

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 nobilem*); 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 revisit 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 Prorrheticon 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 inflammantur?* ('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 Hermannii 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 obnoxious*); (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 *peripneumoniel pleuropnumonie* 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 bormē 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 Wetley (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, *Mesuž*, 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 *symptomata* 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 anatomo-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) cyclopaedia* (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.



Figure 9.1 Horse with *phrenitis*. 'Von der Hirnwüthigkeit, Unsinnigkeit Dollen Coller, zu Latein Phrenitis genannt' (Georg Simon Winters. Wolerfahrner 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, πρᾶτιδες’, 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.