Introduction

Sickness, cultural classifications and local epistemologies

*Ulrike Steinert (in consultation with Elisabeth Hsu)*¹

Scholarly medical traditions: knowledge and textual practices

The scholarly medical traditions of the Mediterranean, the Near East and Asia investigated in this book, though belonging to different historical periods, have something in common: they are all based on textual practices or literacy as technology (cf. Goody 1977). Throughout this long span of history and in these various cultures, scholarly medical traditions have been linked to textual practices, carried out by professional classes of technical specialists (e.g. Bates 1995a; Bawanypeck and Imhausen 2014; Johnson 2015b) and taking place in institutional contexts such as temples, royal courts and monasteries. Literacy and writing have long been regarded as a key characteristic of ancient civilisations and stratified societies which made possible the accumulation, systematisation and stabilisation of knowledge and the emergence of scientific texts and technical literature. Comparative research of recent decades has recognised certain overarching, relatively stable medical ideas shared by many medical traditions from Greece to China – such as the idea of balance as central to health and illness, often associated with concepts of body humours (so-called humoral pathologies), and the development of reasoning in terms of microcosm–macrocosm homologies (see e.g. Leslie 1976; Sivin 1987; Leslie and Young 1992; Bates 1995b; Horden and Hsu 2013). Similarities in medical theories and practices found in texts from the ancient Mediterranean, Near Eastern and Asian cultures have also been explored as evidence for cross-cultural transmission and exchanges of knowledge and specialists (e.g. Akasoy et al. 2008; Geller 2014; Asper 2015).

On the other hand, the scholarly medical traditions in the stratified societies under study, beginning with ancient Mesopotamia and Egypt, have developed similar textual genres of science writing, such as technical compendia, which can be encountered, for instance, in collections of medical recipes and diagnostic or surgical handbooks, in treatises on a specific medical topic or in all-encompassing medical encyclopaedias. However, besides their diversity in scope and topics, there are discernible differences between the technical compendia as well as differences in concepts of authorship and in attitudes towards scholarly knowledge in the cultures under consideration, which are related to the social contexts and milieus in which these texts were produced and used. For instance, Mesopotamian

technical compendia have been described as ‘infrastructural’ in character, serving ‘as a skeleton text or agenda for oral instruction or debate within concrete historical institutions’ (Johnson 2015a: 4). Ancient Mesopotamian compendia are cumulative and generally characterised by an absence of controversy, tending instead towards the juxtaposition of different views (Johnson 2015a). Mesopotamian scholarship emphasised scriptural tradition, which was often imbued with divine authority. While Mesopotamian tradition attributes specific works or compendia to certain famous sages and scholars, they never speak out in these texts in the first person (e.g. Lenzi 2015: 151–5). In contrast, Graeco-Roman technical compendia and treatises are often formulated from the point of view of a named author and contain criticism vis-à-vis other competing practitioners or scholarly opinions (Lloyd 1996; Lloyd and Sivin 2002; Asper 2007, 2013; van der Eijk 2010).²

Although technical compendia from ancient Mesopotamia or Egypt are largely silent on the oral practices surrounding these texts, anthropological research points out that medical texts are often transmitted not merely through copying but also through instruction and discussion, accompanied by orally transmitted practical or tacit knowledge, and that medical knowledge is often applied flexibly in practice and includes experimentation (see e.g. Farquhar 1994; Hsu 1999; Scheid 2002 for Chinese medicine). Moreover, while Mesopotamian scholarly culture had a different concept of authorship than the Greeks, early collections of medical prescriptions such as found in the Hippocratic Corpus may have more in common with Mesopotamian medical remedy literature, with regard to the processes of their production and transmission, than one might expect. Thus, text-critical studies on the treatises of the Hippocratic Corpus have shown that these texts, which only rarely name an individual author, were in fact often multi-authored, presenting assemblages of different material showing traces of subsequent editing (e.g. van der Eijk 2015; Craik 2015). These insights into the production of technical texts within scholarly communities and into the dynamic aspects in the transmission of textual knowledge encourage us to investigate traces of similar processes in ancient Mesopotamian or Egyptian sources, where one can sometimes encounter manuscripts with portions of texts written by different scribes (Unger in this volume), glosses or marginal notes added by a later copyist to an existing text (Geller 2015) and transformations of technical texts and compendia due to subsequent editing and compiling (Steinert 2018).

But apart from similar textual practices and genres, can we also discern significant similarities between the epistemologies, theories, disease concepts and categories in the different medical traditions that emerged in the literate, stratified societies of world civilisations? Comparative research demonstrates that literate and non-literate medical traditions can also share significant similarities in basic medical concepts or practices. For example, concepts of balance linked with bodily substances have been described as typical for medical systems of stratified societies. On the other hand, such studies have also pointed out that theories based on the idea of balance are hardly a universal or uniform characteristic of literate medical cultures sharing a certain cognitive style. Medical cultures across Asia

and Europe have always been pluralistic, and scholarly medical traditions also contain culture-specific aspects and considerable differences in ontologies, medical practices and techniques (e.g. Leslie 1976; Leslie and Young 1992; Horden and Hsu 2013).

Studying epistemologies of health and sickness: anthropological and historical approaches

The motivation for this interdisciplinary volume on disease concepts and classification stems from common methodological and theoretical problems encountered in historical and philological disciplines as well as in medical anthropological research. Thus, studies by both anthropologists and historians working on the textual sources of learned medical traditions have pointed out that cross-cultural differences in the epistemologies of health and sickness make it difficult to equate ancient and modern nosologies in non-Western cultures. The following pages lay out the status-quo in research on disease concepts by outlining central topics and debates in medical anthropology and in historical research, in order to provide some background for the discussions in the present volume and to point out crucial issues and questions that have shaped both fields of research. Sections 2–4 of this chapter introduce previous cross-disciplinary studies on medical systems and discuss medical historical and anthropological understandings of ‘illness’ and ‘disease’ as well as classic approaches such as comparative typologies of disease aetiologies, before turning to recent trends and critical approaches in medical anthropology informed by a new focus on the body. Sections 5–7 sketch three novel research perspectives on studying disease concepts and classifications advanced in the present volume. Sections 8–10 summarise the major insights and findings of the individual contributions assembled in the book and formulate some implications for future study.

Especially in the fields studying the medical cultures of Asia, which are still living and vibrant traditions today, historians and anthropologists of medicine have long been engaged in diachronic research and comparative perspectives. Thus, cross-disciplinary, multi-authored works such as Leslie (1976), Leslie and Young (1992) and Bates (1995) study scholarly medical traditions from Europe to China and Japan, spanning from antiquity to the present. Kleinman’s and Good’s (1985) collective volume on culture and depression offers surveys by anthropologists, psychiatrists and historians. Edited collections such as Hsu (2001) explore the dynamic and innovative aspects of Chinese medicine from its beginnings to the present, while Horden and Hsu (2013) analyse the concept of balance from anthropological and medical–historical perspectives, going beyond conventional geographical boundaries to include the orally transmitted Great Traditions of Africa and Mesoamerica. All these works engage in lively debates and dialogues on theoretical and methodological issues. However, comparative and cross-cultural studies of illness concepts usually do not include the medical cultures of the ancient Near East, which form a geographical link between Europe and Asia, offering the oldest corpora of medical literature with a history spanning over

three millennia, and have received revived scholarly interest in recent decades. Research perspectives in fields such as Egyptology and Assyriology, on the other hand, have so far focused on text editing, diachronic surveys and limited cross-cultural comparisons, mainly between ancient Near Eastern and Mediterranean cultures.³

The cross-cultural variability of disease concepts and illness experiences emphasised in medical anthropology has important implications for the debate concerning the applicability of retrospective diagnoses, which has been ongoing in the history of medicine, and also in recent years in Assyriology and Egyptology.⁴ Although historians and medical specialists have sought to identify modern diagnoses for ancient descriptions of morbid conditions, recent works in these developing fields increasingly underline the difficulties of such an approach and the incompatibility of ancient and biomedical categories. The present collection underlines the problem of differing epistemologies and shows that the question of how to approach and interpret ancient concepts of health and sickness remains a constant methodological issue in text-based historical research on ancient medical systems.

Questions such as how ‘health’ and ‘disease’ are defined in a given culture or period, how sicknesses are explained (causally) and how healing specialists distinguish different complaints and define classes of ailments have been central in the history and philosophy of medicine since the nineteenth century.⁵ According to the trend in the recent philosophy of medicine, disease concepts involve both ‘empirical judgements about human physiology and normative judgements about human behaviour or well-being’ (Murphy 2015: sub 2). A central debate revolves around the two opposing viewpoints of ‘naturalists’ (or objectivists) and ‘constructivists’: the former claim that there are objective ‘facts’ about the body in which the concept of disease is grounded; the latter emphasise that concepts of health and disease are socially and culturally constructed and will always involve value judgements.⁶ Christopher Boorse (1975) professed the naturalist viewpoint that disease is a bodily malfunction that can be objectively determined by science. However, Boorse (1975) also contended that the notions of ‘disease’ and ‘illness’ should be differentiated: ‘disease’ entailed an ‘unhealthy state’ understandable in biological terms, while ‘illness’ should be used as a practical or ethical term that involves value judgements about the incapacitating and undesirable nature of a disease, on the basis of which a person regarded as ill is entitled to special treatment and to assuming a particular ‘sick role’.⁷ Yet, a clear differentiation between the notions of ‘disease’ and ‘illness’ is hard to draw in practice, since everyday human thinking about disease includes biological and evaluative/cultural aspects. Biological processes come to be seen as abnormal because we judge them as disvalued bodily states, and the distinction between ‘normal’ and ‘abnormal’ processes in a given medical system or culture cannot be explained on the basis of scientific criteria alone; it is also linked to cultural values, ideals, social norms and expectations and individuals’ experiences of such processes (as can be seen, for instance, in the historically changing judgements concerning certain forms of human behaviour such as homosexuality as an illness). On the other hand, a constructivist or normative

stance which completely disregards the ‘biological underpinnings’ of disease concepts runs into difficulties to account for ‘disease’ as a class of phenomena differentiated from other disvalued states or deviations not necessarily regarded as disease (e.g. small stature, fatness), although a clear scientific distinction between diseases and other undesired states, impairments or complaints is not easy to work out, either (Murphy 2015; Reiss and Ankeny 2016).

The differentiation between the notions of ‘disease’ and ‘illness’ has also been important in medical anthropology since the 1970s. On the one hand, this differentiation allowed for the notion of ‘diseases’ as quasi-universal anatomical or physiological irregularities being the domain of biomedicine, while medical anthropology focused on the investigation of culture-specific ‘illnesses’ in their socio-historical context.⁸ On the other hand, ‘diseases’ as diagnosed and treated by doctors (or traditional healers) have been contrasted with ‘illnesses’ as culturally structured, personal experiences of being unwell, which include states of emotional suffering and somatic and mental dysfunction as well as suffering due to misfortune (e.g. Eisenberg 1977; Kleinman 1980; Sobo 2004: 3–4). Allan Young further introduced the term ‘sickness’ to designate ‘the process through which worrisome behavioral and biological signs . . . are given socially recognizable meanings’, i.e. are translated into symptoms associated with specific aetiologies and courses of treatment (Young 1982: 270).

Medical historians likewise have described how specific sicknesses or biomedical ‘diseases’ become recognised as a result of larger socio-historical processes. Thus, the medical historian Charles Rosenberg (1997: xiii–xx) designates the socio-cultural shaping of disease concepts, experiences and medical practices as a ‘framing’ process with constraining and legitimising effects: through the ‘framing’ of disease in the process of diagnosis, the patient’s suffering becomes a ‘legible social entity’.⁹ In a similar vein, anthropological analyses discuss how the ‘discovery’, definition and social recognition of specific ‘diseases’ in biomedicine reinforce specific illness experiences of persons suffering from a diagnosed disorder.¹⁰ One may compare this congruence between specialists’ notions and experiences with the observation of the historian Henry Sigerist (1943) who proposed a relationship between prevailing ‘diseases’ in a given period and the general character or cultural ‘style’ of a period. For instance, he saw a link between the collectivism of the Middle Ages and the collective nature of leprosy or plague as the dominating diseases of this era, while the ‘individualistic’ Renaissance period foregrounded ‘individualistic’ diseases such as syphilis, and tuberculosis formed a ‘pathological expression of the romantic period’ (Fee 1997: 301, with Sigerist 1943: 186). In summary, both historians and anthropologists have emphasised that health and sickness are linked with socio-economic conditions and changing political realities, and that culture-related illnesses can be interpreted as ‘cultural performance’, as ‘expressions’ of social distress, increasingly theorised in medical anthropology as related to structural inequalities in a society (e.g. Good 1977; Low 1985; Frankenberg 1986; Kleinman 1986; Lock 1993b: 141–4; Fee 1997; Shorter 1997).

Medical language, metaphors, aetiologies and disease taxonomies

Another aspect of medical anthropological research that is of interest to historians working on ancient medical literature produced by healing specialists or scholars is the ‘repertoire of verbal constructs’ (Rosenberg 1997: xiii) and diagnostic taxonomies in different healing systems through time and space, a topic of central importance for the present volume. Byron Good (1977) argued that a disease category is rather a ‘syndrome of typical experiences’, a set of words, metaphors and feelings typically ‘running together’, forming networks of meaning invoked in medical discourses.¹¹ Describing the networks of meaning surrounding popular disease terms helps to understand the cultural significance of a specific disorder. Good’s analysis of the ailment ‘heart distress’ in Iran provides (1977) an appealing model for approaching similar terms found in ancient texts, such as the malady ‘heartbreak’ (*hīp libbi*) in Mesopotamia. Thus, ‘heartbreak’ in the cuneiform texts is linked with a similar network of symptoms, feelings, metaphors and social problems as described by people suffering from ‘heart distress’ in Good’s fieldwork and is likewise invoked in daily life communication to articulate experiences of misfortune, interpersonal conflict and psychosocial stress (cf. Couto-Ferreira, in this volume; Attia 2018).¹²

Although largely abandoned in contemporary medical anthropology, the comparative typologies and explanatory models developed in the 1970s (Foster 1976; Young 1976; Murdock 1980) may still provide a framework for the medical historian to describe different disease aetiologies in the textual sources. Nonetheless, some of the categories used in these models are of limited applicability to the study of ancient medical cultures (see e.g. the contributions of Nyord and Steinert in this volume). Young (1976) formulates a continuum between ‘internalising’ systems (attributing sickness to physiological mechanisms in the body and aiming at restoring equilibrium) and ‘externalising’ systems, in which sickness is regarded as a symptom of disrupted relationships between the patient and a causing agent.¹³ But there is a considerable cross-cultural variation with regard to the dominance of ‘externalising’ and ‘internalising’ explanations, and also with regard to the development of theoretical models such as a system of humours, which is well attested in differing forms in Graeco-Roman, Arabic, Indian and Tibetan medicine (see e.g. the chapters by Singer, Raggetti and Sabernig in this volume). Moreover, with regard to aetiologies in ancient Mesopotamian and Egyptian medicine explored in this volume, categories such as ‘naturalistic’ or ‘natural’ versus ‘supernatural’ also have limitations, because these conceptual systems do not acknowledge a clear division between the realms of ‘nature’ and the realm of supernatural beings. As a consequence, ancient Near Eastern cultures do not use a term for ‘nature’ exactly matching the Graeco-Roman and Western philosophical concept.¹⁴ Rather than focusing on a clear division into ‘natural’ and ‘supernatural’ causes of illness, both Egyptian and Mesopotamian medicine recognise a variety of bodily or physiological explanations as well as external environmental factors of illness events, which can be combined with or differentiated from causes associated with

personalised agents (see the contributions of Couto-Ferreira, Nyord, Radestock, Steinert and Unger in this volume).

Disease concepts and the body: 'local biologies' and changing cultural epistemologies

Stimulated by the radical critique of biomedicine and psychiatry focusing on the production of knowledge and power relations (e.g. Foucault 1972, 1980), anthropologists since the 1980s have scrutinised biomedical categories, discourses and classifications, arguing that biomedicine, like any other medical system, forms a kind of ethno-medical or 'culture-specific' system of knowledge and practice (e.g. Young 1982; Wright and Treacher 1982; Lock and Gordon 1988; Gaines 1992a, 1992b; Lock 1993b: 144–6). Comparative research has also challenged the notion of a biomedically defined, stable body. For instance, Margaret Lock's work on menopause in Japan demonstrates that symptoms associated with menopause differed significantly from the symptoms experienced by menopausal women in North America and defined in Western biomedicine, suggesting that biomedical views of menopause cannot be regarded as universal (Lock 1993a). Lock coins the concept 'local biologies' to underline that not only cultural (professional and popular) constructions and discourses about the body are historically produced, but that biological and pathological processes affecting human bodies are also subject to historical transformations.¹⁵

Bridging methodological issues relevant to anthropologists and historians of medicine alike, Elisabeth Hsu (2007) argues that the experiential basis of medical concepts mediates the biological and the cultural. Extending theoretical perspectives on the body current in medical anthropology,¹⁶ Hsu develops a 'genealogical approach' to unravel different historical layers in the formation of medical concepts in Chinese medicine connected to the theme of interrelations between the body and the environment. Hsu's approach of the 'body ecologic' studies how culture-specific knowledge and experiences of ecological realities are integrated into and elaborated in learned medical theories on the body, health and illness, in the course of complex historical processes. Her diachronic analysis of the concept of the 'five agents' in Chinese medicine shows the changing significance of the 'five agents' as part of a 'system of correspondence' or 'correlative thinking', which is linked to early observations on the seasonality of illness.¹⁷ Both the notion of the 'body ecologic' as well as the genealogical approach of studying the conceptual history of medical ideas in terms of layers of meaning have considerable comparative potential for historians of ancient medicine exploring similar theoretical models and 'systems of correspondence'.

Hsu's notion of the 'body ecologic' also implicitly queries concepts like the *emic* and *etic* (Pike [1954] 1967; Harris 1976; 1980: 29–45), which have been criticised for the oversimplified way in which they contrast the insider's and outsider's knowledge.¹⁸ The notion of the 'body ecologic' questions the cultural relativism implied by the terms *emic* and *etic*, arguing that both insider and outsider share fundamental experiences of the environment and bodily processes. Thus,

although the biology of morbid conditions as well as concepts of the body and disease vary cross-culturally, an investigator of other cultures' categories should exclude neither the possibility that ancient texts could describe something that may be recognised by a present-day physician, or that premodern descriptions of pathologies convey information based on accurate observations and empirically valid experiences. For instance, medical doctrines such as the Hippocratic notion of critical days are linked to experiences of disease patterns prevailing in the Mediterranean area, where bouts of intermittent fever occur in a regular pattern in cases of malaria or pneumonia (due to the biological cycle of the responsible parasite). Yet, although malaria was certainly present in the Greek-speaking area in antiquity and although the Hippocratic texts contain descriptions and terms for different fever types (including malarial ones), the Hippocratic authors do not recognise or use a disease term that could be equated with the biomedical disease malaria (Grmek [1989] 1991; Craik, in this volume). The premodern Italian expression *mal aria* 'bad air', from which the modern disease term malaria is derived, captures the notion inherited from ancient Graeco-Roman medicine that diseases such as fevers are caused by negative environmental influences, which however differs considerably from the biomedical definition of malaria.

Examples such as these underscore that disease names, which may be used over centuries, undergo considerable changes in meaning over time, reflecting socio-cultural and epidemiological changes as well as changes in medical theory. Many ancient Greek or Latin disease terms such as cancer, malaria or influenza, though sometimes still preserved in biomedical terminology, often only partially correspond to modern meanings and usage (Grmek [1989] 1991). This implies that disease is not only framed in culture-specific ways resulting in culture-specific categories but can also have biologically distinctive manifestations. Hilary Smith (2017) describes the 'evolution' of the Chinese ailment 'foot *qi*' from the thirteenth century to the present, showing that the same word was used to describe entirely different conditions (from a biomedical perspective) in different periods, and that even in one era, physicians disagreed about the causes, symptoms and therapies of 'foot *qi*'. As Smith critically discusses, equations of traditional Chinese disease terms with biomedical conditions result in 'essentialising' Chinese medicine by describing it as unified and unchanging, thereby ignoring the historical and socio-cultural processes shaping the meaning of disease terms in different periods. Similar insights and methodological issues are also embraced by several authors in the present volume, who analyse the semantic development of disease terms or of words related to deviations from a normal, healthy condition (e.g. the contributions of Amit and Singer, in this volume), or who critically review modern approaches attaching biomedical labels to ancient disorders (see e.g. Couto-Ferreira, and Hsu, in this volume).

However, despite differences between past and present disease terminologies and categories, culture-specific terms may not be entirely arbitrary or thwart cross-cultural comparisons. In a recent discussion of the Chinese category of 'intermittent fever' treated with the antimalarial Artemisinin, Hsu (2018) points out that the classical Chinese term for intermittent fevers included many more

conditions than those caused by malarial parasites. Yet, as Hsu shows, advances in bioscientific research (recreating and testing ancient remedies in the laboratory) allow one to go beyond these observations, if these are combined with a reading of Chinese prescriptions that comprehends the conditions treated with them as a ‘holistic physiognomy’ (or *Gestalt*) linked to concrete cases that are treated through practical interventions having concrete effects.¹⁹ Hsu’s study of ancient Chinese prescriptions using the herb *qing hao* (equated with *Artemisia annua*) reveal that premodern physicians had the capacity to assess accurately and treat effectively different faces or manifestations of a locally specific and biologically diverse disease condition that can be compared with, although not mapped on to, the biomedical disease category malaria.

A central area of investigation in medical anthropology in recent decades has been the subjective nature of illness experiences and their relations to popular or professional disease concepts and to ‘local epistemologies’ concerning the body and healing practices (see e.g. Lock 1993b).²⁰ Although the body became integrated into theoretical debates in medical anthropology comparatively late (Hsu 2012), concepts of health, body and sickness are now increasingly seen as shaped by the interaction of human beings and their bodies with the cultural and natural environment; illness experiences are linked to cultural understandings about the body, the self and the world, which give form and meaning to illness experiences.²¹

According to Laurence Kirmayer (1992), illness experiences are expressed through metaphors grounded in bodily experience and social interaction, presenting two ‘orders of experience’ which stand in a dialectical relationship: the ‘order of the body’ is something partially disorderly, tied to emotions, sensations, while ‘the order of the text’ is linked to language and thought, expressed e.g. in medical or scientific discourse.²² As Kirmayer (1992: 325) points out, the ‘primacy of the body’ in experiences of illness cannot be adequately described merely as an object of thought: ‘The body’s influence on thought is more presentation than representation, given in substance and action rather than in imagination and reflection’.²³ Since metaphors are ‘tools for working with experience’ (Kirmayer 1992: 335), they form an important medium to create meaning through both representation and enactment, and have been recognised by anthropologists, psychiatrists and historians of medicine as a central research topic to elucidate interrelations between patients’ illness experiences and cultural discourses on sickness as well as medical theories and terminology.²⁴

Premodern disease concepts: new perspectives

Although stemming from different disciplines and angles, the research presented in this book highlights at its core three new perspectives as avenues of research into premodern disease concepts: (1) the focus on a holistic and phenomenologically based notion of ‘appearance’ or *Gestalt* at the centre of ancient concepts of sickness and disease; (2) a view on diagnosis as directly related to therapy (and vice versa); and (3) the flexibility and fluidity in the classification of the sickness domain reflected in scholarly medical texts from different cultures, concomitant

with recurring patterns of classification such as groupings of pathological conditions held together by family resemblances and polythetic classification. This paragraph discusses the first two perspectives just formulated, while the following paragraphs dwell on the issue of classification in more detail.

The notion of disease as ‘appearance’, which is understood holistically and elicited from external signs (or symptoms) and from bodily experience, as common to premodern understandings of sickness, is not entirely new. Historians of medicine have described the wide-ranging changes in diagnosis and nosology with the rise of modern clinical medicine at the end of the eighteenth century as a switch from the notion of diseases as entities related to each other, and from the sick patient as a total system involving body, mind and emotions, towards a dysfunctional body and morbid processes located in specific organs or tissues (Jewson 1976; Cunningham 2002, 2003; Huneman et al. 2015: xiii–xiv). While in earlier periods, pathological entities were constructed according to the principle of grouping together experientially related symptoms, and diseases were defined in terms of their external manifestations, the main emphasis in modern disease classification shifted towards identifying internal causes for specific pathological traits in terms of biochemical processes. As Jewson (1976: 228–9) put it, before modern hospital medicine, nosology was ‘phenomenological’, while pathology was speculative and systemic (focused on general imbalances as underlying causes).

Some of the studies in this volume provide an analytical framework to confirm the emphasis in ancient medical systems on external signs and on a holistic understanding of the patient’s condition. Others point out the importance of theoretical models and ‘internalising’ explanations of pathological processes. For example, internalising explanations based on body processes are found in all medical cultures under consideration. The contributions by Radestock, Steinert and Unger on Mesopotamia and Egypt show that internalising aetiologies explaining pathological processes in terms of abnormal processes in the body are at least equally important in these medical cultures, as are externalising aetiologies (ailments caused e.g. by gods, evil spirits, ghosts or witchcraft), the latter of which seem to have been overemphasised in previous research. In Mesopotamia and Egypt, pathological processes were linked either with specific organs or body parts or described in terms of analogies with processes in the environment. These elements continue to play a significant role in Graeco-Roman, Arabic, Tibetan and Chinese medicine, as the chapters by Craik, Raggetti, Sabernig and Singer illustrate, where we encounter theoretically more refined ‘systems of correspondence’ based on the idea of balance between cardinal bodily humours or constituents and cosmic elements.

The importance of observing externally visible symptoms or bodily signs for diagnosing and differentiating different pathological states is underlined, for instance, by the Akkadian term *šiknu* ‘appearance’, which is employed in Mesopotamian diagnostic formulae as well as in plant/stone/animal description texts used by healing specialists and designates the outward appearance and observable properties or characteristics of *materia medica* and nosological entities (Rochberg 2016: 85–92 and Steinert, in this volume). In these formulae, the characteristic

properties (*šiknu*) of plants, stones or morbid conditions (e.g. colour, shape) are described, often through comparison with a similar nosological entity or plant/stone sharing a specific feature, and then identified by name. Texts like these listing different members of a category are also common in other parts of the ancient world and have been interpreted as forms of classification based on a prototype model, in which different members (or species) assigned to a ‘class’ are referenced by pointing out ‘typical representatives’ for comparison of the properties of the described entity or species (Pommerening and Bisang 2017: 9–11). The following examples from Mesopotamian texts illustrate the point:

If the appearance (*šiknu*) of the sore is that it is like an *ummedu*-lesion (and) it goes around his [i.e. the patient’s] hips, it is called *ekkētu*.

If the appearance of his sore is that it is (hard) like obsidian (and goes) around his neck, it is called *šadānu*.

(*Diagnostic Handbook* Tablet 33: 10 and 28;
Scurlock 2014: 231–2)

The plant whose appearance is like (that of) poplar, whose leaves are shiny, whose seed is brownish like [tal]low – [that plant] is called ‘[field]-clod-plant’; it is good for stopping *šīqu*-cough. You dry it, (then) he shall drink it at regular intervals in either [wine o]r first-class beer [and] he will recover.

(Plant compendium *Šammu šikinšu*;
Stadhouders 2012: 2 § 11)

Although Akkadian *šiknu* ‘appearance’ shares meaning aspects with the Greek and Latin terms *physis/natura*, *šiknu* (literally ‘something which has been put into place’) also possesses a specific semantic nuance linked with the concept of destiny and fate, i.e. that all properties of things have been assigned and instated by external divine agency and decree. Similar terms are found in Hippocratic treatises distinguishing external and internal (or hidden) causes of illness, but also in Arabic medical traditions and compendia such as the *Firdaws al-ḥikma* (*Paradise of Wisdom*) by al-Ṭabarī, where the sympathetic properties of animals and their parts relevant for healing purposes are described and differentiated with two terms: *manāfiʿ* and *ḥawāṣṣ*, designating apparent properties that can be grasped with the senses and hidden properties of natural objects that can be elucidated by experimentation (see Raggetti, in this volume).

Terms such as *šiknu* provide a concrete word or instantiation for a common understanding of sickness in premodern medical texts which Elisabeth Hsu, in her contribution in the volume, designates as the ‘*Gestalt* of dis-ease’. Inspired by Gestalt psychology and Merleau-Ponty ([1945] 1962), Hsu suggests that rather than speaking of illness and disease in a dichotomising Cartesian way, and rather than aiming to account for the socio-political idioms of sickness and local biologies (which are difficult to distil out of textual material on medicine), ancient medical texts can best be approached by taking the conditions described in them as ‘situation-specific forms of “dis-ease”’, the latter of which refers to

‘immediate . . . perceptions of “not feeling at ease”’. The term ‘*Gestalt* of disease’ captures the idea that sicknesses described in ancient medical texts tend to have an ‘immediate distinctiveness’, and arise from ‘a practice-based engagement with the world’ mediated through the body and lived bodily experience.²⁵ Rune Nyord’s analysis of the conceptualisation of pathological conditions attributed to the spirits of the dead in ancient Egyptian texts points very much in the same direction. Nyord elucidates that the health problems attributed to the dead are framed in terms of two different recurring conceptual models that cannot be understood as a formal theory, but which rather arise from embodied experiences within the daily ‘lifeworld’ (*Lebenswelt*) of the Egyptians. Most crucially, the ways in which the attacks of spirits of the dead are conceptualised is intimately linked to the employed therapeutic interventions. Cases that describe the dead as a fluid injected into the patient’s body work with the body model of the container and prescribe ‘internal’ forms of treatment (censing, ingestion), while cases describing the influence of the dead as a localised external problem focus on the surface of the body and its boundaries, prescribing external treatments (bandages, amulets).

This leads us to the second focal point underlined in this book, namely that premodern medical texts commonly reflect intimate links between diagnosis and therapy, which have to be investigated as joined activities based on observation, sensory information and practical experience. Thus, Rune Nyord’s observations on the Egyptian medical papyri are further substantiated by Susanne Radestock and Juliane Unger, who both offer detailed discussions of textual examples in which the type of applied treatment mirrors the ways in which diseases are conceptualised in terms of physiological processes. For instance, the idea that the heart and the rectum are directly linked by a ‘vessel’ (or channel in the body) transporting pathogenic substances explains why symptoms of the ‘heart’ as well as the rectum were treated with enemas (Unger, in this volume). Moreover, Tanja Pommerening (2016: 263–5, 2017: 183) shows that in some Egyptian medical prescriptions, disease concepts, *materia medica* and forms of treatment are brought into direct relation, in the sense that prescriptions mirror described illness processes through ‘metaphorical imitation’. Thus, the course of the illness and recovery is recreated (‘re-enacted’) through the properties of the medical ingredients and through the manner in which remedies are prepared, in the sense of a ‘signature’ of the disorder that is contained in the medicament. These insights can be compared with the practice of ‘reverse diagnosing’, i.e. ‘working backwards from the prescription to the complaint’, which Elisabeth Hsu identifies as a form of activity involving common-sense, practical knowledge employed by medical practitioners, and as a heuristic device in diagnosis, which can be employed as a useful tool that enables the textual scholar to infer from clusters of *materia medica* and their properties within ancient medical prescriptions the *Gestalt* of the complaints that the remedies were thought to treat (Hsu, in this volume). Combined with text-critical methods, these approaches offer rich insights on both culture-specific and cross-culturally common traits of disease and body concepts as interlinked with medical practice, as well as on the historical dynamics of these concepts and practices.

Structuring the sickness domain: recurring patterns

The third central issue explored in this book concerns the question of how medical knowledge about the sickness domain is organised, structured and represented in textual form in premodern cultures. Do we encounter common systematics of description and classification? It is clear that all medical cultures divide this experiential domain into groups of conditions, but how are these groups formed and how are nosological entities belonging to a class delimited? First, it has to be pointed out that textual genres of medical writing are multifaceted and vary widely in scope and form, ranging from recipe collections to theoretical treatises and comprehensive compendia. While not all medical manuscripts investigated here show a clear organisation, and can take the form of drafts or excerpts of diverse material, already in first millennium BCE Mesopotamia medical specialists created substantial collections of medical material, organised into compendia divided into thematic sections or chapters, whose organisation was carefully devised (Steinert 2018). The division of medical compendia or encyclopaedia into thematic sections is also a general feature of medical writing in later periods and other cultures, and the number of thematic divisions or recognised nosological entities is often designed to correspond with certain cosmological or calendrical principles, as can be seen for instance in the *Paradise of Wisdom* by al-Ṭabarī or in Tibetan works on nosology (see Raggetti, and Sabernig, in this volume).

Nonetheless, one should not understate the diversity and fluidity with regard to medical writings and schemes of disease classification that exist in textual assemblages such as the Hippocratic Corpus, which are due to its links with different, sometimes competing groups of practitioners (see Craik's contribution in this volume). Thus, despite recurring patterns of presentation and lists of ailments in different Hippocratic texts, there is 'no general agreement on a system of classification', and there are also 'markedly different patterns of arrangement' in nosological presentations, as Elizabeth Craik points out – a description that also fits the non-uniformity of presentation and recognised medical conditions in different manuscripts from Mesopotamia or Egypt.

The medical texts and compendia from different cultures discussed in the volume reflect the application of partially similar and partially diverging principles of grouping and classifying conditions, pointing to some common principles of classification. For instance, the classification based on grouping conditions according to anatomical or topographical location is encountered in virtually all the medical traditions discussed in the book, reflecting shared basic ways of perception and division of the body. Similarly, the differentiation of women's or infants' conditions as special groups is a familiar one in these scholarly medical cultures. But we also observe distinctive, culture-specific classifications, which can be linked to religious concepts (e.g. diseases attributed to sins and the breaking of taboos, as found for example in Tibetan and Mesopotamian medicine) and to beliefs in non-human powerful beings (e.g. groups of ailments linked with specific demons or deities in Mesopotamia and Egypt).

Another recurring principle of classification encountered in the medical cultures under consideration relates to ‘systems of correspondence’ integrating bodily elements (e.g. humours, cardinal organs) with qualities (e.g. hot, cold, moist, dry), elements, seasons, types of pathological conditions and other aspects.²⁶ These complex systems of nosology and diagnosis, encountered from Greece to China, are based on the idea of bodily balance and analogy/homology between the body and the world (see especially the contributions by Craik, Sabernig and Singer, in this volume). In the Arabic medical encyclopaedia discussed by Lucia Raggetti, the chapters on nosology apply several principles of classification by presenting diseases in a head-to-foot order, while the appended recommended drugs and treatments for each condition are based on properties and qualities derived from Galenic (humoral) medicine. The contributions assembled in this book show overwhelmingly that disease concepts and classifications are reflective of the complex nature of the pathological realities and processes they aim to describe. This can be grasped in Mesopotamian diagnostic and therapeutic compendia and in Hippocratic or Galenic treatises as much as in the Tibetan medical works employing the metaphor and systematic model of the tree to depict a complex nosological system. But how systematic are these different culture-specific classifications really, and can they all be best described as ‘systems’?

Classification, divergence and variation

Both historians and social/cultural anthropologists working on classification across cultures and historical periods confirm that classification is a situated process which can be flexible and context-dependent (see especially Pommerening and Bisang 2017). Although writing has been linked with higher degrees of complexity in categorisation and classification, allowing for long-term stabilisation of knowledge, ancient text sources indicate that there did not exist any uniform criteria of classification for different semantic domains. Neither does one encounter clearly defined class boundaries (according to which things or entities are delimited as belonging to a single class or category) nor consistent systematic hierarchies of categories. Although the existence of ‘basic categories’ (such as plants, people, social groups, or diseases) seems to be a cross-cultural universal, classifications and taxonomies differ cross-culturally. However, both historians as well as anthropologists emphasise the importance of thinking in prototypes and polythetic classification as central in classifying activities (e.g. Ellen 2017a, 2017b; Pommerening 2017; Pommerening and Bisang 2017: 1–18).

Thinking in both prototypes and polythetic classification seems to be particularly apt for describing concepts and classes such as plants, animals or tools, focusing on prototypical properties shared by members of a class or category to varying degrees, thus accounting for fuzzy boundaries between concepts and categories and for flexible links between elements within a category (cf. Ellen 1993: 128–9, 2017a, 2017b; Pommerening 2017). Because diseases, similar to tools or plants, have very different properties as well as various cross-cutting features, they are more often organised as ‘polythetic sets’ rather than taxonomic

hierarchies or fixed schemes. This is underlined by several authors in this book reporting recurring elements of divergence, variation and fluidity in disease classification and nomenclature, even in texts from a limited time period or closely related corpora (see e.g. the contributions by Craik, Sabernig, Steinert).

Research on disease concepts in African societies has criticised the tendency in anthropological studies to over-systematise local concepts, a stance which should also be taken into account by historians working on disease concepts in ancient texts. Anthropologists such as Murray Last ([1979] 2007), Jean-Pierre Olivier de Sardan (1998, 1999) and Robert Pool (1994) observed that local knowledge of sicknesses held by people or healing specialists in the areas they studied is frequently dynamic, incoherent and contradictory and does not constitute a consistent body of theory nor vast systems of classification with a fixed, uniform or stable structure.²⁷

In contrast, these studies have argued that local concepts are better characterised as ‘clusters’ or ‘complexes of loosely defined and interrelated terms’ (Pool 1994: 118), as a ‘patchwork’ or an ‘ensemble of distinct modules’ constituting a loose, open and dynamic ensemble of nosological entities with fuzzy, overlapping borders (Olivier de Sardan 1998, 1999).²⁸ Here, named ‘illness entities’ or ‘modules’ consist of a core of stable symptoms, but their scope and complexity varies and can be constituted by symptoms with multiple, contradictory features. The ‘illness modules’ are grouped through loose enumeration, similarly to plants or ethnic groups, although there can be ‘families of modules’ organised by ‘cross-cutting logics’, as Olivier de Sardan (1999) points out. The ‘module’ approach offers an alternative description of how knowledge of pathological conditions can be structured, without the existence of vast and stratified classificatory systems, in cultural settings where local healers work with slightly more complex versions of the common, popular knowledge regarding ‘illness modules’, but do not share a common classificatory system or fixed corpus of professional knowledge.

These observations on the ‘modular’ organisation of disease concepts and on the close relationship between popular and specialist knowledge are stimulating for medical historians of ancient societies, where the difference between scholarly and popular knowledge is often regarded as more pronounced, and where specialist knowledge is accumulated, guarded and transmitted also in written form, and shared among specific healing disciplines or professions that are often embedded into institutions (e.g. in medical ‘schools’, temples, monasteries or the households of rulers) and have formal training procedures.

The studies assembled in this volume illustrate a range of classifications with differing levels of systematisation, reflecting both elements of stable core concepts and configurations as well as dynamic processes of development, change and growth in complexity, which can be coupled with tendencies towards systematisation. Diverse social and historical factors and dynamics contribute to processes of evolving systematisation, such as the professionalisation, diversity and mobility of healing specialists, and the development and transmission of textual corpora.

A cross-culturally common feature encountered in classifications of morbid conditions described by authors in this volume are groupings of conditions which are linked to each other by different intersecting features. For instance, a popular principle of organising the sickness domain found across different cultures is the topographical ordering or grouping of diseases in a head-to-toe arrangement (see e.g. the chapters of Craik, Sabernig and Steinert in this volume). In the Hippocratic texts, there are also coherent groups which can overlap or intersect with a different category; for instance, chest ailments coincide to some degree with ‘acute’ diseases, the latter of which are differentiated from ‘non-acute’ (or chronic) conditions (see Craik, in this volume).

Similar patterns found e.g. in Mesopotamian, Egyptian or Tibetan texts suggest that the classifications of diseases in the medical cultures under consideration can often be described as polythetic, with nosological entities belonging to classes or groups having multiple properties, held together not only by the criterion of likeness or by common definite features, but through ‘family resemblances’.²⁹ Polythetic groupings with intersecting features are encountered in Mesopotamian medical texts, for instance in the area of skin conditions. Thus, a catalogue dating to the eighth or seventh century BCE, which outlines the organisation of the whole corpus of medical prescriptions into thematic treatises, registers a treatise dealing exclusively with skin diseases, but also lists chapters in the treatises on ailments of the head and lower extremities that deal with skin conditions specifically in these areas of the body (cf. Steinert 2018 and in this volume). Similar intersecting groupings of diseases are described by Katharina Sabernig in her contribution on the Tibetan Tree of Nosology, a visual and textual mode of presentation that reflects a complex and hierarchical structure of disease classification with several groupings or subcategories having further ramifications. The Tree of Nosology has a trunk divided into five divisions standing for different patient groups (men, women, children, elderly) and general diseases, the latter of which are further classified through ramifying branches, which differentiate conditions according to different criteria or perspectives (in terms of their links to humours, locations, types, aetiologies or pathogenesis). As Sabernig highlights, the same condition can be listed several times, in more than one of the branches, reflecting several schemes of classification embracing different points of view.

On the other hand, the contributions in this volume also note elements of fragmentation, variation, instability and fluidity, on a synchronic as well as diachronic level, which are linked to the nature and preservation of the sources, but also to different local schools or traditions of medical thought or competing professions, and to the multiple individual contributions of generations of scholars and healers stemming from personal experience and received knowledge. Thus, a general feature of ancient compilations of medical prescriptions is that one rarely finds exactly duplicating texts, but almost constant variations between different manuscripts, in the selection and arrangement of prescriptions, pointing to various ways of classification, which are not always apparent, but can be related in part to practical considerations of the compilers (cf. Pommerening 2017, and the contributions of Radestock, Steinert and Unger in this volume). Ancient diagnostic and

therapeutic treatises may be organised according to anatomical locations or different treatment forms, or they may focus on specific groups of ailments or topics, but they are never uniform (see e.g. Craik's contribution on the Hippocratic treatises). Dynamic variations and developments in the conceptualisation and classification of diseases are likewise visible in Graeco-Roman medical works attributed to different authors and periods (see Singer, in this volume). The features of variation and fluidity recall studies by medical anthropologists on traditional Chinese medicine in contemporary China. These works underline the flexibility of medical terminology as it is transmitted in varying social settings and milieus favouring different 'ways of learning' (Hsu 1999), a plurality of different local traditions, a dynamic and often innovative engagement with 'traditional' concepts and traditions (Scheid 2002), as well as the intersection of practical considerations, personal experience, theoretical and embodied knowledge in actual encounters of medical practitioners with their patients (Farquhar 1994). Thus, flexibility and fluidity are also a characteristic of scholarly, learned medical traditions based on texts, and are not only found in the medical cultures of local African healers where knowledge is primarily transmitted orally.

Looking beyond disciplinary boundaries

The present volume provides several case studies focusing primarily on specialist knowledge and written discourses on sickness in its multiple forms, manifestations and causes. Analyses describe how such knowledge is reflected in theoretical treatises and technical compendia, via visual imagery, as well as in medical practices. The overall impetus of the case studies is to present material for comparative research into the history of disease concepts, which allows certain common themes, patterns or tendencies in the understanding and classifications of illnesses across cultures (such as recurring aetiological models) to be traced. However, at the same time, the contributions capture the multiplicity of views and medical traditions with regard to disease concepts within specific societies and investigate the historical dynamics of stability and change linked to such concepts. Moreover, several chapters in the volume emphasise the culture-specific aspects of the pathologies described in the different text corpora and medical cultures and point out the many difficulties involved in interpreting ancient terms and descriptions. The manifold methodological and interpretative problems caution us from drawing rash conclusions, simplistic cross-cultural comparisons or identifications of nosological entities recognised by different medical cultures, or between ancient medical systems and present-day biomedicine. For instance, cross-cultural influences and exchange of medical concepts and practices can clearly be witnessed in Tibetan medical texts (see Sabernig, in this volume), which use very similar theoretical principles and concepts for structuring their nosological system as are known from Graeco-Roman, Indian and Chinese texts (e.g. humours linked with cardinal organs, elements), although the Tibetan classical texts also contain many distinctive characteristics with regard to the naming, grouping and classifying of morbid conditions.

On the other hand, many general similarities have been recognised between Egyptian, Mesopotamian and Graeco-Roman medicine and a few instances of exchange of medical knowledge have been brought to light, but concrete borrowed elements or translated text passages (apart from drug names) are often much more difficult to identify in the medical corpora of these interacting ancient cultures (Unger, in this volume). As authors in the present volume show, however, cross-cultural comparisons can nonetheless be of insight if they are done with caution and with the aim of elucidating also the distinctive configurations and interlinkages found in each medical tradition and culture, between knowledge, ideas, daily life experiences, medical practices and the social relations and interactions shaping and giving rise to them.

The studies assembled in the present book remind us of central questions and cautions on the basis of which research in the history of disease concepts should be pursued further in the future. When investigating a specific disease term in past textual sources, one needs precise information on not only the symptoms, but also the aetiologies associated with a particular disorder. The focus of analysis should be placed on how the ailment in question is described and perceived in the sources under study (rather than trying to approximate it with a biomedical category), and such analyses should also consider the treatments that were prescribed and the role an ailment plays within the nosological system of the medical culture in question. In the process of elucidating a nosological entity, it can be helpful to take into account similar ailments grouped with the condition, for which the same or related treatments or medical substances were applied. Furthermore, it is important to include synchronic and diachronic perspectives analysing in which ways disease terms, concepts and therapies change over time.

Overview of the contributions

The volume is divided into three parts, each of which has a different thematic focus. The first part presents three chapters that offer an assessment of key methodological issues in the history of medicine and discuss current cross-disciplinary approaches and avenues of research on disease concepts rooted in medical anthropology and in textual scholarship.

Part I: Disease concepts and healing: new approaches to knowledge and practice in premodern medical texts and traditions

Geoffrey E.R. Lloyd opens this section summarising the problems of translation and interpretation and the ‘multi-layered indeterminacies’, which the historian of ancient medicine is confronted with when reconstructing ancient medical concepts and knowledge from the sources at his disposal. Complex difficulties arise from the fact that the ancient concepts linked with e.g. anatomical or disease terms are often ambiguous and change over time, and similar problems hamper the identification of ancient plant names and other *materia medica*, or the assessment of their efficacy. Lloyd argues that the medical historian should ideally

combine two partially contrasting approaches: the 'objective/scientific/positivist', on the one hand, and the 'subjective/sociological', on the other. The 'objective/scientific/positivist' approach makes use of modern scientific knowledge (in areas such as botany and pharmaceuticals, anatomy, physiology and palaeopathology) to analyse historical data and sources, but the historian should always reckon with some degree of variation in biological makeup and epidemiological conditions in different areas and periods. The 'subjective/sociological' approach takes into account the sociological dimension of health practices, the interactions between doctors and patients and their varying interpretations of observed and experienced phenomena, including the complexities of different modes of medical discourse, authority and practice.

Exemplifying this approach, Lloyd points out the array of differing forms of healing and practitioners in ancient Greece and emphasises the fact that healing cults associated with Asclepios and other deities enjoyed continuous popularity throughout antiquity despite the development of 'naturalistic' or 'rational' medicine since the fifth century BCE, reminding us that both (religious and scientific) modes of healing relied to some extent on the 'psychological' effects of their treatments. While Greek healers and physicians strongly competed with each other in the medical marketplace, they also sought to meet the expectations of their clients, and actually both religious healing and medicine used to some extent a mixture of treatments including drugs, surgery and prayer or ritual. Reminding us that medical or illness concepts need to be investigated in relation to socio-historical conditions and developments, Lloyd spells out fundamental issues that all the historical disciplines engaged with medical research represented in the volume are confronted with, advocating multi-disciplinary frameworks as promising for future research.

The following chapters in the first section similarly engage with multi-disciplinary theories and methodological approaches applied to the study of medical texts, from different directions. Combining both textual scholarship and theoretical approaches formulated in medical anthropology and the phenomenology of the body, Elisabeth Hsu's contribution introduces a new and innovative approach to texts of the received tradition that outline practical procedures. A sensory phenomenological approach to medical practice and bodily processes, Hsu argues, is likely to ground high-flying interpretations of cultural relativism and social constructivism. For instance, the prescription she discusses was at the turn of the twentieth century allegedly used for treating consumption (tuberculosis), but Hsu queries this interpretation as it is semantically not directly related to the practical procedures of treatment and *materia medica* that are given in the text.

Interested in identifying the Song dynasty (960–1279) medical rationale which led to the formulation of the prescription, Hsu proposes to develop, as a heuristic device, an attentiveness to one's own sensory experience of one's reading of premodern texts, which she combines with fieldwork observations regarding the anthropology of reading (Hsu 1999: 88–127). This was that old-style Chinese medical scholars would actively add their personal commentary to the texts they read. Accordingly, a reader would experience a 'choppy

textuality' emerging from an assemblage of different comments from 'active readers'. In other words, textual scholars today who believe they are reading an ancient text may in fact be reading very substantive chunks of texts – created by different commentators in conversation with each other – that gradually accrued around a very brief textual couplet of an earlier period. Hsu (2010) has variably hinted at the possibility that this may be the case for most texts of the received tradition.

Having established that more than half of the investigated text consists of commentatorial conversations, Hsu turns to the question of what sorts of complaints may in fact have triggered the writing of the prescription. Her ensuing analysis draws on the insight that treatment and diagnosis are intricately interwoven. She speaks of 'reverse diagnosing', i.e. working backwards from the prescription (and the characteristics of the used *materia medica*) to the complaint. Her insistence that ancient physicians must have adhered to common-sense procedures and practical skills in the treatment of their patients leads her to the identification of not one complaint but two, recorded in juxtaposition next to each other. Rather than considering these complaints as either an illness or disease, or sickness or local biology, she points out that the text refers to each complaint in an idiom that is concrete and experience-near. In other words, it has an instantly recognisable 'Gestalt of dis-ease' (where dis-ease means not feeling at ease). Hsu's approach offers an intriguing perspective for the philological and historical disciplines working with recipe compendia, which takes into account lived experience and skills of the everyday as contributing to the historical development of medical knowledge and practice.

Likewise influenced by cross-disciplinary approaches from anthropology, cognitive studies and phenomenology, Rune Nyord's contribution investigates health problems ascribed to the agency of the 'dead' in ancient Egyptian healing texts, bringing to light patterns in the classification of pathological phenomena and in local epistemologies of healing. Nyord argues that Egyptian notions of disease cannot be grasped by modern research if attributions of health problems to the spirits of the deceased are merely understood as theoretical constructs, and his discussion aims to demonstrate how the conceptual aspects of these notions interact with embodied experience and with the 'lifeworld' (*Lebenswelt*) of the Egyptians. Taking into account that 'traditional concepts' are structured around experiences of concrete situations rather than abstract definitions, Nyord analyses correlations between expressions describing the manifestations and attacks of the dead, experienced bodily symptoms and the treatment methods applied to counter these attacks (e.g. healing incantations, potions, topical applications, protective amulets). Combining approaches from the phenomenology of the body and from conceptual metaphor theory (e.g. Lakoff and Johnson 1980), Nyord elucidates two different image or body schemata (SURFACE and CONTAINMENT) – pre-conceptual structures arising from embodied experience – which guide the understanding of symptoms and causation and which 'resonate' with the employed ritual and medical actions. This chapter amply demonstrates the potential of cognitive and phenomenological frameworks in the study of ancient medical texts, underlining current research in

neighbouring fields on body and illness metaphors (e.g. Böck 2014; Steinert 2016; Wee 2017).

Nyord's study also offers important insight for cross-cultural comparisons, highlighting the role of culture mediating the expression and formation of concepts based on shared image schemata and bodily experiences. Thus, the ancient Egyptian concepts of the 'dead' as aggressive agents entering the body and causing specific ailments are very similar to views of ghost-induced illnesses and their treatment in Mesopotamian medical texts (Scurlock 2006), but a comparison of both textual corpora also brings to the fore revealing culture-specific differences. For instance, as Nyord spells out, Egyptian texts often employ sexual metaphors (of insemination) to describe the attacks of the 'dead', and the health problems caused by them include miscarriage, haemorrhage during birth and infant death. In Mesopotamian texts, the same sexual metaphor is linked instead with specific evil demons rather than ghosts, and health problems of pregnant women and babies are usually not attributed to the action of ghosts, but predominantly to witchcraft and specific demonic figures, e.g. the child-snatching *Lamaštu* (Stol 1993; Farber 2014). Other significant cross-cultural differences in Egyptian and Mesopotamian medical concepts associated with the spirits of the dead can be gleaned from a joint reading of the material presented in Couto-Ferreira's, Nyord's and Steinert's chapters.

Part II: disease classifications in premodern medical texts and traditions

The contributions in the second and third section form the thematic core of the volume, presenting case studies on disease classifications in different medical texts and traditions, ranging from ancient Egyptian, Mesopotamian, and Graeco-Roman medicine, to ninth–tenth century medical encyclopaedia in Arabic, Tibetan treatises on nosology (dating from the twelfth to the seventeenth century) and rabbinic discourses on health preserved in sources going back to the first centuries CE. The studies reflect recent developments in research on medical literature in the represented fields and disciplines, forged by the steady progress in the reconstruction and edition of textual materials as well as by philological, historical, literary and text-critical investigations. The contributions present new insights on disease concepts, categories and on textual forms of presentation and organisation of the medical or sickness domain. On the one hand, the chapters offer a unique focus, since overviews or survey discussions of ancient medical text traditions available so far have rarely focused systematically on the question of how ancient medical specialists and authors classified diseases. On the other hand, the surveys presented here depart from the tendency encountered in many previous studies of ancient systems of diagnosis and nosology, by their critical or sceptical stance with regard to retrospective diagnoses and to the application of modern disease terms and classificatory schemes. Instead, the main interest of the chapters lies in decoding and eliciting emic understandings, conceptualisations and systematisations.

Susanne Radestock reviews the textual structure and different types of diagnoses in Papyrus Ebers and Papyrus Smith, two prominent Egyptian medical papyri from the New Kingdom period (ca. second half of the second millennium BCE). These texts consist of compilations of diverse prescriptions as well as sections serving as instructional manuals, presenting a range of clinical cases combined with a verdict and therapeutic recommendations. Radestock highlights the fact that the great majority of the diagnoses consist in paraphrases of observed pathological states or injuries, while specific disease names are the exception. Surprisingly, many diagnoses refer to pathological states localised in specific parts of the body or to physiological processes (e.g. connected to the accumulation or flow of air, blood, faeces, urine in the ‘vessels’), while only occasional diagnoses refer to demonic influence as causing agent. This is a remarkable insight, since ‘supernatural’ or ‘externalising’ aetiologies have often been regarded as the predominant model of causation in ancient Near Eastern medical cultures. The textual examples from Papyri Ebers and Smith analysed by Radestock illustrate the problems of translation and interpretation posed by ancient medical languages, as can be seen for instance in the diverging translations for symptoms offered by different modern scholars, or in disease names such as ‘the green sickness’, which apparently refers to a culture-specific condition differing from the Mesopotamian term *amurriqānu*, ‘yellow-green (illness)’ (a type of jaundice), or from the ‘green sickness’ (*chlorosis*) associated with diseases of girls or virgins in sixteenth and seventeenth century texts transforming traditions going back Graeco-Roman texts (cf. Steinert’s contribution in this volume; King 1998: 188–204, 2004).

Juliane Unger’s chapter brings in a further perspective on Egyptian medicine by comparing two medical papyri focusing on ailments of the back and abdomen: Papyrus Chester Beatty VI (dating to ca. 1250–1100 BCE) and the unpublished, considerably younger Papyrus Brooklyn 47.218.75+86 (ca. 550 BCE). These papyri form two examples for specialised treatises dealing with one particular body part/region or method of treatment (so-called ‘Fachbücher’), which can be contrasted with the group of collective compilations of remedies for a broad spectrum of different disorders (‘Sammelhandschriften’), as two main formats of Egyptian medical texts. Unger detects several features of crucial importance with regard to not only the classification of diseases, but also the socio-cultural contexts, presentational forms and production processes of Egyptian medical texts. Her diachronic survey reveals a considerable degree of continuity in the causes attributed to similar conditions, which range between physiological explanations (revolving around pathogenic substances and fluids accumulating in the body ‘vessels’) and external causes (malevolent spirits), although she also detects changes in the medical language over time. Unger observes that the symptoms described in medical papyri often seem vague from a modern perspective and include both observations of the healer and sensations of the patient. On the other hand, some of the cited passages provide elaborate symptomologies alluding to a complex understanding of internal organs, physiological processes (often expressed through environmental metaphors), transformations of body substances and developmental stages of particular disorders. Unger notes that although the

Egyptians did not develop an overarching theoretical framework to explain all pathologies (such as the theory of the humours), recurring anatomical and physiological concepts such as the idea of the ‘vessels’ – conduits connecting different body parts (e.g. heart and rectum) and transporting various substances through the body – allow the modern interpreter to clarify why certain types of therapies were deemed effective for specific conditions (e.g. the use of enemas to treat ‘heart’ problems).

In the last part of her chapter, Unger compares Egyptian prescriptions with Mesopotamian and Mediterranean material, in order to identify possible transfers of knowledge between cultures that had long-standing political and economic connections and interactions and whose medical traditions share certain textual features and forms of long-term transmission. While previous studies have pointed out some connections between Egyptian and Hippocratic texts and concepts (e.g. the shared idea of accumulated bodily waste matter as cause of disease), the texts that are the focus of Unger’s chapter offer only few clues and textual features that could indicate processes of borrowing or knowledge transfer on the level of medical concepts. Apart from the occurrence of Egyptian *materia medica* in Greek texts, the similarities between Mesopotamian, Hittite, Greek and Egyptian texts on internal ailments can rarely be pinned down to direct influence.³⁰ Thus, Unger’s insightful discussion highlights striking differences in detail between Egyptian and Mesopotamian understandings of pathological and physiological processes, but also points out similar aetiological models and body metaphors which may be based on similar experiences rather than extensive borrowing of ideas.

In her thematic contribution, Ulrike Steinert presents an overview of the aetiologies, different types of diagnoses and nosological entities encountered in Mesopotamian medical texts of the first millennium BCE. She approaches the medical cuneiform texts starting from the argument that investigating the culturally distinctive ways in which Mesopotamian healers designate and distinguish different ailments will bring us closer to understanding Mesopotamian medical culture rather than the search for retrospective diagnoses. The discussion stresses that aetiologies and discourses on the origin of disease in Mesopotamian literature vary depending, for instance, on text genre and context: while in mythological narratives, sicknesses come into being through the conscious or accidental actions of the gods, in healing spells one also encounters an alternative mythological account of personalised disease demons that came into existence in primordial times (together with other elements of the cosmos). Similar to Egyptian texts, Mesopotamian medicine employs both ‘personalising’ aetiologies as well as aetiologies focusing on ‘impersonal’ external forces or internal bodily processes, but a comparative and historical analysis of the textual sources hints at certain patterns and tendencies in the ways both types of aetiologies are employed (depending e.g. on text genres associated with different healing specialists, but also on the type of disorder in question).

This chapter further shows that very similar to Egyptian texts, Mesopotamian therapeutic incantations often describe pathological processes in malfunctioning body parts in terms of analogies with the environment. The underlying model,

which can be compared with similar notions in Greek and Chinese medicine (cf. Hsu's (2007) concept of 'body ecologic'), could be termed 'body technologic', because here processes in the body are expressed in terms of technologies stemming from agriculture (e.g. water management and irrigation), cooking or brewing. The body is described as a container filled with fluids, with orifices connected by canals, in which transformative and dynamic processes take place. Steinert's chapter also discusses different naming patterns of nosological entities and their occurrence in lists, a form of presentation that can be compared with the 'illness modules' described by Olivier de Sardan (1999). From a diachronic perspective, however, Steinert notes increasing tendencies of Mesopotamian healing specialists to systematise their accumulated knowledge of types of conditions, diagnoses and corresponding therapies. Such tendencies are visible in multiple innovations and developments in medical texts from the first millennium BCE, such as the formation of serialised medical compendia displaying a thematic and systematic organisation of contents, the rise of astro-medicine and the appearance of a physiological model grouping disorders that are associated with four internal organs.

Moving westward to the classical Greek world, Elizabeth Craik's chapter lays out recurring classifications and basic understandings of disease in the Hippocratic Corpus, offering important points of similarity as well as differences with the ancient Near Eastern (as well as later Arabic, Tibetan, Chinese) medical cultures, which further begs the question concerning cross-cultural borrowings of medical knowledge, which has been revived lately (see e.g. Geller 2001, 2007; Asper 2015; Craik 2015: xxix–xxxii). As has been elucidated by intense research of recent decades, the Hippocratic Corpus (ca. sixth to fourth century BCE) is a considerably complex and varied collection of works, in terms of authorship, genre and contents. And although the Hippocratic authors share a number of general ideas, there is at the same time a considerable diversity in theoretical views and concepts in the various treatises of the corpus. This diversity is linked to the fact that many of the treatises are multi-authored compilations, often show traces of successive redaction and contain material spanning several decades. As Craik's discussion highlights, the nosological works do not reflect any agreement on a unified system of disease classification and are also characterised by fluidity in disease nomenclature. Similar to other ancient medical cultures, Greek medicine has no precise notion of 'disease' as a category, and described phenomena include what would be regarded today as symptoms (e.g. fever or jaundice) or syndromes.

Noting a feature also prominent in the neighbouring medical cultures, Craik points out that Hippocratic nosology works with two main systems or principles of ordering conditions: according to affected body part/region and according to groups of disease names forming types of conditions distinguished on the basis of characteristics. For instance, ophthalmology and gynaecology had the status of demarcated subfields of medicine and medical writing. Furthermore, as in Mesopotamian or Egyptian medicine, disease names are in many cases descriptive. Craik outlines basic nosological distinctions found in Hippocratic texts, between problems attributed to external (or manifest) versus internal (hidden) causes, and between acute and non-acute conditions – a differentiation linked

with the importance of prognosis. Through their rejection of ‘supernatural’ causation, the Hippocratic authors set themselves apart from their Oriental neighbours, while their use of technological metaphors and physiological concepts bear some resemblance with Egyptian and Mesopotamian texts (cf. Steinert’s and Unger’s contributions). The Hippocratic texts present some distinct conceptual developments in their general understanding of health and disease, especially seen in the idea of the healthy body as being in a state of equilibrium and appropriate mixture of body fluids (humours), which are set in relation to natural properties (hot, cold, wet, dry), elements and environmental forces (e.g. seasons). This model, combining pragmatic observations and theoretical suppositions, allowed the Hippocratic physicians to systematise and classify diseases and therapeutic treatments in specific and new ways. As Craik points out, the Hippocratic texts do not yet feature the ‘canonical’ system of the four humours formulated by Galen, but it is noteworthy that especially phlegm, bile and wind play a prominent role, as is also the case in Mesopotamian, Indian and Tibetan medicine (cf. Geller 2007, and Sabernig, in this volume).

Another significant feature of the Hippocratic texts linked with aetiological models and humoral theories is the notion that each person has her own, individual constitution or proper mixture of the humours – an idea that seems to be largely absent in texts from Mesopotamia or Egypt (which work with a more generalised view of the patient and his/her body). Moreover, the strong interest in the interrelation between environmental influences (e.g. climate, seasonal changes) on the health of individuals and communities in Hippocratic texts reflects efforts towards systematising ideas of seasonal illnesses, which also play a role in Mesopotamian texts but appear to be less systematic due to a lack of an overarching model as that of the humoral balance tied to environmental factors. Through its focus on key aspects and developments in Hippocratic medicine, Craik’s contribution invites comparisons revealing important continuities and principles of systematisation that are shared with earlier (Near Eastern) and later medical literatures.

Engaging with the grey areas of differentiation between sickness and health, Aaron Amit’s case study focuses on the semantic development of the Greek loanword *asthenes* (literally ‘not strong’) in several strata of rabbinic literature, including the Talmudic sources from Palestine and Babylonia. He traces different semantic nuances and shifts in the use and meaning of this term, illustrating changes in the rabbinic concepts of health. In tannaitic sources such as the Mishnah and Tosefta (ca. 200 CE), *asthenes* occurs together with special categories of persons (sick people and children) but refers to a person who is sensitive with regard to food or bodily practices such as bathing, manifesting in a heightened perception of bodily discomfort. In amoraic sources (ca. 200–500 BCE), however, the word *asthenes* acquires new semantic features. Thus, Amit discusses parallel Talmudic episodes in the Bavli and Yerushalmi about rabbinic figures whose abnormal or unusual behaviour merits their characterisation as an *asthenes*. While certain aspects, such as sensitivity with regard to a lack of bodily comfort, survive in these passages, a newly arising aspect is the interpretation of the *asthenes* as a person with a certain psychological disposition close to a kind of disorder, since

asthenes comes to be equated with Aramaic terms denoting a ‘narrow mindset’ and is contrasted with a person having a ‘healthy mind’. Thus, Amit shows, on one hand, that in self-characterisations of persons as *asthenes*, the word emphasises an awareness of being different or special compared with most other people, while his chronological analysis also indicates that the term’s meaning in Hebrew and Aramaic sources develops more and more towards a psychological disposition lying outside the norm and having negative connotations. This study presents a fascinating discussion of the historical dynamics of illness and health concepts in rabbinic culture.

Lucia Raggetti’s contribution explores the complex and multi-level classifications of diseases in the earliest medical encyclopaedia preserved in Arabic, the so-called *Paradise of Wisdom* compiled by the Abbasid scholar and court physician al-Ṭabarī (ninth century). Al-Ṭabarī’s encyclopaedia goes beyond being just a book on medicine and deals with a broad range of topics, containing sections concerned with general philosophical ideas (mostly of Aristotelian origin), physics, cosmography and astrology as well as medical subjects such as embryology, anatomy, physiology, dietetics, nosology, *materia medica* and toxicology. Raggetti’s study describes the structural peculiarities of this exemplary encyclopaedia, tracing genres, fields and topics that go back to earlier Near Eastern and Mediterranean cultures. For instance, she notes the ample use of Graeco-Roman and Byzantine sources by al-Ṭabarī, reflecting the late antique medical traditions, but she also points out the inclusion of Arabic authors contemporary with al-Ṭabarī and features familiar from later Arabic medical works. Raggetti provides a lucid overview of the principles of organising and presenting medical topics and textual materials, witnessed for example in the division of the *Paradise of Wisdom* into numbered sections and subchapters – a textual feature of levelled organisation of contents characteristic for other medical compendia in the literate medical traditions investigated in the present volume (see e.g. Sabernig’s and Steinert’s contributions). The chapters dealing with nosology in the *Paradise of Wisdom* employ a division into particular diseases (presented in a head-to-foot order) and general disorders (with a non-anatomical character). The section on various diseases betrays an influence of Galenic theories: the conditions in question are described on the basis of the four humours (blood, phlegm, bile, black bile) and their properties (wet, dry, hot, cold), and the recommended therapies and drugs are chosen accordingly, aiming at restoring humoral balance.

As Raggetti reveals, the *Paradise of Wisdom* also contains a section on the useful properties of the organs and parts of animals, which is arranged in an order based on an intuitive zoological classification. Remarkable in this context is al-Ṭabarī’s differentiation of ‘transparent’ and ‘occult’ properties of *materia medica*, the latter of which cannot be grasped directly by the senses but can be elicited through experiment. His discussion of the occult properties includes therapeutic measures such as the use of excrement and amulets (e.g. for epilepsy), some of which are also reported by Galen or can even be traced back to ancient Mesopotamian medicine. Raggetti illustrates salient topics of the *Paradise of Wisdom*

with several intriguing passages in translation, dealing e.g. with the classification of body parts and physiognomy, the description of the human body as a microcosm whose parts mirror phenomena in the macrocosm, and with beliefs into the 'evil eye' as a cause of illness and misfortune and talismans protecting from its influence. While in many cases, earlier Greek and Syriac sources can be identified as precursors and models, many of these topics and practices reach back to Egypt and Mesopotamia, including sections concerned with celestial divination and weather phenomena. Apart from the various cross-cultural parallels for the medical knowledge contained in the *Paradise of Wisdom*, one should further mention al-Ṭabarī's repeated emphasis on his personal experience with substances and treatments and his reports on how he learnt about their effects (through texts, hearsay or personal eyewitness). All in all, al-Ṭabarī's *Paradise of Wisdom* can be compared with the 'prolific and versatile writers' of late antique medical encyclopaedia, which likewise are organised systematically (by topics) and mainly consist of compiled material excerpted from earlier works on which the compiler leaves his own imprint, but which were also written with a concrete audience in mind, with the purpose of educating, convincing and entertaining (cf. van der Eijk 2010).

In the final chapter of the second section, Katharina Sabernig lays out different levels of systematisation and classification in the so-called *Explanatory Treatise*, the second part of the most authoritative classical Tibetan medical text known as the *Four Treatises*, dated back to the twelfth century. Sabernig follows up the development of this system of nosology in the commentary on the *Four Treatises* composed by Lozang Chödrak (ca. 1638–1712), the personal physician of the fifth Dalai Lama, which presents various pathological conditions on the basis of a tree metaphor and contains long lists of diseases divided into groups of pathologies. Chödrak's descriptions were visually realised in the form of murals in the inner courtyard of the Medical College of Labrang Monastery, situated in present-day Gansu province of China, which depict the chapters on pathology and nosology of the *Explanatory Treatise* in the form of trees, thereby developing verbal metaphors already present in the earlier texts. In her chapter, Sabernig first provides an overview of the principles of Tibetan medicine, characterising it as a pluralistic system reflecting different influences and cross-cultural exchanges with all neighbouring regions (from Western Asia to China). The chapter then turns to the contents of the *Four Treatises*, focusing on basic concepts of pathology, nosological differentiations and classificatory schemes in the *Explanatory Treatise*, which include primary causes of disease (formed by the three 'mental poisons' of Buddhism: desire, hate and delusion), trigger factors/secondary causes (attributed to influences such as behaviour, diet, climate or harmful demons), modes of entry explaining how pathogenic factors invade the body, characteristics and classes of disorders (e.g. relating to sex, age, specific body regions).

Sabernig's discussion of classification is further elaborated through the Tree of Nosology on the Labrang mural, which depicts the complete hierarchical tree structure of the nosological chapter of the *Explanatory Treatise*. The mural, based on the structure of Chödrak's descriptive commentary and comprising three

stems, forty-three branches and hundreds of leaves, illustrates a complex system of classification with several classificatory levels, divisions and subgroupings. For instance, the main branch of the ‘general diseases’ of the Tree of Nosology is divided into five sub-branches, each of which follows a different approach towards classification: one sub-branch comprises diseases according to their locations in different parts of the body and in the ‘mind’; other branches present diseases according to type (e.g. lesions, fevers, chronic conditions), from the perspective of the involved humours or according to different aetiologies.

Highlighting the popularity of the (medical) tree in Tibet as a visual motif to structure textual contents up to this day and its role as didactic tool and mnemonic device in medical training, Sabernig’s chapter offers important insights into a way of representing and structuring medical knowledge in a visual form akin to modern-day diagrams. Thus, tree diagrams have been common in Europe for centuries to depict genealogies, scientific classification schemes (e.g. types and varieties of diseases) and mind maps, and they are already attested in ninth-century Arabic medical treatises, a tradition that may reach back to ancient scholarly and teaching activities in Hellenistic and late antique Alexandria (cf. Singer’s contribution in the volume). The remarkable continuity of arboreal images and diagrams to represent classifications of diseases in Asia and Europe (which has developed into an alphanumerical order in the International Classification of Diseases of present-day biomedicine) shows the importance of a common metaphor and reflects a recurring form of organisation and structuring of knowledge domains as well as its versatility and adaptability to various cultural contexts (see Figures 0.1–0.2).

Part III: mental illness in ancient medical systems

The two case studies in the last section of the volume engage with the contested and challenging topic of mental illness and the question of how ancient Mesopotamian and Graeco-Roman medicine conceptualised and classified conditions which biomedicine designates as ‘mental’ conditions.

In her contribution, Erica Couto-Ferreira reflects on the conflict or tension between emic concepts and etic categories, warning that the notion of mental illness leans on the Cartesian body–mind dichotomy, and that categories such as psychiatry or psychology are problematic and artificial when it comes to conceptual systems such as those found in ancient Mesopotamian medicine. Apparently, medical cuneiform texts do not operate with a category ‘mental disease’ and do not use a classificatory system comparable to modern psychiatry. In order to get access to Mesopotamian understandings of conditions characterised mainly by alterations of behaviour, perception and mood, Couto-Ferreira analyses different contexts dominated by ‘situations of mental distress’, looking for underlying connections between them and proposing a model of classification based on aetiology. She thus suggests a shift of attention away from approximating ancient symptom descriptions to modern categories, an approach which has so far dominated the field of Assyriological research interested in Mesopotamian accounts of mental distress.

Figure 0.1 Fever tree. Illustration from Prof. Torti, *Therapeutice specialis ad febres periodicas perniciosas*, 1712

Source: Wellcome Collection (CC BY 4.0)

Figure 0.2 ‘The Tree of Intemperance’, showing diseases and vices caused by alcohol

Source: Wellcome Collection (CC BY 4.0)

Giving an overview of central signs and key terms featuring in the text sources concerned with disturbances of mood and behaviour, Couto-Ferreira sketches a variegated and heterogeneous array of problems such as anxiety and other abnormal feelings and behaviour patterns, sensorial and speech problems, uncontrolled movements and altered mental states, as well as various bodily symptoms, socio-economic problems and personal misfortune. Couto-Ferreira then discusses a number of aetiologies and contexts associated with these diagnostic signs. The diagnoses of the ancient healers found in the texts predominantly attribute these ailments to 'supernatural', external causes such as sorcery, attack by ghosts and abandonment by the personal deities, the latter of which can be provoked by transgressions of the patient or their family members. Attacks of aggressive ghosts which are e.g. recognised by confusional states are often linked with specific forms of abnormal or violent death, with lack of burial or regular food offerings (which is also the case in Egyptian texts; cf. Nyord, in this volume), signalling that the attacking ghosts were not integrated into the world of the dead and the web of social relations between the dead and their living kin. The bodily and psychological problems associated with diagnoses that identify a 'supernatural' cause are commonly treated through a combination of drug-based therapies and rituals, prayer or incantations, aiming at an alleviation of the symptoms and at mending or normalising the underlying causes of the ailment, which result from ruptured social relations and social conflicts.

However, Couto-Ferreira rightly points out that Mesopotamian medicine also recognised body-based causes of disturbances of mood and thought, encountered in medical treatises organised according to affected body part or region. For example, in texts focusing on internal or gastrointestinal ailments, fear- or sadness-related symptoms are linked with the *libbu* 'inside', a word which can also denote concrete organs such as the stomach/belly and the heart. Thus, emotions and mental faculties are constructed as processes or activities associated with the body or internal organs, pointing to a lack of a clear body-mind dualism in Mesopotamian thought. As a consequence, the exact meaning (somatic or psychological) of medical conditions and symptoms involving the 'inside' of the body can often be ambiguous. On the other hand, the interrelatedness of body, thinking and feeling helps to explain why Mesopotamian healers also attributed mood disturbances to the ingestion of bewitched food.

Other text passages cited in Couto-Ferreira's chapter show that there were further explanations of mental derangement or insanity which link these problems with injuries to the skull, while another distinctive domain are epilepsy-related conditions which are predominantly associated with a group of demons and divine agents (the latter of which are discussed in Steinert's chapter in the volume). Couto-Ferreira concludes that the general concept of impairment and incapacity to lead a regular life underlies Mesopotamian concepts of 'mental illness', which strikes the reader as a surprisingly familiar and pragmatic perspective. This insightful contribution treads new ground in Assyriological research by emphasising emic perspectives, inviting future research that investigates Mesopotamian symptomologies as complex culture-specific entities in their own right.

Peter Singer's chapter offers a second perspective on the topic of mental disorders, investigating the principles of classifications and understandings of mental or psychological problems in Graeco-Roman medicine, focusing on Galen and other authors of the Roman imperial period (first to fifth century CE). As Couto-Ferreira in her discussion of Mesopotamian views of psychological disturbances, Singer raises the issue of the compatibility between our own conception of the 'mind' and ancient definitions. Interestingly, Galen understood health in terms of a balance (or good mixture between the body's substances), which included for him the idea of a proper composition of various parts of the body and their correct functioning ('according to nature'), viewing health as a spectrum or graded phenomenon which depends on the individual's normal constitution. As to his definition of 'disease' (*nosos*), Galen gives a two-level aetiological account, according to which diseases either arise from a bad mixture of the humours or are linked with specific organs. His fundamental criterion of disease is that of an 'impairment of natural function', which is considerably more specific than the more holistic Mesopotamian notion of impairment as inability to lead a normal life.

Giving a brief overview of different points of view from a diachronic perspective, Singer observes two opposing trends in Graeco-Roman medicine: on one hand, divine agency behind mental conditions is denied (as for instance in the Hippocratic treatise on the so-called 'sacred disease'), a view competing with traditional interpretations of madness (*mania*) as inflicted by a god as punishment. Singer also points out crucial developments in Galen's theory: while the Hippocratics usually invoke humoral concepts in their explanation of pathological processes, Galen focuses rather on qualities and their mixture. Moreover, Galen recognises a basic distinction between 'physical' and 'psychic' activities and impairments, and divided the psychic domain into three different functions, suggesting a correspondence between different parts of the brain and specific functions and their impairments.

Although Galen's theory conflicts with those entertained by other competing medical 'schools' of his day (e.g. Empiricists and Methodists), Singer notices a surprising consistency in disease terms as well as many agreements in the therapeutic practices recommended in the works of Galen and other authors of the Roman period (Celsus, Aretaeus and Caelius Aurelianus). Several crucial points of relevance emerge from his comparison of these authors and their treatment of major terms corresponding to mental disorders. First, in contrast to the Hippocratic texts, the medical authors of the Roman period appear to use terms such as *mania* or *melancholia* as distinct and delimited 'disease entities' with specific symptoms, course and treatments. By the first century CE, *melancholia* has a distinct status with complex symptoms which are differentiated as varieties of the condition. For example, in his work *Affected Places*, Galen distinguishes several types of *melancholia* according to the place in the body where the 'melancholic fluid' (the humour black bile) is present, while describing *melancholia* as a chronic or episodic depressive state.³¹

But was there a category of mental disorder in Graeco-Roman medicine? Here, Singer notes a corresponding diachronic development: while in the Hippocratic

Corpus such a separate category appears to be absent, Roman authors such as Celsus and Aretaeus show a recognition of the distinct character of such ailments and occasionally group conditions such as *mania*, *melancholia* or *epilēpsia* together in a thematic arrangement, although attributing different underlying physical causes to them. Moreover, Galen clearly seems to work with a category of mental disorder and shows attempts to differentiate conditions of this group through a key symptom and to link them with different bodily locations and impaired functions. Galen also reflects a shift from earlier Greek cardio-centric traditions (found to different degrees also in Mesopotamian and Egyptian medicine), by locating all cognitive and mental functions in the brain, which may have had an influence on the formation of the category of mental conditions. Singer crystallises several other interesting aspects of Galen's works. With regard to the 'profusion of complexity' and 'proliferation of categories' in Galenic and post-Galenic works, Singer underlines that Galen's complex classifications may have been driven by paedagogic aims, using forms of presentation such as logical branching as mnemonic aids. This aspect is further developed in later works presenting classificatory schemata in summaries or in the graphic form of tree diagrams or tables, such as found in the *Tabulae Vindobonenses* preserved in medieval manuscripts, which represent textual contents of selected sections of Galen's *On the Differentiae of Symptoms* in the form of diagrams or classifying schemata (Gundert 1998).

Outlook: some perspectives for future research

To sum up, the contributions assembled in this volume critically reflect on and extend recent trends and debates in the history of medicine and in the fields investigating ancient medical literatures, characterised by a growing sensitivity for tracing culture-specific disease concepts and classifications, their historical developments and their embeddedness in larger conceptual and social frameworks. At the same time, the studies in this book take a strong interest in comparativism, cross-cultural links and exchanges between different regions from Europe to East Asia. Thus, the contributions develop new perspectives for future research on medical knowledge and writing, by engaging with research and theoretical discussions in medical anthropology, phenomenology and cognitive sciences, emphasising the relevance of embodied experience, metaphor, common sense and tacit knowledge as crucial aspects shaping medical theories, disease concepts and therapeutic strategies. Several authors in the volume are interested in textual traditions and long-term transmission of medical knowledge, while at the same time engaging with processes of innovation, change and fluidity reflected in textual form. Such processes can be observed not only in Graeco-Roman (or Western) medical literature, which is characterised by an 'agonistic' mode of thought and discourse giving much room to theoretical debate, as well as by a critique of traditional authority and authorial self-representation (Lloyd 1979; Asper 2013; Keyser 2013).³² Similar processes of development can also be observed in medical and textual cultures in the East, such as Mesopotamia and Egypt, which have

often been described as geared predominantly towards guarding and canonising traditional and authoritative knowledge (e.g. Lenzi 2015). Likewise, studies of Chinese medicine have amply demonstrated processes of innovation, change and fluidity (e.g. Hsu 2001; Scheid 2002). Thus, the dynamic developments of disease concepts in ancient cultures such as Mesopotamia and Egypt belong to the topics in need of further investigation.

A second trend reflected in the studies presented here is that medical texts, with their theoretical models and concepts, have to be read and analysed in their socio-historical context and are intimately linked with cultural and medical practice. Thus, the contributions stress that disease concepts, categories and aetiologies are attuned to therapeutic strategies and measures applied to restore health and to cure diagnosed conditions. Although there are cross-culturally recurring basic concepts of health and sickness (such as the idea of bodily balance) and a recurring set of basic aetiologies, there are also considerable differences in detail and in the emphasis on specific elements. For instance, in Egyptian and Mesopotamian medicine, the idea of balance linked with ecological considerations is not formulated explicitly as in Graeco-Roman or Chinese medicine, although the former medical systems draw extensively on metaphors and analogies with environmental processes. Vice versa, aetiologies attributing pathological processes to an external, personalised agency appear to be much more prominent in the ancient Near Eastern cultures than in the medical systems emphasising bodily balance. However, the latter traditions leave some room for external forces (see e.g. disease demons in Tibetan medicine, or the ‘evil eye’ in Arabic medical works), suggesting a degree of long-term continuity in aetiological ideas.

A last crucial point emerging from the volume which may be pursued further in future studies is that the nosological entities recognised in different medical cultures have to be read as culture-specific entities shaped by the dynamic interplay of cultural, biological and historical processes, which are integrated into more or less systematic configurations of disease categories. Although common principles of classification can be found in the various medical traditions (e.g. classification based on anatomical locations), classificatory systems also vary in their naming patterns, categorisations and in their extent of systematisation and ramification. The differences and culture-specific aspects of the different nosological and pathological concepts discussed in this book bring to the foreground how medical knowledge is culturally framed and shaped, while also confirming the potential of cross-cultural or interdisciplinary comparisons to identify and explain points of divergence and convergence.

Notes

- 1 I wish to thank Elisabeth Hsu for reading several drafts of the introduction and for providing extensive feedback, stimulating critique and invaluable advice, especially on theoretical aspects of medical anthropology touched on in the following pages. Her numerous suggestions for revisions and improvements have contributed considerably to the present version of the chapter. Thanks are also due to Markham Geller for comments on an early version of the introduction.

- 2 Both Lloyd (1996) and Lloyd and Sivin (2002) contrast Greek science, as pluralistic and adversarial, with Chinese science, as geared towards consensus and developing the ideas received from intellectual authorities. These characteristics of Chinese science have much in common with the veneration of received knowledge in the ancient Near Eastern cultures. In a similar vein, Don Bates (1995: 1–22) contrasts Graeco-Roman with Ayurvedic and Chinese scholarly medical traditions in terms of two different ways of knowing, ‘epistemic’ versus ‘gnostic’. The ‘gnostic’ mode of knowing justifies knowledge by attributing it to a divine origin or superior knowers and emphasises continuity and corroboration of learned knowledge through experience, while ‘epistemic’ knowing is characterised by theoretical disputes concerning knowledge and its justification and by an opposition between experience and theoretical knowledge.
- 3 See e.g. Westendorf (1999) and Radestock (2015) for Egyptian medicine, as well as Scurlock and Andersen (2005); Geller (2010); Scurlock (2014) for Mesopotamian medicine. For comparative approaches on ancient medicine and scientific writing from the ancient Near East and the Graeco-Roman world, see e.g. Geller (2001–02); Horstmannshoff and Stol (2004); Fischer-Elfert (2005); Attia and Buisson (2009); Imhausen and Pommerening (2010); Geller (2014); Johnson (2015b); Imhausen and Pommerening (2016); Fales (2018); Geller (2018).
- 4 See e.g. Grmek ([1989] 1991) (for ancient Greece); Scurlock and Andersen (2005); Haussperger (2012) (for Mesopotamia); Radestock (2015) (for Egypt). For critical views of retrospective diagnosis see e.g. Leven (1998, 2004).
- 5 See e.g. Huneman et al. (2015).
- 6 See Murphy (2015); Reiss and Ankeny (2016: sub 1) for an overview and discussion of the different positions; cf. also Singer’s contribution in this volume.
- 7 Cf. also Jerome Wakefield’s (1992) definition of ‘mental disorder’ as a harmful dysfunction, combining ‘a value term based on social norms’ and a ‘scientific term referring to the failure of a mental mechanism’ (1992: 373). Both Boorse’s and Wakefield’s studies were concerned with the controversial notion of ‘mental illness’ in particular.
- 8 Cf. in this context the discussion of ‘culture-bound’ or ‘culture-related specific (psychiatric) syndromes’; see e.g. Hahn (1985); Tseng (2001), and more generally for culturally varying criteria, signs and symptoms denoting suffering, Csordas and Kleinman (1996).
- 9 Rosenberg, in a similar vein to Young (1982), notes that in a certain sense, a ‘disease’ does not exist as a social phenomenon in a culture, until it is perceived, named and its existence agreed upon (1997: xiii). See also Smith (2017: 8–9).
- 10 See e.g. Young (1995); Hacking (1995); Johnson (1987) (on the premenstrual syndrome as a Western culture-specific disorder), and Lock (1993a) (on culture-dependent perceptions and experiences of menopause).
- 11 See also Nichter (1981); Matsuoka (1991); Low (1985); Lock (1993b: 142–4) for similar ‘idioms of distress’.
- 12 For ‘heartbreak’ in Mesopotamian medicine, see also Buisson (2016) with earlier literature.
- 13 For aetiologies and changing popular illness narratives see also Farmer (1990); Olivier de Sardan (1998, 1999); Garro (2002); cf. also Kleinman (1988).
- 14 See Rochberg (2016) for discussion.
- 15 See also Lock and Kaufert (2001); Lock (2015); Yates-Doerr (2017) for local biologies as ‘partial biologies’.
- 16 See especially the three approaches of studying the body outlined by Nancy Scheper-Hughes and Margaret Lock (1987): the individual (phenomenological) body, the ‘social body’ and the ‘body-politic’.
- 17 For the ‘five agents’, previously also designated (in analogy to the Greek humoral system) as ‘five elements’ and ‘five phases’, see, in general, Unschuld (2003). For the term ‘systems of correspondence’, see Porkert (1974).

- 18 See Olivier de Sardan (2015: 65–82) for a review of the major criticisms of the emic/etic distinction and for a revision of methodologically appropriate ways of using these terms in social anthropology.
- 19 For the notion of physiognomy or *Gestalt*, which is inspired by Merleau-Ponty ([1945] 1962), see further in what follows and Hsu's contribution in this volume.
- 20 The term 'local' indicates that disease concepts and discourses on health within a given society can be variegated or pluralistic (e.g. popular vs. different specialists' notions and views).
- 21 See e.g. Garro (2002).
- 22 This view can be contrasted with Oswei Temkin's (1963) differentiation between two views of 'disease' in the theory of medicine: the notion of disease as a discrete named entity with specific characteristics (independent from the individual body in which it manifests) resembles the 'order of the text', and the view of disease as existing within an individual patient being subject to variation can be compared with Kirmayer's 'order of the body'.
- 23 On a cultural phenomenological approach to embodiment, see also Csordas (1994, 2002) who highlighted bodily experience and its constant entanglement with the socio-cultural environment. On a sensory phenomenological approach to the 'physiognomy' of medical disorders, see Hsu (2018).
- 24 See e.g. Martin (1987); Howard Carter (1989); van Rijn-van Tongeren (1997); Pritzker (2003); Yu (2008); Nerlich (2011) and the studies collected in Horstmannshoff, King and Zittel (2012) as well as Wee (2017). On embodiment see also Csordas (1990, 1994).
- 25 See also Hsu (2018) for an earlier study investigating the 'physiognomy' of disorders treated with the antimalarial *qing hao* in Chinese medical prescriptions.
- 26 For the term 'medicines of systematic correspondences' see Porkert (1974), applying the term especially to the Chinese medical framework of the five agents/phases. See also Hsu (2013) and the collection of papers in Horden and Hsu (2013) for a recent discussion.
- 27 See also Littlewood (2007).
- 28 Olivier de Sardan underlines that the societies he studied do not apply complex theories, and that local specialists do not possess a standardised or stable corpus of organised knowledge but think and work with the same clusters of 'illness modules' as their patients.
- 29 For polythetic classification see also Needham (1975) with regard to classificatory systems analysed in social anthropology. Cf. also Rochberg (2016: 93–102) for polythetic classification in Mesopotamian lexical lists and description texts concerned with classes of things such as animals, plants, stones or wooden objects, reflecting the deeply cultural nature of these taxonomies and their scribal and scholarly background.
- 30 For glimpses on such exchanges see e.g. Pommerening (2010, 2015) with evidence for the transfer of the use of exemplary *materia medica* and for loan translations of Egyptian medical prescriptions encountered in later Greek and Latin texts.
- 31 As Singer points out, a similar process of emergence of a clear disease category comprising several distinct entities can be observed with regard to fevers, which play an important role in Galenic works where they are described as discrete diagnostic items differentiated by their aetiologies.
- 32 See also van der Eijk (1997) on the appearance of the medical author in Graeco-Roman medical treatises and the role of genre in ancient medical writing.

References

- Akaso, A., Burnett, C. and Yoeli-Tlalim, R. (2008) *Astro-Medicine: Astrology and Medicine, East and West*. Florence: Sismel/Edizioni del Galluzzo.

- Asper, M. (2007) *Griechische Wissenschaftstexte: Formen, Funktionen, Differenzierungsgeschichten*. Stuttgart: F. Steiner Verlag.
- Asper, M. (2013) 'Introduction', in Asper, M., in collaboration with Kanthak, A.-M. (eds.) *Writing Science: Medical and Mathematical Authorship in Ancient Greece*. Berlin/Boston: de Gruyter, 1–13.
- Asper, M. (2015) 'Medical Acculturation: Early Greek Texts and the Question of Near Eastern Influence', in Holmes, B. and Fischer, K.-D. (eds.) *The Frontiers of Science: Essays in Honor of Heinrich von Staden*. Berlin/New York: de Gruyter, 19–46.
- Attia, A. (2018) 'Mieux vaut être riche et bien-portant que pauvre et malade: de BAM III-234 à Job' and 'The libbu Our Second Brain? (Part 1)', *Le Journal des Médecines Cunéiformes* 31, 43–66 and 67–88.
- Attia, A. and Buisson, G. (2009) *Advances in Mesopotamian Medicine from Hammurabi to Hippocrates: Proceedings of the International Conferences 'Oeil malade et mauvais oeil', Collège de France, Paris, 23rd June 2006*. Leiden/Boston: Brill.
- Bates, D. (1995a) 'Scholarly Ways of Knowing: An Introduction', in Bates, D. (ed.) *Knowledge and the Scholarly Medical Traditions*. Cambridge: Cambridge University Press, 1–22.
- Bates, D. (ed.) (1995b) *Knowledge and the Scholarly Medical Traditions*. Cambridge: Cambridge University Press.
- Bawanyepck, D. and Imhausen, A. (eds.) (2014) *Traditions of Written Knowledge in Ancient Egypt and Mesopotamia: Proceedings of Two Workshops, Held at Goethe-University, Frankfurt/Main in December 2011 and May 2012*. Münster: Ugarit-Verlag.
- Böck, B. (2014) *The Healing Goddess Gula: Towards an Understanding of Ancient Babylonian Medicine*. Leiden/Boston: Brill.
- Boorse, C. (1975) 'On the Distinction between Disease and Illness', *Philosophy and Public Affairs* 5, 49–68.
- Buisson, G. (2016) 'À la recherche de la mélancolie en Mésopotamie ancienne', *Le Journal des Médecines Cunéiformes* 28, 1–54.
- Craik, E. M. (2015) *The 'Hippocratic' Corpus: Content and Context*. London/New York: Routledge.
- Csordas, T. J. (1990) 'Embodiment as a Paradigm for Anthropology', *Ethos* 18, 5–47.
- Csordas, T. J. (1994) *Embodiment and Experience: The Existential Ground of Culture and Self*. Cambridge: Cambridge University Press.
- Csordas, T. J. (2002) *Body, Meaning, Healing*. Basingstoke: Palgrave Macmillan.
- Csordas, T. J. and Kleinman, A. (1996) 'The Therapeutic Process', in Sargent, C. F. and Johnson, T. M. (eds.) *Medical Anthropology: Contemporary Theory and Method*. Revised edition. Westport, CN: Praeger, 3–20.
- Cunningham, A. (2002) 'The Pen and the Sword: Recovering the Disciplinary Identity of Philosophy and Anatomy before 1800 I: Old Physiology: The Pen', *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 33, 631–65.
- Cunningham, A. (2003) 'The Pen and the Sword: Recovering the Disciplinary Identity of Philosophy and Anatomy before 1800 II: Old Anatomy: The Sword', *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences* 34, 51–76.
- Eisenberg, L. (1977) 'Illness and Disease: Distinctions between Professional and Popular Ideas of Sickness', *Culture, Medicine and Psychiatry* 1, 9–23.
- Ellen, R. (1993) *The Cultural Relations of Classification: An Analysis of Nuauulu Animal Categories from Central Seram*. Cambridge: Cambridge University Press.

- Ellen, R. (2017a) 'Tools, Agency, and the Category of *Living Things*', in Pommerening, T. and Bisang, W. (eds.) *Classification from Antiquity to Modern Times: Sources, Methods, and Theories from an Interdisciplinary Perspective*. Berlin/Boston: de Gruyter, 239–62.
- Ellen, R. (2017b) 'Categorizing Natural Objects: Some Issues Arising from Recent Work in Cognitive Anthropology and Ethnobiological Classification', in Pommerening, T. and Bisang, W. (eds.) *Classification from Antiquity to Modern Times: Sources, Methods, and Theories from an Interdisciplinary Perspective*. Berlin/Boston: de Gruyter, 263–77.
- Fales, F. M. (ed.) (2018) *La medicina assiro-babilonese*. Con la collaborazione di Francesca Minen. Roma: Scienze e lettere.
- Farber, W. (2014) *Lamaštu: An Edition of the Canonical Series of Lamaštu Incantations and Rituals and Related Texts from the Second and First Millennia B.C.* Winona Lake: Eisenbrauns.
- Farmer, P. (1990) 'Sending Sickness: Sorcery, Politics, and Changing Concepts of AIDS in Rural Haiti', *Medical Anthropology Quarterly, New Series* 4(1), 6–27.
- Farquhar, J. (1994) *Knowing Practice: The Clinical Encounter of Chinese Medicine*. Boulder, CO: Westview Press.
- Fee, E. (1997) 'Henry E. Sigerist: His Interpretation of the History of Disease and the Future of Medicine', in Rosenberg, C. E. and Golden, J. (eds.) *Framing Disease: Studies in Cultural History*. New Brunswick, NJ: Rutgers University Press, 297–317.
- Fischer-Elfert, H. W. (ed.) (2005) *Papyrus Ebers und die antike Heilkunde. Akten der Tagung vom 15.-16.3. 2002 in der Albertina/UB der Universität Leipzig*. Wiesbaden: Harrassowitz.
- Foster, G. (1976) 'Disease Etiologies in Non-Western Medical Systems', *American Anthropologist* 78, 773–82.
- Foucault, M. (1972) *The Archeology of Knowledge and the Discourse on Language*. New York: Pantheon.
- Foucault, M. (1980) 'Body/Power', in Gordon, C. (ed.) *Power/Knowledge: Selected Interviews and Other Writings 1972–77*. New York: Pantheon, 52–66.
- Frankenberg, R. (1986) 'Sickness as Cultural Performance: Drama, Trajectory, and Pilgrimage Root Metaphors and the Making of Disease Social', *International Journal of Health Services* 16, 603–26.
- Gaines, A. D. (ed.) (1992a) *Ethnopsychiatry: The Cultural Construction of Professional and Folk Psychiatries*. Albany: State University of New York Press.
- Gaines, A. D. (1992b) 'From DSM-I to DSM-III-R: Voices of Self, Mastery and the Other: A Cultural-Constructivist Reading of United States Psychiatric Classification', *Social Science & Medicine* 25, 3–24.
- Garro, L. C. (2002) 'Hallowell's Challenge: Explanations of Illness and Cross-Cultural Research', *Anthropological Theory* 2, 77–97.
- Geller, M. J. (2001–02) 'West Meets East: Early Greek and Babylonian Diagnosis', *Archiv für Orientforschung* 48/49, 50–75.
- Geller, M. J. (2007) 'Phlegm and Breath: Babylonian Contributions to Hippocratic Medicine', in Finkel, I. L. and Geller, M. J. (eds.) *Disease in Babylonia*. Leiden: Brill, 187–99.
- Geller, M. J. (2010) *Ancient Babylonian Medicine: Theory and Practice*. Malden: Wiley-Blackwell.
- Geller, M. J. (2014) *Melothesia in Babylonia*. Berlin/Boston: de Gruyter.
- Geller, M. J. (2015) 'Encyclopaedias and Commentaries', in Johnson, J. C. (ed.) *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Berlin/Boston: de Gruyter, 31–45.

- Geller, M. J. (2018) 'Babylonian Medicine as a Discipline', in Jones, A. and Taub, L. (eds.) *The Cambridge History of Science, Volume 1: Ancient Science*. Cambridge: Cambridge University Press, 29–57.
- Good, B. (1977) 'The Heart of What's the Matter. The Semantics of Illness in Iran', *Culture, Medicine and Psychiatry* 1, 25–58.
- Goody, J. (1977) *The Domestication of the Savage Mind*. Cambridge: Cambridge University Press.
- Grmek, M. D. ([1989] 1991) *Disease in the Ancient Greek World*. Paperbacks edition. Baltimore/London: Johns Hopkins University Press.
- Gundert, B. (1998) 'Die *Tabulae Vindobonenses* als Zeugnis alexandrinischer Lehrtätigkeit um 600 n. Chr.', in Fischer, K.-D., Nickel, D. and Potter, P. (eds.) *Text and Tradition: Studies in Ancient Medicine Presented to Jutta Kollesch*. Leiden/Boston/Köln: Brill, 91–144.
- Hacking, I. (1995) *Rewriting the Soul: Multiple Personality and the Sciences of Memory*. Princeton: Princeton University Press.
- Hahn, R. A. (1985) 'Culture-Bound Syndromes Unbound', *Social Science & Medicine* 21, 165–71.
- Harris, M. (1976) 'History and Significance of the Emic/Etic Distinction', *Annual Review of Anthropology* 5, 329–50.
- Harris, M. (1980) *Cultural Materialism: The Struggle for a Science of Culture*. New York: Random House.
- Haussperger, M. (2012) *Die mesopotamische Medizin aus ärztlicher Sicht*. Baden: Deutscher Wissenschafts-Verlag.
- Horden, P. and Hsu, E. (eds.) (2013) *The Body in Balance: Humoral Medicines in Practice*. New York/Oxford: Berghahn.
- Horstmanshoff, M., King, H. and Zittel, C. (eds.) (2012) *Blood, Sweat and Tears: The Changing Concepts of Physiology from Antiquity into Early Modern Europe*. Leiden/Boston: Brill.
- Horstmanshoff, M. and Stol, M. (eds.) (2004) *Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine*. Leiden/Boston: Brill.
- Howard Carter, A., III (1989) 'Metaphors in the Physician-Patient Relationship', *Special Section: Metaphors, Language, and Medicine, Soundings: An Interdisciplinary Journal* 72(1), 153–64.
- Hsu, E. (1999) *The Transmission of Chinese Medicine*. Cambridge: Cambridge University Press.
- Hsu, E. (ed.) (2001) *Innovation in Chinese Medicine*. Cambridge: Cambridge University Press.
- Hsu, E. (2007) 'The Biological in the Cultural: The Five Agents and the Body Ecologic in Chinese Medicine', in Parkin, D. and Ulijaszek, S. (eds.) *Holistic Anthropology: Emergence and Convergence*. Oxford: Berghahn, 91–126.
- Hsu, E. (2010) *Pulse Diagnosis in Early Chinese Medicine: The Telling Touch*. Cambridge: Cambridge University Press.
- Hsu, E. (2012) 'Medical Anthropology in Europe – quo vadis?', *Anthropology and Medicine* 19(1), 51–61.
- Hsu, E. (2013) 'What Next? Balance in Medical Practice and the Medico-Moral Nexus of Moderation', in Horden, P. and Hsu, E. (eds.) *The Body in Balance: Humoral Medicines in Practice*. New York/Oxford: Berghahn, 259–80.
- Hsu, E. (2018) 'Diverse Biologies and Experiential Continuities: A Physiognomic Reading of the Many Faces of Malaria in the Chinese *Materia Medica*', in Aftab, T., Naeem, M.,

- Masroor, M. and Khan, A. (eds.) *Artemisia Annua: Prospects, Applications and Therapeutic Uses*. Boca Raton: CRC Press, 1–15.
- Huneman, P., Lambert, G. and Silberstein, M. (eds.) (2015) *Classification, Disease and Evidence: New Essays in the Philosophy of Medicine*. Dordrecht: Springer.
- Imhausen, A. and Pommerening, T. (eds.) (2010) *Writings of Early Scholars in the Ancient Near East, Egypt, Greece and Rome: Translating Ancient Scientific Texts*. Berlin/New York: de Gruyter.
- Imhausen, A. and Pommerening, T. (eds.) (2016) *Translating Writings of Early Scholars in the Ancient Near East, Egypt, Greece and Rome: Methodological Aspects with Examples*. Berlin/Boston: de Gruyter.
- Jewson, N. D. (1976) ‘The Disappearance of the Sick-Man from Medical Cosmology, 1770–1870’, *Sociology* 10, 225–44.
- Johnson, J. C. (2015a) ‘Introduction: “Infrastructural Compendia” and the Licensing of Empiricism in Mesopotamian Technical Literature’, in Johnson, J. C. (ed.) *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Berlin/Boston: de Gruyter, 1–28.
- Johnson, J. C. (ed.) (2015b) *In the Wake of the Compendia: Infrastructural Contexts and the Licensing of Empiricism in Ancient and Medieval Mesopotamia*. Berlin/Boston: de Gruyter.
- Johnson, T. M. (1987) ‘Premenstrual Syndrome as a Western Culture-Specific Disorder’, *Culture, Medicine and Psychiatry* 11: 337–56.
- Keyser, P. T. (2013) ‘The Name and Nature of Science: Authorship in Social and Evolutionary Context’, in Asper, M. and Kanthak, A.-M. (eds.) *Writing Science: Medical and Mathematical Authorship in Ancient Greece*. Berlin/Boston: de Gruyter, 17–61.
- King, H. (1998) *Hippocrates’ Woman: Reading the Female Body in Ancient Greece*. London: Routledge.
- King, H. (2004) *The Disease of Virgins: Green Sickness, Chlorosis and the Problems of Puberty*. London: Routledge.
- Kirmayer, L. J. (1992) ‘The Body’s Insistence on Meaning: Metaphor as Presentation and Representation in Illness Experience’, *Medical Anthropology Quarterly* (NS) 6, 323–46.
- Kleinman, A. (1980) *Patients and Healers in the Context of Culture*. Berkeley: University of California Press.
- Kleinman, A. (1986) *Social Origins of Distress and Disease: Depression and Neurasthenia in Modern China*. New Haven: Yale University Press.
- Kleinman, A. (1988) *Rethinking Psychiatry: From Cultural Category to Personal Experience*. New York: Free Press.
- Kleinman, A. and Good, B. (1985) *Culture and Depression: Studies in the Anthropology and Cross-Cultural Psychiatry of Affect and Disorder*. Berkeley: University of California Press.
- Lakoff, G. and Johnson, M. (1980) *Metaphors We Live by*. Chicago: University of Chicago Press.
- Last, M. ([1979] 2007) ‘The Importance of Knowing about Not Knowing’, in Littlewood, R. (ed.) *On Knowing and Not Knowing in the Anthropology of Medicine*. Walnut Creek: Left Coast Press, 1–17.
- Lenzi, A. (2015) ‘Mesopotamian Scholarship: Kassite to Late Babylonian Periods’, *Journal of Ancient Near Eastern History* 2, 145–201.
- Leslie, C. (ed.) (1976) *Asian Medical Systems: A Comparative Study*. Berkeley: University of California Press.

- Leslie, C. and Young, A. (eds.) (1992) *Paths to Asian Medical Knowledge*. Berkeley: University of California Press.
- Leven, K.-H. (1998) 'Krankheiten – historische Deutung versus retrospektive Diagnose', in Paul, N. and Schlich, T. (eds.) *Medizingeschichte: Aufgaben – Probleme – Perspektiven*. Frankfurt a. M.: Campus, 153–85.
- Leven, K.-H. (2004) 'At Times These Ancient Facts Seem to Lie before Me Like a Patient on a Hospital Bed: Retrospective Diagnosis and Ancient Medical History', in Horstmannshoff, H. F. J. and Stol, M. (eds.) *Magic and Rationality in Ancient Near Eastern and Graeco-Roman Medicine*. Leiden/Boston: Brill, 369–86.
- Littlewood, R. (ed.) (2007) *On Knowing and Not Knowing in the Anthropology of Medicine*. Walnut Creek: Left Coast Press.
- Lloyd, G. E. R. (1979) *Magic, Reason, and Experience: Studies in the Origin and Development of Greek Science*. Cambridge: Cambridge University Press.
- Lloyd, G. E. R. (1996) *Adversaries and Authorities: Investigations into Ancient Greek and Chinese Science*. Cambridge: Cambridge University Press.
- Lloyd, G. E. R. and Sivin, N. (2002) *The Way and the Word: Science and Medicine in Early China and Greece*. New Haven: Yale University Press.
- Lock, M. (1993a) *Encounters with Aging: Mythologies of Menopause in Japan and North America*. Berkeley: University of California Press.
- Lock, M. (1993b) 'Cultivating the Body: Anthropology and Epistemologies of Bodily Practice and Knowledge', *Annual Review of Anthropology* 22, 133–55.
- Lock, M. (2015) 'Comprehending the Body in the Era of the Epigenome', *Current Anthropology* 56, 151–77.
- Lock, M. and Gordon, D. R. (1988) *Biomedicine Examined*. Dordrecht: Kluwer Academic.
- Lock, M. and Kaufert, P. (2001) 'Menopause, Local Biologies, and Cultures of Aging', *American Journal of Human Biology* 13(4), 494–504.
- Low, S. M. (1985) 'Culturally Interpreted Symptoms or Culture-Bound Syndromes: A Cross-Cultural Review of Nerves', *Social Science & Medicine* 21, 187–97.
- Martin, E. (1987) *The Woman in the Body: A Cultural Analysis of Reproduction*. Boston: Beacon Press.
- Matsuoka, E. (1991) 'The Interpretation of Fox Possession: Illness as Metaphor', *Culture, Medicine and Psychiatry* 15, 453–77.
- Merleau-Ponty, M. ([1945] 1962) *Phenomenology of Perception*. Translated by C. Smith. London: Routledge.
- Murdock, G. P. (1980) *Theories of Illness: A World Survey*. Pittsburgh: University of Pittsburgh Press.
- Murphy, D. (2015) 'Concepts of Disease and Health', in Zalta, E. N. (ed.) *The Stanford Encyclopedia of Philosophy*. Spring 2015 edition (<https://plato.stanford.edu/archives/spr2015/entries/health-disease/>) (Accessed 26 April 2018).
- Needham, R. (1975) 'Polythetic Classification: Convergence and Consequence', *Man* (NS) 10, 349–69.
- Nerlich, B. (2011) 'The Role of Metaphor Scenarios in Disease Management Discourses: Foot and Mouth Disease and Avian Influenza', in Handl, S. and Schmid, H.-J. (eds.) *Windows to the Mind: Metaphor, Metonymy and Conceptual Blending*. Berlin: de Gruyter, 115–42.
- Nichter, M. (1981) 'Idioms of Distress', *Culture, Medicine and Psychiatry* 5, 379–408.
- Olivier de Sardan, J.-P. (1998) 'Illness Entities in West Africa', *Anthropology and Medicine* 5, 193–217.

- Olivier de Sardan, J.-P. (1999) 'Les représentations des maladies: des modules?', in Jaffré, J. and Olivier de Sardan, J.-P. (eds.) *La construction sociale des maladies: Les entités nosologiques populaires en Afrique de l'Ouest*. Paris: PUF, 15–40.
- Olivier de Sardan, J.-P. (2015) *Epistemology, Fieldwork and Anthropology*. New York: Palgrave Macmillan.
- Pike, K. L. ([1954] 1967) *Language in Relation to a Unified Theory of the Structure of Human Behavior*. Second edition. The Hague: Mouton.
- Pommerening, T. (2010) 'βούτρυος 'Flaschenkürbis' und κουροτόκος im Corpus Hippocraticum, De sterilibus 214: Entlehnung und Lehnübersetzung aus dem Ägyptischen', *Glotta* 86, 40–54.
- Pommerening, T. (2015) 'Milch einer Frau, die einen Knaben geboren hat', in Kousoulis, P. and Lazaridis, N. (eds.) *Proceedings of the Tenth International Congress of Egyptologists, University of the Aegean, Rhodes 22–29 May 2008*. Vol. 2. Leuven et al.: Peeters, 2083–95.
- Pommerening, T. (2016) 'Heilkundliche Texte aus dem alten Ägypten: Vorschläge zur Kommentierung und Deutung', in Imhausen, A. and Pommerening, T. (eds.) *Translating Writings of Early Scholars in the Ancient Near East, Egypt, Greece and Rome: Methodological Aspects with Examples*. Berlin/Boston: de Gruyter, 175–279.
- Pommerening, T. (2017) 'Classification in Ancient Egyptian Medical Formulae and Its Role in Rediscovering Comprehensive and Specific Concepts of Drugs and Effects', in Pommerening, T. and Bisang, W. (eds.) *Classification from Antiquity to Modern Times: Sources, Methods, and Theories from an Interdisciplinary Perspective*. Berlin/Boston: de Gruyter, 167–95.
- Pommerening, T. and Bisang, W. (2017) 'Classification and Categorization through Time', in Pommerening, T. and Bisang, W. (eds.) *Classification from Antiquity to Modern Times: Sources, Methods, and Theories from an Interdisciplinary Perspective*. Berlin/Boston: de Gruyter, 1–18.
- Pool, R. (1994) *Dialogue and the Interpretation of Illness: Conversations in a Cameroon Village*. Oxford/Providence: Berg Publishers.
- Porkert, P. (1974) *The Foundations of Chinese Medicine: Systems of Correspondence*. Cambridge, MA: MIT Press.
- Pritzker, S. (2003) 'The Role of Metaphor in Culture, Consciousness, and Medicine: A Preliminary Inquiry into the Metaphors of Depression in Chinese and Western Medical and Common Languages', *Clinical Acupuncture and Oriental Medicine* 4: 11–28.
- Radestock, S. (2015) *Prinzipien der ägyptischen Medizin: Medizinische Lehrtexte der Papyri Ebers und Smith. Eine wissenschaftstheoretische Annäherung*. Würzburg: Ergon.
- Reiss, J. and Ankeny, R. A. (2016) 'Philosophy of Medicine', in Zalta, E. N. (ed.) *The Stanford Encyclopedia of Philosophy*. Summer 2016 edition (<https://plato.stanford.edu/archives/sum2016/entries/medicine/>) (Accessed 26 April 2018).
- Rochberg, F. (2016) *Before Nature: Cuneiform Knowledge and the History of Science*. Chicago/London: The University of Chicago Press.
- Rosenberg, C. E. (1997) 'Introduction: Framing Disease: Illness, Society, and History', in Rosenberg, C. E. and Golden, J. (eds.) *Framing Disease: Studies in Cultural History*. New Brunswick, NJ: Rutgers University Press, xiii–xxvi.
- Scheid, V. (2002) *Chinese Medicine in Contemporary China: Plurality and Synthesis*. Durham/London: Duke University Press.
- Scheper-Hughes, N. and Lock, M. M. (1987) 'The Mindful Body: A Prolegomenon to Future Work in Medical Anthropology', *Medical Anthropology Quarterly*, New Series 1(1): 6–41.

- Scurlock, J. (2006) *Magico-Medical Means of Treating Ghost-Induced Illnesses in Ancient Mesopotamia*. Leiden: Brill.
- Scurlock, J. (2014) *Sourcebook for Ancient Mesopotamian Medicine*. Atlanta: SBL Press.
- Scurlock, J. and Andersen, B. R. (2005) *Diagnoses in Assyrian and Babylonian Medicine: Ancient Sources, Translations, and Modern Medical Analyses*. Urbana/Chicago: University of Illinois Press.
- Shorter, E. (1997) *Women's Bodies: A Social History of Women's Encounter with Health, Ill-Health, and Medicine*. Second edition. New Brunswick, NJ: Transaction Publishers.
- Sigerist, H. E. (1943) *Civilization and Disease*. Chicago: Chicago University Press.
- Sivin, N. (1987) *Traditional Medicine in Contemporary China*. Ann Arbor: University of Michigan Center for Chinese Studies.
- Smith, H. A. (2017) *Forgotten Disease: Illnesses Transformed in Chinese Medicine*. Stanford: Stanford University Press.
- Sobo, E. J. (2004) 'Theoretical and Applied Issues in Cross-Cultural Health Research', in Ember, C. R. and Ember, M. (eds.) *Encyclopedia of Medical Anthropology: Health and Illness in the World's Cultures*. Vol. 1: Topics. New York: Kluwer Academic/Plenum Publishers, 3–11.
- Stadhouders, H. (2012) 'The Pharmacopoeial Handbook *Šammu šikinšu*: A Translation', *Le Journal des Médecines Cunéiformes* 19, 1–21.
- Steinert, U. (2016) 'Körperwissen, Tradition und Innovation in der babylonischen Medizin', in Wulf, C. and Renger, A.-B. (eds.) *Körperwissen: Transfer und Innovation. Paragrana. Internationale Zeitschrift für Historische Anthropologie* 24(2), 2015. Berlin: de Gruyter, 195–254.
- Steinert, U. (ed.) (2018) *Assyrian and Babylonian Scholarly Text Catalogues: Medicine, Magic and Divination*. Berlin: de Gruyter.
- Stol, M. (1993) *Epilepsy in Babylonia*. Groningen: Styx.
- Temkin, O. (1963) 'The Scientific Approach to Disease: Specific Entity and Individual Sickness', in Crombie, A. C. (ed.) *Scientific Change: Historical Studies in the Intellectual, Social and Technical Conditions for Scientific Discovery and Technical Invention from Antiquity to the Present*. New York: Basic Books, 629–47.
- Tseng, W.-S. (2001) 'Culture-Related Specific Syndromes', in *Handbook of Cultural Psychiatry*. San Diego: Academic Press, 211–63.
- Unschuld, P. U. (2003) *Huang Di Nei Jing Su Wen: Nature, Knowledge, Imagery in an Ancient Chinese Medical Text, with an Appendix*. Berkeley: University of California Press.
- Van der Eijk, P. J. (1997) 'Towards a Rhetoric of Ancient Scientific Discourse: Some Formal Characteristics of Greek Medical and Philosophical Texts (Hippocratic Corpus, Aristotle)', in Bakker, E. J. (ed.) *Grammar as Interpretation: Greek Literature in Its Linguistic Contexts*. Leiden: Brill, 77–129.
- Van der Eijk, P. (2010) 'Principles and Practices of Compilation and Abbreviation in the Medical "Encyclopaedias" of Late Antiquity', in Horster, M. and Reitz, C. (eds.) *Condensing Texts: Condensed Texts*. Stuttgart: Franz Steiner Verlag, 519–54.
- Van der Eijk, P. (2015) 'On "Hippocratic" and "Non-Hippocratic" Medical Writings', in Dean-Jones, L. and Rosen, R. M. (eds.) *Ancient Concepts of the Hippocratic: Papers Presented at the XIIIth International Hippocrates Colloquium, Austin, Texas, August 2008*. Leiden: Brill, 17–47.
- Van Rijn-van Tongeren, G. W. (1997) *Metaphors in Medical Texts*. Amsterdam: Rodopi.
- Wakefield, J. C. (1992) 'The Concept of Mental Disorder: On the Boundary between Biological Facts and Social Values', *American Psychologist* 47, 373–88.

- Wee, J. Z. (ed.) (2017) *The Comparable Body: Analogy and Metaphor in Ancient Mesopotamian, Egyptian, and Greco-Roman Medicine*. Leiden/Boston: Brill.
- Westendorf, W. (1999) *Handbuch der altägyptischen Medizin*. 2 Vol. Leiden/Boston/Köln: Brill.
- Wright, P. W. G. and Treacher, A. (eds.) (1982) *The Problem of Medical Knowledge: Examining the Social Construction of Medicine*. Edinburgh: Edinburgh University Press.
- Yates-Doerr, E. (2017) 'Where Is the Local? Partial Biologies, Ethnographic Sitings', *HAU: Journal of Ethnographic Theory* 7, 377–401.
- Young, A. (1976) 'Internalizing and Externalizing Medical Belief Systems: An Ethiopian Example', *Social Science & Medicine* 10, 147–56.
- Young, A. (1982) 'The Anthropologies of Illness and Sickness', *Annual Review of Anthropology* 11, 257–85.
- Young, A. (1995) *The Harmony of Illusions: Inventing Posttraumatic Stress Disorder*. Princeton: Princeton University Press.
- Yu, N. (2008) 'The Relationship between Metaphor, Body and Culture', in Frank, R. M. et al. (ed.) *Body, Language and Mind, Volume 2: Sociocultural Situatedness*. Berlin: de Gruyter, 387–407.