters 6 and 8 we saw, in respect to *phrenitis*, pathologized behaviour in horses, dogs and wild beasts evoked as an image of the phrenetic person.⁹⁵

It is accordingly significant and noteworthy that in the modern era *phrenitis* begins to appear in a variety of veterinary works. The celebrated veterinary surgeon William Youatt, for example, devoted a section of his lecture XLVI to ‘*apoplexy* and *phrenitis* in horses, cattle, sheep, dogs and swine’,⁹⁶ a discussion that allows us to see animals serving, as they often do, as the zero degree of a human malady, in this case the constructed item *phrenitis*: ‘primary inflammation of the brain or its membranes’. Here as well, first of all, the disease has a lethargic counterpart, as in the case of

⁹⁴ See e.g. Lazaris (2010) 176–77, 182. Von den Driesch and Peters (2003) 35–40 seems to confirm this tendency from medieval material as well.

⁹⁵ See von den Driesch and Peters (2003) 23–40 on ancient Graeco-Roman to medieval veterinary; Thumiger (2021b) on animals and medicine in classical antiquity, 108–10 on ancient veterinary science; Lazaris (2010) on Byzantine hippiatrics; Szantyr (1970), mentioned above (p. 294), on the exceptional expression *equus frenosus* possibly appearing already in a thirteenth-century text. See also Chapter 6, pp. 293–95 on animal imagery in *phrenitis*. Hippocratic medicine already associated dogs and horses with high fever: cf. *Int. Aff.* 7 (Potter 84 = 7.184 L.), describing fever and heating with a swelling of the lungs: ‘The patient dilates his nostrils like a running horse, and sticks out his tongue as a dog does in summer from the heat.’

⁹⁶ Youatt (1833) 21–24; see also Youatt (1831) 141–43.

human *phrenitis*: ‘The farrier calls this disease *mad staggers*, in distinction from the quieter malady, which we have been considering, and which he terms *sleepy staggers*’. The symptoms are weakness and drowsiness, falling asleep while eating, oppressed breathing and a slow pulse. At a second stage of the illness, however,

the eye brightens – strangely so; the conjunctiva becomes suddenly reddened, and forms a frightful contrast with the transparency of the cornea; the pupil is dilated to the utmost; the nostrils, before scarcely moving, being left to the influence of the organic nerves alone, now expand and quiver, and labour; the respiration becomes short and quick, the ears erect or bent forward to catch the slightest sound, and the horse, becoming irritable, shakes and trembles at the least motion.⁹⁷

The animal grows violent and aggressive, with a ‘change to ferocity’: he whirls around and then collapses, having exhausted his strength. This is the first occurrence of paroxysm. The

second paroxysm is more dreadful than the first: Again, the animal whirls round and round, and plunges and falls; he seizes his trappings and tears them to pieces; perhaps, destitute of feeling and of consciousness, he bites and tears himself. He darts furiously at everything within his reach; but no mind, no design, seems to mingle with and govern his fury.

A final paroxysm is followed by stupor and death. Colic and rabies can perhaps be confused with this disease. It is interesting that, in the words of this experienced doctor, a post-mortem examination can only help up to a point, making him doubt the usefulness of autopsy at all. He explains:

[The post mortem appearances] are strangely, incomprehensibly uncertain. I have seen the highest injection and inflammation of the membranes, and evident injection and inflammation of the substance, or portions of the substance of the brain; I have seen them both combined; and I have seen other cases, in which the horse had been furious to an extreme, and yet scarcely any trace of inflammation, or even of increased vascularity could be detected.

The therapy, with emphasis on bloodletting and sedatives, resembles that for human beings.⁹⁸ The ‘frenzy’ or ‘sough’ in cattle is discussed next, and the subtlety of psychological distinction between rabies and *phrenitis* deserves attention. After displaying ‘oppression and heaviness’, the eyes

⁹⁷ Youatt (1833) 21. ⁹⁸ Youatt (1833) 22.

‘protrude and are red; the respiration is hurried, and delirium more or less intense rapidly succeeds’. Pathological, even wicked behaviour follows:

The beast rushes at everything in its way, it mischievously selects its objects – it is in incessant action, galloping about with its tail arched – staggering-falling-bellowing hideously – its skin sticking to its ribs, and the sensibility of the spine exceedingly increased. There is, even in health . . . a sensibility of the retina to certain colours, which makes the beast dislike a brilliant red; under this disease it excited him to the highest pitch of fury.

The ‘mischievous purposefulness’ of the beast is an ethical trait of the portrayal of the phrenitic, between playfulness and vice, as seen in [Chapters 6 and 8](#).⁹⁹ The violence and fearless aggressiveness of the phrenitic ox, Youatt writes, is greater than those of the horse or even the rabid ox.

Besides, with greater fury there is more method in the madness of the rabid than the phrenitic ox. The latter will run at everything which presents itself, but it is a sudden impulse. The former will, like the horse, plot mischiefs; he will endeavour to lure its victims within his reach.

The cause is blood engorgement, and parallels with human beings (from the working class, probably, the ‘neighbourhood of London’¹⁰⁰) are seen as legitimate:

to which may generally be added some immediately exciting cause, as hard and rapid work in sultry weather, over-driving, & c. In the neighbourhood of London too many instances of *phrenitis* occur from the latter cause. It once used to be the sport of brute in human shape to excite it by selecting a beast from the herd, and driving it furiously from street to street.¹⁰¹

Sheep can also suffer the disease – Youatt mentions their bright, prominent eyes – and especially lambs,

in which the symptoms are sometimes very curious – they leap and jump about, and exhibit the most ridiculous antics. Mr. John Lawrence says that ‘on the borders of Suffolk several scores of lambs were seized with an uncommon malady, leaping and jumping about the foldyard in a strange manner . . . a number of the lambs ran skipping up to the top of the roof, as though they had been possessed by more devils than Mary Magdalene, or even the nuns of Loudon. The whole parish wisely concluded that they were bewitched, and a wretched and aged pauper became the object of their suspicion and

⁹⁹ See above, pp. 310–13 for a summary.

¹⁰⁰ This ‘animal’ *phrenitis* is obviously no longer a disease fit for kings and noblewomen.

¹⁰¹ Youatt (1833) 23.

deadly hatred. The senseless and infernal supposed prevention of witchcraft was recurred to, namely, burning one of the poor animals alive.

Dogs, finally, are in Youatt's experience 'comparatively exempt from *phrenitis*'.¹⁰² If this is one of the best and most vivid discussions, several others along the same lines are found in veterinary texts from the eighteenth and nineteenth centuries. Blaine also discusses 'inflammation of the brain' in horses (and mentions cattle and sheep as well as subject to the same). The 'mad staggers' or 'frensy fever' is not distinguished here from apoplexy, and the primary-idiopathic form is distinguished from the secondary.¹⁰³ A stomach ailment can accompany it, and a 'delirious state' is explicitly named. The Italian veterinarian Carelli discusses the well-known medical topic of light in its pathological consequences, especially for horses. When exposed for a long time

to refracted light from some materials, like snow for those who travel, limestone or water, they can suffer a serious impression on the retina, a narrowing of the pupil, and severe ophthalmia. In the same way, the rapid action of a strong and concentrated light . . . produces what we call *solata*, which is a true *resipola* whose irritating effects sometimes are communicated via irradiation to the internal organs, often the brain, producing *phrenitis* (la frenesia).¹⁰⁴

What can we learn from this regarding the ontology of *phrenitis* and of mental disease generally? Omissions and sudden trends should not be taken on their own as powerful positive evidence for cultural shifts. On the other hand, discussions of *phrenitis* 'of the animal' precisely at the time when the disease increasingly crystallizes in its most conspicuous bodily form, meningitic inflammation, is surely an element of corroboration of its achieved status as bodily inflammation purged of metaphysics. The latter is left to 'soft' forms of behavioural disturbances, as will be seen in [Chapter 10](#). In this way, as often in our tradition, the animal provides a mirror for the human being in its barest and most essential form. *Phrenitis* is now increasingly ignored as ethical or spiritual in medicine, but extends its relevance to veterinary science, having become truly 'of the body'.

¹⁰² Youatt (1833) 24.

¹⁰³ Blaine (1816) 404–08. For more cases of frenzy in horses, see De Gasparin (1817); Rowe (1873) 288–90.

¹⁰⁴ Carelli (1858) 113, my translation from the Italian.



Quelle: Deutsche Fotothek

Figure 9.1 Horse with *phrenitis*. ‘Von der Hirnwüthigkeit, Unsinnigkeit Dollen Coller, zu Latein Phrenitis genannt’ (Georg Simon Winters. *Woloffahrner Roß-Arzt oder Vollständige Roß-Artzney-Kunst*. Nürnberg, Endter, 1678).

*‘If I only had a heart’: Cardiocentrism and Encephalocentrism
in the History of phrenitis*

As the modern fate of *phrenitis* draws to a close, we must return to the theme of localization and to the ‘victory’ of the brain or head over the heart or chest in our anthropology as it has emerged through the long history of the disease.

From its beginning, the *localization* of the disease was heavily thematized. This brought with it gain and a focus on the rivalry, parallelism, duality, combination and ambiguity between two images and two gravitational systems in the human body, one centred on the ‘head’, the other on the ‘chest’. The science and history of science of these alternatives is well known and was briefly discussed in [Chapter 1](#).¹⁰⁵ Roughly expressed, from the composite picture offered by the Hippocratics, we move to a general prevalence of the heart as centre of human biology in Aristotelian thought and Aristotelianism. With Galen and the bulk of the medical tradition after

¹⁰⁵ See [Manuli and Vegetti \(1977/2009\)](#) on haematocentrism, cardiocentrism and encephalocentrism in ancient medicine and philosophy; [Manuli \(1977a\)](#), [\(1977b\)](#); [Lo Presti \(2008\)](#) 1–99; [Rocca \(2003\)](#) and [Leith \(2021b\)](#) for an illustration of ‘brain’ in ancient medicine; [Wright \(2016\)](#) and [\(2020\)](#) on medical and cultural aspects of ancient understandings of the brain; [Harris \(1973\)](#) on heart and blood in ancient science.

him, the brain is more and more firmly designated as the ‘hegemonic’ seat of human reasoning and ethos, and as the managing centre of the vital functions of the body, and it remains so in the late-antique and early medieval worlds. In medicine, the ‘heart’ is restored to biological importance beginning in the twelfth–thirteenth centuries, with the rise of Aristotelianism in European science and natural philosophy, encouraging debates and attempts to harmonize this doctrine with Galen’s tripartite model of the soul.¹⁰⁶ But the brain retains its chief position as far as cognition and neurology are concerned, while the heart receives fundamental attention as the centre of animated life, corroborated by the new theorization and detailed mapping of the blood system circulation which began with William Harvey’s *De motu cordis*, from the first quarter of the seventeenth century onwards.

In terms of cultural history, however, an interesting parallel phenomenon impinges directly on the history of *phrenitis*. The ‘triumphant’ brain displays a quality of mechanical sturdiness, or of untouchability and separation from the rest of the body (via its position in the safely secluded cranium), which makes it the fulcrum of human ethics and accountability.¹⁰⁷ But the ‘heart’ is increasingly confirmed at a cultural, popular and poetic level, although with parallels in medical thought, as the locus of vulnerability, holistic embodiment, character and emotions – of humanity in the affective and ‘romantic’ sense. When Van Swieten calls the brain the ‘seat of our humanity’, therefore, he makes a strong scientific claim about what dignifies and qualifies us as human in terms of faculties and functions: our ability to judge and to reason. But he also offers only one side of the wider history of ideas about the ‘centre’ of man, a history written differently in every culture, cultural instance and period. The shift to a focus on the materiality of the brain and its stake in human subjectivity in the seventeenth century of our era, after the English doctor Thomas Willis’s seminal studies on its anatomy, substance and functions as solid organ, and its relevance to the working of the soul, is effectively a ‘cerebralization of the subject’, to paraphrase Vidal and Ortega.¹⁰⁸

¹⁰⁶ See McVaugh (1990) 75–78 on Arnau de Vilanova in this respect and ‘medical instrumentalism’ as a way to bring these models into agreement.

¹⁰⁷ See Ambrosio and MacLehose (2018), especially part 11 for the cultural and imaginary associations of the ‘brain’ (106–229); Vidal (2009) and Vidal and Ortega (2017) for the detailed history of this ‘cerebral subject’ in the making from the seventeenth century onwards.

¹⁰⁸ See Vidal (2009) 12; Vidal and Ortega (2017) 13–58; Wright (2022) 64–92 on the shift from ‘ventricular dominance’ to a concept of the brain as organ; Debru (2010) for observations on ‘metaphors’ of the brain in scientific discourses.

In parallel to the cultural history of the brain, whose ancient chapter Wright has carefully explored in its intellectual relevance to theological debates,¹⁰⁹ runs a history of the ‘heart’ as ‘deep core of humanity’, in an emotional, personal sense from the early centuries of our era. This ‘heart’, as my quotation marks acknowledge, is not so important anatomically or medically. More than the tangible muscle of our cardiologists, it is the location high in the torso of which – in sharp contrast to the brain – we are sensorially aware. It pulsates, ‘jumps’ and ‘leaps’, accelerates, feels pain, undergoes sudden alteration in response to strong emotions, and is as such holistically connected to the rest of the body.¹¹⁰ In this way, the ‘heart’ becomes the embodiment of our whole self, as in Augustine’s *inquietum cor* striving to find rest in God.¹¹¹

This ‘heart’ is entirely a place of the imagination, just as the ‘brain’ is; in neither case are we allowed to see our own. The imaginary ‘heart’ – and the viscera generally – represent strong passions and a vulnerability to violence: the cult of the bleeding ‘heart of Christ’, still alive in some Christian communities,¹¹² is one powerful representation of this, as is the *topos* of the broken, bleeding or wounded heart as an allegory of human passions.¹¹³ These are enormous themes and imaginary worlds, deserving of their own lengthy discussions, which do not belong here. Moreover, they are not only imaginary in a poetic sense: the ‘heart’ and the ‘brain’ are also political and ethical strongholds, concretized in the operations of current policies on and technological revisions of the idea of human ‘life’ and ‘death’ (and

¹⁰⁹ Wright (2016), (2020).

¹¹⁰ Many scholars have considered the ‘heart’ region of the body and its psychological-personal meaning in Greek culture, looking at καρδία/κράδιη, ἤτορ and θυμός. On archaic and classical sources, Onians (1951), esp. 26–30, is still valuable. See also Pelliccia (1995) 188 n. 145 on Pindar; Clarke (1999) 79 on Homer, discussing the identity of the various organs in the chest as fluid: ‘There is little to be gained by assigning precise anatomical identities to each of the κῆρ, κράδιη, ἤτορ, πρᾶπιδες’, and ‘Homer does not think in terms of X-rays and neat textbook diagrams’ (also 101, 104–06 on ‘images’ and ‘action’); Rose (1979) on one Homeric example; Sullivan (1995a), (1997b), (1999), (2000a); Padel (1992) 18–26, on what she calls the ‘innards’.

¹¹¹ *Confessiones*, 1.1. For wide-ranging explorations of the ‘feeling heart’ in the European Middle Ages, see the chapters in Barclay and Reddan (2019).

¹¹² The Catholic cult of the ‘sacred heart of Jesus’ is a seventeenth-century development, but depends on all these ‘popular’ suggestions. See Morgan (2008); beyond Western contexts, Kehoe (1979), for an analysis of the anthropological interface between Europe and Pre-Colombian Mexican cultures in the cult, and of the representation of the ‘heart’ there; Woets (2017) on Ghana.

¹¹³ Perhaps most gorily symbolized in the story of Nastagio degli Onesti in Boccaccio’s *Decameron* (Day 5, 8), a reported dream in which Guido of Anastagi, who committed suicide out of despair when his love for a girl was not reciprocated, is punished in Hell by being condemned to endlessly pursue her, while she suffers for her own lack of compassion. Guido must pursue her with his hounds, grab her, open her back with a knife to expose her entrails, and throw her heart to the dogs – every Friday forever. On this story, see Didi-Huberman (1999) 55–68.

what a 'life worth living' is). As Giorgio Agamben has argued, the combination of technologies of reanimation and transplant in contemporary medical science has brought confusion and contradiction, as well as new, unstable certainties, to the search for what allows and substantiates human life, with 'cerebral death' and 'cardiac arrest' now becoming two stages of 'dying' and two versions of 'death', as well as marking two different conceptions of 'being alive'.¹¹⁴ It is thus important to insert our history of *phrenitis* between chest/heart and head/brain against the background of these various simplifications of humanity, the 'brain' vs 'heart' stories, a duality with a long past as well as a familiar, banal idiomatic present in most languages, and now with biopolitical repercussions.

As for *phrenitis* itself, we have seen the brain prevail in post-classical European cultures as its *locus affectus* (most definitively in Galen; confirmed by the encyclopaedists; in the fundamental authors of the Middle Ages, the anatomo-pathologists of the sixteenth–seventeenth centuries; and the final 'meningitis' account). At the same time, the chest location has maintained its position in the doctrines of cardiocentrist or non-encephalocentrist authors, such as some Hippocratics, Diocles, Praxagoras and Aretaeus, but most of all in the interlacing of the main narrative of the affected brain with a secondary but fundamental one about the chest, often retained via the etymology of *phrenitis*. This chest location involved the diaphragm, the heart and the lungs, but also by extension other organs below, such as the stomach, liver and womb. We have traced this secondary 'diaphragmatic' and more widely thoracic story from the medicine of classical antiquity onwards, in the criticism and intellectual attachment to the problem posed by the etymology of *phren-itis* in various medical authors (the Hippocrates of *De morbo sacro*, Diocles, *Anonymus Londinensis*, and then Galen, as well as their readers in medieval and early-modern times); the manufacture of a dual or sympathetic disease *phrenitis* involving brain and torso in Aretaeus and Galen, in the latter case with massive consequences for the subsequent tradition; the additional problem of translating *phrenitis* in the Arabic sources, between *birsām* and *sarsām*; the more visible reappearance of the heart in medieval discussions of *phrenitis*, influenced by the return of Aristotelianism; and finally the numerous, variously localized forms of '*phrenitis*' in the early-modern and modern eras, when doctors become increasingly interested in

¹¹⁴ Agamben (1995) 145–49; see the seminal observations and scenarios already in Gaylin (1974), to which Agamben refers. For a critique of the universal adoption of Agamben vis-à-vis *bios* and *zoē*, Holmes (2019).

pathology as the ensemble of phenomena which illnesses provoke in bodies, and consider the abstractions of ancient nosological labels only when they might be useful for a pragmatic understanding of patient states.

Phrenitis had the unique advantage of developing as firmly encephalic while maintaining a name and a history that continued to remind patients, doctors and readers of the heart, chest and viscera. This advantage matched a fundamental aspect of the history of mental pathology in modern clinical psychiatry, and in psychology generally. As Berrios and Porter note,

it is often forgotten that before 1800 the brain was considered as just another viscus (like lungs or heart), only that housed in the skull. While in general terms it was accepted that the brain was responsible for mental functions such as cognition and memory, it was otherwise (literally) for functions such as the emotions or passions, which were still thought to be (literally) related to the heart or *hypochondria*.¹¹⁵

This feature embedded *phrenitis* in various cultural discourses and medical developments having to do with mental life and health, preventing it from being reduced to a 'merely' bodily disease. As seen in [Chapter 3](#), holistic approaches found this a good place to practise their psychotherapeutic skills, and *phrenitis* long remained a mental disorder observed in a psychopathological frame. At the same time, it remained alive and relevant to both encephalocentric and cardiocentric discourses about human health until the opposition ceased to make scientific, anatomopathological sense, depriving *phrenitis* of its usefulness as an 'umbrella' concept.

¹¹⁵ Berrios and Porter (1995) 4, quoting Lantéri-Laura and Bouttier (1983) 415.

The Modern Age
The 'Death' of phrenitis

One Story, Three Endings

At the turn of the twentieth century, the state of affairs in the history of clinical pathology changed in a number of ways relevant to *phrenitis*. In pathological doctrine, first of all, the more abstract positioning of a disease within a taxonomy¹ increasingly lost importance to firm localization within the body as a central feature of nosological definition and understanding. The concept of disease changed from that of a lesion that can move around the body, an idea the ancients elaborated with great sophistication – *phrenitis* is an excellent example – to a fixed *place*. In a move away from the past, ‘pathology was [now] related to a lesion located in a particular organ. In a sense, in the new system the disease was, to use Foucault’s words, “entirely exhausted in the intelligible syntax of the signifier””.²

Second, ‘somatism’, the centrality of the body as object, as *res*, triumphed in medicine generally and in psychiatry in particular.³ The equation brain = mind was now generally accepted,⁴ and the dead body provided key insights into the reality of the pathology that had overcome the patient. The *Zentrenlehre* (literally, ‘doctrine about the centres (of the brain)’), ‘phrenologic’ model of the encephalus, had played a fundamental role in shaping these directions during the course of the previous century, although its stronger version was soon disputed.⁵ In general, this ‘somatist’ progression, which does not seem to have ceased even as I write, has increasingly tended to focus on the fine grain of the living ‘matter’ – tissues,

¹ Such as those mentioned in Chapter 9 (pp. 339–40).

² Guenther (2015) 15, quoting Foucault (1963/1973) 10, 90–91.

³ For contemporary trends, see Guenther (2015) 2. For important reflections on trends in modern pathology between histology and anatomy, see Maulitz (1987/2002) 3–35.

⁴ Famously with Rokitansky and Griesinger’s ‘new paradigm’: ‘mental disease is brain disease’ (Guenther 2015, 4, quoting Griesinger). On the multilocalization of mental disease and the non-centrality of the brain until the nineteenth century, see again Berrios and Porter (1995) 4.

⁵ Guenther (2015) 2, quoting Uttal (2001), cf. 7–8, 34–38.

biochemical elements and components – zooming in on the finest details⁶ and looking for smaller and smaller structures.⁷

This story cannot be told in detail here. But this localizing, somatistic framework is useful for understanding the destiny and final disappearance through transfiguration of the concept *phrenitis*. The process can be schematically summarized by looking at three outcomes, the first and central of which is bulkier and bio-medically the most authoritative, while the other two might be described as ‘softer’. As for the first outcome, around the middle of the nineteenth century *phrenitis* began to disappear as a lexical item in medicine; dictionaries and other sources increasingly point out its anachronism and obsolescence, as well as its fundamental reducibility to a version of meningitis.⁸ *Phrenitis* then *becomes* – in a sense *is* – what medicine calls meningo-encephalitis. This is the point of view of the perceived knowledge of medicine at the time of the semiotic ‘death’ of our disease, in the nineteenth century as well as now, where and when I write (in Berlin in 2023). From where we stand, however, we can also see important parts of *phrenitis* end in a different way, realize different outcomes and adopt different names. These outcomes are no longer really *phrenitis*, but they still show their (non-exclusive, partial) relationship to it. One is a symptomatic, syndromic outcome, conceptualized under the name *delirium* (e.g. *Delirium tremens* or cognitive deterioration related to dementia). The third and final outcome of *phrenitis* is a softer, ethically invested notion which had only a brief life in official medical taxonomies, but remains alive and well in popular culture: stress, and with it the shame and regret of modernity connected with our tense, sometimes meaningless work-, consumption- and pleasure-oriented lives. Many other cultural and medical ideas, especially of the softer kind, intersected with *phrenitis* or had a share in it: nothing happens in a void. But I shall concentrate on these three, where the phrenitic face of the disease remains still somehow recognizable.

The Bodily: Meningo-encephalitis

The modern clinical material, the patient histories explored in [Chapter 9](#), have served multiple purposes in this account. One initial purpose was to counterbalance the strongly theoretical anatomo-pathological material, which might have appeared to still be deeply rooted in the received tradition and reliant on ancient authorities. Hippocrates and Galen are in fact quoted abundantly and with erudition by writers such as Boerhaave

⁶ See Bynum (2006) 111–13 on these developments. ⁷ Cook (2006) 2. ⁸ See Appendix 2.

and Van Swieten, who appear to treat the post-mortem evidence mostly as a tool with which to confirm already-known pathological data. But far from being merely a cherished relic of intellectual archaeology, the matching clinical material provided by these authors shows that the ancient concept *phrenitis* was quite alive in the bodies suffering its ravages, which are recognizable in the skin, bones, organs and evacuations, and in the agonies and recoveries, and lives and deaths of actual people and communities from Thasos, to London, to Germany across 2,000 years. The most significant outcome of this story, which has at its centre the powerful bodily signs of fever and inflammation,⁹ as well as a pathological location in the brain,¹⁰ is meningo-encephalitis. It accordingly makes sense to offer a brief sketch of what is meant by this term today – not only in homage to the element of human reality that must remain at the centre of medical history as a kind of gold reserve, but also to locate ourselves, as readers of *phrenitis*, in the relative chronology of the evolving history of science.

If we try to produce an outline of the nineteenth-century clinical material, the following elements come to the fore: possible contagiousness, or at least the possibility of finding clusters of cases; occurrence in children; high mortality; headache and skin-rash, dilated pupils, convulsions and stiff neck; in some cases, permanent damage afterwards. All patient case-based discussions of *phrenitis* by pathologists and clinicians go persuasively in the direction of our meningitis or meningo-encephalitis, viral or bacterial, defined by doctors today as an ‘inflammation of the membranes covering the brain and spinal cord and adjunct areas’. The causes are usually viral or bacterial, but can also involve herpes or ‘chemical irritation, drug allergies, *fungi* (cryptococcal meningitis), parasites, tumors’.¹¹ Bacterial meningitis is known to be more acute and dangerous than viral: ‘Death can occur in as little as a few hours.’ Permanent disabilities (such as brain damage, hearing loss and learning problems) can result from the

⁹ Early historians of medicine reflect this inflammatory perspective: Nasse (1829) emphasizes the feverish quality of *phrenitis*, while Souques, who reads the whole of ancient medicine in terms of its agreement with what he calls ‘neurology’ in his *Étapes de la neurologie dans l’antiquité grecque: (d’Homère à Galien)* (1936), fundamentally understands *phrenitis* or *phrénésie* as disguised fevers (Souques 1936, 69, 171–72). Discussing Celsus, for example, he points out that ‘*phrenitis* is still often confused with the psychoses *stricto sensu*, notably with mania and melancholy. This confusion is flagrant with Celsus, who admits three varieties of *phrenitis*’ (‘la *phrenitis* est encore souvent confondue avec les psychoses proprement dites, notamment avec la *manie* et la *mélancholie*. Cette confusion est flagrante chez Celse, qui admet trois variétés de *phrénitis*.’)

¹⁰ Vidal and Ortega (2017) 130–88 describe a ‘cerebrating distress’ as characteristic of modern and contemporary medical science, although looking to psychiatric classifications, from which encephalitis has already been – so to speak – exiled.

¹¹ <https://medlineplus.gov/ency/article/000680.htm>, accessed June 2023.

infection. The bacteria that cause meningitis can also be associated with sepsis, ‘the body’s extreme response to infection’, which untreated ‘can quickly lead to tissue damage, organ failure, and death’.¹²

Although important aspects encourage this retrospective diagnosis (most notably the inflammation and related symptoms, fever and headache; the stiff neck; the possible involvement of the lungs and stomach; the delirium and swift death), if we compare this *status quaestionis* regarding meningitis to the pre-modern material, ancient and medieval, we are left with questions about missing key elements. Perhaps most conspicuous is the absence of the topic of contagion,¹³ which appears abruptly for the first time in the Westphalian account from 1788,¹⁴ as well as the complete absence of any mention of the permanent disabilities the disease often produces in patients who survive it. It is therefore possible to understand *how* ancient *phrenitis* came to be identified with meningitis by modern readers. But we cannot make the opposite move and offer definitive retrospective claims about the disease. The only way to understand and discuss cultural items that develop historically along a linear chronology is to pose the opposite, prospective question: what happened to full-rounded *phrenitis* after the eighteenth/nineteenth centuries?

The Symptomatic and Syndromic Outcome: *delirium*

One tendency in the mutation of the status of *phrenitis* as nosological entity is its progressive shift from disease with a capital ‘D’ to a cluster of signs, a kind of syndromic status that can be attached to various causes, nosological frames and epistemological contexts. Most notably, *phrenitis* is channelled into an ensemble of psychopathological behaviours and traits that become categorized in the second half of the nineteenth century under the label *delirium*; many of the traits of *phrenitis* converge here.

Delirium, etymologically and literally ‘de-rangement’ (*de-lirare*, ‘to deviate from the furrow’, *lira*, via an agricultural metaphor), is described as a state of acute confusion involving nonsensical talk, compulsive movement of the hands and hallucinatory behaviour. In current diagnostic terms, the syndrome is associated with dementia and cognitive deterioration due to various causes (e.g. intoxication),

¹² <https://www.cdc.gov/meningitis/bacterial.html>

¹³ This is a general trait of ancient medicine, however; the topic is discussed by Leven (1992); Nutton (2000), (2020); Harris (2021).

¹⁴ See above, pp. 347–50.

but most often age,¹⁵ while in intellectual history *délire* already appears in Diderot and D'Alembert's *Encyclopédie ou dictionnaire raisonné des sciences, des arts et des métiers*,¹⁶ with explicit reference to ancient *phrenitis* and Greek medicine.

The seminal formulation of *delirium* is the one accompanied by alcohol abuse, the so-called *Delirium tremens* first described by Sutton in 1813, which I have already mentioned.¹⁷ This pathological state is only one case – although an especially theatrical and moralistically charged one – of the general ‘delirium category’, but it shares a great deal with our disease. The preceding chapters have discussed the links between wine and *phrenitis* throughout the course of its medical history, as well as the aura of debauchery that becomes attached to the disease in non-medical literature. As alcohol abuse and alcoholism became important socio-cultural themes in the nineteenth century, its pathological specifics were described in more detail with their behavioural and psychological characteristics, along with their physiology.

After Sutton's work, *Delirium tremens* entered the realm of acknowledged diseases, and the cognitive and moral deterioration caused by alcohol described in literature and stigmatized by official propaganda clearly exploits some popular traits of *phrenitis*: violence, lack of awareness, ingratitude towards one's family and benefactors, irresponsibility, grotesque behaviour and shamelessness, moral and religious despicability. *Delirium tremens*, like *phrenitis* before it, is cause, illustration and nemesis all in one for the human lusts that sex and alcohol represent – the concept of ‘diseases of the will’, to use Valverde's characterization, that becomes so important in the elaboration of public attitudes towards substance addiction generally.¹⁸

But delirium in modern medicine is, as noted, a more general syndrome than the one associated with alcohol. The latest version of the Diagnostic and Statistical Manual of Mental Disorders of the American Psychiatric Association (DSM) describes it very broadly in terms of the following diagnostic criteria (summarized here): a disturbance in attention and

¹⁵ Lietzau (1845) 88, who mentions *phrenitis* as the outcome of brain inflammation (*Gehirnentzündung*) with ‘Exaltation’ as opposed to ‘Depression’; cf. Van Gool, Oudewortel, Hertog (2017) for a modern discussion. On the history and epistemology, see Berrios's extensive work (1981); Berrios and Jacyna (1995) 3–33; Berrios (1996) 85, 249–50, (1999).

¹⁶ Volume 4, 1754; section translated by Berrios (1999). ¹⁷ Above, p. 338.

¹⁸ Valverde (1998), analysing various geographical contexts from the Victorian age to modern policies, emphasizing themes such as ‘the exercise of freedom’, ‘repairing diseased wills’, ‘hedonism’ and ‘governing the self’. On the ancient origins of a disease of the will in the area of food and sex, see my reflections in Thumiger (2018a), (2018b).

awareness, which fluctuates and develops over a brief period of time, accompanied by additional disturbance in cognition (e.g. memory deficit, disorientation, language, visuospatial ability or perception). These symptoms must not be better explained by another existing disorder, and there must be evidence that the disturbance is a direct physiological consequence of another medical condition, substance intoxication or withdrawal or the like (DSM V-II, 2013).¹⁹ This delirium, as a primarily bodily condition affecting the mind²⁰ and stemming from different causes, begins to take shape in the nineteenth century as a flexible psychiatric construct, a syndrome that can arise in various circumstances (old age, intoxication, fever, other diseases), and whose manifestations correspond to the mental, cognitive and sensory-motoric ones of *phrenitis* (nonsensical talk, altered sensation, hyperreactivity, hallucination, distemper, aggressiveness and fears, compulsive movement of the hands). This is the most plastic outcome of *phrenitis*, rooted by medical science in deterioration or damage to the brain, but described as a syndrome, a state of affairs that can be a consequence of a number of different conditions.

The Psychological and Existential Outcome: 'Stress'

The final outcome of *phrenitis* to be considered here is the softest and most qualitatively and ethically charged: its evaporation into micro-details of behaviour and emotional-physical response to the stimuli and challenges posed by the outside world that compose the concept *stress*. Etymologically linked to the idea of exacerbating tension and torsion (Latin *stringo*), 'stress' entered pathological usage in the 1920s and 1930s, with a physiological and psychological connotation as well as wide folk usage,²¹ and with a particular currency in the development of 'psychosomatic' interpretative frames. It was later labelled 'General Adaptation Syndrome' (GAS) and is currently 'Adjustment Disorder' in DSM-V. The concept 'stress' became accepted and integrated into general understandings of human physiology in the 1990s and is now incorporated into a variety of entries in the DSM (notably 'Post-traumatic stress disorder

¹⁹ The diagnostic discussion is ongoing; for further discussion, see e.g. the (2014) communication by the European Delirium Association.

²⁰ Berrios (1981) 439, tracing a connection between delirium and *phrenitis*. On the history of delirium, see Lipowski (1990).

²¹ Cf. Selye (1936), (1950). For an overview, see Robinson (2018). On the history of stress and 'Adaptation Syndrome', see Kugelmann (1992); Cooper and Dewe (2004); the essays in Cantor and Ramsden (2014); Jackson (2013), especially on the modern and contemporary worlds.

syndrome'²²); as such, it constitutes a branch of medical research in human physiology and psychiatry.

Much greater appeal and diffusion, however, is enjoyed by the popular concept 'stress' with its existential, responsibility-based connotations – a notion most English-speaking readers of this book (and many others as well) will be familiar with from everyday usage. Such 'stress' is indissoluble from the *frenesy*, the *franticness*, the *feverish* lifestyle that modernity seems to impose on us, with its cycles of work and rest, production, consumption and waste, earning and spending;²³ its mood extremes, from depression²⁴ to euphoria; its ideals of superhuman strength and intensity, often delusional or drug-induced; and the fierceness and anxiety²⁵ of the competition it imposes on individuals, and the 'burn-out' it often produces, more debilitating than the most elevated fever.²⁶ Several physiological, psychological and behavioural connotations of *phrenitis*, in medicine as well as in popular sources, have somehow found an aural home in these narratives of stress as 'dis-stress',²⁷ reminiscent of the 'false *tonos*'²⁸ of the phrenitic that Epictetus wrote about almost 2,000 years ago, in a passage I quote again:²⁹

²² DSM V-II, 271–72.

²³ On the link between stress and civilization, see Kugelmann (1992) 157: luxury as vice, as 'not knowing one's limits', plays an important role in the emergence of the stress construct, and again absorbs and elaborates traits of the phrenitic 'debauchery', what we have identified as the 'Falstaff model'.

²⁴ I use the term 'depression' here for the combination of traits and experiences, rather than engaging with the contemporary diagnostic label; I agree with Sadowsky (2021), who recognizes, despite historical variations, the existence of a persistent and cross-cultural nucleus of human experiences at the core of what we refer to by this term.

²⁵ On anxiety in modern psychiatry and *phrenitis*, see Berrios (2014) 112–18, introducing the eighteenth-century treatise 'Febrile Anxiety' by Robert James.

²⁶ Kugelmann (1992) calls this 'engineered grief' and (rightly, in my view) sees it as peculiarly modern, 'a far-flung child of the French revolution' (144). What he envisages is the absorption of a string of pathological and ethical experiences once belonging to *phrenitis* into an area of human self-reflection.

²⁷ With Selye's (1974) distinction between 'eustress' and 'distress'.

²⁸ On the specific use of the Stoic concept *tonos* in Greek medicine, Orly Lewis points at Aretaeus, *Morb. Chr.* (II.3.5 Hude, 23.7–11), who conceptualizes it as a matter of balance and a 'bond of nature' (*tēs physios ho desmos*) (in conversation); Trompeter (2016) on Galen.

²⁹ A basic materiality of the human body as 'matter' is also in question in the vitalist concept of the 'fibre' of the body, which can be variously tense, stretched or relaxed. Thus Boissier de la Croix de Sauvages (1731) on mental disturbance, quoted by D'Aumont in his entry in the *Encyclopédie*, discussing delirium and *phrenesie* (1965, 4:785): 'If fibres maintain the harmonious tension preordained by the author of Nature, the ideas and judgements associated with them will be healthy and natural and correspond to external stimuli. But the tension of fibres may increase or decrease, and then ideas become strong or weak, respectively' (trans. Berrios 1999c, 536). See also Huneman (2008) 626 on fibres and concepts of *phrenesis* in Montpellier vitalism.

For I want there to be tone/nerves in the body, but as in a healthy person, as in an athlete; if you show me that you have the tone/nerves of a phrenitic and boast about them, I will say to you, ‘Sir, find a doctor to care for you. These are not nerves/tones (*tonoi*), but a *lack* of a good tone/nerves (*atonía*).’³⁰

Stress, we should note, with its reference to the ‘matter’ of the body and its state as a whole, is a fundamentally delocalized concept – in ancient medicine, the Methodist notions of ‘constriction’ (*stegnōsis*) and ‘relaxation’ (*rhyxis*, *lassatio*, *solutio*), the two ‘generalities’, or general states common to all bodies, provide an early parallel and antecedent.³¹ At the end of its story as well, the concomitance of psychology and bodily delocalization with *phrenitis* is confirmed.

On the Life and Death of Diseases: A More General Conclusion

Phrenitis dies, and from the bits and pieces of its corpse, as it were, other entities are born. But *phrenitis* simultaneously does not and cannot disappear, since it is substantial to human embodied existence. This is a point Plutarch made long ago.³² There are no ‘new diseases’, nor can diseases ‘disappear’. Instead, their semiology shifts along a range – a limited one, like a boat bobbing about an anchor.³³

We have surveyed a long story, stretching over 2,500 years and involving many different levels of human cultural production: science and medicine, religion, politics, society and literature. The ‘biography of a disease’ is a peculiar brand of medical history,³⁴ with pitfalls and rigidities, but also with the benefit of specific questions regarding the survival of medico-cultural concepts that only a focus on a single case allows. What can such a complex itinerary teach us, in terms of historical developments and larger patterns? The case of *phrenitis* shows that the following elements are key to sustaining the durability of a disease label (and perhaps other bio-medical concepts as well).

First, there is the presence and cooperation of technicality (exoteric, restricted, official uses of the label, as in the first four centuries of *phrenitis*’

³⁰ *Dissertationes ab Arriano digestae* 2.15.2.2–3,3 On this topic, see Chapters 6, 8. ³¹ See Chapter 3.

³² See Chapter 1.

³³ See Thumiger (2021a); Harris (2022). On the ontology of diseases and their ancient classifications, see also Roselli (2018), on the Hippocratic nosological material, and in a comparative context the chapters in Steinert (2020).

³⁴ For reflections on the *genre* and the questions it poses, see King (2004) 61–66 on the ‘new diseases’; Scull (2009) 9–12 on the example of hysteria; Guenther (2015) 99.

existence³⁵), on the one hand, and popularity, lay appeal (the importance of *phrēn-phrenes* beginning in our earliest, archaic sources, and the lay, metaphorical, parodic or merely vague uses of the label *phrenitis* from the early centuries of our era onwards³⁶), on the other. What one might call 'aural' elements play a role here, conveyed by semantic connections or even simple assonance (*phren-* and so forth³⁷), or by participation in more widely recognized experiences of health or lack thereof (such as overheating and dryness, sun and the summer, etc.³⁸).

Second, embedding in larger anthropological models and scientific paradigms and questions is important. *Phrenitis* displays a notable plasticity and adaptability to scientific, medical and philosophical discourses. Some of these are concretely pathological, involving the matter that constitutes the body itself (e.g. inflammation, tumour, putrefaction and overheating). Others are practical (such as the choice between psychotherapeutic vs body interventions, or whether to cure one body part or another). Yet others are more scientific-philosophical (localization vs delocalization;³⁹ the opposition of body and mind; the 'heart' and the 'brain' as competing physiological and philosophical models;⁴⁰ and most conspicuous in this case, the tension between different versions of the disease).⁴¹

Third, there is the stake in what one might call popular ethics: judgments about behaviours and social life; religious themes; reflections on individual responsibility, self-control and free will; self-awareness; and so forth.⁴²

Last but not least, throughout all this, there is the persistence of a repertoire of tangible and visible tokens for the disease. These can be bodily symptoms and affected body parts and physiological substances, but also objects, times and places, even scenes or situations. The window to jump from, the brandished sword, the picking at flocks or dust-motes with the hands, are as important as the fever, headache, white urine and delirium described with a high degree of consistency from the fifth century BCE to the nineteenth century CE.

Once the somatization and anatomization of the physiology of the body was underway, the label *phrenitis* was progressively reduced, or relegated to only one portion of the story it had been telling. When this process was complete, in the nineteenth century, the name *phrenitis* disappeared

³⁵ See Chapters 1, 2. ³⁶ See Chapters 6, 8. ³⁷ See Chapter 1 and Appendix 2.

³⁸ See Appendix 1. ³⁹ Chapter 3. ⁴⁰ See Chapters 4, 8.

⁴¹ See Sakai (1991), who agrees with some of these points and highlights the importance of the case of *phrenitis*.

⁴² See Chapters 7, 9.

progressively but irrevocably, and with it all its ancient suggestions, its depth, complex moral implications, behavioural details and Greek allure. The label was still recalled by one or two generations of doctors afterwards.⁴³ But by the early twentieth century it was merely a bit of historical curiosity evoked through the distancing languages of archaeology and philology, or the shortcuts of sweeping retrospective diagnosis. In the consciousness of the lay population, the death of the idea was complete and definitive: unlike the cherished hysteria or melancholy, no one today, no matter how educated, with the exception of historians of Greek medicine (and the readers of this book), has any idea that *phrenitis*, once a major disease, ever existed.⁴⁴

⁴³ See Appendix 2.

⁴⁴ Although the Swedish Dark ambient project *Atrium Carceri* has an album called after it. Thus Wikipedia: “*Phrenitis*” takes the listener to a twisted place where the walls between worlds are razed. The ruinous cities of wars long past, where time itself is but a prisoner and the warlords roaming their purgatorial halls are free to destroy the very foundations of the natural order.”

The ‘Sun Disease’

In his discussions of semiotics, Galen was well aware of the risks involved in attributing robustness and cogency to pathological signs which were general and common to several states. His discussions of this topic, as we have seen,¹ were often occasioned by signs that belong to the domain of fever and are associated with heating and related physiology (perceived extreme temperatures, sweating, trembling, dryness, thirst, confusion). These can be understood medically and medical-historically, but they can also be framed in a different, cultural and iconographic sense. It is in these terms that I believe it is useful to speak of a ‘sun disease’ or ‘summer disease’, whose story is not identical to that of *phrenitis*, but which sometimes cuts through it or is entwined with it.² This is a long history that involves different Mediterranean and Near Eastern medical and social cultures, in places where high fevers with neurological consequences must have been frequent and often observed in homologous terms, perhaps because of the naturally hot climates in which they occur and the endemic nature of diseases such as malaria, on which much has been written (and reconsidered) over the past hundred years by historians of medicine.³

¹ Chapters 4, 5.

² That heat and fevers are a central datum in ancient medical observations is obvious and expected; see Hamlin (2014) on the topic. Compare the Hippocratic *Internal Affections* 39, where we have a discussion of typhus: ‘This disease comes on in summer, when the Dog Star rises, because of bile being set in motion through the body’ (175 Potter = 7.262 L.). The pseudo-Aristotelian *Problemata* 1.19 and 1.29 offer a good summary of ancient medical views of heating, seasonality and pathology, and ps.-Alexander of Aphrodisias wrote a treatise *On Fevers* (*De Febribus*, *περὶ πυρετῶν*), on which see van der Eijk (forthcoming); the focus is on the concept of heat, ‘natural heat’ and ‘heat contrary to nature’ (esp. in Chapter 10); see also the chapters in Bartoš and King (2020) on heat in ancient biology. Nyord (2018) 25–40 has important methodological remarks starting from a case study of the phenomenology of ‘heat’ in ancient Egyptian medical language and ‘conceptual patterns’.

³ On malaria, see Chapter 1, p. 25. Jones (1909) set the precedent for radical retrospective-diagnosis of malaria in the history of ancient medicine, on which see van der Eijk (2014); see also Grmek (1983/1989) 265–66, 289–92 on fevers and the like in ancient Mediterranean settings; Flemming (2018) in a discussion of the Antonine plague and Galen’s time as a ‘pestilential age’; Sallares (2002); Scheidel

Perhaps the chronologically earliest scholarly parallel to *phrenitis* based on this feverish quality is to be found in Babylonian medicine. Although it is important to be deeply sceptical about strong claims of identity between Babylonian and Greek medicine in the case of *phrenitis*, given the lack of detailed support for the thesis, a syndrome found in this material can be taken to connect with an overarching 'sun disease'. Scurlock, who argues for a firm Babylonian antecedent, claims that *phrenitis* is 'a clear example of the transformation undergone by Mesopotamian material in the process of transmission',⁴ identifying it with a precise Near Eastern disease whose name in Akkadian is *setu*.⁵ In this spirit, Scurlock identifies a predecessor of Hippocrates in many respects in the twelfth-century BCE Assyrian doctor Esagil-kīn-apli. *Phrenitis* is her example:

The ancient Greek mystery disease (*sic!*) *phrenitis* makes a nice illustration of the transformations undergone by Mesopotamian material in the process of transmission. *Phrenitis* is one of the four 'thick' diseases, a literal translation of Akkadian *murus kisirti*, which means illnesses characterized by thick sputum. One thinks immediately of pleurisy and pneumonia, which are indeed two of the 'thick' diseases.

She then mentions a passage in the Hippocratic *Internal Affections* where a disease (not referred to as *phrenitis*) caused by 'heat of the sun' is described in ways that closely resemble descriptions of *peripleumonia* and *kausos* elsewhere:

As for *phrenitis* (*Internal Affections* 48), it is unmistakably the Ionian Greek equivalent for Mesopotamian 'hand of ghost'. It is presumably the original attribution of this condition to affliction by a ghost that led the author of *Internal Affections* 48 to assert that *phrenitis* 'usually attacks abroad, if a person is traveling a lonely road somewhere, and fear seizes him'.

Note first of all that *Int.* 48 does not mention *phrenitis*, but only the *phrenes* as the affected part; Scurlock's imprecision is not a problem here, however, since we are considering the 'sun disease' as a more general, somehow 'aural' category. Scurlock then moves on to scrutinize diverse Hippocratic passages, categorizing them in terms of how successfully they 'disentangle the Mesopotamian causal agents to whom diseases of the upper respiratory

(2003), (2009) on Rome; Nutton (2004) 32–34 for a general assessment; Hamlin (2014) 1–21 for definitions and problems in studying ancient fevers, and the pitfalls of essentialism, since 'it is tempting to see fever as independent of language and culture and to assume that persons in the past were identifying the same conditions and features that we do, only in qualitative terms, but caution is in order' (7); Craik (2020).

⁴ Scurlock (2004) 27. ⁵ I thank Ulrike Steinert for her invaluable help with this material.

tract and lungs were attributed', which are the same diseases – on her reconstruction – as those which cause meningo-encephalitis.⁶ In this way, the confusing syndromes described by the Hippocratics, with their mix of respiratory and encephalic ailments, are explained by the fact that they were 'not innovators but were instead attempting to build indirectly on the foundations laid by Mesopotamian physicians'.

This reasoning might be historiographically flawed, but it usefully exposes the nosological 'megatext' that connects heat and heating with disease and derangement.⁷ As much as one must avoid retrospective biomedical investment in these ancient stories, there is certainly some degree of medico-biographical truth to be extracted from them, namely the well-known fact that high fevers must have been endemic and dangerous around the Mediterranean for millennia. This also helps explain the appeal and 'catchiness' of *phrenitis* as quintessential to these elements of human pathology.

The connection between heating and life, not only as vital functions but as spiritual and mental life,⁸ is evident in a variety of cultural associations between heat and psychology which see heating as both necessary to life and potentially morbid, depending on its degree. Several of these functions were explored in [Chapter 1](#), but Stefanelli's work deserves renewed mention, and in particular her suggestive proposal of an etymological link between *phren-* and an Indo-European root for 'burn';⁹ the *phren(es)* would then be the upper cavity in the chest which works as a 'steamer' or 'burning chamber' in the body. A long tradition of natural philosophy associates heating with life, as notably in Aristotle's conception of digestion as a kind of 'coction', on which there is no need to dwell here, and in Themison¹⁰ as discussed at Caelius Aurelianus, *On Chronic Headache*¹¹ (*De capitis passione, quam Graeci Cephalean nominant, Morb. Chr. I, I 446.33–448.5 Bendz*):

The head is naturally lacking in flesh, but has an abundance of fibres and is covered with tough skin and hair and pores that do not naturally permit easy breathing. It is also the site of all the senses and rests upon the body and receives all the vapours from it. For the *pneuma* naturally seeks higher levels

⁶ Scurlock (2004) 28, see 29 for a bio-medical retrospective interpretation in terms of Bornholm disease.

⁷ For a more helpful take on the retrospective diagnosing of 'hand of ghost' in particular, see Kinnier Wilson and Reynolds (1990); already Kinnier Wilson (1965).

⁸ See Bartoš (2020). ⁹ Stefanelli (2010) 19–96. ¹⁰ See Pigeaud (1994) 33.

¹¹ A disease caused by extreme temperatures, whether cold or hot through exposure to the burning sun (*solis exustione*, 430.13–16 Bendz).

and carries these vapours from the lower parts through to the windpipe and the oesophagus, which are, so to speak, the major chimneys (*veluti maiora fumaria*) of the body.

As Wright observes, it is also relevant to *phrenitis* to mention the natural 'coldness' and phlegmatic nature of the brain, as opposed to the 'hotness' of the heart from Aristotle onwards.¹² A cardiocentric definition of fever beginning with overheating in the heart is also evident in the Peripatetic *De febris*.¹³

As for pathology, heating, thirst and feverish complaints are everywhere in Hippocrates, although he mostly categorizes *phrenitis* as a winter ailment akin to *peripleumonia* and *pleuritis*;¹⁴ the heat of the sun (*thermasiē tou hēliou*) is also declared responsible at *Int.* 47 (226–31 Potter = 7.281–84 L.), despite the fact that the reference is neither to *phrenitis* nor explicitly to the affected *phrenes*. In his discussion of *phrenitis*, on the other hand, Asclepiades is said by Caelius (*Morb. Ac.* I, 2, 38–39 Bendz) to have regarded the summer season and heat as important factors when he discussed individuals considered *labiles*, prone to the disease *phrenitis*:

Some physicians, among them Asclepiades and his followers, also consider in this connection the weather, the season . . . They speak of the weather and the danger of it becoming very hot, for that causes many cases [of this disease]. They speak of the season too, especially the end of summer or autumn, for they say that this disease is common at those times. They speak of antecedent causes, such as . . . and exposure to heat (*iuges adiustiones*).

In a non-technical context, Lucian reports an interesting episode of deranged summer fever in *Quomodo historia conscribenda sit*, I.I.I4:¹⁵

They say that an epidemic of the following sort occurred at Abdera . . . It began with the whole population exhibiting feverish symptoms (*pyrettein*), strongly marked and without intermission from the very first attack. About the seventh day, the fever was relieved, in some cases by a violent flow of blood from the nose, in others by a no less violent perspiration that overcame them. The mental effects (*pathos . . . tas gnōmas autōn*), however, were quite absurd; they undertook tragic performances, mouthing iambic lines and ranting at the top of their voices. Their favourite text was the *Andromeda* of Euripides, and one after another they would go through the

¹² Wright (2016) 68–69. ¹³ Chapter 2. See van der Eijk (forthcoming). ¹⁴ See above, p. 323.

¹⁵ On this passage and medical influences, from the particular angle of Aristotle's theory of tragic *katharsis*, see Langholf (1996).

speech of Perseus; the whole city was full of pale presences and seventh-day tragedians crying out in a loud voice:

O Love, who lord'st it over gods and human beings,

and the rest of it. This continued for a long time, until the coming of winter put an end to their madness with a sharp frost (*kryos de mega genomenon epause lērountas autous*). I find the explanation of the form it took in the fact that the tragic actor Archelaus, who was famous in that period, had performed the *Andromeda* there in mid-summer during some very hot weather (*mesountos therous en pollōi tōi phlogmōi*). The consequence was that many of them caught the fever in the theatre, and after they convalesced, there was a relapse into tragedy, with the *Andromeda* haunting their memories for a long time and Perseus hovering, Gorgon's head in hand, before the mind's eye of every individual.

This passage and this illness will be mentioned in modern times by Van Swieten in his discussion of *phrenitis*,¹⁶ in which he readily identifies it with our disease. For him, the passage from Lucian is a good illustration of what he takes to be the obvious connection between sun, summer and disease already in ancient times. The hallucinatory experiences, fever and epidemic character of the ailment are explicitly connected with the heat – a 'mass possession' quality that also belongs to the popularization of *phrenitis*.¹⁷

The idea recurs in Galen as well:¹⁸ at *On the Affected Places* 3.7 (8.166.5–9, 167 K.), we read that memory can be affected by drying and overheating agents, as in the case of the vineyard worker exposed to the sun, or the man who devoted himself too intensely to his studies. At *Com. Hipp.* 2.7 (186.4–8 Mewaldt = 7.651.2–6 K.), Galen writes that

it is under the same constitutions and causes that both the *kausoi* and the *phrenitis*, assuredly, multiply in the summer and in hot regions (*pleonazousi tēn therinēn kai en chōriois thermoterois kai en hēlikiai tēi tōn akmazontōn kai en physēi thermoterois*) and in the prime of life and in those whose natures and adopted regimes and activities are likewise most hot.

So too at *Comm. Hipp. Prorrh.* I.17 (33 Diels = 16.552 K.) Galen comments on a Hippocratic statement including crusty eyes as signs of *mania*, adding

¹⁶ See Chapter 8, pp. 323–24.

¹⁷ Cf. Chapter 6 on the Christian trope of humanity as a 'possessed', phrenitic mob.

¹⁸ In this, Galen seems to differ from the Hippocratic interpretation of *phrenitis* as a winter ailment, and at *Comm. Hipp. Epid. I*, 2.74 (17a.177 K.) he comments on the Hippocratic claim that 'there were a few cases of *phrenitis* also in the summer' (which seemed to imply that the majority were in the winter). On the classification of *phrenitis* as a 'hot' disease, see Devinant (2020) 219 n. 48, 220.

that phrenitic and putrefying persons share these symptoms, which arise in the summer as a result of extreme heat.¹⁹

Regarding the connection between *phrenitis* and summer heat, an additional cultural suggestion is found in ps.-Alexander of Aphrodisias, where a passage discusses the example of dogs maddened in the summer and evokes *phrenitis* (*Probl.* 1.76):

Why do only dogs become mad in the summer (*en therai*)? Because of the *prolepsis* of the dry mixture (*tēs xēras kraseōs*): for they are dry by nature, and especially during the summer heat (*en tois kaumasī*), and therefore the humid component and *krasis* in them burns ardently when they are heated and dried. They accordingly rave as if they were phrenitic (*kathaper phrenitiōntes*).

The susceptibility of animals to the summer heat, the *canicola*, brings in other popular elements of pathology that also provide background for *phrenitis*: the madness of dogs, the canine-looking *lyssa* or rabies that can possess a patient.²⁰ Paul of Aegina also writes, in the conclusion to his section on *phrenitis*, that 'one should accompany the recovery of these patients by making them avoid too much wine, powerful emotional alterations, spoiling of food and *most of all exposure to the sun (hēliokaīas)*' (3.6.2, 146.15–18 Heiberg).

This idea remained in the tradition of *phrenitis*, as the reference in Van Swieten has already shown: in the medieval *Isagoge Ioannitii ad Tegni Galieni* (*Hunayn's Introduction to the Art of Galen*), in the section 'about the characteristics of diseases deriving from heat' (*de modis morborum ex calore precedentium*) 'sun exposure' (*expositio ad solem*) is mentioned, while Avicenna specifies that phrenitic patients often shrink from sunlight (*abhorrent radios, et avertunt se ab ipsis*). Gentile da Foligno (fourteenth century) in his commentary on Avicenna's *Canon* speaks in the section on *phrenitis* (*karabitus*) of 'boldness and anger' of these patients, which are a consequence of heat (*audacia et ira propter fervorem caloris*). A long passage is also devoted to the pathological relationship of these patients to drinking water (folio 58), while at folio 64 we read, as a comment on Avicenna's warning against the 'hot and malignant winds' (*ventis malis et calidis*) and the 'sun of the high summer days' (*canicularibus diebus et*

¹⁹ See Chapter 5, n. 153.

²⁰ It is no coincidence that Euripides described the mad Bacchantes as 'bitches of Lyssa' in their flight to the mountain: ἦτε θεαὶ Λύσσασιν κύνες, ἦτ' εἰς ὄρος, *Ba.* 977). Heat, summer, symbolic and real, and the astronomical *Canis* are all combined together. See Metzger (2011), esp. 155–70 on lycanthropy and the dog element associated with mental disorder (in this case mostly melancholy).

solem), that the passage is obvious and needs no exegesis: *hec pars est clara*. For Bernard de Gordon (beginning of the fourteenth century),

young age with a choleric temperament, the summer season – the fact that he exerted himself during the days of the Dog especially (*tempus aestivum, et quia laboravit in diebus canicularis*), and stayed in the sun without a hat, as well as eating hot and other similarly warming food, which can heat up the body and cause it to dry (*quae corpus calefaciunt et desiccant*),

can all play a role in determining *phrenitis*.

Workers such as farmers are especially exposed: Van Swieten recalls the case of two reapers/mowers who were extremely healthy (*messores sanissimos certe & robustissimos*) but died two days after having fallen asleep in the sun on a stack of hay. As we have seen in [Chapter 8](#), De Vries also mentions sun exposure, while Hooper distinguishes as ‘exciting factors’ exposure to sun and ‘exercise in warm water’.²¹ Gee (1876) 15 also had cases of phrenitic children where exposure to heat played a role. One sub-type of *phrenitis* in the final decades of its active existence is precisely *Phrenitis Calentura*, heatstroke.

There is thus what we may call a ‘sun disease’ that characterizes Mediterranean and Near Eastern cultures (and might have parallels in other cultural contexts as well) and that continues to be observed by European medical authors in modern times. This disease brings together a panoply of ‘feverish’ physiological signs; hallucinatory experiences; mental confusion; the summer season and hot weather; the concept of ‘inflammation’, *phlegmonē*, of a specific body part;²² meteorological determination; and a sense of epidemic or mass experience, to which everyone is equally exposed.²³ Assonance also plays a role: *phrenesia*, *frantic* and related terms, and effervescence and fervour as terms for ‘boiling’, are semantically distinct, but are evoked together as part of the pathological experience of *phrenitis* in its popular reception. This branch of the story as well, despite its diffuse, anti-philological character, is part of a cultural history and works as an episodic, sporadic vehicle for the persistence of our disease.

²¹ Hooper (1815) 9.

²² On fever and *phlegmonē*, see the early discussion attributed to Antiphon quoted by Galen in *On Medical Names*, D28 (IX.45 Laks–Most).

²³ One can invoke here a folk parallel, the *tarantismo*, forms of recursive dance-epidemics studied by anthropologists (see famously Dodds 1951, 76–79, 270–75, 279 n. 9). Attacks of *tarantismo* are characterized by a heightened sensibility to music and spastic dance movements; they occur in the summer at midday. See the classic study by De Martino (1961) and afterwards De Giorgi (1999). De Martino (1961) 98, 101, 148 also notes that these attacks tend to be triggered by ‘a mezzogiorno’; see 76–77, 118–19, on interpretations connecting these phenomena with cases of ‘heatstroke’.

Naming, Nomenclatures, Dictionaries

As a general matter, names are central to identity, and nosological entities are no different from other concepts, individuals and objects in this regard.¹ Indeed, as part of a doctrinal and professional institution, disease may represent an even more significant instance of the power of naming: the persistence of a concept in nosology and medicine, and its existence as part of a recognized system and network of references, and as a legitimate participant in a course of medical events and human actions, is entirely dependent on nomenclature. In this appendix, I present observations on and examples from the terminology related to *phrenitis* throughout its history, with the aim of offering an impression rather than an exhaustive survey.

The root *phren-* (φρεν-) in the Greek world

Nosological discussions of *phrenitis* in ancient medicine were very sensitive to the problems posed by the etymology from *phrēn-phrenes*, further qualified by cognates and compounds. The discussion of *phrenes* in *De morbo sacro* is perhaps the earliest we have, followed by Plato's *Timaeus*, Aristotle's *Parts of Animals*, *Anonymus Londinensis* and Galen (at least twice).² This discussion was felt to be relevant throughout the medieval and early-modern receptions of the disease, in which it was often reported on at length.³

Throughout the Greek-speaking and Greek-reading worlds of antiquity, the root φρεν- is synonymous with 'mind' in the general sense. Cognates of *phrēn/phrenes* refer to the sphere of thinking, judging, being of sound

¹ I discuss some of these issues in [Thumiger \(2013\)](#); [Thumiger and Singer \(2018a\)](#) 1–6. See also the studies in [Steinert \(2020\)](#). On naming and new diseases, see [Chapter 1](#), and [Harris \(2022\)](#).

² See pp. 13, 17, 34 n. 33, 43, 44, 52–53, 103–09. above.

³ See above, pp. 235–38, 249, 253, 278–80, 319.

mind, wisdom, mental pathology and mental and emotional states. The group includes a number of very common words.

A selection: φρονέω: 'to think, to be minded'; φρόνημα, -ατος, τό: 'mind, spirit, thought'; φρόνησις, -εως, ή: 'purpose, intention'; φρονητικός, -ή, -όν: 'concerned with thought'; φρόνιμος, -ον: 'in one's right mind'; φροντίζω: 'to consider, reflect'; σωφρονέω: 'to be of sound mind'; σωφρόνημα, -ατος, τό: 'self-control'; σωφρονίζω: 'to recall a person to his senses'; σωφροσύνη: 'soundness of mind, prudence'; σώφρων: 'of sound mind, prudent'; παραφροσύνη: 'derangement'; άφρονέω: 'to be silly, act foolishly'; καταφρονέω: 'look down upon, despise'; δυσφρόνη, ή / δυσφροσύνη, ή: in pl. 'anxieties, troubles'; δύσφρων, -ον: 'sad at heart, sorrowful'. Compounds largely convey damage, disturbance or pathology, for instance: φρενοβλαβέω, φρενοβλαβής, φρενοβλαβεία: 'to cause damage to the mind', 'damaged in mind', 'mind-damage'; φρενογοητής: 'heart-gladdening', in the magical papyri; φρενοδαλής: 'ruining the mind'; φρενοδινής: 'charming the heart' (Nonn. I.406); φρενοθελής: 'charming the mind'; φρένοθεν: 'of one's own mind'; φρενόληπτος: 'possessed, mad'; φρενολυπέομαι: 'to suffer in the mind'; φρενομανής: 'distracted, maddened'; φρενομόρω: 'struck in the mind by calamity'; φρενοπληγής: 'striking the mind'; φρενοπλήξ: 'struck in the mind'; φρενόπονος, 'pain in the soul'; φρενοτέκτων: 'building with the mind, ingenious'; φρεναπατάω: 'to deceive someone's mind'.

The Term *phrenitis* in the Vocabulary of Ancient Graeco-Roman Medical Texts and Their Tradition

The nomenclature of *phrenitis* in Greek and Latin sources is fairly limited and consistent:

Greek

φρενίτις/φρενίτις = *phrenitis*
 φρενιτικός, -ή, -όν = phrenitic
 φρενιτιάω = to be phrenitic
 φρενιτίζω = to be phrenitic
 φρενιτισμός, ό = *phrenitis*, phrenitic attack
 ΦΡΗΝΗΣΙΣ (Celsus, *hapax*) = *phrenitis*

Classical Latin

ph/frenesis = *phrenitis*
ph/frenitis = *phrenitis*
ph/freneticus-ph/freniticus = phrenetic

Medieval, Modern Latin

chl/karabitus = *phrenitis*
ph/frenesis = *phrenitis*
ph/frenitis = *phrenitis*
ph/freneticus = phrenetic
ph/freniticus = phrenetic
ph/frenesia = *phrenitis*
phrenetiasis = *phrenitis*
phrenismus = *phrenitis*

Arabic

farānītis = *phrenitis*
qarānītis = *phrenitis*
sirsām/sarsām/sirsēn = *phrenitis*
birsām/barsām/birsēn = *phrenitis*
ikhṭilāṭ = confusion, delirium, *phrenitis*

Medieval and Modern European Languages: Medical and Lay Uses

The etymological group is used both medically and, hyperbolically, to indicate heightened states, fantasy or general madness of the intense, aggressive, frenetic kind, as well as folly and ethical flaw.

Middle English *frenesy*
 Old French *frenaisie*
 Italian *frenesia*, *frenetico*, *frenitico*; *frenico*, *farneticare*
 Spanish *frenesí*, *frenético*
 French *ph/frenesie*, *ph/freneticque*, *ph/freniticque*
 German *ph/frenetisch*, *ph/frenitisch*
 English *ph/frenzy*, *ph/frensy*, *ph/frenesy*, *ph/frenetic*, *ph/frenitic*, *ph/franticke*,
ph/frantick, *ph/frantickness*, *ph/frantic*, *ph/franticness*

ph/frenalgia, ‘pain in the diaphragm’

ph/frenologia, ‘the science of localization of mental traits in the brain-skull’

A Glimpse at Medical Dictionaries

It is instructive to observe what can be seen as an almost exact point of expiration of *phrenitis* in the nomenclature by considering the genre of ‘medical reference books’: lexica, dictionaries, lists and classifications intended for the medical profession or for medical students.

Medical texts of this kind are a useful source due to the specific quality of the evidence they offer, which has to do not exclusively and not even primarily with the concept and its description, but with its position within a system of reference. A reasonable starting point for the medical vulgate of the seventeenth century might be the 1679 German *Lexicon Medicum* by Stephanus Blancardus (*Steph. Blancardi Lexicon medicum renovatum*), where under *PHRENITIS* we find: ‘*Phrenitiasis, seu Phrenesis, est delirium cum febre continue, saepe cum furore et excandescencia (non autem a cerebri inflammatione, quae anticuis placuit) producta. . . . α φρήν mens, quia mens laborat.* German: Große raserei in hitzigen Fieber’. Here *phren-* is ‘the mind’, and the disease is emphasized as mental, localized in the inflamed brain.

In examples restricted to the Anglo-Saxon world, the 1807 *Edinburgh Medical and Physical Dictionary* offers a reflection of the important disease taxonomies produced in the eighteenth century, Cullen’s most of all: *PHRENITIS* (φρενιτις, from φρήν, the mind) is ‘*phrenzy or inflammation of the brain; a genus of disease in the class pyrexiae, and other phlegmasiae of Cullen*’. The 1826 *London Medical and Surgical Dictionary* goes more explicitly in the same ‘cephalic’ direction and lists *Phrenitis. Phrenesis. Phrenetiasis. Phrenismus. Cephalitis. Sphacelismus. Cephalalgia inflammatoria*. By the Arabians *Karabitus*: ‘*phrenzy, or inflammation of the brain*’. The 1834 *Cyclopaedia of Practical Medicine* (London) also offers the lemma *PHRENITIS*. ‘Brain, inflammation of the’.

By the first decades of the nineteenth century, the inadequacy of the term begins to be felt. Robert Hooper’s *Medical Dictionary* (London, 1839) intriguingly notes: ‘*PHRENITIS. (is, idis, f. φρενιτις, from φρήν, the mind). Phrensy. Inflammation of the brain. A very faulty term [my emphasis]. See Encephalitis.*’ Harris’s *Dictionary of Medical Terminology* (1855) also has ‘*PHRENITIS. From φρήν, mind, and itis, inflammation.*

Inflammation of the brain', subtly accepting an equation between the two terms. Mayne's *Expository Lexicon* (1860) offers an entry for *phrenes*, as well as listing *phrenesis*, *phrenetiasis* and *phrenitis*. At *Phrenes*, we read:

(φρήν, the mind). *Anat., Physiol.* Ancient term for the *praecordia*, which was supposed to be the seat of the mind. Fr. syn. *praecordie*, f. Ger. Syn. Herzgrabe, f. Also for the diaphragm, or, according to some, the two heads of the diaphragm descending into the loins, likewise supposed to be the seat of the mind. Fr. syn. *Diaphragme*, m. Germ. Syn. Zwerchfell, n.

PHRENITIS, *idis*, f. is defined:

(φρήν, the mind; terminal *-itis*). *Med. Pathol.* A term improperly used [my emphasis] for inflammation of the brain and its membranes; for, strictly it does not express this, but even if allowed, the brain being the seat or organ of the mind, it certainly has no connection with the membranes; phrenzy; a genus of the Ordo *Phlegmasiae*; Cl. *Pyrexiae* of Cullen's nosology. See *Encephalitis*, *Karabitus*, *Phrenesis*, *Phrenitiasis*, *Sibare*. Fr. Anal. *Phrénite*, f. G. Syn. *Hirnentzündung*.

The diaphragmatic interpretation and the ancient mental view of the *phrenes* are retained, while the 'actual' disease is interpreted as entirely encephalic. Fowler's 1875 *Medical Vocabulary* (London) treats 'phrenetic' and other cognate terms as all indicating something 'that affect the mental faculties'. In particular, 'phrenetic' means 'applied adj. and subs. to a person subject to strong, or violent, sallies of imagination or excitement, which in some measure pervert the judgement and cause the person to act as if partially mad'. *Phrenitis* is 'inflammation of the brain, or of its membranes'.

Significantly, the 1888 New Sydenham Society's *Lexicon of Medicine and the Allied Sciences* (Power and Sedgwick 1881–92) now has only the English 'frenzy'. The entry reads: 'FRENZY: (Mid. E. *Frenesye*; Old F. *Frenaisie*; L. *Phrenensis*; Gr. φρένησις for φρενίτις, inflammation of the brain. F. *Frenesie*; I. *Frenesia*; S. *Frenesi*; G. Wahnsinn, Raserei). Madness, delirium, great agitation of the mind'. Mayne's *Medical Vocabulary* (London, 1889) offers the brief: '*PHRENITIS*. (φρήν, the mind . . .) *Pathol.* Inflammation of the brain; phrenzy'. Quain's 1890 *A Dictionary of Medicine* also treats the term as anachronistic: '*PHRENITIS*. (φρήν, the mind) – An obsolete term, [my emphasis] formerly associated with all forms of acute inflammations of the brain or its meninges, but especially the latter'. The 1892 *Dictionary of Terms Used in Medicine* by Richard Dennis Hoblyn (London) begins:

PHRENES: (plural of φρήν, the mind). The diaphragm; so called because the Ancients supposed it to be the seat of the mind. Hence the terms: 1. *Phrenic* (a designation of the internal respiratory nerve, which goes to the diaphragm

2. *Phrenitica* Diseases affecting mental faculties, the first Order of the class *Neurotica* of Good. Also Medicines which affect the mental faculties, as narcotics, inebriants, & c. 3. *Phrenitis*. Phrensy; inflammation of the brain. A term under which have been confounded *arachnoïtis* and *encephalitis*. It constitutes the third genus of the order *phlegmasiae* of Cullen. φρενίτις is strictly a fem. Adjective, and requires the addition of νόσος to complete its meaning.

The 1899 edition of *Mayne's Medical Vocabulary* (London) also inserts a notice of the anachronistic character of the term:

PHRENITIS: (an inflammation of the brain which causes madness; from φρήν, φρένες, the seat of the mental faculties.) A term *improperly used* [my emphasis] for inflammation of the brain and its membranes. Phrensy; a Genus of the Order *Phlegmasiae*, Class *Pyrexiae* of Cullen's nosology.

The dictionary quotes a variety of subtypes, bringing to full light the development of the disease into a syndrome or set of clusters of signs related to derangement, odd behaviour and 'nervousness' with disparate causes: '*Phrenitis Calentura* (A term for Sunstroke), *Phrenitis latrans* (Hydrophobia). *Phrenitis Potatorum* (Delirium tremens). *Phrenitis verminosa* (A form of *phrenitis* formerly supposed to be due to the presence of a "worm" in the brain)'. The spelling *Phrensy* is also used here: '*Phrensy*: (*Phrenesis*) The same as Frenzy; also used in the same sense as *phrenitis*'.

At the turn of the twentieth century, in *The American Illustrated Medical Dictionary* (Cattel 1910), *Phrenitis* is simply 'delirium of frenzy', with what had once been a disease now completely transformed into the syndrome or the symptom. In the 1925 and 1932 editions, as *phrenitis* progresses towards 'archaeological' status, the reference to the Greek diaphragmatic origin returns with '1. Delirium or phrenzy 2. Inflammation of the diaphragm'. The 1910 *Lippincott's New Medical Dictionary* (Philadelphia and London) also refers to both the Greek medical construct and the modern, medical frenzy and inflammation of the brain. It is thus evident that by the middle of the twentieth century the label *phrenitis* and its etymological implications were still recognized and included. In Skinner's *The Origin of Medical Terms* (1949), only the adjective *phrenic* is included, with cultural-historical discussion:

In Homer the use of φρήν is for the parts about the heart, even the heart itself. Later it was restricted to the parts between the heart and the liver, thus the abdominal diaphragm. As this area was generally considered the seat of the emotions, and was also very properly considered to have some association with speaking, the term φρήν came to have the metaphorical

significance of soul or mind, a sort of affective centre. Thus the word frenzy, which is derived from φρήν, originally had the significance of an emotional disturbance but became identified more and more with mental disturbance. The importance of the diaphragm was further enhanced by the knowledge that wounds of the diaphragm were generally fatal.

In the 1951 *Medical Dictionary* by Newman Dorland (Philadelphia and London), *phrenitis* is defined as ‘1. Inflammation of the brain 2. Delirium or frenzy 3. Inflammation of the diaphragm’. In Wain’s 1958 American historical dictionary *The Story behind the Word*, only ‘Frenzy’ is found, and there is no mention of *phrenitis*: ‘This term designating a violent *mania* is a corruption of the older spelling of this word which was “phrensy”. This is derived from the Latin and the Greek word “*phrenesis*” meaning madness or delirium, and in turn comes from the Greek word “*phren*” or mind.’ Wakeley’s *Faber Medical Dictionary* (1962) lists:

phrenesis (G[reek], inflammation of the brain) ‘delirium, insanity’; *phrenetic* (G[reek] *Phren*, midriff) ‘maniacal’; *phrenic* ‘(G[reek] *phren*, midriff). 1. Relating to the diaphragm ... 2. relating to the mind’; and *phrenitis*, ‘(G[reek] *phren*, midriff or mind) 1. Inflammation of the brain. 2. Inflammation of the diaphragm 3. Delirium.

Black’s Medical Dictionary, from 1981, represents yet another development, including ‘phrenic nerve’ (for the one ‘which chiefly supplies the diaphragm’) and ‘phrenology’ as an ‘old term’ for physiognomic approaches to the relationship between head-shape and character, but not ‘*phrenitis*’.

It is significant that *phrenology* – by then, much more factually absurd – is included, but not *phrenitis*, a testament to the still recent validity of the latter. The 1981 *Psychiatric Dictionary* by Robert J. Campbell mentions various terms in *phren-*, and under *phrenitis* explains that ‘This term was used by Hippocrates for inflammation of the brain’, which was precisely *not* the case, as we have seen. The 1986 *Oxford Companion to Medicine* likewise avoids *phrenitis*, but again accepts ‘phrenology’, defining this as a ‘pseudoscience’; the reality of *phrenitis* seems confirmed as both still too close to be dismissed as archaeology and too distant scientifically to be treated as medically valid. The *Radcliffe European Medical Dictionary* (1991) includes only the adjective ‘frenico (Italian, ‘diaframmatico, mentale’) = phrenic (English) = diaphragmatisch, Zwerchfell- (German), frénico (Spanish), psychique (French)’. *Stedman’s Medical Dictionary* (1995) also offers ‘phrenic’: ‘1. Diaphragmatic 2. Of the mind’ and ‘phrenology’ as ‘obsolete doctrine’, but not *phrenitis*, while the 2006 *Mosby’s Dictionary* has the adjective ‘phrenetic’ for ‘frenzied, delirious, maniac’, and

phren- again referring to '1. Diaphragm 2. The mind'. But we find no *phrenitis* here. Discomfort with the label and its bulky history is also visible, finally, in the 1999 *A Dictionary of the History of Medicine*, which keeps *phrenitis* somewhat distant, describing it as 'Ancient Greek term for disease of the mind', while offering a longer section on 'phrenology'.

This partial, episodic and patently patchy survey shows that sometime towards the middle of the nineteenth century the term *phrenitis* became (or began to become) obsolete and non-viable in official medicine. But the adjectives associated with it and its general 'mental' and 'diaphragmatic' meanings were remembered, as were its connections with the brain, more or less precisely traced back to various authors of the ancient past. The concreteness and clinical appeal of the term were still felt well into the nineteenth century, when several dictionaries consider it passé but its copyright had not yet expired, so to speak: while phrenology can be comfortably placed in the Museum of the History of Medicine, *phrenitis* cannot yet be handled so cavalierly. As far as *phren-* is concerned, the root's meanings 'mind', 'diaphragm' and 'brain' are still felt, and more or less in this order of importance. Today, however, the vast majority of doctors and general readers ignore what *phrenitis* once was.

APPENDIX 3

Phrenitis from the Fifth Century BCE to the
Twentieth Century CE: A Synoptic Table

	Bodily localization	Cause
Hippocrates (fifth century BCE) (Summary)	(not really a localization) Diaphragm Head Blood Stomach	Bile, phlegm Pressure on the diaphragm? Heating of the blood
<i>Morb.</i> 1.30		Heating of the patient's blood (haematocentrism)
<i>Morb.</i> 1.34		Cause of death: lack of nourishment, wasting, excessive phlegm, cold, death
Hipp. Fragment in <i>AP</i>	Brain	The brain is damaged by the blood around the chorioid meninx, which usually feeds it, being corrupted by bile
<i>Aff.</i> 10	Diaphragm	Bile settling against the diaphragm
<i>Aff.</i> 12	Random part (ἢ ἄν τύχη)	Accumulation of phlegm and bile
Diocles (fourth century BCE)	Inflammation of the diaphragm (φλεγμονή τοῦ διαφράγματος); thick, cold phlegm gathering around the offshoots that grow from the heart (καρδία)	Inflammation
Praxagoras (fourth century BCE)	Inflammation of the heart (φλεγμονήν τῆς καρδίας); thick, cold phlegm gathering around the offshoots that grow from the heart (καρδία)	
<i>Anonymus Londinensis</i> (fourth century BCE)	<i>Logistikon</i>	
Heraclides of Tarentum (third–second centuries BCE)	Head The stomach can also be involved	Congestion of the head Heaviness when food is in the stomach Decomposition of the humours
Erasistratus (third century BCE)	Meninx (κατά τι πάθος τῶν κατὰ τὴν μήνιγγα ἐνεργειῶν)	

(cont.)

	Bodily localization	Cause
Asclepiades (second century BCE)	Meninges, membranes in general Stomach Brain Sensorial channels Generally delocalized	Stoppage or obstruction of the corpuscles in the membranes of the brain, as it becomes overheated; overflow of corpuscles and blockage. Thus: holistic, delocalized circumstances more than an individual cause (overheating is the sole starting point)
Thessalus (first century BCE)	Inflammation of the heart	Denial of antecedent causes
Celsus (first century BCE-CE)	Body as a whole; non-specific fever	
Galen (second-third century CE)	Brain, nerves, <i>hēgemonikon</i> (diaphragm via sympathy; lungs may be involved)	Inflammation of the brain Overflow of yellow bile in brain or meninges Accumulation of malignant humour Summer heat Bad lifestyle Also overflow of blood in the brain caused by various factors
<i>Anonymus Parisinus</i>	Doxographic survey: Head Meninx Brain Diaphragm	Inflammation, affection of the various parts; descriptive rather than scientific
Aretaeus (first-second century CE)	Diaphragm Heart Head <i>Neura</i>	
Oreibasius (fourth century CE)	Brain	
Aetius of Amida (sixth century CE)	Meninges, brain; some relation to the chest	

(cont.)

	Bodily localization	Cause
Paul of Aegina [ps.-] Alexander of Aphrodisias (second- third century CE) Alexander of Tralles (sixth century CE)	Meninges and brain Brain Brain/meninges; but controversial localization	Ochre bile; yellow bile; overcooked yellow bile
Nemesius of Emesa (fourth century CE) Caelius Aurelianus (fifth century CE?) Byzantine authors Ḥunayn (ninth century CE) al-Rāzī (ninth–tenth centuries CE) Haly Abbas, <i>Pantegni/ Viaticum</i>	Brain No fixed localization Brain (diaphragm) Brain and meninges Diaphragm Brain Membranes of the brain or the brain matter Diaphragm	Inflammation, humoral unbalance Hot complexion of the brain or <i>apostema</i> in the membranes of the brain or in the brain
Ibn Sīnā (Avicenna), (tenth–eleventh century)	Brain/meninges (Diaphragm)	Hot <i>apostema</i> /abscess of the head Blood, pure yellow bile, pure red bile, or bile burnt black
Arnau de Vilanova (fourteenth century) Gilbertus Anglicus (thirteenth century)	Membranes/Brain (Diaphragm, chest) Anterior portion of the brain or its membranes (= <i>frenes</i>)	Hot <i>apostema</i> of the membranes Inflamed <i>apostema</i> born in the anterior portion of the brain or its membranes; accumulation of liquid in the brain due to (1) its many vessels, (2) its sponginess, which sucks in moisture
Gentile da Foligno (fourteenth century) Ibn Zuhr (Avenzoar) (twelfth century), <i>Taysir</i>	Brain (Diaphragm) Head Brain, membranes	Apostema Humours Humours rising from the stomach Hot <i>apostema</i> Overheating
Bernard de Gordon (beginning of the fourteenth century)	Brain or membranes of the brain	Hot <i>apostema</i> Overheating

(cont.)

	Bodily localization	Cause
Talmud (<i>Kordiakos/Qordiakos</i>)	Heart?	New wine A daemon
Rabbi Jonah (tenth–eleventh centuries CE)	Brain/mind/diaphragm	
Maimonides (twelfth century CE)	Brain/mind/diaphragm	
<i>Syriac Book of Medicines</i> (fourth–twelfth centuries?)	Brain/chest/diaphragm/membranes	
Salernitan school (tenth century CE-)	Brain/head/membranes (Diaphragm)	<i>Apostema calidus</i>
Parcelsus (fifteenth–sixteenth century)	The <i>spiritus</i>	The <i>tartari</i> can be cause
Antonio Beniveni (sixteenth century)	Head, brain	
André du Laurens (sixteenth–seventeenth centuries)	Brain and membranes of the brain Diaphragm	
Daniel Sennert (seventeenth century)	Brain, meninges	
Giovanbattista Morgagni (seventeenth–eighteenth centuries)	Brain and membranes of the brain (lungs can be involved)	Inflammation, heating; various circumstances
Herman Boerhaave (seventeenth–eighteenth centuries)	Brain and membranes of the brain (lungs and other organs may also be involved)	
Gerard van Swieten (eighteenth century)	Brain and membranes of the brain (lungs and other organs may also be involved)	
Ferdinand Saalman (eighteenth–nineteenth centuries)	Brain and membranes of the brain Lungs	Contagious infection, lack of hygiene and cleanness, bad air
Philippe Pinel (nineteenth century)	Brain and membranes of the brain	Inflammation, heating
Physicians and veterinaries (seventeenth–nineteenth centuries)	Brain and membranes of the brain	Inflammation, heating; various circumstances
nineteenth–twentieth-century medical consensus	Brain and membranes of the brain (meningo-encephalitis)	Inflammation, heating; various circumstances

Bibliography

- Adamis, D. *et al.* 2003. 'A Brief Review of the History of Delirium as a Mental Disorder', *History of Psychiatry* 18.4: 459–69.
- Adamson, P., Hansberger, R. and Wilberding, J. (eds.) 2014. *Philosophical Themes in Galen. Bulletin of the Institute of Classical Studies Supplement* 114. London: Institute of Classical Studies.
- Agamben, G. 1995. 'Politicizzare la morte', in Agamben, G., *Homo Sacer: il potere sovrano e la nuda vita*. Turin: Einaudi, pp. 145–49.
- Ahonen, M. 2014. *Mental Disorders in Ancient Philosophy*. Cham: Springer.
2018. 'Making the Distinction: The Stoic View of Mental Illness', in Thumiger, C. and Singer, P. (eds.), pp. 341–64.
- Alexopoulos, L. 2023. 'Phrenitis in Gregory of Nyssa's "De Hominis Opificio"', *Journal of Early Christian Studies* 31.3: 143–70.
- Álvarez Millán, C. 2015. 'Disease in tenth-century Iran and Irak according to al-Rāzi's Casebook', *Subayl: International Journal for the History of the Exact and Natural Sciences in Islamic Civilisation* 14: 49–88.
- Ambrosio, C. and MacLehose, W. (eds.) 2018. *Imagining the Brain: Episodes in the History of Brain Research*. Progress in Brain Research 243. London and New York, Academic Press.
- American Psychiatric Association. 2013. *Diagnostic and statistical manual of mental disorders: DSM-5*. 5th ed. Washington DC: American Psychiatric Publishing.
- Armstrong, D. 1995. 'The rise of surveillance medicine', *Sociology of Health and Illness* 17.3: 393–404.
- Arnim, H. von (ed.) 1903–24. *Stoicorum veterum fragmenta*. Munich and Leipzig: K. G. Saur.
- Asper, M. 2015. 'Medical Acculturation? Early Greek Texts and the Question of Near Eastern Influence', in Holmes, B. and Fischer, K.-D. (eds.), *The Frontiers of Ancient Science: Essays in Honor of Heinrich von Staden*. Berlin and New York: De Gruyter, pp. 19–46.
- Bachour, N. 2017. 'Kitāb al-Mā': an Arabic Medical Dictionary of the Mid-fifth Islamic century', *Asia* 71.3: 771–810.
- Balles, I. 2002. 'Air. *barae*, gr. φρένες, gr. προπίδες und die Vertretung von idg. **ku-* im Griechischen', in Fritz, M. and Zeifelder, S. (eds.), *Novalis Indogermanica. Festschrift für Günter Neumann zum 80. Geburtstag*. Graz: Leykam, pp. 1–23.

- Barclay, K. and Reddan, B. (eds.) 2019. *The Feeling Heart in Medieval and Early Modern Europe: Meaning, Embodiment, and Making*. Studies in Medieval and Early Modern Culture 67. Berlin and New York: De Gruyter.
- Barker, W. T. 1849. 'Phrenitis', *The Medical Times: A Journal of Medical and Chemical Science, Literature, Criticism, and News* 19 (14 October 1848–30 June 1849): 38–39.
- Baron, C. and Hamlin, C. 2015. 'Malaria and the Decline of Ancient Greece: Revisiting the Jones Hypothesis in an Era of Interdisciplinarity'. *Minerva* 53.4: 327–58.
- Barry, S. C. 2016. *The Question of Syriac Influence upon early Arabic Translations of the Aphorisms of Hippocrates*. Diss. Manchester. <http://www.syriacstudies.com/wp-content/uploads/2018/10/Syriac-influence-upon-Arabic.pdf>.
- Bartoš, H. 2015. *Philosophy and Dietetics in the Hippocratic on Regimen: A Delicate Balance of Health*. Leiden: Brill.
2020. 'Heat, Pneuma, and Soul in the Medical Tradition', in Bartoš and King (eds.), pp. 21–31.
- Bartoš, H. and King, C. G. (eds.) 2020. *Heat, Pneuma, and Soul in Ancient Philosophy and Science*. Cambridge: Cambridge University Press.
- Beard, M. 2014. *Laughter in Ancient Rome*. Oakland: University of California Press.
- Berrios, G. E. 1981. 'Delirium and confusion in the 19th century: a conceptual history', *British Journal of Psychiatry* 139: 439–49.
1982. 'Disorientation states and psychiatry', *Comprehensive Psychiatry* 23.5: 479–91.
1987. 'Historical Aspects of Psychoses: 19th Century Issues', *British Medical Bulletin* 43.3: 484–98.
1996. *The History of Mental Symptoms. Descriptive Psychopathology since the Nineteenth Century*. Cambridge: Cambridge University Press.
- 1999a. 'Classifications in Psychiatry: A Conceptual History', *Australian and New Zealand Journal of Psychiatry* 33.2: 145–60.
- 1999b. "Délire". Introduction', *History of Psychiatry* 10.40: 525–42.
- 1999c. 'Délire', in Diderot et d'Alembert, *Encyclopédie ou dictionnaire raisonné des sciences, des arts et de métiers*, vol. 4 (1754). Trans. G. E. Berrios. *History of Psychiatry* 10.40: 536–41.
2014. 'Febrile Anxiety', by Robert James (1745). With an introduction by G. E. Berrios, *History of Psychiatry* 25.1: 112–24.
- Berrios, G. E. and Jacyna, L. S. 1995. 'Delirium and Cognate States', in Berrios and Porter (eds.), pp. 3–33.
- Berrios, G. E. and Porter, R. (eds.) 1995. *A History of Clinical Psychiatry: The Origin and History of Psychiatric Disorders*. London: Athlone.
- Bhayro, S. 2013. 'The Reception of Galen's *Art of Medicine* in the Syriac *Book of Medicines*', in Zipster, B. (ed.), *Medical Books in the Byzantine World. EIKASMOS – Quaderni Bolognesi di Filologia Classica – Studi Online 2*. Bologna: Eikasmós Online II, pp. 123–44.

2015. 'Theory and Practice in the Syriac *Book of Medicines*: The Empirical Basis for the Persistence of Near Eastern Medical Lore', in Johnson, J. C. (ed.), *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Science, Technology, and Medicine in Ancient Cultures 3. Berlin and New York: De Gruyter, pp. 147–58.
2019. 'The Reception of Galen in the Syriac Tradition', in Bouras-Vallianatos and Zipster (eds.), pp. 163–78.
- Bhayro, S. and Rudolf, S. 2018. 'Budge's Syriac *Book of Medicines* after One Hundred Years: Problems and Prospects', in Panayotov, S. V. and Vaci, L. (eds.), *Mesopotamian Medicine and Magic: Studies in Honor of Markham J. Geller*. Ancient Magic and Divination 14. Leiden and Boston, Brill, pp. 116–30.
- Biesterfeldt, H. H. and Gutas, D. 1984. 'The Malady of Love', *Journal of the American Oriental Society* 104.1 (*Studies in Islam and the Ancient Near East Dedicated to Franz Rosenthal*): 21–55.
- Biotti, V. 2002. *È matto e tristo, pazzo e fastidioso. I saperi sulla follia: magistrati, medici e inquisitori a Firenze e negli stati italiani del '600*. Florence: Nicomp.
- Biraud, M. 1984. 'La conception psychologique à l'époque d'Homère: les "organs mentaux": étude lexicale de κῆρ, κραδίη, θυμός, φρένες', *Cratyle* 1: 27–49; 2: 1–27.
- Blaine, D. P. 1816². *The Outlines of the Veterinary Art; or, the Principles of Medicine, as applied to the Structure, Functions, and Economy of the Horse, and to a more scientific and successful manner of treating his various diseases: Comprehending, also, a concise View of those of Meat Cattle and Sheep. The whole illustrated by anatomical and other plates*. London: printed for T. Boosey; Longman, Hurst, Rees, Orme, & Brown; J. Mawman; and J Callow.
- Boissier de la Croix de Sauvages, F. 1731. *Nouvelles classes de maladies, qui dans un ordre semblable à celui des Botanistes, comprennent les genres & les espèces de toutes les maladies avec leurs signes & leurs indications*. Avignon: d'Avanville.
- Bornemann, A. 1988. *Das Krankheitsbild der Phrenitis in der Medizin des arabischen Mittelalters unter besonderer Berücksichtigung von Ibn Sīnā (980–1037)*. Diss. Med. Bonn.
- Bos, G. 2002. 'The Reception of Galen in Maimonides' *Medical Aphorism*', *Bulletin of the Institute of Classical Studies* Supplement 77: *The Unknown Galen*, pp. 139–52.
- (ed.) 2004a. *Maimonides: Medical Aphorism Treatises 1–5*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. Provo: Brigham Young University Press.
- 2004b. 'Translator's Introduction', in Bos 2004a, pp. xix–xxxii.
2007. *Maimonides: Medical Aphorism Treatises 6–9*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo: Brigham Young University Press.

2011. *Maimonides: Medical Aphorism Treatises 10–15*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo: Brigham Young University Press.
2016. *Maimonides: Medical Aphorism Treatises 16–21*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo: Brigham Young University Press.
2017. *Maimonides: Medical Aphorism Treatises 22–25*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo: Brigham Young University Press.
- Bos, G. et al. (eds.) 2020. *Marwān ibn Janāh: On the nomenclature of medicinal drugs (Kitāb al-Talkhīṣ). Edition, translation, and commentary, with Special Reference to the Ibero-Romance Terminology*. Islamic History and Civilization 170. Leiden and Boston: Brill.
- Boudon-Millot, V. 2018. ‘Galen’s Hippocrates’, in Pormann (ed.), pp. 292–314.
- Bouras-Vallianatos, P. 2019. ‘Galen in Late Antique Medical Handbooks’, in Bouras-Vallianatos and Zipster (eds.), pp. 38–61.
- Bouras-Vallianatos, P. and Zipser, B. (eds.) 2019. *Brill’s Companion to the Reception of Galen*. Leiden and Boston: Brill.
- Brann, N. L. 2002. *The Debate over the Origin of Genius During the Italian Renaissance. The Theories of Supernatural Frenzy and Natural Melancholy in Accord and in Conflict on the Threshold of the Scientific Revolution*. Leiden and Boston: Brill.
- Briand, M. 1993. ‘L’“Esprit Blanc” de Pélias. Remarques sur Pindare, *Pythique IV*, v. 109’, *Métis. Revue d’anthropologie du monde grec ancien* 8.1–2: 103–28.
- Brockelmann, C. 1914. ‘E. A. W. Budge, Syrian Anatomy, Pathology and Therapeutics, or “The Book of Medicines” (London, 1913)’, *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 68: 185–203.
- Broder, J. 2011. *Diagnostic Imaging for the Emergency Physician*. Philadelphia: W. B. Saunders.
- Brodie, J. F. and Redfield, M. (eds.) 2002. *High Anxieties: Cultural Studies in Addiction*. Berkeley and Los Angeles: University of California Press.
- Budge, W. E. A. (ed.) 1913/2009. *Syrian Anatomy, Pathology and Therapeutics, or “The Book of Medicines”*. London: Oxford University Press.
- Butler, S. M. 2007. ‘A Case of Indifference?: Child Murder in Later Medieval England’, *Journal of Women’s History* 19.4: 59–82.
2010. ‘Representing the Middle Ages: The Insanity Defense in Medieval England’, in Turner, W. J. and Vandeventer Pearman, T. (eds.), *The Treatment of Disabled Persons in Medieval Europe: Examining Disability in the Historical, Legal, Literary, Medical, and Religious Discourses*. Lewiston: Edwin Mellen, pp. 117–33.
- Byl, S. and Szafran, W. 1996. ‘La *Phrenitis* dans le *Corpus hippocraticum*. Étude philologique et médicale’, *Vesalius* 2.2: 98–105.
- Bynum, B. 2000. ‘Phrenitis: What’s in a Name?’, *The Lancet* 356: 1936.
- Bynum, W. F. 1994. ‘Nosology’, in *Companion Encyclopedia of the History of Medicine*. London and New York: Routledge, p. 1936.

2006. 'The Rise of Science in Medicine', in Bynum *et al.* (eds.), pp. 111–239.
- Bynum, W. F. *et al.* (eds.) 2006. *The Western Medical Tradition: 1800–2000*. Cambridge: Cambridge University Press.
- Campbell, R. J. 1981. *Campbell's Psychiatric Dictionary*. 5th ed. Oxford: Oxford University Press.
- Canguilhem, G. 1994. 'The History of the History of Sciences', in *A Vital Rationalist. Selected Writings from Georges Canguilhem*, trans. Arthur Goldhammer. Cambridge, MA: MIT Press, pp. 49–63 (originally published in part in *Études d'histoire et de philosophie des sciences*. Paris: Vrin, 1968).
- Cantor, D. and Ramsden, E. (eds.) 2014. *Stress, Shock, and Adaptation in the Twentieth Century. Rochester Studies in Medical History*. Rochester: University of Rochester Press.
- Capra, A. (forthcoming). 'Hipponax's Iambic Persona and the Protean Art of Begging', in Prodi, E. E. and Cazzato, V. (eds.), *Framing Hipponax*. Cambridge: Cambridge University Press.
- Carelli, G. 1858. *Igiene veterinaria ad uso dei veterinarii dei militari, e dei proprietari*. 2nd ed. Naples: Stabilimento tipografico Salita Magnocavallo.
- Carpentieri, N. 2017. 'On the Meaning of *Birsām* and *Sirsām*: A Survey of the Arabic Commentaries on the Hippocratic Aphorisms', *MIDÉO: Mélanges de l'Institut dominicain d'études orientales* 32: 81–92.
- Carpentieri, N. and Mimura, T. 2017. 'Arabic Commentaries on the Hippocratic Aphorisms, VI.11: A Medieval Medical Debate on Phrenitis', *ORIENTS* 45: 176–202.
- Carpentieri, N., Fidora, A. and Lampurlanés, I. 2018. 'Avicena y Gerardo de Cremona sobre la frenitis: una comparación entre *al-Qānūn fī ṭ-Ṭibb* y su traducción latina'. *Al-Qanṭara* 39: 293–320.
- Cattel, H. W. 1910. *Lippincott's New Medical Dictionary*. Philadelphia and London: J. B. Lippincott.
- Centanni, M. 1987. 'Nomi del male. "Phrenitis" e "epilepsia" nel Corpus Galenicum', *Museum Palatinum* 5.1: 47–79.
- Chandelier, J. 2018. 'Averroes on Medicine', in Adamson, P. and Di Giovanni, M. (eds.), *Interpreting Averroes: Critical Essays*. Cambridge: Cambridge University Press, pp. 158–76.
- Chantraine, P. 1933. *La formation des noms en grec ancien*. Paris: Honoré Champion.
- 1968–70. *Dictionnaire étymologique de la langue grecque: histoire des mots*. Paris: Klincksieck.
- Cheyns, A. 1980. 'La notion de φρένες dans l'Iliade et l'Odyssée. I', *Cahiers de l'Institut de Linguistique de Louvain* 6.3/4: 121–202.
- Christie, J. R. R. 1998. 'The Paracelsian Body', in Grell (ed.), pp. 269–92.
- Claes, M. and Dupont, A. 2017. 'Augustine's Sermons and Disability', in Laes (ed.), pp. 328–41.
- Clarke, M. 1999. *Flesh and Spirit in the Songs of Homer: A Study of Words and Myths*. Oxford: Clarendon Press.

- Combellack, F. M. 1975. 'Agamemnon's Black Heart', *Grazer Beiträge: Zeitschrift für die klassische Altertumswissenschaft* 4: 81–87.
- Conrad, L. I. and Wujastyk, D. (eds.) 2000. *Contagion: Perspectives from Pre-Modern Societies*. Aldershot: Ashgate.
- Cook, H. J. 2006. 'Introduction', in Bynum *et al.* (eds.), pp. 1–6.
- Cooper, C. L. and Dewe, P. (eds.) 2004. *Stress: A Brief History*. *Blackwell Brief Histories of Psychology*. Malden: Blackwell.
- Cooper, G. M. 2019. 'Hunayn Ibn Ishāq and the Creation of an Arabic Galen', in Bouras-Vallianatos and Zipser (eds.), pp. 179–95.
- Corvisier, J.-N. 1985. *Santé et société en Grèce ancienne*. Paris: Economica.
- Coughlin, S. (forthcoming a). *Athenaeus of Attalia: The Complete Fragments with Translation and Commentary*. Leiden and Boston: Brill.
- (forthcoming b). 'Galen as a Reader and a Follower of Hippocrates', in Laskaris, J., Rosen, R. and Singer, P. N. (eds.).
- Coughlin, S. and Lewis, O. 2020. 'Pneuma and the Pneumatist School of Medicine', in Coughlin, S., Leith, D. and Lewis, O. (eds.), *The Concept of Pneuma after Aristotle*. Berlin: Edition Topoi, pp. 203–36.
- Craik, E. 2020. 'Malaria, Childbirth and the Cult of Artemis', in Totelin and Flemming (eds.), pp. 87–100.
- Cullen, W. 1785. *Synopsis Nosologiae Methodicae*. 4th ed. Edinburgh: Gulielmus Creech et J. Murray (translated into English as *Nosology: or, a systematic arrangement of diseases, by classes, orders, genera, and species; with the distinguishing character of each, and outlines of the systems of Sauvages, Linnaeus, Vogel, Sagar, and Macbride*. Edinburgh: C. Stewart 1880).
- d'Aumont, A. 1765. 'Phrénésie', in *Encyclopédie ou dictionnaire raisonné des sciences, des arts et de métiers* (tome 12: PARL-POL). Neufchastel: Samuel Faulche, pp. 530–31.
- Debru, A. 1996. *Le corps respirant: la pensée physiologique chez Galien*. *Studies in ancient Medicine* 13. Leiden: Brill.
2005. 'Préface', in Garofalo, I. and Debru, A. (eds.), *Galien. Œuvres. Tome VII: Les Os pour les débutants – L'Anatomie des muscles*. Paris: Les Belles Lettres, pp. 87–96.
- Debru, C. 2010. 'Metafore del cervello', in Gagliasso and Frezza (eds.), pp. 241–47.
- De Gasparin, A. M. 1817. *Manuel d'art vétérinaire, à l'usage des Officiers de Cavalerie, des agriculteurs et des artistes vétérinaires*. Paris and Geneva: J. J. Paschoud.
- De Giorgi, P. 1999. *Tarantismo e rinascita: i riti musicali e coreutici della pizzica-pizzica e della tarantella*. Lecce: Argo.
- Delaini, P. 2018. 'Conoscenza medica dei meccanismi della percezione, del sogno e dei fenomeni dispercettivi nel mondo iranico di età tardoantica', in Canetti, L. and Piras, A. (eds.), *Esperienze e tecniche dell'estasi tra Oriente e Occidente*. *Quaderni di Studi e Materiali di Storia delle religioni* 21. Brescia: Morcelliana, pp. 72–98.
- Delgado, F. 2012. 'The Neurosciences in Averroes' "Principles of Medicine"', *Annals of Saudi Medicine* 32.3: 327–31.

- Demaitre, L. E. 1980. *Doctor Bernard de Gordon: Professor and Practitioner*. Pontifical Institute of Mediaeval Studies: Studies and Texts 51. Toronto: Pontifical Institute of Mediaeval Studies.
2013. *Medieval Medicine: The Art of Healing, from Head to Toe*. Santa Barbara: Praeger.
- De Martino, E. 1961. *La terra del rimorso: contributo a una storia religiosa del Sud*. Milan: Il Saggiatore.
- De Renzi, S. (ed.) 1852–59. *Collectio Salernitana, ossia documenti inediti, e trattati di medicina appartenenti alla scuola medica salernitana, raccolti e illustrati da G. E. T. Henschel, C. Daremberg, e S. De Renzi; Premessa la storia della scuola e pubblicati a cura di Salvatore De Renzi, medico napoletano*. 5 vols. Naples: Tipografia del Filiiatre-Sebezio.
- Deroux, C. 1998. *Maladie et maladies dans les textes latins antiques et médiévaux. Actes du Ve Colloque International "Textes médicaux latins" (Bruxelles, 4–6 sept. 1995)*. Brussels: Latomus.
- Destaing, F. 1970. 'La mort d'Alexandre', *La Presse médicale* 78: 2391–93.
- Devinant, J. 2018. 'Mental Disorders and Psychological Suffering in Galen's Cases', in Thumiger and Singer (eds.), pp. 198–221.
2019. 'L'origine du mal. Sens et limites de la localisation des troubles psychiques dans la médecine gréco-romaine', in Debru, C. and Delbraccio, M. (eds.), *Neurosciences et psychiatrie. Progrès scientifiques et réflexions philosophiques*. Paris: Herrmann, pp. 13–38.
2020. *Les Troubles psychiques chez Galien: étude d'une approche philosophique et médicale de l'âme*. Paris: Les Belles Lettres.
- Didi-Hubermann, G. 1999. *Ouvrir Vénus: nudité, rêve, cruauté*. Paris: Gallimard.
- Dols, M. W. 1992. *Majnun: The Madman in Medieval Islamic Society*. Oxford: Clarendon Press.
- Dowbiggin, I. 2011. *The Quest for Mental Health*. Cambridge: Cambridge University Press.
- Drabkin, I. E. 1955. 'Remarks on ancient Psychopathology', *Isis* 46.3: 223–34.
- Driesch, A. von den and Peters, J. 2003. *Geschichte der Tiermedizin: 5000 Jahre Tierheilkunde*. Stuttgart: Schattauer.
- Durling, R. J. 1961. 'A Chronological Census of Renaissance Editions and Translations of Galen', *Journal of the Warburg and Courtauld Institutes* 24.3/4: 230–305.
1995. 'Medicine in Plutarch's *Moralia*', *Traditio* 50: 311–14.
- Ecce, G. 2018. *Etica medica sulle orme di Ippocrate*. Milan: Editrice Bibliografica.
- Ecke, F. W. 1845. *Delirium cum tremore potatorum*. Inaugural-Dissertation der medicinischen Fakultät zu Würzburg vorgelegt von Fried. Wilhelm Ecke, Doktor der Medicin, Chirurgie und Geburtshilfe. Würzburg: Druck der C. Becker'schen Universitäts-Buchdruckerei.
- Eghigian, G. 2011. 'Deinstitutionalizing the History of Contemporary Psychiatry', *History of Psychiatry* 22.2: 201–14.
- Ellenberger, H. F. 1970. *The Discovery of the Unconscious: The History and Evolution of Dynamic Psychiatry*. New York: Basic Books.

- Entralgo, P. L. 1970. *The Therapy of the Word in Classical Antiquity*. New Haven: Yale University Press.
- Fischer-Homberger, E. 1978. 'Zwerchfellverletzung und psychische Störung: zur Geschichte der Körpermitte', *Gesnerus* 35.1/2: 1–19.
- Flemming, R. 2018. 'Galen and the Plague'. In Petit, C. (ed.), *Galen's Treatise Περὶ Ἀλυπτίας (De indolentia) in Context*. Leiden: Brill, pp. 219–44.
- Fögen, T. and Lee, M. M. (eds.) 2009. *Bodies and Boundaries in Graeco-Roman Antiquity*. Berlin and New York: De Gruyter.
- Fontaine, M. 2013. 'On Being Sane in an Insane Place – The Rosenhan Experiment in the Laboratory of Plautus' *Epidamnus*', *Current Psychology* 32: 348–65.
- Forcada, M. 2019. 'The Reception of Galen after Avicenna (Eleventh–Twelfth Centuries)', in Bouras-Vallianatos and Zipster (eds.), pp. 227–43.
- Foucault, M. 1963/1973. *Birth of the Clinic. An Archaeology of Medical Perception*. New York: Pantheon Books (originally published in 1963 as *Naissance de la clinique: une archéologie du regard médical [Galien: histoire et philosophie de la biologie et de la médecine]*, Paris: Presses universitaires de France).
- Fowler, R. 1875. *The Medical Vocabulary Containing a Concise Explanation of the Terms used in Medicine and its Accessory Sciences; to which is appended a Selection of Indian Medical Words in Common Use. Second Edition, revised and greatly enlarged*. London: Henry Renshaw.
- French, R. 2001. *Canonical Medicine: Gentile da Foligno and Scholasticism*. Leiden: Brill.
- Furley, D. J. 1956. 'The Early History of the Concept of Soul', *Bulletin of the Institute of Classical Studies* 3: 1–18.
- Gäbel, R. 2020. 'The Unknown Physician: Prolegomena to a Collection of the Fragments of Posidonius'. *Galenos: rivista di filologia dei testi medici antichi* 14: 39–52.
2022. *Aetius of Amida on Diseases of the Brain: Translation and Commentary of Libri medicinales 6.1–10 with Introduction*. Berlin: De Gruyter.
- Gagliasso, E. and Frezza, G. (eds.) 2010. *Le metafore del vivente: linguaggi e ricerca scientifica tra filosofia, bios e psiche*. Milan: F. Angeli.
- García González, A. 2005. *El Alphita. Estudio, edición crítica y comentario*. Valladolid: Universidad de Valladolid.
- Gaylin, W. 1974. 'Harvesting the Dead: The Potential of Recycling Human Bodies', *Harper's Magazine* 249.1492: 23–30.
- Gee, S. 1876. 'On Phrenitis Æstiva', *Saint Bartolomew's Hospital Reports* 12: 5–22.
- Geller, M. J. 2003. 'Paranoia, the Evil Eye, and the Face of Evil', in Sallaberger, W., Volk, K. and Zgoll, A. (eds.), *Literatur, Politik und Recht in Mesopotamien. Festschrift für Claus Wilcke. Orientalia Biblica et Christiana* 14. Wiesbaden: Harrassowitz, pp. 115–34.
- Gigli Piccardi, D. 2009. 'Phanes ἀρχέγονος Φρήν (Nonno, "D." 12.68 e "orac." ap. Didym., "De trin." II 27)', *Zeitschrift für Papyrologie und Epigraphik* 169: 71–78.

2010. *Naturalistic Psychology in Galen and Stoicism*. Oxford and New York: Oxford University Press.
- Gill, C. 2018. 'Philosophical Psychological Therapy: Did It Have Any Impact on Medical Practice?', in Thumiger, C. and Singer, P. N. (eds.) pp. 365–80.
- Gill, C., Whitmarsh, T. and Wilkins, J. (eds.) 2009. *Galen and the World of Knowledge*. Cambridge: Cambridge University Press.
- Goodey, C. F. 2011. *A History of Intelligence and "Intellectual Disability". The Shaping of Psychology in Early Modern Europe*. Farnham: Ashgate.
- Gourevitch, D. 1982. 'Les faux amis dans les textes médicaux grecs et latins', in Sabbah, G. (ed.), *Médecins et médecine dans l'antiquité, Mémoires III du Centre Jean Palerne*. Saint-Étienne: Publications de l'Université de Saint-Étienne, pp. 189–91.
1991. 'Les mots pour dire la folie en latin. À propos de passages de Celse et de Célius Aurélien', *L'évolution psychiatrique* 56.3: 561–68.
2017. 'Madness and Mad Patients according to Caelius Aurelianus', in Laes (ed.), pp. 283–97.
- Gourevitch, D. and Gourevitch, M. 1998. 'Le phrénétique chez Augustin: "Ergo, inquit aegrotus, inconstans est ars, aliud primo iubens, aliud postea" – "Quiesce potius et sanare. Ars constans est . . ."', in Madec, G. (ed.), *Augustin prédicateur (395–411)*. Paris: Institut d'Études Augustiniennes, pp. 505–15.
- Gourevitch, D. and Demigneux, G. 2013. 'Two Historical Case Histories of Acute Alcoholism in the Roman Empire', in Laes, Goodey and Rose (eds.), pp. 73–87.
- Gowland, A. 2016. 'Melancholy, Passions and Identity in the Renaissance', in Cummings, B. and Sierhuis, F. (eds.), *Passions and Subjectivity in Early Modern Culture*. London and New York: Routledge, pp. 75–94.
- Grant, R. M. 2010. 'Views of Mental Illness Among Greeks, Romans, and Christians', in Fotopoulos, J. (ed.), *The New Testament and Early Christian Literature in Greco-Roman Context. Studies in Honor of David E. Aune*. Novum Testamentum Supplements 122. Leiden and Boston: Brill, pp. 367–402.
- Graumann, L. A. 2000. *Die Krankengeschichten der Epidemienbücher des Corpus Hippocraticum: medizinhistorische Bedeutung und Möglichkeiten der retrospektiven Diagnose*. Aachen: Shaker Verlag.
- Green, C. D. 2003. 'Where did the Ventricular Localization of Mental Faculties come from?', *Journal of the History of the Behavioral Sciences* 39.2: 131–42.
- Gregoric, P. and Kuhar, M. 2014. 'Aristotle's Physiology of Animal Motion: On *Neura* and Muscles', *Apeiron* 47.1: 94–115.
- Grell, O. P. (ed.) 1998. *Paracelsus: The Man and his Reputation, his Ideas and their Transformation*. Leiden: Brill.
- Grmek, M. D. 1991. *Diseases in the Ancient Greek World*. Baltimore and London: John Hopkins University Press (originally published in 1983 as *Les Maladies à l'aube de la civilisation occidentale*. Paris: Payot).

- Grošelj, M. 1952. 'Quid φρένες μέλαινοι apud Hom. *Il.* I,103 significant', *Ziva Antika = Antiquité vivante* 2: 77.
- Grunert, P. 2002. 'Die Bedeutung der Hirnkammer in der antiken Naturphilosophie und Medizin', in Althoff, J., Föllinger, S. and Wöhrle, G. (eds.), *Antike Naturwissenschaft und Ihre Rezeption XII – 2002*. Trier: Wissenschaftlicher Verlag Trier, pp. 151–82.
- Guenther, K. 2015. *Localisation and its Discontents: A Genealogy of Psychoanalysis and the Neuro Disciplines*. Chicago: University of Chicago Press.
- Güterbock, H. G. and Jacobsen, T. (eds.) 1965. *Studies in Honor of Benno Landsberger on his Seventy-Fifth Birthday, April 21, 1965*. Assyriological Studies 16. Chicago: University of Chicago Press.
- Guidorizzi, G. 2010. *Ai confini dell'anima. I Greci e la follia*. Milan: Raffaello Cortina.
- Gundert, B. 2000. 'Soma and Psyche in Hippocratic Medicine', in Wright and Potter (eds.), pp. 13–36.
- Häfele, W. 2020. *Krankheit und ihre Behandlung. Studie zu Sophronius von Jerusalems Wundern der Heiligen Kyros und Johannes*. Berlin: Mohr Siebeck.
- Haase, W. (ed.) 1990. *Aufstieg und Niedergang der römischen Welt (ANRW)*. Band 36/4. Teilband Philosophie, Wissenschaften, Technik. Philosophie (Epikureismus, Skeptizismus, Kynismus, Orphica; Doxographica). Berlin and Boston: De Gruyter.
1993. *Aufstieg und Niedergang der römischen Welt (ANRW)*. Band 37/1. Teilband Philosophie, Wissenschaften, Technik. Wissenschaften (Medizin und Biologie). Berlin and Boston: De Gruyter.
1994. *Aufstieg und Niedergang der römischen Welt (ANRW)* Band 37/2. Teilband Philosophie, Wissenschaften, Technik. Wissenschaften (Medizin und Biologie). Berlin and Boston: De Gruyter.
1996. *Aufstieg und Niedergang der römischen Welt (ANRW)* Band 37/3. Teilband Philosophie, Wissenschaften, Technik. Wissenschaften (Medizin und Biologie [Forts.]). Berlin and Boston: De Gruyter.
- Hamlin, C. 2014. *More Than Hot: A Short History of Fever*. Baltimore and London: Johns Hopkins University Press.
- Hands, T. 2018. *Drinking in Victorian and Edwardian Britain: Beyond the Spectre of the Drunkard*. Cham: Palgrave Macmillan.
- Hankoff, L. D. 1972. 'Ancient Descriptions of Organic Brain Syndrome: The "Kordiakos" of the Talmud', *The American Journal of Psychiatry* 129.2: 233–36.
- Harris, A. 2022. 'New Diseases and Sectarian Debate in Hellenistic and Roman Medicine', *Apeiron* 55: 167–91.
- Harris, C. R. S. 1973. *The Heart and the Vascular System in Ancient Greek Medicine: From Alcmaeon to Galen*. Oxford: Clarendon Press.
- Harris, W. V. (ed.) 2013. *Mental Disorders in the Classical World*. Leiden: Brill.
2016. 'Popular Medicine in the Classical World', in Harris W. V. (ed.), *Popular Medicine in Graeco-Roman Antiquity: Explorations*. Leiden: Brill, pp. 1–64.
2021. 'Contagion in Ancient Thinking about Disease', *Mediterraneo Antico. Economie Società Culture* 24: 11–26.

- Hartmann, F. 1933. 'λευκαῖς φρασί Pind. Pyth. 4, 109', *Zeitschrift für vergleichende Sprachforschung* 60.3/4: 223.
- Haskell, Y. 2011. *Diseases of the Imagination and Imaginary Disease in the Early Modern Period*. Turnhout: Brepols.
- Havrdá, M. (forthcoming). 'Logic and Scientific Method', in Laskaris, J., Rosen, R. M. and Singer, P. N. (eds.).
- Hirai, H. 2011. *Medical Humanism and Natural Philosophy. Renaissance Debates on Matter, Life and the Soul*. Leiden: Brill.
- Hoblyn, R. D. 1892. *A Dictionary of Terms used in Medicine and the Collateral Sciences: Twelfth Edition revised throughout, with numerous additions by John A. Price*. London: Whittaker.
- Holmes, B. 2019. 'Bios'. *Political Concepts* 5 <https://www.politicalconcepts.org/bios-brooke-holmes>.
2020. 'Holism, Sympathy, and the Living Being in Ancient Greek Medicine and Philosophy', in Thumiger (ed.), pp. 47–83.
- Hooper, J. H. 1815. *An Inaugural Essay on Phrenitis, for the Degree of Doctor of Physick: Submitted to the Consideration of the Hon. Robert Smith, Provost, and of the Regents, of the University of Maryland*. Baltimore: Ralph W. Pomeroy.
- Horstmanshoff, M. 2011. 'Phrenitis in de Grieks-Romeinse geneeskunde', in Horstmanshoff, Hartog and Schlesinger (eds.), pp. 60–64.
- Horstmanshoff, M., Hartog, P. B. and Schlesinger, F. G. (eds.) 2011. *Over phrenitis (Michaëlis Jacobus de Vries: Dissertatio medica inauguralis De Phrenitide. Utrecht, 30 augustus 1757)*. Delft: Eburon.
- Howard, R. 1838. 'A Case of Premature Parturition Preceded by Phrenitis, and Accompanied by Peculiar Symptoms', *The Lancet* 30.782 (25 August 1838): 767–69.
- Huneman, P. 2008. 'Montpellier Vitalism and the Emergence of Alienism in France (1750–1800): The Case of Passions', *Science in Context* 21.4: 615–47.
- Hunter, R. A. and Macalpine, I. (eds.) 1963. *Three Hundred Years of Psychiatry, 1535–1860. A history presented in selected English texts*. London: Oxford University Press.
- Ihm, S. 2005. 'Zu den medizinischen Szenen in Menanders Aspis', in Fögen, T. (ed.), *Antike Fachtexte / Ancient Technical Texts*. Berlin and New York: De Gruyter, pp. 91–106.
- Ireland, S. and Steel, F. L. D. 1975. 'Φρένες as an Anatomical Organ in the Works of Homer', *Glotta* 53.3/4: 183–95.
- Israelowich, I. 2012. 'Aelius Aristides and the Sacred Tales', in Israelowich, I., *Society, Medicine and Religion in the Sacred Tales of Aelius Aristides*. Mnemosyne Supplement 341. Leiden and Boston: Brill, pp. 11–35.
2015. *Patients and Healers in the High Empire*. Baltimore: Johns Hopkins University Press.
- Jackson, M. 2013. *The Age of Stress: Science and the Search for Stability*. Oxford: Oxford University Press.
- Jackson, T. H. 1857. 'Bichloride of Mercury in Phrenitis and Meningitis in Children', *British Medical Journal* 37: 781.

- Jacquart, D. 1992. 'Les avatars de la phrénitis chez Avicenne et Rhazès', in Gourevitch (ed.), pp. 181–92.
1995. 'Les "Concordances" de Pierre de Saint-Flour et l'enseignement de la médecine à Paris dans la seconde moitié du XIV^e siècle', in Weijers, O. (ed.), *Vocabulary of Teaching and Research Between Middle Ages and Renaissance: Proceedings of the Colloquium*. London, Warburg Institute, 11–12 March 1994. Turnhout: Brepols, pp. 172–83.
- Jacquart, D. and Burnett, C. (eds.) 1994. *Constantine the African and 'Alī ibn al-'Abbās al-Mağūsī: the Pantegni and Related Texts*. Leiden: Brill.
- Jacyna, S. 2006. 'Medicine in Transformation, 1800–1849', in Bynum *et al.* (eds.), pp. 11–101.
- James, R. 1745. "'Febrile Anxiety" by Robert James 1745. With an introduction by G. E. Berrios', *History of Psychiatry* 25.1 (2014): 112–24.
- Jaspers, K. 1923/1963. *General Psychopathology* (trans. by Hoenig, J. & Hamilton, M. W.). Manchester: Manchester University Press (originally published as *Allgemeine Psychopathologie*, 1923).
- Joly, R. (ed.) 1977. *Corpus Hippocraticum. Actes du Colloque hippocratique de Mons*. Mons: Éditions Université de Mons.
- Jones, W. H. S. 1907. *Malaria: A Neglected Factor in the History of Greece and Rome*. Cambridge: Macmillan & Bowes.
1909. *Malaria and Greek History: To which is added The History of Greek Therapeutics and the Malaria Theory by E. T. Withington*. Manchester: Manchester University Press.
1947. *The Medical Writings of Anonymus Londinensis*. Cambridge: Cambridge University Press.
- Jouanna, J. 1992/1999. *Hippocrates*. Trans. by M. B. DeBevoise. Baltimore and London: John Hopkins University Press (originally published in 1992 as *Hippocrate*. Paris: Arthème Fayard).
- Julião, R. 2018. 'Galen on Memory, Forgetting and Memory Loss', in Thumiger and Singer (eds.), pp. 222–44.
- Karmy-Jones, R. and Jurkovich, G. J. 2004. 'Blunt chest trauma', *Current Problems in Surgery* 41.3: 348–53.
- Kazanskaya, M. 2013. 'Black and White: Scholia and Glossographers on the Colour of φρένες', *Indo-European Linguistics and Classical Philology* 17: 343–67.
- Kazantzidis, G. 2011. *Melancholy in Hellenistic and Latin Poetry: Medical Readings in Menander, Apollonius Rhodius, Lucretius and Horace*. DPhil. Diss. Oxford.
2013. 'Quem Nos Furorem, μελαγχολίαν Illi Vocant': Cicero On Melancholy'. In Harris (ed.), pp. 245–64.
2018. 'Doctors in a Comic Costume: Medical Language and Mass Audience in the Comedy of Menander', *ICS* 43: 25–57.
- Kehoe, A. B. 1979. 'The Sacred Heart: A Case of Stimulus Diffusion', *American Ethnologist* 6.4: 763–71.
- Keil, G., Keuck, L. and Hauswald, R. (eds.) 2016. *Vagueness in Psychiatry*. Oxford: Oxford University Press.

- Keßler, A. and Schwarz, I. 2018. 'Verzweigungen von Naturgeschichte und Kunst, Objektivität und Imagination: Eine Einführung', in Keßler, A. and Schwarz, I. (eds.), *Objektivität und Imagination. Naturgeschichte in der Kunst des 20. und 21. Jahrhunderts*. Bielefeld: Transcript, pp. 9–38.
- King, H. 1998. *Hippocrates' Woman. Reading the female body in Ancient Greece*. London and New York: Routledge.
2004. *The Disease of Virgins. Green Sickness, Chlorosis and the Problems of Puberty*. London and New York: Routledge.
- 2013b. 'Fear of Flute Girls, Fear of Falling', in Harris (ed.), pp. 265–82.
- Kinnier Wilson, J. V. 1965. 'An Introduction to Babylonian Psychiatry', in Güterbock and Jacobsen (eds.), pp. 289–98.
- Kinnier Wilson, J. V. and Reynolds, E. H. 1990. 'Translation and analysis of a cuneiform text forming part of a Babylonian treatise on epilepsy', *Medical History* 34: 185–98.
- Kolbet, P. R. 2010. *Augustine and the Cure of Souls: Revising a Classical Ideal*. Paris: University of Notre Dame Press.
- Körner, O. 1929. *Die ärztlichen Kenntnisse in Ilias und Odyssee*. Berlin and Heidelberg: Springer.
- Kosak, J. C. 2015. 'Interpretations of the Healer's Touch in the Hippocratic Corpus', in Petridou and Thumiger (eds.), pp. 245–64.
- Kottek, S. S. 1996. 'Selected Elements of Talmudic Medical Terminology, with Special Consideration to Graeco-Latin Influences and Sources', in Haase (ed.) pp. 2912–32.
- Koyré, A. 1973. *The Astronomical Revolution: Copernicus – Kepler – Borelli*. London: Methuen.
- Krasnick, C. L. 1985. "'Because there is pain": Alcoholism, Temperance and the Victorian Physician', *Canadian Bulletin of Medical History* 2.1/2: 1–22.
- Kudlien, F. 1967. *Der Beginn des medizinischen Denkens bei den Griechen: von Homer bis Hippokrates*. Zurich: Artemis.
1968. 'Der Arzt des Körpers und der Arzt der Seele', *Klio Medica* 3: 1–20.
- Kugelman, R. 1992. *Stress: The Nature and History of Engineered Grief*. Westport: Praeger.
- Labarca, M. 2021. *Itineraries and Languages of Madness in the Early Modern World. Family Experience, Legal Practice, and Medical Knowledge in Eighteenth-Century Tuscany*. Oxford: Routledge.
- Laes, C. (ed.) 2017. *Disability in Antiquity*. Milton Park and New York: Routledge.
- Laes, C., Goodey, C. F. and Rose, M. L. (eds.) 2013. *Disabilities in Roman Antiquity. Disparate Bodies a capite ad calcem*. Leiden and Boston: Brill.
- Laharie, M. 1991. *Le Folie au Moyen Age. XIe–XIIIe siècles*. Paris: La Léopard d'Or.
- Lane Fox, R. 2020. *The Invention of Medicine: From Homer to Hippocrates*. Milton Keynes: Allen Lane.
- Langermann, Y. T. 2019. 'Maimonides and Galen', in Bouras-Vallianatos and Zipster (eds.), pp. 244–62.
- Langholf, V. 1990. *Medical Theories in Hippocrates: Early Texts and the 'Epidemics'*. Berlin and New York: De Gruyter.

1996. 'Lukian und die Medizin: Zu einer tragischen Katharsis bei den Abderiten (*De historia conscribenda* § 1)', in Haase (ed.) pp. 2793–842.
- Langslow, D. 1999. 'The Language of Poetry and the Language of Science: The Latin Poets and "Medical Latin"', in Mayer, R. and Adams, J. N. (eds.), *Aspects of the Language of Latin Poetry*. Oxford: Oxford University Press, pp. 183–225.
- Lantéri-Laura, G. and Bouttier, J. G. 1983. 'L'évolution des idées sur le système nerveux central et ses rapports avec les développements de la psychiatrie moderne', in Postel and Quérel (eds.), pp. 413–30.
- Laskaris, J., Rosen, R. M. and Singer, P. N. (eds.). Forthcoming. *Oxford Companion to Galen*. Oxford: Oxford University Press.
- Lazaris, S. 2010. *Art et science vétérinaire à Byzance: Formes et fonctions de l'image hippiatrice*. Bibliologia. Elementa ad librorum studia pertinentia 29. Turnhout: Brepols.
- Lehmhaus, L. 2015. 'Listenwissenschaft and the Encyclopedic Hermeneutics of knowledge in Talmud and Midrash', in Johnson, J. C. (ed.), *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Science, Technology, and Medicine in Ancient Cultures 3. Berlin and New York: De Gruyter, pp. 59–100.
- Leibbrand, W. and Wettley, A. 1961. *Der Wahnsinn: Geschichte der abendländischen Psychopathologie*. Freiburg and Munich: Alber.
- Leith, D. 2009. 'The Qualitative Status of the *onkoi* in Asclepiades' Theory of Matter', *Oxford Studies in Ancient Philosophy* 36: 283–320.
2012. 'Pores and Void in Asclepiades' Physical Theory', *Phronesis* 57.2: 164–91.
2019. 'Asclepiades' Therapeutics in the Elder Pliny', in Perilli, L. and Stok, F. (eds.), *Asclepiades of Bithynia*. *Technai* 10: 69–90.
2020. 'Holism and the Methodists', in Thumiger (ed.), pp. 133–53.
- 2021a. 'Asclepiades of Bithynia as Hippocratic Commentator', in Pormann, P. E. (ed.), *The Hippocratic Corpus and its Commentators: East and West*. Leiden and Boston: Brill, pp. 28–50.
- 2021b. 'Brain', in Totelin (ed.), pp. 165–88.
- Leven, K.-H. 1992. 'Miasma und Metadosis – antike Vorstellungen von Ansteckung', *Medizin, Gesellschaft und Geschichte* 11: 43–72.
2018. 'Ethics and Deontology', in Pormann (ed.), pp. 152–79.
- Lewis, O. 2018. 'Archigenes of Apamea's Treatment of Mental Diseases', in Thumiger and Singer (eds.), pp. 143–75.
- Lewis, O., Thumiger, C. and van der Eijk, P. 2016. 'Gradualism and Mental Health in Ancient Medicine', in Keil, Keuck and Hauswald (eds.), pp. 27–45.
- Liebeskranke, M. K. 1995. 'Magd, tobsüchtiger Mönch, schwermütiger Herrscher: "Psychiatrie" in den *Observationes* und *Curationes* des niederländischen "Hippokrates" Pieter van Foreest (1522–1592)', *Medizinhistorisches Journal* 30.3: 245–73.
- Lietzau, F. O. 1845. *Lehrbuch der speciellen Therapie*, vol. 1. Berlin: Duncker & Humblot.
- Lipowski, Z. J. 1990. *Delirium: Acute Confusional States*. Oxford and New York: Oxford University Press.
- Lloyd-Jones, H. 1971. 'Menander's *Aspis*', *GRBS* 12: 175–95.

- Löw, I. 1916. 'Bemerkungen zu Budge's "The Syriac Book of Medicines"', *Zeitschrift der Deutschen Morgenländischen Gesellschaft* 70: 525–31.
- Lo Presti, R. 2008. *In forma di senso. La dottrina encefalocentrica del trattato ippocratico Sulla malattia sacra nel suo contesto epistemologico*. Rome: Carocci.
- MacLehose, W. 2018. 'The pathological and the normal: mapping the brain in medieval medicine', in Ambrosio and MacLehose (eds.), pp. 23–53.
- Manetti, D. and Roselli, A. 1994. 'Galeno commentatore di Ippocrate', in Haase (ed.) pp. 1529–635.
- Mansfeld, J. 1990. 'Doxography and Dialectic: The Sitz im Leben of the "Placita"', in Haase (ed.), pp. 3056–230.
- Manuli, P. 1977a. 'Il cuore', in Manuli and Vegetti (eds.), pp. 110–13.
- 1977b. 'La techne medica nella tradizione encefalocentrica e cardiocentrica', in Joly (ed.), pp. 182–95.
- Manuli, P. and Vegetti, M. (eds.) 1977/2009. *Cuore, sangue e cervello: biologia e antropologia nel pensiero antico*. Milan: Episteme Editrice.
- Marshall, L. H. and Magoun, H. W. 1998. *Discoveries in the Human Brain: Neuroscience Prehistory, Brain Structure, and Function*. Totowa: Humana Press.
- Mastrelli, C. A. 1991. 'Per l'etimologia di gr. φρήν e ὀσφραίνουμαι', *Archivio Glottologico Italiano* 76.2: 153–58.
- Matentzoglou, S. 2011. *Zur Psychopathologie in den hippokratischen Schriften*. PhD Diss. Erlangen-Nürnberg. Berlin: dissertation.de – Verlag im Internet.
- Mattes, J. 1970. *Der Wahnsinn im griechischen Mythos und in der Dichtung bis zum Drama des fünften Jahrhunderts*. Heidelberg: Winter.
- Maulitz, R. C. 1987. *Morbid Appearances. The Anatomy of Pathology in the Early Nineteenth Century*. Cambridge: Cambridge University Press.
- Mayer, W. 2015a. 'Shaping the Sick Soul: Reshaping the Identity of John Chrysostom', in Dunn, G. and Mayer, W. (eds.), *Christians Shaping Identity from the Roman Empire to Byzantium. Studies Inspired by Pauline Allen*. Vigiliae Christianae Supplement 132. Leiden and Boston: Brill, pp. 140–64.
- 2015b. 'The Persistence in Late Antiquity of Medico-Philosophical Psychic Therapy', *Journal of Late Antiquity* 8.2: 337–51.
2016. 'Madness in the Works of John Chrysostom: A Snapshot from Late Antiquity', in Perdicoyanni-Paléologou (ed.), pp. 349–73.
- Mayne, R. G. (1860). *An Expository Lexicon of the Terms, Ancient and Modern, in Medical and General Science; including a complete Medico-Legal Vocabulary, and presenting the correct Pronunciation, Derivation, Definition, and Application of the Names, Analogues, Synonymes, and Phrases (in English, Latin, Greek, French, and German) connected with Medicine, and employed in the Natural Sciences*. London: John Churchill.
- Mazzini, I. 2002. 'La letteratura cristiana antica e la medicina (I). Saggio di indagine su "Realien" e linguaggio medici nella letteratura cristiana', *Les Études Classiques* 70: 353–72.

2003. 'La letteratura cristiana antica e la medicina (II). Saggio di indagine su "Realien" e linguaggio medici nella letteratura cristiana', *Les Études Classiques* 71: 241–61.
2007. 'Medicina e letteratura non medica nel mondo antico (un secolo di studi: tematiche, risultati, orientamenti)', *Bollettino di studi latini* 37.1: 1–43.
- McDonald, G. C. 2009. *Concepts and Treatments of Phrenitis in Ancient Medicine*. PhD Diss. Newcastle.
2014. 'Galen on Mental Illness: A Physiological Approach to Phrenitis', Adamson P., Hansberger R. and Wilberding J. (eds.), *Philosophical Themes in Galen*. Bulletin of the Institute of Classical Studies Supplement No. 114. London: Institute of Classical Studies, pp. 135–51.
- McVaugh, M. R. 1990. 'The Nature and Limits of Medical Certitude at Early Fourteenth-Century Montpellier', *Osiris: Renaissance Medical Learning: Evolution of a Tradition* 6: 62–84.
2010. 'Who was Gilbert the Englishman?', in Brown, G. H. and Ehrsam Voigts, L. (eds.), *The Study of Medieval Manuscripts of England: Festschrift in Honor of Richard W. Pfaff*. Arizona Studies in the Middle Ages and the Renaissance 35. Tempe: Arizona Center for Medieval and Renaissance Studies in collaboration with Brepols, pp. 295–334.
- McVaugh, M. R., Bos, G. and Shatzmiller, J. 2019. *The Regimen sanitates of "Avenzoar": Stages in the Production of a Medieval Translation*. Études sur le judaïsme medieval 79. Leiden and Boston: Brill.
- Mellyn, L. 2014. *Mad Tuscans and their Families. A History of Mental Disorder in Early Modern Italy*. Philadelphia: University of Pennsylvania Press.
2017. 'Healers and Healing in the Early Modern Health Care Market', in Eghigian, G. (ed.), *Routledge History of Madness and Mental Health*. London: Routledge, pp. 83–100.
- Metzger, N. 2011. *Wolfsmenschen und nächtliche Heimsuchungen. Zur kulturhistorischen Verortung Vormoderner Konzepte von Lykanthropie und Ephialtes*. Remscheid: Gardez.
- Meyerhof, M. 1935. 'Thirty-Three Clinical Observations by Rhazes (circa 900 A.D.)', *Isis* 23.2: 321–72.
- Midelfort, H. C. E. 1994. 'The History of Madness', in *Mad Princes of Renaissance Germany*. Charlottesville: University Press of Virginia, pp. 1–30.
- 2013/2021. *Witchcraft, Madness, Society, and Religion in Early Modern Germany. A Ship of Fools*. Surrey and Burlington VT: Ashgate Variorum.
- Montemurro, F. 2015. '«Dottore, che lingua parla?». Forme di espressione della maschera del medico dalla scena greca a Molière', *Studi Bitontini* 99/100: 51–71.
- Montero Cartelle, E. 1997–8. 'El léxico médico latino entre la Antigüedad y el Renacimiento: la asimilación de modelos médicos y léxicos', in *Voces* 8–9, 1997–1998: *Actas del encuentro internacional sobre léxico latino* (Salamanca, 18–29 noviembre 1999), pp. 227–48.
2010. *Tipología de la literatura médica latina: Antigüedad, Edad Media, Renacimiento*. Textes et études du Moyen Âge 53. Porto: FIDEM (Fédération Internationale des Instituts d'Études Médiévales).

- Morgan, David 2008. *The Sacred Heart of Jesus. The Visual Evolution of a Devotion*. Amsterdam: Amsterdam University Press.
- Morris, R. et al. 1807. *The Edinburgh Medical and Physical Dictionary*. Edinburgh: Bell & Bradfute.
- Mosby's Dictionary of Medicine, Nursing & Health Profession*. 7th ed. 2006. St. Louis: Mosby.
- Most, G. W. 2013. 'The Madness of Tragedy', in Harris, W. V. (ed.), pp. 395–410.
- Mudry, P., Bianchi, O. and Castaldo, D. (eds.) 1999. *Le traité des maladies aiguës et des maladies chroniques de Caelius Aurelianus. Nouvelles approches. Actes du colloque de Lausanne 1996*. Nantes: Institut Universitaire de France.
- Muntner, S. 1957. *Rabbeinu Mosheh Ben Maimon: Hanbugat ha-Beri'ut*. Jerusalem.
- Murphy, K. E. A. 2013. *The Conceptualization and Treatments for Phrenitis, Mania and Melancholia in Aretaeus of Cappadocia and Caelius Aurelianus*. MA thesis, University of Calgary.
- Nasse, H. 1829. *De Insania. Commentatio secundum libros Hippocraticos. Dissertatio inauguralis medica pro gradu doctoris medicinae et chirurgiae*. Bonn: Thormann.
- Newman Dorland, W. A. 1890. *American Illustrated Medical Dictionary*. Philadelphia and London: W. B. Saunders.
- Nutton, V. 1995. 'The changing Language of Medicine, 1450–1550', in Weijers, O. (ed.), *Vocabulary of Teaching and Research between Middle Ages and Renaissance: Proceedings of the Colloquium*. London: Warburg Institute, 11–12 March 1994. Turnhout: Brepols, pp. 184–98.
1997. 'Hellenism postponed: some aspects of Renaissance medicine, 1490–1530', *Sudhoffs Archiv* 81: 158–70.
2000. 'Did the Greeks Have a Word for It? Contagion and Contagion Theory in Classical Antiquity', in Conrad and Wujastyk (eds.), pp. 137–62.
2001. *Medicine in the Renaissance City*. Oxford: Oxford University Press.
2004. *Ancient Medicine*. London: Routledge.
2008. 'The Fortunes of Galen', in Hankinson, R. J. (ed.), *Cambridge Companion to Galen*. Cambridge: Cambridge University Press, pp. 355–90.
2013. 'Galenic Madness', in Harris (ed.), pp. 119–27.
2017. 'Introduction', in *Principles of Anatomy according to the Opinion of Galen by Johann Guinter and Andreas Vesalius*. London and New York: Routledge, pp. 1–58.
2019. 'Renaissance Galenism, 1540–1640: Flexibility or an Increasing Irrelevance?', in Bouras-Vallianatos and Zipser (eds.), pp. 472–86.
2020. 'Epidemic Disease in a Humoral Environment; from Airs, Waters and Places to the Renaissance', in Thumiger (ed.), pp. 357–76.
2022. *Renaissance Medicine: A Short History of European Medicine in the Sixteenth Century*. London and New York: Routledge.
- Nyord, R. 2018. 'Analogy and Metaphor in Ancient Medicine and the Ancient Egyptian Conceptualisation of Heat in the Body'. In Wee, J. Z. (ed.), *The*

- Comparable Body – Analogy and Metaphor in Ancient Mesopotamian, Egyptian, and Greco-Roman Medicine*. Leiden: Brill, pp. 12–42.
- Oberhelman, S. M. 1994. 'On the Chronology and Pneumatism of Aretaios of Cappadocia', in Haase, W. (ed.), pp. 939–67.
- Ogden, D. 2021. *The Werewolf in the Ancient World*. Oxford and New York: Oxford University Press.
- Oldoni, M. 1991. 'Phrenesis di una letteratura solitaria', in *Il secolo di ferro: mito e realtà del secolo X. Atti (dal 19 al 25 aprile 1990)*. Spoleto: Fondazione CISAM, pp. 1007–43.
- Onians, R. B. 1951. *The Origins of European Thought: About the Body, the Mind, the Soul, the World, Time, and Fate. New Interpretations of Greek Roman and Kindred Evidence also of some basic Jewish and Christian Beliefs*. Cambridge: Cambridge University Press.
- Osborne, R. 2011. *The History Written on the Classical Greek Body*. Cambridge and New York: Cambridge University Press.
- Overwien, O. 2015. 'The Paradigmatic Translator and His Method: Ḥunayn ibn Ishāq's Translation of the Hippocratic Aphorisms from Greek via Syriac into Arabic', in Decter, J., Debie, M. and Thiele, J. (eds.), *Intellectual History of the Islamicate World*, 3 (1–2). Leiden: Brill, pp. 158–87.
- Padel, R. 1992. *In and Out of the Mind: Greek Images of the Tragic Self*. Princeton: Princeton University Press.
1995. *Whom Gods Destroy: Elements of Greek and Tragic Madness*. Princeton: Princeton University Press.
- Paley, R. 1819. 'Case of Apparently Idiopathic Phrenitis', *Edinburgh Medical and Surgical Journal* 15, 59: 222–25.
- Papadogiannakis, Y. 2012. *Christianity and Hellenism in the Fifth-Century Great East. Theodoret's Apologetics against the Greeks in Context*. Hellenic Studies 49. Cambridge, MA: Harvard University Press.
- Pelliccia, H. 1995. *Mind, Body, and Speech in Homer and Pindar*. Hypomnemata 107. Göttingen: Vandenhoeck & Ruprecht.
- Perdicoyanni-Paléologou, H. (ed.) 2016. *The Concept of Madness from Homer to Byzantium: Manifestations and Aspects of Mental Illness and Disorder*. Amsterdam: Hakkert.
- Petit, C. 2010. 'Hippocrates In the pseudo-Galenic *Introduction*: Or how was medicine taught in Roman times?', in Horstmanshoff, M. (ed.), *Hippocrates and Medical Education*. Studies in Ancient Medicine 35. Leiden and Boston: Brill, pp. 343–59.
- Petridou, G. 2015. 'Aelius Aristides as Informed Patient', in Petridou and Thumiger (eds.), pp. 451–70.
- Petridou, G. and Thumiger, C. (eds.) 2015. *Homo Patiens: Approaches to the Patient in the Ancient World*. Studies in Ancient Medicine 45. Leiden and Boston: Brill.
- Petrucione, J. 2016. 'Madness in Ante-Nicene Christianity: The Portrayal of the Persecutor in the Martyr Acts and Related Literature', in Perdicoyanni-Paléologou (ed.), pp. 299–320.

- Pfau, A. N. 2021. *Medieval Communities and the Mad: Narratives of Crime and Mental Illness in Late Medieval France*. Amsterdam: Amsterdam University Press.
- Phillips, J. 2002. "Liber medicinalis Quinti Sereni", 58, 1029–1030: Teething Pain and a terminus post quem?, in Defosse, P. (ed.), *Hommages à Carl Deroux. Bd. 2: Prose et linguistique, Médecine*. Brussels: Edition Latomus, pp. 557–60.
- Pigeaud, J. 1981/2006. *La maladie de l'âme. Étude sur la relation de l'âme et du corps dans la tradition médico-philosophique antique*. Reprinted with a new preface. Paris: Les Belles Lettres.
1983. 'Voir, imaginer, rêver, être fou: quelques remarques sur l'hallucination et l'illusion dans la philosophie stoïcienne, Épicurienne, sceptique, et la médecine antique', *Littérature, Médecine et Société* 5: 23–53.
- 1987/2010. *Folie et cures de la folie chez les médecins de l'Antiquité greco-romaine*. Paris: Les Belles Lettres.
1994. 'Caelius Aurélien, "Maladies Aiguës 1, 1 De phrenitide": quelques problèmes philologiques (remarques en vue d'une édition)', in Vázquez Buján, M. E. (ed.), *Tradición e innovación de la medicina latina de la Antigüedad y de la Alta Edad Media: actas del IV Coloquio Internacional sobre los textos médicos latinos antiguos*. Universidade de Santiago de Compostela, pp. 29–44.
1998. 'La phrénitis dans l'oeuvre de Caelius Aurélien', in Deroux, C. (ed.), *Maladie et maladies dans les textes latins antiques et médiévaux: actes du Ve Colloque International «Textes médicaux latins» (Bruxelles, 4–6 septembre 1995)*. Collection Latomus 242. Brussels: Société d'Études Latines de Bruxelles, pp. 330–41.
- (ed.) 2008c. *Poétiques du corps: aux origines de la médecine*. Paris: Les Belles Lettres.
- Pinel, P. 1797/1802–3. *Nosographie philosophique ou La méthode de l'analyse appliquée à la médecine*. Paris: Brosson.
- Polito, R. 1999. 'On the Life of Asclepiades of Bithynia', *Journal of Hellenic Studies* 119: 48–66.
2006. 'Matter, Medicine, and the Mind: Asclepiades vs Epicurus', *Oxford Studies in Ancient Philosophy* 30: 285–335.
2007. 'Frail or monolithic? A note on Asclepiades' Corpuscles', *Classical Quarterly* 57: 314–17.
2016. 'Competence Conflicts between Philosophy and Medicine: Caelius Aurelianus and the Stoics on Mental Diseases', *Classical Quarterly* 66: 358–69.
- Porcel, F. J. and Schutta, H. S. 2015. 'From Antiquity to the N-Methyl-D-Aspartate Receptor: A History of Delirium Tremens', *Journal of the History of the Neurosciences* 24.4: 378–95.
- Pormann, P. E. 2013. 'Avicenna on medical practice, epistemology, and the physiology of the inner senses', in Adamson, P. (ed.), *Interpreting Avicenna: Critical Essays*. Cambridge: Cambridge University Press, pp. 91–108.

- (ed.) 2018. *The Cambridge Companion to Hippocrates*. Cambridge: Cambridge University Press.
2021. *Hippocratic Commentaries in the Greek, Latin, Syriac and Arabic Traditions*. Leiden: Brill.
- Pormann, P. E. and Savage-Smith, E. 2007. *Medieval Islamic Medicine*. Edinburgh: Edinburgh University Press.
- Postel, J. and Quérel, C. (eds.) 1983. *Nouvelle histoire de la psychiatrie*. Toulouse: Privat.
- Power, H. and Sedgwick, L. W. 1881–92. *The New Sydenham Society's Lexicon of Medicine and the Allied Sciences. (Based on Mayne's Lexicon.)*, vols. I–IV. London: New Sydenham Society.
- Preuss, J. 1911/1978. *Biblical and Talmudic Medicine*. Ed. and trans. Fr. Rosner. New York: Sanhedrin Press (originally published in 1911 as *Biblischtalmudische Medizin*. Berlin: Karger).
- Pruitt, A. A. 1974. 'Approaches to Alcoholism in Mid-Victorian England', *Clio Medica* 9.2: 93–101.
- Quain, R. (ed.) 1890. *A Dictionary of Medicine including General Pathology, General Therapeutics, Hygiene, and the Diseases Peculiar to Women and Children*. 12th ed. New York: D. Appleton.
- Qaṭāya, S. (ed.) 1978. *Abu Bakr Zakariya ar-Razi (Rhazes): Quelle est la différence (diagnostics différentiels)*. Aleppo: University of Aleppo Press.
- Radcliffe European Medical Dictionary*. 1991. Oxford: Radcliffe Medical Press.
- Rainbow, J. J. 2008. 'The Derivation of *kordiakos*: A New Proposal', *Journal for the Study of Judaism* 39.2: 255–66.
- Reid, P. L. D. (trans.) 1991. *The Complete Works of Rather of Verona*. Medieval and Renaissance Texts and Studies 76. Binghamton, NY: Center for Medieval and Early Renaissance Studies.
- Ricciardetto, A. (ed. and trans.) 2016. *L'Anonyme de Londres (P.LIT.LOND. 165, BRIT.LIBR. INV. 137). Un papyrus medical grec du I^{er} siècle après J.-C.* Paris: Les Belles Lettres.
- Robinson, A. M. 2018. 'Let's Talk about Stress: History of Stress Research', *Review of General Psychology* 22.3: 334–42.
- Rocca, J. 2003. *Galen on the Brain: Anatomical Knowledge and Physiological Speculation in the Second Century AD*. Leiden: Brill.
- Rogge, C. 1927. 'Homerisch φρήν, φρένες und Verwandtes in neuer medizinischer und sprachpsychologischer Beleuchtung; ein Stück aus der Urgeschichte menschlicher Denkanschauung', *Archiv für die gesamte Psychologie* 58: 307–24.
- Rose, G. P. 1979. 'Odysseus' Barking Heart', *Transactions of the American Philological Association* 109: 215–30.
- Roselli, A. 2003. 'Per l'edizione dello scritto *Sui clisteri* di Severo iatrosofista', in Garzya, A. and Jouanna, J. (eds.), *Trasmissione e ecdotica dei testi medici greci: atti del IV convegno internazionale, Parigi 17–19 maggio 2001*. Naples: D'Auria, pp. 401–17.
2018. 'Nosology', in Pormann (ed.), pp. 180–99.

- Rosner, F. 1977. *Medicine in the Bible and the Talmud: Selections from Classical Jewish Sources*. Library of Jewish Law and Ethics 5. New York: Ktav.
- Rowe, J. 1873. 'Central Veterinary Medical Society', *The Veterinarian: A Monthly Journal of Veterinary Science* 46: 288–90.
- Ruffell, I. A. 2018. 'Stop Making Sense: The Politics of Aristophanic Madness', *ICS* 43: 326–50.
- Saalmann, F. 1788. *Descriptio Phrenitidis et Paraphrenitidis Monasterii in Westphalia circa Medium mensis Martii grassari incipientium vere contagiosarum earumque factae curationis a Ferd. Saalmann medicinae doctore*. Münster: Typis & Sumptibus A. W. Aschendorf, Universit. Typographi.
- Saba, E. G. 2019. *Harmonizing Similarities. A History of Distinctions Literature in Islamic Law*. Islam – Thought, Culture, and Society 1. Berlin and New York: De Gruyter.
- Sadowsky, J. 2021. *The Empire of Depression: A New History*. Cambridge and Medford, MA: Polity Press.
- Sakai, A. 1991. 'Phrenitis: Inflammation of the Mind and the Body', *History of Psychiatry* 2.6: 193–205.
- Salas, L. A. 2019. 'Galen's Wounds: Dissolutions and the Theoretical Structure of Galen's Disease Taxonomy', *CA* 38.2: 275–97.
- Salazar, C. F. 2000. *The Treatment of War Wounds in Graeco-Roman Antiquity*. Leiden and Boston: Brill.
- Salem, C. E. 2010. *Sanity, Insanity, and Man's Being as Understood by St. John Chrysostom*. Diss. Durham. <http://etheses.dur.ac.uk/3269/>.
- Sallares, R. 2002. *Malaria and Rome: A History of Malaria in Ancient Italy*. Oxford: Oxford University Press.
- Salmón, F. 2007. 'Arnald of Vilanova', in Bynum, W. F. and Bynum, H. (eds.), *Dictionary of Medical Biography*. 1, A–B. Westport and London: Greenwood, pp. 126–30.
- 2017a. 'Explorando el cerebro: La transmisión y desarrollo de un sistema médico holístico en los siglos XIII y XIV', *Romance Philology* 71.2: 623–42.
- 2017b. 'Signa quibus cognoscuntur rationes Arnaldi? Arnau de Vilanova's last years of medical production', in Pantano, G. (ed.), *Arnaldo da Villanova e la Sicilia*. Palermo: Officina di Studi Medievali, pp. 115–26.
- Sandbach, F. H. 1970. 'Menander's Manipulation of Language for Comic Purposes', in Turner, E. G. (ed.), *Ménandre: sept exposés, suivis de discussion*. Geneva: Fondation Hardt, pp. 113–36.
- Savino, C. 2013. 'I commenti di Galeno' [Fiche thématique], *Lettre d'informations – Médecine antique et médiévale Nouvelle Série* 11: 1–31.
- Scheidel, W. 2003. 'Germs for Rome', in Edwards, C. and Woolf, G. (eds.), *Rome the Cosmopolis*. Cambridge: Cambridge University Press, pp. 158–76.
2009. 'Disease and death in the ancient city of Rome'. Version 2.0: April 2009, *Princeton/Stanford Working Papers in Classics*, pp. 1–14. www.princeton.edu/~pswpc/pdfs/scheidel/040901.pdf.
- Schleifer, J. 1926a. 'Zum Syrischen Medizinbuch', *Zeitschrift für Semitistik und verwandte Gebiete* 4: 70–122.

- 1926b. 'Zum Syrischen Medizinbuch (Fortsetzung)', *Zeitschrift für Semitistik und verwandte Gebiete* 4: 161–95.
1927. 'Zum Syrischen Medizinbuch (Fortsetzung)', *Zeitschrift für Semitistik und verwandte Gebiete* 5: 195–237.
- 1928a. 'Zum Syrischen Medizinbuch (Fortsetzung)', *Zeitschrift für Semitistik und verwandte Gebiete* 6: 154–77.
- 1928b. 'Zum Syrischen Medizinbuch (Fortsetzung)', *Zeitschrift für Semitistik und verwandte Gebiete* 6: 275–99.
1940. 'Zum Syrischen Medizinbuch. II. Der therapeutische Teil', *Rivista degli studi orientali* 18.3/4: 341–72.
- 1942a. 'Zum Syrischen Medizinbuch. II. Der therapeutische Teil (1^a continuazione)', *Rivista degli studi orientali* 20.1: 1–32.
- 1942b. 'Zum Syrischen Medizinbuch. II. Der therapeutische Teil (2^a continuazione)', *Rivista degli studi orientali* 20.2: 163–210.
1943. 'Zum Syrischen Medizinbuch. II. Der therapeutische Teil (3^a continuazione)', *Rivista degli studi orientali* 20.3/4: 383–98.
1946. 'Zum Syrischen Medizinbuch. II. Der therapeutische Teil (4^a continuazione e fine)', *Rivista degli studi orientali* 21.2/3/4: 157–82.
- Schlesinger, F. G. 2011a. 'De symptomenleer van Sydenham en de "Geneeskundige Onderwijzingen" van Boerhaave: de bronnen van het proefschrift De Phrenitide (1757)', in Horstmanshoff, Hartog and Schlesinger (eds.), pp. 39–47.
- 2011b. 'Inleiding en toelichting bij de Nederlandse vertaling', in Horstmanshoff, Hartog and Schlesinger (eds.), pp. 7–8.
- Schott, H. 1998. "'Invisible Diseases" – Imagination and Magnetism: Paracelsus and the Consequences', in Grell (ed.), pp. 309–22.
- Scull, A. 2009. *Hysteria: The Disturbing History*. Oxford and New York: Oxford University Press.
- Scurlock, J. 2004. 'From Esagil-kīn-apli to Hippocrates', *Journal des Médecines Cunéiformes* 3: 10–30.
2005. *Magico-Medical Means of Treating Ghost-Induced Illnesses in Ancient Mesopotamia*. Ancient Magic and Divination 3. Leiden and Boston: Brill.
2008. 'Some Mesopotamian Medicine for a Greek Headache', in van der Spek (ed.), pp. 195–202.
2014. *Sourcebook for Ancient Mesopotamian Medicine*. Writings from the Ancient World 36. Atlanta: SBL Press.
- Scurlock, J. and Andersen, B. R. (eds. and trans.) 2005. *Diagnoses in Assyrian and Babylonian Medicine: Ancient Sources, Translations, and Modern Medical Analyses*. Chicago: University of Illinois Press.
- Seaford, R., Wilkins, J. and Wright, M. (eds.) 2017. *Selfhood and the Soul: Essays on Ancient Thought and Literature in Honour of Christopher Gill*. Oxford: Oxford University Press.
- Sebastian, A. 1999. *A Dictionary of the History of Medicine*. New York and London: Parthenon.

- Selye, H. 1936. 'A Syndrome produced by Diverse Nocuous Agents', *Nature* 138 (4 July 1936): 32.
1950. *The Physiology and Pathology of Exposure to Stress: A Treatise Based on the Concepts of the General-Adaptation Syndrome and the Diseases of Adaptation*. Montreal: ACTA Inc. Medical Publisher.
1974. *Stress without Distress: How to Achieve a Rewarding Life Style in Harmony with the Laws of Nature, by using Stress as a Positive Force for Personal Achievement and happiness*. New York: Lippincott.
- Semelaigne, A. 1869. *Études historique sur l'alienation mentale dans l'antiquité*. Paris: Libraire de la Faculté de Médecine de Paris.
- Shears, J. 2020. *The Hangover: A Literary and Cultural History*. Liverpool: Liverpool University Press.
- Silk, M. S. 1974. *Interaction in Poetic Imagery, with Special Reference to Early Greek Poetry*. Cambridge: Cambridge University Press.
2000. *Aristophanes and the Definition of Comedy*. Oxford: Oxford University Press.
2013. 'The Greek Dramatic Genres: Theoretical Perspectives', in Bakola, E., Prauscello, L. and Telò, M. (eds.), *Greek Comedy and the Discourse of Genres*. Cambridge: Cambridge University Press, pp. 13–39.
- Singer, P. N. 1992. 'Some Hippocratic Mind-Body Problems', in López Férez, J. A. (ed.), *Tratados Hipocráticos. Actas del VII^o Colloquio Internacional Hipocratico (Madrid, 24–29 de Septiembre de 1990)*. Madrid: Universidad Nacional de Educación a Distancia, pp. 131–34.
- (ed.) 2013. *Galen: Psychological Writings: Avoiding Distress, Character Traits. The Diagnosis and Treatment of the Affections and Errors Peculiar to Each Person's Soul, The Capacities of the Soul Depend on the Mixtures of the Body*. Trans. with Introductions by Nutton V., Davies D. and Singer P. N. With the collaboration of Piero Tassinari. Cambridge: Cambridge University Press.
2017. 'The Essence of Rage', in Seaford, Wilkins and Wright (eds.), pp. 161–96.
2018. 'Galen's Pathological Soul: Diagnosis and Therapy in Ethical and Medical Texts and Contexts', in Thumiger, C. and Singer, P. N. (eds.). Leiden: Brill, pp. 381–420.
- 2020a. 'Classification, explanation and experience. Mental disorder in Graeco-Roman antiquity', in Steinert, U. (ed.), *Systems of Classification in Premodern Medical Cultures. Sickness, Health, and Local Epistemologies*. Abingdon: Routledge, pp. 279–306.
- 2020b. 'Is Graeco-Roman Medicine Holistic? Galen and Ancient Medical-Philosophical Debates', in Thumiger (ed.), pp. 154–83.
2022. *Time for the Ancients. Measurement, Theory, Experience*. Berlin: De Gruyter.
2023. *Galen: On Health*. Cambridge: Cambridge University Press.
- Siraisi, N. G. 1987. *Avicenna in Renaissance Italy. The Canon and Medical Teaching in Italian Universities after 1500*. Princeton Legacy Library. Princeton: Princeton University Press.
1990. *Medieval and Early Renaissance Medicine: An Introduction to Knowledge and Practice*. Chicago: University of Chicago Press.

2000. 'Anatomizing the Past: Physicians and History in Renaissance Culture', *Renaissance Quarterly* 53.1: 1–30.
2004. 'Oratory and Rhetoric in Renaissance Medicine', *Journal of the History of Ideas* 65.2: 191–211.
2007. *History, Medicine, and the Traditions of Renaissance Learning*. Ann Arbor: University of Michigan Press.
- Skinner, Henry A. 1949. *The Origin of Medical Terms*. Baltimore: Williams & Wilkins.
- Skoda, F. 1997. 'La léthargie dans les textes médicaux grecs', in Criscuolo, U. and Maisano, R. (eds.), *Synodia. Studia humanitatis Antonio Garzya septuagenario ab amicis atque discipulis dicata*. Naples: D'Auria, pp. 895–915.
- Snell, B. 1977. 'φρένες–φρόνησις', *Glotta* 55.1/2: 34–64.
- Solmsen, F. 1984. 'Φρήν, καρδία, ψυχή in Greek tragedy', in Gerber, D. E. (ed.), *Greek Poetry and Philosophy: Studies in Honour of Leonard Woodbury*. Chico: Scholars Press, pp. 265–74.
- Souques, A. A. C. 1936. *Étapes de la neurologie dans l'antiquité grecque (d'Homère à Galien)*. Paris: Masson.
1937. 'La douleur dans les livres hippocratiques. Diagnostics rétrospectifs', *Bulletin de la Société française d'histoire de la médecine et de ses filiales* 31: 209–44.
- Staden, H. von. 2000. 'Body, Soul, and Nerves: Epicurus, Herophilus, Erasistratus, the Stoics, and Galen', in Wright and Potter (eds.), pp. 79–116.
- Stedman, T. L. 1995. *Stedman's Medical Dictionary*. 27th ed. Baltimore: Williams & Wilkins.
- Stefanelli, R. 2006. 'Dalla "temperatura" al "temperamento": per l'etimologia di φρήν, φρονέω, θυμός', in Cuzzolin, P. and Napoli, M. (eds.), *Fonologia e tipologia lessicale nella storia della lingua greca. Atti del VI Incontro Internazionale di Linguistica Greca, Bergamo, settembre 2005*. Milan: Angeli, pp. 277–98.
2010. *La temperatura dell'anima: parole omeriche per l'interiorità*. Padua: Unipress.
- Steinert, U. (ed.) 2020. *Systems of Classification in Premodern Medical Cultures: Sickness, Health, and Local Epistemologies. Medicine and the Body in Antiquity*. London and New York: Routledge.
- Stok, F. 1980. 'Concetto e trattamento dell'Insania in A. Cornelio Celso', *Studi di Filologia e Letteratura* 4: 9–42.
1996. 'Follia e malattie mentali nella medicina dell'età romana', in Haase (ed.), pp. 2282–410.
1999. 'Struttura e modelli dei trattati di Celio Aureliano', in Mudry, Bianchi and Castaldo (eds.), pp. 1–26.
- Stol, M. 2000. 'Psychosomatic Suffering in Ancient Mesopotamia', in Abusch, T. and van der Toorn, K. (eds.), *Mesopotamian Magic: Textual, Historical, and Interpretative Perspectives*. Groningen: Styx, pp. 57–68.

- Stracevic, V. and Lipsitt, D. R. (eds.) 2001. *Hypochondriasis: Modern Perspectives on an Ancient Malady*. Oxford and New York: Oxford University Press.
- Strohmeier, G. 2019. 'Avicenna between Galen and Aristotle', in Bouras-Vallianatos and Zipster (eds.), pp. 215–26.
- Stuart, K. 2009. 'Melancholy Murders: Suicide by Proxy and the Insanity Defense', in Plummer, M. E. and Barnes, R. B. (eds.), *Ideas and Cultural Margins in Early Modern Germany. Essays in Honor of H. C. Erik Midelfort*. London: Ashgate, 63–77.
- Sullivan, S. D. 1977a. 'Noos precedes Phren in Greek Lyric Poetry', *L'Antiquité Classique* 46.1: 41–51.
- 1977b. 'Daimon parallels the Holy Phren in Empedocles', *Phronesis* 22.3: 175–90.
1978. 'The phren of the noos in Xenophanes' God', *Symbolae Osloenses* 53.1: 25–39.
1979. 'A Person's Relation to φρήν in Homer, Hesiod, and the Greek Lyric Poets', *Glotta* 57.3/4: 159–73.
1982. 'A Strand of Thought in Pindar, *Olympians* 7', *Transactions of the American Philological Association* 112: 215–23.
1983. 'Love influences Phrenes in Greek Lyric Poetry', *Symbolae Osloenses* 58.1: 15–22.
1985. 'The Nature of Phren in Empedocles', in Capasso, M., de Martino, F. and Rosati, P. (eds.), *Studi di filosofia preplatonica*. Naples: Bibliopolis, pp. 119–36.
1987. 'πραπίδες in Homer', *Glotta* 65.3/4: 182–93.
- 1988a. 'An Analysis of φρένες in the Greek Lyric Poets (excluding Pindar and Bacchylides)', *Glotta* 66.1/2: 26–62.
- 1988b. *Psychological Activity in Homer: A Study of Phren*. Montreal: McGill-Queen's University Press.
- 1989a. 'Phrenes in Hesiod', *Revue belge de Philologie et d'Histoire = Belgisch Tijdschrift voor filologie en Geschiedenis* 67.1: 5–17.
- 1989b. 'A Study of φρένες in Pindar and Bacchylides', *Glotta* 67.3/4: 148–89.
1994. 'The Mind and the Heart of Zeus in Homer and the Homeric Hymns', *Archiv für Begriffsgeschichte* 37: 101–26.
- 1995a. 'The Mind and the Heart of Zeus in the Poetry of Hesiod', *Archiv für Begriffsgeschichte* 38: 34–47.
- 1995b. *Psychological and Ethical Ideas: What Early Greeks Say*. Leiden and Boston: Brill.
- 1997a. *Aeschylus' Use of Psychological Terminology: Traditional and New*. Montreal: McGill-Queen's University Press.
- 1997b. "'Dark" Mind and Heart in Aeschylus', *Revue belge de Philologie et d'Histoire = Belgisch Tijdschrift voor filologie en Geschiedenis* 75.1: 59–67.
1999. *Sophocles' Use of Psychological Terminology: Old and New*. Ottawa: Carleton University Press.
- 2000a. *Euripides' Use of Psychological Terminology*. Montreal: McGill-Queen's University Press.
- 2000b. 'Euripides' *Hippolytus*: A Study of Psychological Terminology (Part 1)', *Studi italiani di filologia classica*, 3rd series, 18.1: 15–52.

- 2000c. 'Euripides' *Hippolytus*: A Study of Psychological Terminology (Part 2)', *Studi italiani di filologia classica*, 3rd series, 18.2: 149–95.
2001. 'Phren and Planning: Pindar, *Nemean* 1.27', *Prometheus* 27: 211–16.
2002. 'References to "mind" in Pindar, *Pythian* 5', *Athenaeum* 90.2: 548–53.
- Sutton, T. 1813. *Tracts on Delirium Tremens, on Peritonitis, and on Some Other Inflammatory Affections, and on the Gout*. London: James Moyes for Thomas Underwood.
- Sym, J. 1637/1963. *Lifes preservative against self-killing. Or, An useful treatise concerning life and self-murder shewing the kindes, and meanes of them both: the excellency and preservation of the former: the evill, and prevention of the latter. Containing the resolution of manifold cases, and questions concerning that subject; with plentiful variety of necessary and usefull observations, and practical directions, needfull for all Christians*, in Hunter and Macalpine (eds.), pp. 113–15.
- Szantyr, A. 1970. 'Frenosus', *Vigiliae Christianae* 24: 45–48.
- Tamiani, G. 1994. 'The Generalities of the Averroes's Medicine', *Medicina nei secoli* 6.2: 407–23.
- Tecusan, M. 2004. 'Introduction', in Tecusan, M. (ed.), *The Fragments of the Methodists. Methodism outside Soranus. Volume One: Text and Translation*. *Studies in Ancient Medicine* 24/1. Leiden and Boston: Brill, pp. 1–43.
- Temkin, O. 1973. *Galenism: Rise and Decline of a Medical Philosophy*. Ithaca, NY: Cornell University Press.
- Thalmann, W. G. 1986. 'Aeschylus' Physiology of the Emotions', *American Journal of Philology* 107: 489–511.
- Thomson, W. A. R. 1981. *Black's Medical Dictionary*. London: Adam & Charles Black.
- Thumiger, C. 2007. *Hidden Paths: Self and Characterization in Greek Tragedy: Euripides' Bacchae*. BICS Supplement 99. London: Institute of Classical Studies.
2013. 'The Early Greek Medical Vocabulary of Insanity', in Harris (ed.), pp. 61–95.
2015. 'Patient Function and Physician Function in the Epidemics Cases', in Petridou and Thumiger (eds.), pp. 107–37.
2016. 'The Tragic prosopon and the Hippocratic facies: Face and Individuality in Classical Greece', *Maia: Rivista di Letteratura Classiche* 3.3: 637–64.
2017. *A History of the Mind and Mental Health in Classical Greek Medical Thought*. Cambridge: Cambridge University Press.
- 2018a. 'Stomachikon, Hydrophobia and Other Eating Disturbances: Volition and Taste in Late-Antique Medical Discussions', in Thumiger and Singer (eds.), pp. 245–68.
- 2018b. "'A Most Acute, Disgusting and Indecent Disease": Satyriasis and Sexual Disorders in Ancient Medicine', in Thumiger and Singer (eds.), pp. 269–84.
- 2018c. 'The Hippocratic Patient', in Pormann (ed.), pp. 263–91.
- 2018d. 'The Professional Audiences of the Hippocratic *Epidemics*: Patient Cases, in Ancient Scientific Communication', in Bouras-Vallianatos, P.

- and Xenophontos, S. (eds.) *The Greek Medical Text and its Audience: Perception, Transmission, Reception*. London: Tauris, pp. 48–64.
2019. 'Asclepiades on *phrenitis* and the problem of consistency (Caelius Aurelianus, *Ac. Dis.* 1.1, 14–15)', in Perilli, L. and Stok, F. (eds.), *Asclepiades of Bithynia* (Special Issue). *Technai* 10: 23–43.
- 2020a. 'Therapy of the Word and Other Psychotherapeutic Approaches in Ancient Greek Medicine'. *Transcultural Psychiatry* 576: 741–52.
- 2020b. 'Introduction', in Thumiger (ed.), pp. 1–22.
- 2020c. 'Holisms, Parts, Wholes', in Thumiger (ed.), pp. 25–46.
- (ed.) 2020d. *Holism in Ancient Medicine and its Reception*. Studies in Ancient Medicine 53. Leiden and Boston: Brill.
- 2021a. 'Information and History of Psychiatry: The Case of the Disease *phrenitis*', in Meyns, C. (ed.), *Information and the History of Philosophy*. London: Routledge, pp. 59–76.
- 2021b. 'Animals', in Totelin (ed.), pp. 93–117.
- 2021c. 'The Ophthalmology of Lovesickness: Poetry, Philosophy, Medicine', in Kanellakis, D. (ed.) *Pathologies of Love in Classical Literature*. Berlin: De Gruyter, pp. 23–46.
- Thumiger, C. and Singer, P. N. 2018a. 'Introduction: Disease Classification and Mental Illness: Ancient and Modern Perspectives', in Thumiger and Singer (eds.), pp. 1–32.
- (eds.) 2018b. *Mental Illness in Ancient Medicine: From Celsus to Paul of Aegina*. Leiden and Boston: Brill.
- Tieleman, T. 2003. *Chrysippus' On Affections*. Leiden and Boston: Brill.
- Totelin, L. (ed.) 2021. *A Cultural History of Medicine in Antiquity*. London: Bloomsbury.
- Trenery, C. and Horden, P. 2017. 'Madness in the Middle Ages', in Eghigian, G. (ed.), *The Routledge History of Madness and Mental Health*. London: Routledge, pp. 62–80.
- Trompeter, J. 2016. 'Die gespannte Seele: Tonos bei Galen', *Phronesis* 61.1: 82–109.
- Turner, W. J. and Vandeventer, P. T. (eds.) 2010. *The Treatment of Disabled Persons in Medieval Europe: Examining Disability in the Historical, Legal, Literary, Medical, and Religious Discourses*. Lewiston: Edwin Mellen.
- Ullmann, M. 1978. *Islamic Medicine*. Edinburgh: Edinburgh University Press.
2002. *Wörterbuch zu den griechisch-arabischen Übersetzungen des 9. Jahrhunderts*. Wiesbaden: Harrassowitz.
- Urso, A. M. 1990. 'Destinazione e finalità nella *praefatio* delle *Passiones celeres* di Celio Aureliano', in Santini, C. and Scivoletto, N. (eds.), *Prefazioni, prologhi, proemi di opere tecnico-scientifiche latine*, vol. 3. Biblioteca del Giornale Italiano di Filologia. Rome: Herder, pp. 177–95.
1997. *Dall'autore al traduttore: studi sulle Passiones celeres e tardae di Celio Aureliano*. Messina: EDAS.
1998. 'Sopravvivenze e metonimie nel processo di denominazione greco di alcune patologie', in Debru, A. and Sabbah, G. (eds.), *Nommer la maladie. Recherches sur le lexique gréco-latin de la pathologie: mémoires XVII*, Centre

- Jean-Palmerie de l'Université de Saint Étienne. Université de Saint Étienne, pp. 40–41.
2018. 'Mental Derangement in Methodist Nosography: What Caelius Aurelianus Had to Say', in Thumiger and Singer (eds.), pp. 285–314.
- Ustinova, Y. 2018. *Divine Mania: Alteration of Consciousness in Ancient Greece*. London and New York: Routledge.
- Uttal, W. R. 2001. *The New Phrenology: The Limits of Localizing Cognitive Processes in the Brain*. Cambridge, MA and London: MIT Press.
- Vagelpohl, U. (ed.) 2023. *Galenus In Hippocratis Epidemiarum librum VI commentariorum I-VIII versio Arabica*. CMG v 3,1 – Supplementum Orientale. Berlin: De Gruyter.
- Vallance, J. 1990. *The Lost Theory of Asclepiades of Bithynia*. Oxford: Clarendon Press.
1993. 'The Medical System of Asclepiades of Bithynia', in Haase (ed.), pp. 693–728.
- Valverde, M. 1998. *Diseases of the Will: Alcohol and the Dilemmas of Freedom*. Cambridge: Cambridge University Press.
- van der Eijk, P. 1995/2005. 'The Heart, the Brain, the Blood and the Pneuma: Hippocrates, Diocles and Aristotle on the Location of Cognitive Processes', in van der Eijk, P., *Medicine and Philosophy in Classical Antiquity: Doctors and Philosophers on Nature, Soul, Health and Disease*. Oxford: Oxford University Press, pp. 119–36 (originally published as 'Heart and Brains, Blood and Pneuma: Hippocrates, Aristotle and Diocles on the Localization of Cognitive Functions', *Gewina* 18.3 (1995): 8–23).
1998. 'Quelques remarques sur la méthode doxographique de Caelius Aurélien', in Deroux, C. (ed.), *Maladie et maladies dans les textes latins antiques et médiévaux: actes du Ve Colloque International 'Textes médicaux latins' (Bruxelles, 4–6 septembre 1995)*. Collection Latomus 242. Brussels: Société d'Études Latines de Bruxelles, pp. 342–53.
- 1999a. 'The *Anonymus Parisinus* and the doctrines of "the Ancients"', in van der Eijk, P. (ed.) *Ancient Histories of Medicine*. Leiden: Brill, pp. 295–331.
- 1999b. 'The Methodism of Caelius Aurelianus: Some Epistemological Issues', in Mudry, Bianchi and Castaldo (eds.), pp. 47–83.
- 2001 (ed.). *Diocles of Carystus: A Collection of the Fragments with Translations and Commentary. Volume Two, Commentary*. Leiden and Boston: Brill.
2005. *Medicine and Philosophy in Classical Antiquity: Doctors and Philosophers on Nature, Soul, Health and Disease*. Cambridge: Cambridge University Press.
2014. 'An Episode in the Historiography of Malaria in the Ancient World', in Michaelides, D. (ed.), *Medicine and Healing in the Ancient Mediterranean World*. Oxford: Oxbow, pp. 112–17.
2015. 'Melancholia and Hypochondria – Steps in the History of a Problematic Combination', in Cazes, H. and Morand, A.-F. (eds.), *Miroirs de la Mélancolie/Mirrors of Melancholy*. Paris: Herrmann, pp. 13–28.
- (forthcoming). *Aristotle, Aristotelianism and Ancient Medicine*. Cambridge: Cambridge University Press.

- Van Gool, W. A., Ouderwortel, L. and Hertogh, C. M. P. M. 2017. 'Delirium, Dementia and "... I knew there was but One Way". Delirium Superimposed on Dementia: a Conceptual Approach', *Gerontology and Geriatric Research* 1.1: 11–12.
- Vergheze, A. 1985. 'The "Typhoid State" Revisited', *American Journal of Medicine* 79.3: 370–72.
- Vidal, F. 2009. 'Brainhood, Anthropological Figure of Modernity', *History of the Human Sciences* 22: 5–36.
- Vidal, F. and Ortega, F. 2017. *Being Brains: Making the Cerebral Subject*. New York: Fordham University Press.
- Wakeley, C. 1962. *The Faber Medical Dictionary*. London: Faber & Faber.
- Walshe, T. M. 2016. *Neurological Concepts in Ancient Greek Medicine*. Oxford and New York: Oxford University Press.
- Wasserman, J. A. and Hinote, B. P. 2011. 'Chronic Illness and Incalculable Risk: Scientific Uncertainty and Social Transformations in Medicine', *Social Theory and Health* 9: 41–58.
- Wear, A. 1995. 'Medicine in Early Modern Europe, 1500–1700', in Conrad, L. I. et al. (eds.), *The Western Medical Tradition 800 BC to AD 1800*. Cambridge: Cambridge University Press, pp. 215–361.
- Weber, G. (ed.) 1994. *Antonio Beniveni De abditis nonnullis ac mirandis morborum et sanationum causis*. Florence: Olschki.
2006. *Sensata veritas: l'affiorare dell'anatomia patologica, ancora innominata, in scritti di anatomisti del '500*. Florence: Olschki.
- Webster, T. B. L. 1957. 'Some Psychological Terms in Greek Tragedy', *Journal of Hellenic Studies* 77: 149–54.
- Wee, J. Z. 2020. 'A Systemic Etiology of Sicknesses from Ancient Iraq: Organ Systems and the Functional Holism of the Babylonian Body', in Thumiger (ed.) pp. 318–56.
- Wessel, S. 2009. 'The Reception of Greek Science in Gregory of Nyssa's *De hominis opificio*', *Vigiliae Christianae* 63: 24–46.
- Woets, R. 2017. 'Engaging with the Sacred Heart of Jesus in Catholic Ghana', *Material Religion* 13.2: 1–6.
- Wolfson, H. A. 1935. 'The Internal Senses in Latin, Arabic, and Hebrew Philosophic Texts', *Harvard Theological Review* 28.2: 69–133.
- Wolterbeek, M. 1985. 'Unibos: The Earliest Full-Length Fabliau (Text and Translation)', *Comitatus: A Journal of Medieval and Renaissance Studies* 16.1: 46–76.
- Woodbury, L. E. 1988. 'The Poetry of Tongue and of *phrên* in the *Frogs*', in Pucci (ed.), pp. 175–85.
- Wright, J. L. 2016. *Brain and Soul in Late Antiquity*. Diss. Princeton. <http://arks.princeton.edu/ark:/88435/dsp0105741v183>.
2017. 'Crazy Talk: The Dangerous Rhetoric of Mental Illness', *Eidolon*. <https://eidolon.pub/crazy-talk-7a2c9c575ebf>.
2018. 'Ventricular Localization in Late Antiquity: The Philosophical and Theological Roots of an Enduring Model of Brain Function', in Ambrosio and MacLehose (eds.), pp. 3–22.

2020. 'Preaching *Phrenitis*: Augustine's Medicalization of Religious Difference', *Journal of Early Christian Studies* 28.4: 525–53.
2022. *The Care of the Brain in Early Christianity*. Berkeley: University of California Press.
- Wright, J. P. and Potter, P. (eds.) 2000. *Psyche and Soma: Physicians and Metaphysicians on the Mind-Body Problem from Antiquity to Enlightenment*. Oxford and New York: Oxford University Press.
- Yoshikawa, N. K. 2009. 'Holy Medicine and Diseases of the Soul: Henry of Lancaster and Le Livre de Seyntz Medicines', *Medical History* 53.3: 397–414.
- Youatt, W. 1831. *The Horse; with a Treatise on Draught; and a Copious Index*. London: Baldwin & Cradock.
1833. 'Lecture XLVI. Apoplexy and Phrenitis in Horses, Cattle, Sheep, Dogs, and Swine', in *Lectures on Veterinary Medicine, delivered in the University of London, by Mr. Youatt. Supplement to Volumes of The Lancet for 1831–2*: 140–240.
- Young, R. M. 1970. *Mind, Brain, and Adaptation in the Nineteenth Century: Cerebral Localization and its Biological Context from Gall to Ferrier*. Oxford: Clarendon Press.
- Zuccotti, F. 1992. "*Furor haereticorum*": *studi sul trattamento giuridico della follia e sulla persecuzione della eterodossia religiosa nella legislazione del tardo impero romano*. Università degli Studi di Milano – Facoltà di Giurisprudenza – Pubblicazioni dell'Istituto di Diritto Romano 26. Milan: Dott. A. Giuffrè.

Reference Works

- Kretschmer, P. and Locker, E. 1977. *Rückläufiges Wörterbuch der griechischen Sprache: Mit Ergänzungen von Georg Kisser*. Göttingen: Vandenhoeck und Ruprecht.

Texts Used

While generally relying on standard editions of ancient texts, I routinely cite from the following editions (in alphabetical order by ancient work/author; fragments and miscellanea at the end):

Actius

- Olivieri, A. (ed.) 1950. *Aetii Amideni Libri medicinales V–VIII*. CMG VIII 2, Berlin: Akademie-Verlag.

Albumasaris

- Pingree, D. (ed.) 1968. *Albumasaris: De revolutionibus nativitatum*. Bibliotheca Scriptorum Graecorum et Romanorum Teubneriana. Leipzig: Teubner.

[ps.-]Alexander of Aphrodisias

Kapetanaki, S., Sharples, R. W. (eds.) 2006. *Supplementa problematorum: A New Edition of the Greek Text with Introduction and Annotated Translation*. Berlin: De Gruyter.

Alexander of Aphrodisias

Hayduck, M. (ed.) 1891/1962. *Alexandri Aphrodisiensis in Aristotelis Metaphysica Commentaria*. Berlin: De Gruyter.

Alexander of Tralles

Puschmann, T. (ed.) 1879. Vienna: Wilhelm Braunmüller.

Alphita

García González, A. (ed.) 2005. *El Alphita. Estudio, edición crítica y comentario*. Valladolid: Universidad de Valladolid.

Anecdota Medica Graeca

Ermerins, F. Z. (ed.) 1840. *Anecdota Medica Graeca*. Leiden: Luchtmans (repr. 1963).

Anonymus Londinensis

Ricciardetto, A. (ed.) 2016. *L'Anonyme de Londres. Un papyrus médical grec du Ier siècle après J.-C.* Paris: Les Belles Lettres.

Manetti, D. (ed.) 2003. *Anonymus Londiniensis, De medicina*. Bibliotheca Scriptorum Graecorum et Romanorum Teubneriana. Leipzig: Teubner.
(ed.) 2022. *Anonymus Londiniensis: De medicina*. Berlin: De Gruyter.

Anonymus Parisinus (AP)

Garofalo, I. (ed.) and Fuchs, B. (trans.) 1997. *Anonymi Medici. De Morbis Acutis et Chroniis*. Leiden: Brill.

Aretaeus

Hude, C. (ed.) 1958. *On the Causes and Indications of Acute Diseases (Morb.Ac.), De Causis et Signis Acutorum Morborum; On the Causes and Indications of Chronic Diseases (Morb. Chr.), De Causis et Signis Diuturnorum Morborum; On the Therapy of Acute Diseases (Th.Ac.), De Curatione Acutorum Morborum; On the Therapy of Chronic Diseases (Th.Chr.), De Curatione Diuturnorum Morborum*, CMG 11. Berlin: Akademie-Verlag.

Aristotle

Ross, W. D. (ed.) 1961. *De Anima (De An.)*. Oxford: Oxford University Press.

Louis, P. (ed.) 2002. *Historia Animalium (Hist. Anim.)*. *Histoire des Animaux*. 3 vols. Paris: Les Belles Lettres.

Louis, P. (ed.) 1993. *De Partibus Animalium (Part. Anim.)*. *Les Parties des Animaux*. Paris: Les Belles Lettres.

[ps.-] Aristotle

Mayhew, R. (ed. and trans.) 2011. *Problems*. Loeb Classical Library 316–17. Cambridge, MA: Harvard University Press.

Avenzoar

Theisir Abyenzoar: Morbos omnes, tam universales quam particulares, & eorum remedia continens, opus si quod aliud in curandis egrotis accuratum, egregium, utillimum. Venice: Apud Octavianum Scotum .d. Amadei (1542).

Averrois

Colliget Averrois totam medicinam ingentibus voluminibus ab aliis traditam quadam brevitate et ordine sic ad amusim complectens ut iure ab omnibus liber iste medicorum stimulus cognominetur. Venice: Apud Octavianum Scotum .d. Amadei (1542).

Avicenna

Avicennae Liber Canonis Medicinae, Gerardus Cremonensis ex Arabico in Latinum translatus, cum Andreae Alpigi Bellunensis clarissimi castigationibus ex complurium codicum arabicorum. Venice: Andrea Alpago 1544.

Caelius Aurelianus

Bendz, G. (ed.) and Pape, I. (trans.) 2002. *Caelii Aureliani Celerum passionum libri III, Tardarum passionum libri V^o*. CML VI 1. Berlin: Akademie-Verlag (1st ed. 1990/1993).

Cassius Iatrosophista

Garzya A., Masullo R. (eds.) 2004. *I Problemi di Cassio Iatrosophista*. Naples: Accademia Pontaniana.

Aulus Cornelius Celsus

Marx, F. (ed.) 1915. *De medicina*. Leipzig and Berlin: Teubner.

Collectio Salernitana

de Renzi, S. (ed.) 1852–59. *Collectio Salernitana: ossia documenti inediti, e trattati di medicina appartenenti alla scuola medica Salernitana raccolti ed illustrati da G. E. T.* 4 vols. Naples: Tipografia del Filiale-Sebezio.

Diocles of Carystus

van der Eijk, P. (ed. and trans.) 2000–01. *Diocles of Carystus: A collection of the Fragments with Translation and Commentary*. 2 vols. Leiden: Brill.

Dioscorides

Wellmann, M. (ed.) 1863–1933/1906–14. *Pedanii Dioscuridis De materia medica libri quinque, Euphorista*. Berlin: Weidmann.

Erasistratus

Garofalo, I. (ed.) 1988. *Erasistrati fragmenta*. Pisa: Gardini.

Galen

I always cite Kühn's edition (*Claudii Galeni Opera Omnia*, Leipzig 1821–33) when available, which is in the majority of cases. In addition, when more recent editions of the individual texts in question are available, I use those and provide equivalent citations:

- Strohmaier, G. (ed. and trans.) (forthcoming). *Galenii in Hippocratis de Aere Aquis Locis Commentariorum Versionem Arabica (Comm. Hipp. Aer.)*. CMG V 10,2,2. Berlin: De Gruyter.
- Wenkebach, E. (ed.) 1934. *Galenii in Hippocratis Epidemiarum Librum I Commentaria III (Comm. Hipp. Epid. I)*. CMG v 10.1, pp. 1–151. Leipzig and Berlin: Akademie-Verlag.
- Mewaldt, J. (ed.) 1915. *De Comate secundum Hippocratem*. CMG v 9.2. Leipzig and Berlin: Akademie-Verlag.
- Pfaff, F. (ed. and trans.) 1934. *In Hippocratis Epidemiarum librum II commentaria (Arabic version) (Comm. Hipp. Epid. II)*. CMG v 10.1, pp. 155–410. Leipzig and Berlin: Akademie-Verlag.
- Wenkebach, E. (ed.) 1936. *Galenii in Hippocratis epidemiarum librum III commentaria III. (Comm. Hipp. Epid. III)*. CMG v 10.2.1, pp. 1–187. Leipzig and Berlin: Akademie-Verlag.
- Wenkebach, E. (ed.) 1956. CMG v 10.2.2. Trans. F. Pfaff. *In Hippocratis Epidemiarum librum VI commentaria I–VI (Comm. Hipp. Epid. VI)*. Leipzig and Berlin: Akademie-Verlag.
- Vagelpohl, U. (ed.). 2023. *In Hippocratis Epidemiarum librum VI commentariorum I–VIII versio Arabica*. CMG v 3.1. Supplementum Orientale. Berlin: De Gruyter.
- Mewaldt, J. (ed.) 1914. *Galenii in Hippocratis de Natura Hominis Commentaria tria (Comm. Hipp. Nat. Hom.)*. CMG v 9.1, pp. 3–88. Leipzig and Berlin: Akademie-Verlag.
- Helmreich, G. (ed.) 1914. *Galenii in Hippocratis de Victu Acutorum Commentaria IV (Comm. Hipp. Acut.)*. CMG v 9.1, pp. 117–366. Leipzig und Berlin: Akademie-Verlag.
- Heeg, J. (ed.) 1915. *Galenii in Hippocratis Prognosticum Commentaria III (Comm. Hipp. Progn.)*. CMG v 9.2, pp. 197–378. Leipzig and Berlin: Akademie-Verlag.
- Diels, H. (ed.) 1915. *Galenii in Hippocratis Prorrheticum I Commentaria III (Comm. Hipp. Prorrh. I)*. CMG v 9.2, pp. 3–178. Leipzig and Berlin: Akademie-Verlag.
- Alexanderson, B. (ed.) 1967. *De Crisibus: Überlieferung und Text*. Göteborg: Studia Graeca et Latina Gothoburgensia 23.
- Nutton, V. and Bos, G. (ed. and trans.) 2012. *De Dubiis Motibus: On Problematic Movements*. Oxford: Oxford University Press.

- Walzer, R. (ed., trans.) (1944) *On Medical Experience*. Oxford: Oxford University Press.
- Rosa, P. (ed.) 2009. *Galenus. De motu musculorum*. Pisa: Bibliotheca di Galenos.
- De Lacy, P. (ed. and trans.) 1978–84. *De placitis Hippocratis et Platonis* (PHP). CMG v 4.1.2.3. Berlin: Akademie-Verlag.
- Bazou, A. (ed.) 1999. *Quod animi mores corporis temperamenta sequantur. Hoti tais tou somatos krasesin hai tes psyches dynameis hepontai. Galien, Que les facultés de l'âme suivent les tempéraments du corps*. Diss. Paris.
- Helmreich, G. (ed.) 1893. *De sectis* (Sect.). In *Claudii Galeni Pergameni Scripta minora*. Leipzig: Teubner.
- Gundert, B. (ed.) 2009. *Galenus De symptomatum differentiis*, CMG v 5.1. Berlin: Akademie-Verlag.
- Furley, D. J. and Wilkie, J. S. (ed. and trans.) 1984. *De usu respirationis* (De respir. Usu) *On Respiration and the Arteries*. Princeton: Princeton University Press.
- Perilli, L. (ed. and trans.) 2017. *Galenus Vocum Hippocratis Glossarium* (Voc. Hipp. Gloss.). CMG v 13.1. Berlin: De Gruyter.

[ps.-] Galen

- Petit, C. (ed.) 2009. *Galien: Tome III: Le Médecin. Introduction*. Paris: Les belles Lettres.

Herophilus

- Staden, H. von. 1989. *Herophilus: The Art of Medicine in Early Alexandria: Edition, Translation and Essays*. Cambridge: Cambridge University Press.

[Hippocrates]

I cite throughout Littre's edition (*Ceuvres complètes d'Hippocrate*. Paris 1839–61). In a number of cases, I offer equivalent citations from more recent editions of the individual texts in question:

- Jouanna, J. (ed. and trans.) 1996. *Airs-Eaux-Lieux* (Aer.). Paris: Les Belles Lettres.
- Potter, P. (ed. and trans.) 1988. *Affections* (Aff.). *Hippocrates VI*. Loeb Classical Library 472. Cambridge, MA and London: Harvard University Press.
- Jouanna, J. (ed. and trans.) 1990. *Ancient Medicine* (Vet. Med.). *Hippocrate. De l'ancienne médecine*. Paris: Les Belles Lettres.
- Magdelaine, C. (ed.) 1994. *Aphorismi* (Aph.). Diss. Université de Paris-Sorbonne.
- Jouanna, J. (ed. and trans.) 1995. *Des vents, de l'Art*. (Art.). Paris: Les Belles Lettres.
- Kühlewein, H. (ed.) 1902. *De Articulis* (Artic.). In *Hipp. Opera Omnia I*. Leipzig: Teubner, pp. 180–245.
- Jouanna, J. (ed. and trans.) 1995. *Des vents, de l'Art*. Paris: Les Belles Lettres.
- Potter, P. (ed. and trans.) 2010. *Coan Precognitions* (Coac.). *Hippocrates IX*. Loeb Classical Library 509. Cambridge, MA and London: Harvard University Press.
- Preiser, G. (ed.) 1957. *Crises; Critical Days* (Judic.; Dieb. Judic.). *Die hippokratischen Schriften 'De iudicationibus' und 'De diebus iudicatoriis'*. Diss. phil. [masch.schr.] Kiel.

- Wittern, R. (ed. and trans.) 1974. *Diseases I (Morb. I). Die hippokratische Schrifte De Morbis I. Ausgabe, Übersetzung und Erläuterungen*. Hildesheim and New York: Olms.
- Jouanna, J. (ed. and trans.) 1983. *Diseases II (Morb. II). Hippocrate. Maladies II*. Paris: Les Belles Lettres.
- Potter, P. (ed. and trans.) 1980. *Diseases III (Morb. III). Hippocrates: Über die Krankheiten III*. CMG I 2. 3. Berlin: Akademie-Verlag.
- Joly, R. (ed. and trans.) 1978. *Diseases IV (Morb. IV). De genitura semine, de natura pueri, de morbis iv*. Paris: Les Belles Lettres.
- Grensemann, H. (ed.) 1982. *Diseases of Women I, II; Barrenness (Mul. I, II; Steril.). Hippokratische Gynäkologie. Die gynäkologischen Texte des Autors C nach den pseudohippokratischen Schriften De muliebribus I, II und De sterilibus*. Wiesbaden: Steiner.
- Grensemann, H. (ed.) 1968. *On the Eight Months Child; On the Seven Months Child (sp.) (Oct.; Septim.). Hippocratis De octimestri partu; De septimestri partu (spurius)*, CMG I 2.1. Berlin: Akademie-Verlag.
- Jouanna, J. (ed. and trans.) 2016. *Epidémies I et III (Epid. I, III)*. Paris: Les Belles Lettres.
- Jouanna, J. (ed. and trans.) 2000. *Epidémies V et VII (Epid. V, VII)*. Paris: Les Belles Lettres.
- Manetti, D. and Roselli, A. (eds. and trans.) 1982. *Epidemics VI (Epid. VI). Ippocrate. Epidemie. Libro sesto*. Bibl. di Studi sup. 66. Florence.
- Smith, W. D. (ed. and trans.) 1994. *Epidemics II, IV (Epid. II, IV). Hippocrates VII*. Loeb Classical Library 477. Cambridge, MA and London: Harvard University Press.
- Joly, R. (ed. and trans.) 1978. *Fleshes (Carn.). Hippocrate: Tome XIII. Des chairs*. Paris: Les Belles Lettres.
- Giorgianni, F. (ed. and trans.) 2006. *On Generation (Gen.). Hippocrates on Embryology. Hippokrates, Über die Natur des Kindes (De genitura und De natura pueri)*. Serta Graeca Bd. 23. Wiesbaden: Dr. Ludwig Reichert Verlag.
- Lami, A. (ed. and trans.) 2007. *Girls (Virg.). 'Lo scritto ippocratico sui disturbi virginali'*. Galenos 1: 15–59.
- Joly, R. (ed. and trans.) 1978. *Glands (Gland.). Des Lieux dans l'Homme. Du Système des glandes. Des Fistules. Des Hémorroïdes. De la vision. Des Chairs. De la Dentition*. Paris: Les Belles Lettres.
- Duminil, M.-P. (ed. and trans.) 1998. *Heart (Cord.) Hippocrate: Tome VIII. Coeur*. Paris: Les Belles Lettres.
- Heiberg, J. L. (ed.) 1927. *Hippocratis Iusiurandum*. CMG I 1. Leipzig and Berlin: Teubner.
- Overwien, O. (ed. and trans.) 2014. *Humours (Hum.). Hippocrates, De humoribus* CMG I 3.1. Berlin: De Gruyter.
- Potter, P. (ed. and trans.) 1988. *Internal Affections (Int. Aff.). Hippocrates VI*. Loeb Classical Library 473. Cambridge, MA and London: Harvard University Press.
- Jouanna, J. (ed. and trans.) 2002. *Nature of Man (Nat. Hom.). De Natura Hominis*. 2nd ed. CMG I 1.3. Berlin: Akademie-Verlag (1st ed. 1975).

- Bourbon, F. (ed. and trans.) 2008. *Nature de la femme (Nat. Mul.)*. Paris: Les Belles Lettres.
- Joly, R. (ed. and trans.) 1978. *Places in Man (Loc. Hom.)*. *Des Lieux dans l'Homme. Du Système des glandes. Des Fistules. Des Hémorroïdes. De la vision. Des Chairs. De la Dentition*. Paris: Les Belles Lettres.
- Craik, E. M. (ed. and trans.) 1998. *Places in Man (Loc. Hom.)*. Oxford: Oxford University Press.
- Jouanna, J. (ed.) 2014. *Prognostikon (Prog.)*. Paris: Les Belles Lettres.
- Polack, H. (ed.) 1976. *Prorrhethikon I (Prorrh. I)*. *Textkritische Untersuchungen zu der Hippokratischen Schrift Prorrhethikos I*. Diss. Hamburg.
- Potter, P. (ed. and trans.) 1995. *Prorrhethikon II (Prorrh. II)*. *Hippocrates IX*. Loeb Classical Library 509. Cambridge, MA and London: Harvard University Press.
- Joly, R. (ed. and trans.) 1972. *Regime in Acute Diseases (Acut.)*. *Du Régime des maladies aiguës, Appendice. De l'aliment. De l'usage des liquids*. Paris: Les Belles Lettres.
- Joly, R. (ed. and trans.) 1972. *Regime in Acute Diseases, Appendix (Acut. Sp.)*. *Du Régime des maladies aiguës, Appendice. De l'aliment. De l'usage des liquides*. Paris: Les Belles Lettres.
- Joly, R. and Byl, S. (eds. and trans.) 1984. *Regimen I–IV (Vict.)*. *Hippocratis De Diaeta*. CMG I 2.4. Berlin: Akademie-Verlag.
- Jouanna, J. (ed. and trans.) 2003. *Sacred Disease (Morb. Sacr.)*. *La Maladie Sacrée*. Paris: Les Belles Lettres.
- Roscher, W. H. (ed.) 1913. *Die hippokratische Schrift von der Siebenzahl in ihrer vierfachen (Hebd.)*. Paderborn: F. Schöningh (reprint New York 1967).
- Craik, E. M. (ed. and trans.) 2007. *On Sight (Vis.)*. *Two Hippocratic Treatises. On Sight and On Anatomy*. Leiden and Boston: Brill.
- Hanson, M. (ed. and trans.) 1999. *On Wounds on the Head (VC)*. CMG I 4.1. Berlin: Akademie-Verlag.

Jean de Saint-Amand

- Pagel, J. L. 1894. *Jean de Saint-Amand. Die Concordanciae des Johannes de Sancto Amando: nach einer Berliner und zwei Erfurter Handschriften zum ersten Male herausgegeben: nebst einem Nachtrage über die Concordanciae des Petrus de Sancto Floro*. Berlin: Georg Reimer.

Maimonides

- Bos, G. (ed.) 2004. *Maimonides: Medical Aphorism Treatises 1–5*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The medical works of Moses Maimonides. Provo: Brigham Young University Press.
2007. *Maimonides: Medical Aphorism Treatises 6–9*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo: Brigham Young University Press.

2011. *Maimonides: Medical Aphorism Treatises 10–15*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo: Brigham Young University Press.
2016. *Maimonides: Medical Aphorism Treatises 16–21*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo: Brigham Young University Press.
2017. *Maimonides: Medical Aphorism Treatises 22–25*. A parallel Arabic–English edition edited, translated, and annotated by Gerrit Bos. The Medical Works of Moses Maimonides. Provo, Brigham Young University Press.
- Giovanni Manardo/Iohannes Manardus (1528). *Epistolae medicinales: in quibus multa recentiorum errata, & antiquorum decreta reserantur*. Paris: Apud Christianum Vuechel.

Marcellinus

- Schöne, H. (ed.) 1907. ‘Markellinos’ Pulslehre. Ein griechisches Anekdoton’. In: *Festschrift zur 49. Versammlung deutscher Philologen Schulmänner*. Basel: Birkhäuser, pp. 448–72.

Marwān ibn Janāḥ

- Bos, G. et al. (eds.) 2020. *Marwān ibn Janāḥ. On the Nomenclature of Medicinal Drugs (Kitāb al-Talkhīṣ)*. Edition, translation, and commentary, with Special Reference to the Ibero-Romance Terminology. Islamic History and Civilization 170. Leiden and Boston: Brill.

Michael Psellus

- Duffy, J.M. (ed.) 1992. *Michaelis Pselli Philosophica Minora*. Leipzig: Teubner.

Oribasius

- Raeder, J. (ed.) 1926. *Oribasii Synopsis ad Eustathium, Libri ad Eunapium*. CMG VI 3. Leipzig and Berlin: Teubner.
- Raeder, J. (ed.) 1933. *Oribasii Collectionum Medicarum Reliquiae, libri XLIX–L, libri incerti, Eclogae Medicamentorum*. CMG VI 3. Leipzig and Berlin: Teubner.

Palladius

- Dietz, F. R. (ed.) 1834. *Commentarii in Hippocratis librum sextum de morbis popularibus*. In *Scholia in Hippocratem et Galenum*, vol. 2. Königsberg: Borntraeger (repr. 1966).

Polybius

- Büttner-Wobst, T. (ed.) 1882–1904. *Polybii Historiae*. 5 vols. Leipzig: Teubner.

Praxagoras

- Steckerl, F. (ed. and trans.) 1958. *The Fragments of Praxagoras of Cos and his School*. Leiden: Brill.

Paracelsus (Theophrastus Bombastus von Hohenheim)

Weeks, A. (ed. and trans.) 2008. *Essential Theoretical Writings*. Leiden: Brill.

Paul of Aegina

Heiberg, J. L. (ed.) 1921. *Paulus Aegineta, Libri I–IV*. CMG IX 1. Leipzig and Berlin: Teubner.

Posidonius

Edelstein, L. and Kidd, I. G. (eds.) 1989. *Posidonius I. The fragments*. Cambridge: Cambridge University Press.

Theiler, W. (ed.) 1982. *Poseidonios, die Fragmente*. Berlin: De Gruyter.

Rufus of Ephesus

Daremberg, C. and Rouelle, É. (eds.) 1879. *Œuvres de Rufus d'Ephèse: texte collationné sur les manuscrits, traduit pour la première fois en français, avec une introduction*. Paris: Imprimerie Nationale.

Simon of Genoa

Zipser, B. *et al.* (ed. and trans.) *Simon of Genoa's Clavis Sanationis* www.simonofgenoa.org/index.php?title=Simon_Online.

Soranus

Illberg, J. (ed.) 1927. *Sorani Gynaeciorum libri IV, De Signis Fracturarum, De Fasciis, Vita Hippocratis secundum Soranum*. CMG IV. Leipzig and Berlin: Teubner.

Stephanus of Byzantium

Duffy, J. M. (ed.) 1975. *Commentary on Hippocrates' Prognosticon*. PhD Diss. SUNY Buffalo.

The Syriac Book of Medicines

Budge, E. A. W. (trans.) 2009. London: Routledge (originally published as *The Syriac Book of Medicines: Syrian Anatomy, Pathology and Therapeutics in the Early Middle Ages, with Sections on Astrological and Native Medicine and Recipes*, by an Anonymous Physician, 1913).

Theophilus Protospatharius, Damascius and Stephanus Atheniensis

Dietz, F. R. (ed.) 1834. *Commentarii in Hippocratis aphorismos, Scholia in Hippocratem et Galenum*. Königsberg: Borntraeger (reprinted in 1966).

Themison

Moog F. E. (ed. and trans.) 2019. *Die Fragmente des Themison von Laodikeia*. Kassel: Kassel University Press.

Adespota and Miscellanea

- Arnim, H. F. A. von (ed.) 1905. *Stoicorum Veterum Fragmenta*, vol. 1. Leipzig: Teubner.
- Geerard, M. (ed.). 1974–2003. *Clavis Patrum Graecorum*. Brepols: Turnhout.
- Dekkers, E. (ed.). 1995. *Clavis Patrum Latinorum*. Brepols: Turnhout.
- Diels, H. und Kranz, W. 1961. *Die Fragmente der Vorsokratiker*. Berlin: Wiedemann.
- Herington, C. J. (ed.) 1972. *Scholias in Prometheus Vincitum (Scholia Vetera)/The Older Scholia to the Prometheus Bound*. Mnemosyne Supplement 19. Leiden: Brill.
- Ideler, J. L. (ed.) 1841. *Physici et Medici Graeci Minores*. Berlin: Reimer.
- Kassel, R. and Austin, C. (eds.) 1983–2001. *Poetae Comici Graeci*. Berlin: De Gruyter.
- Migne, J.-P. (ed.) 1857–66. *Patrologia Graeca*. Paris: Imprimerie Catholique.
- Migne, J.-P. (ed.) 1841–55; 1862–65. *Patrologia Latina*. Paris: Imprimerie Catholique.
- Tecusan, M. (ed.) 2003. *The Fragments of the Methodists, Volume One: Text and Translation*. Leiden: Brill.

TRANSLATIONS USED

Besides resorting to the competence of specific scholars, especially in the case of Arabic and Syriac texts – in which cases I acknowledge the translator in footnotes – I relied on the following translations, although with frequent adaptations and changes. I also used the Latin translations of Galen printed in Kühn's editions (for details, see Durling, R. J. 1961. 'A Chronological Census of Renaissance Editions and Translations of Galen', *Journal of the Warburg and Courtauld Institutes* 24.3/4: 230–305).

All other translations are mine.

Aeschylus

- Smyth, H. W. (trans.) 1926. *Aeschylus, with an English translation*. Cambridge, MA: Harvard University Press.

Alexander of Tralles

- Puschmann, T. (trans.) 1878. Vienna: Wilhelm Braumüller.

Anonymus Parisinus (AP)

- Garofalo, I. (ed.) and Fuchs, B. (trans.) 1997. *Anonymi Medici. De Morbis Acutis et Chroniis*. Leiden: Brill.

Aretaeus

- Adams, F. (trans.) 1856. *The Extant Works of Aretaeus the Cappadocian*. London: Sydenham Society.

Aristotle

Lennox, J. G. (trans.) 2001. *On the Parts of Animals I–IV*. Oxford: Oxford University Press.

Beare J. I. (trans.), *On Sense and the Sensible*. 1931. In Ross, W. D. (ed.), *The Works of Aristotle translated into English*. Vol. 3. Oxford: Clarendon Press.

[Aristotle]

Mayhew, R. (trans.) 2011. *Problems*. 2 vols. Loeb Classical Library 316–17. Cambridge, MA: Harvard University Press.

Arnau de Villanova

McVaugh, M. R., Salmón, F., Giralt, S. and Arrizabalaga, J. (eds. and trans.) forthcoming. *De Parte Operativa*. In AAVV. (ed. and trans.) *Arnaldi de Villanova. Opera Medica Omnia*. Vol. VIII. Barcelona: Edicions Universitat Barcelona.

Avicenna

Bakhtiar, L. (ed.) 2014. *The Canon of Medicine*. Volume 3: *Special Pathologies*. Avicenna. Trans. Peyman Adeli Sardo. Great Books of the Islamic World. Chicago: Kazi.

Caelius Aurelianus

Drabkin, I. E. (trans.) 1950. *On Acute Diseases and on Chronic Diseases*. Chicago: University of Chicago Press.

Cassius Iatrosophista

Garzya A., Masullo R. (eds. and trans.) 2004. *I Problemi di Cassio Iatrosophista*. Naples: Accademia Pontaniana.

Aulus Cornelius Celsus

Spencer, W. G. (trans.) 1938. *De Medicina*. 3 vols. Loeb Classical Library 294, 304, 336. Cambridge, MA and London: Harvard University Press.

Diocles of Carystus

van der Eijk, P. (ed. and trans.) 2000–01. *Diocles of Carystus. A Collection of the Fragments with Translation and Commentary*. 2 vols. Leiden: Brill.

Hippocratic Texts

Jones, W. H. S. (trans.). 1923–31. *Hippocrates I–IV*. Loeb Classical Library 147–50. Cambridge, MA and London: Harvard University Press.

Potter, P. (trans.). 1988–2012. *Hippocrates V–VI, VIII–XI*. Loeb Classical Library 472, 473, 482, 509, 520, 538. Cambridge, MA and London: Harvard University Press.

Smith, Wesley D. (trans.) *Hippocrates VII*. Loeb Classical Library 477. Cambridge, MA and London: Harvard University Press.

Early Greek Philosophy

Laks, A. and Most, G. W. (trans.) 2016. *Early Greek Philosophy*. Loeb Classical Library 524–32. Cambridge, MA and London: Harvard University Press.

Galen

Salazar, C. (trans.) forthcoming. *A Commentary on the Prognosticon of Hippocrates (Comm. Hipp. Progn.)*

Siegel, R. E. 1973. *Galen on Psychology, Psychopathology and Function and Diseases of the Nervous System: An Analysis of his Doctrines, Observations, and Experiments*. Basel: Karger.

Siegel, R. E. (trans.) 1976. *Galen on the Affected Parts (Loc. Aff.) Translation from the Greek text with explanatory notes*. Basel and New York: Karger.

Walzer, R. (ed. and trans.) 1944. *On Medical Experience*. Oxford: Oxford University Press.

Johnston, I., Horsley, G. H. R. (trans.) 2011. *Method of Medicine (Meth. Med.)*. Loeb Classical Library 516. Cambridge, MA and London: Harvard University Press.

De Lacy, P. (ed. and trans.) 1978–84. *On the doctrines of Hippocrates and Plato (PHP)*. CMG v 4.1.2.3. Berlin: Akademie-Verlag.

Johnston, I. (trans.) 2006. *On Diseases and Symptoms (Symp. Caus.)*. Cambridge: Cambridge University Press.

May, M. T. (trans.) 1968. *On the Usefulness of the Parts of the Body (UP)*. Ithaca: Cornell University Press.

Furley, D. J., Wilkie, J. S. (eds. and trans.) 1984. *On Respiration and the Arteries (De respir. Usu.)*. Princeton: Princeton University Press.

Herodotus

Godley, A. D. (trans.) 1922. *The Persian Wars*, vol. III: Books 5–7. Loeb Classical Library 119. Cambridge, MA and London: Harvard University Press.

Juvenal

Braund, S. M. (trans.) 2004. *Juvenal and Persius*. Loeb Classical Library 91. Cambridge, MA and London: Harvard University Press.

Lucian

Fowler, H. W. and Fowler, F. G. (trans.) 1905. *Symposium*. In *The Works of Lucian of Samosata*, vol. 2. Oxford: Clarendon.

Fowler, H. W. and Fowler, F. G. (trans.) 1905. *The Way to Write History*. In *The Works of Lucian of Samosata*, vol. II. Oxford: Clarendon.

Nemesius

Sharples, R. W., van der Eijk, P. (trans.) 2008. *On the Nature of Man*. Liverpool: Liverpool University Press.

Paracelsus (Theophrastus Bombastus von Hohenheim)

Weeks, A. (trans.) 2008. *Essential Theoretical Writings*. Leiden: Brill.

Plato

Zeyl, D. J. (trans.) 2000. *Plato. Timaeus*. Indianapolis: Hackett.

Pliny

Rackham, H., Jones, W. H. S., Eichholz, D. E. (trans.) 1938–62. *Natural History*. Loeb Classical Library 330, 352, 353, 370, 371, 392, 393, 394, 418, 419. Cambridge, MA and London: Harvard University Press.

Plutarch

AAVV. 1894. *Quaestiones Conviviales*. In *Plutarch's Morals. Translated from the Greek by several hands*. Cambridge: Press of John Wilson and son.

Sextus Amarcus

Pepin, R. E. (trans.) 2011. *Satires*. Dumbarton Oaks Medieval Library 9. Cambridge, MA: Harvard University Press.

Sextus Empiricus

Bury, R. G. (trans.) 1933. *Outlines of Pyrrhonism*. Loeb Classical Library 273. Cambridge, MA and London: Harvard University Press.

Bury, R. G. (trans.) 1949. *Against Professors*. Loeb Classical Library 382. Cambridge, MA and London: Harvard University Press.

The Syriac Book of Medicines

The Syriac Book of Medicines. E. A. W. Budge (trans.) 2009. London: Routledge (originally published as *The Syriac Book of Medicines: Syrian Anatomy, Pathology and Therapeutics in the Early Middle Ages, with Sections on Astrological and Native Medicine and Recipes, by an Anonymous Physician*, 1913).

Talmud

Preuss, J. *Biblical and Talmudic Medicine*. Rosner, F. (trans.) 1911/1978. New York: Sanhedrin Press (originally published in 1911 as *Biblich-talmudische Medizin*. Berlin: Karger).

Vettius Valens

Riley, Mark T. (trans.) 2022. Vettius Valens. *The Anthology*. Amor Fati Publications.

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